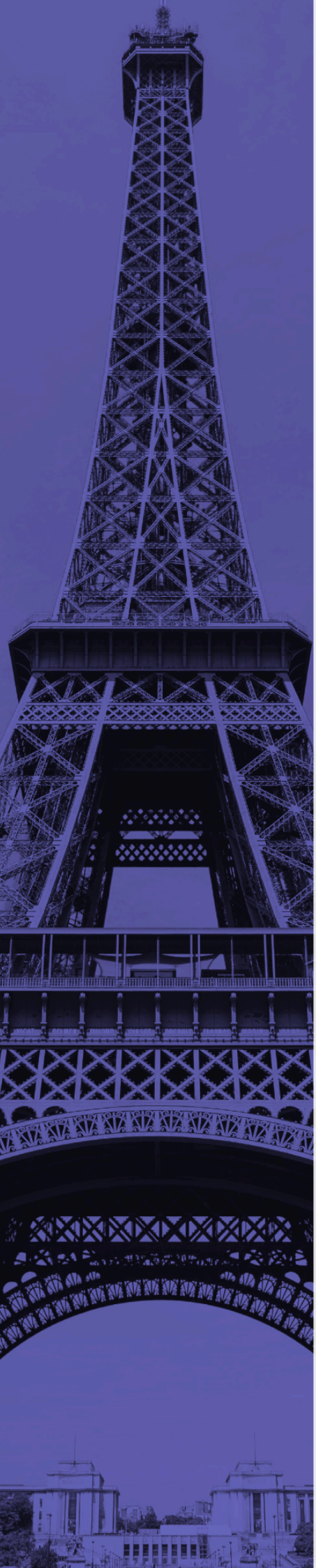

WORLD CONGRESS OF
THE INTERNATIONAL FEDERATION
FOR CANCER PREVENTION AND COLPOSCOPY

ABSTRACT BOOK

19TH CONGRESS OF
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PARIS 2026

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Abstracts of oral presentations

CO_001 - Self-collected urine and vaginal HPV testing for cervical cancer screening in China: a diagnostic accuracy study

Cervical cancer screening

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This study aims to compare the accuracy and effectiveness of a high-risk human papillomavirus (hrHPV) test using self-collected urine and vaginal samples, compared with clinician-collected cervical samples for cervical cancer screening among the general population in China
This prospective muti-center study took place from November 2022 to May 2023 in China. Women aged 21 to 65 undergoing routine cervical screening were recruited. Paired self-collected urine and vaginal specimens, along with clinician-collected cervical specimens, were obtained for hrHPV testing. Meanwhile, one additional clinician-collected cervical specimens were prepared for Thinprep cytologic test (TCT). Participants testing positive for HPV 16/18 or with TCT results indicating ASCUS or worse were recalled within 12 weeks for colposcopy, and diagnostic biopsy was performed at the sites of suspicious lesions.
A total of 16,875 women were enrolled, with 16,744 meeting the eligibility criteria. Of these, 102 participants were histologically diagnosed with CIN2+ and 49 with CIN3+. The sensitivity of detecting CIN2+ and CIN3+ were 87.25% and 85.71% for urine, 90.20% and 89.80% for vaginal specimens, and 89.22% and 87.76% for cervical specimens, respectively. There was no statistically significant difference in sensitivity among them（P＞0.05）. The specificity of detecting CIN2+ and CIN3+ were 89.79% and 89.54% for urine, 89.97% and 89.71% for vaginal specimens, and 90.66% and 90.40% for cervical specimens, respectively. The specificity of cervical samples is the best while the sensitivity of different samples is the same.
Urine and vaginal samples showed very similar performance for the detection of CIN2+/3+ in the general population of China for cervical cancer screening.

CO_002 - Clinical validation of a new urine HPV test for detection of high grade cervical intraepithelial lesion

Cervical cancer screening

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To determine the diagnostic performance of a new urine HPV test, employing a unique DNA concentrating technology (“PHASIFY”), for detection of high-grade cervical intraepithelial (CIN2+) lesions.
Women attending a hospital colposcopy clinic were recruited with informed consent. Up to 100 ml of urine in a standard container and a self-collected vaginal sample with a FLOQSwab were obtained at the clinic. A cervical sample and cervical biopsies were obtained during colposcopy. Urine DNA was extracted using a proprietary technology to concentrate and purify the DNA ("PHASIFY"). Cervical and vaginal samples were analysed with the cobas 4800 HPV qPCR assay, and an in-house real-time PCR test for 14 high-risk HPV subtypes with individual typing of HPV 16 and 18 was used to assess all samples.
A total of 532 consecutive women (112 with CIN2+) were recruited. The sensitivity for CIN2+ was 85% (78.3–91.8%), 79.2% (71.5–87.0%), and 86.6% (79.8–93.4%), and the specificity was 60.8% (55.6–66.0%), 50.6% (45.2–56.0%), and 50.5% (44.9–56.1%) for cervical, vaginal, and urine samples, respectively. There were no significant differences in sensitivity among the three sampling methods, but both vaginal and urine samples had lower specificity compared to cervical samples ($p < 0.001$). Both cervical and urine samples had similar negative predictive values (>90%). Women found urine sampling to be more acceptable than vaginal sampling.
A urine HPV test using “PHASIFY” technology provides comparable sensitivity and negative predictive value to current standards, supporting its potential role as a non-invasive and acceptable option for cervical cancer screening.

CO_003 - Cervical cancer screening with point-of-care primary HPV DNA testing in women attending Gynaecologic out-patient department

Cervical cancer screening

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1. To determine the prevalence and types of high-risk HPV in rural women attending Gynaecology Clinic 2. To assess Knowledge, Attitude and Practices (KAP) of women towards cervical cancer, screening tests and HPV vaccination
Women between 30 and 65 years of age, with various gynecological problems were included. With verbal consent, cervical samples were collected at the time of gynecological examination. Primary HPV screening was done with extended genotyping test for 14 high-risk HPV types on the point-of-care Cepheid GeneXpert® machine. Results were available within an hour. Screen positive women were triaged with colposcopy and managed accordingly.
Between January 2022 to November 2023, 486 were screened. Of these, 420 (86.4%) were in 30 - 49 years age group. HPV prevalence is 11.31% (55/486). HPV 16 was positive in 21, HPV 18/45 in 5, P3 (31,33,35,52,58) in 17, P4 (51, 59) in 3, P5 (39, 56, 66, 68) in 7 and combined P3 & P4 in 2. Colposcopic triage was done in 85.4% (47/55). It was normal in 22 women. 9 had LSIL and 7 HSIL. 7 had invasive cancers. On KAP analysis, 30.4% heard about cervical cancer, 17% about screening, 8.4% about vaccination. Only 6% had screening earlier.
1. Point of care Primary HPV screening is feasible and should become part of gynecological examination. 2. It is useful as a one-stop clinic approach for cervical cancer elimination and reduces loss for follow up.

CO_004 - Clinical performance of HPV Self-Sampling for Primary Cervical Cancer Screening in Singapore

Cervical cancer screening

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Data on the role of vaginal self-sampling in women under follow-up in colposcopy clinics are scarce. This study evaluated the clinical performance of self-sampling for detecting HPV-related cervical disease in a colposcopy clinic in Singapore.
This was a prospective study of women aged ≥25 years referred for colposcopy from February 2024 to June 2025 at a tertiary Hospital in Singapore. These women performed a vaginal self-sampling swab before colposcopic assessment and biopsies. The concordance of self-sampling and clinician-collected samples was analysed for high-risk HPV DNA (any HPV, HPV16/18, other high-risk types) and colposcopic outcomes for CIN1, CIN2, CIN3, and invasive cancer (Ca).
The study included 216 women. Concordance with clinician-collected HPV was high (sensitivity [SN] 0.79, 95% confidence interval [CI]: 0.60-0.90; specificity [SP] 0.88, 95% CI: 0.73-0.95), with similar performance when incorporating recent HPV testing. Self-sampling for any HPV showed moderate sensitivity and low specificity for the colposcopic diagnosis of CIN2+ (0.70, 0.55–0.81; 0.43, 0.36-0.51) and CIN3+ (0.69, 0.50–0.83; 0.42, 0.35–0.49). The negative predictive value for Ca was very high (0.99). HPV16/18 positivity had higher specificity for CIN2+ (0.84, 0.78–0.89) and CIN3+ (0.83, 0.77–0.88), with an NPV of 0.99 for Ca.
The good concordance between vaginal self-sampling and physician-collected samples, together with high NPV, supports integrating HPV self-sampling into HPV surveillance in colposcopy practice.

CO_005 - Methylation for Diagnosis of Cervical Intraepithelial Neoplasia grade 3 worse: a meta-analysis and validation of the WID-CIN Index in an independent cohort

Cervical cancer screening

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Despite limited accuracy and limited protection against cancer, cytology is currently used for triage of high risk Human papillomavirus (hrHPV) positive women in many screening programmes. DNA methylation has potential as a biomarker to detect high-grade cervical intraepithelial neoplasia (CIN), but there is no consensus on the best markers. We aimed to conduct a diagnostic test accuracy meta-analysis of all published markers, and to validate the WID-CIN index in an independent cohort.
We identified articles providing diagnostic test accuracy data using histology as a reference standard (cytology was accepted for normal samples). A bivariate random-effects model was used to conduct a meta-analysis for each marker, in hrHPV positive women and all women. Secondly, we validated the WID-CIN index in an epigenome wide association study in an independent cohort (n=247) of cases (CIN3+) and controls (normal or borderline cytology).
The meta-analysis included 125 studies and 36,721 women, analysing 32 genes and gene panels. For hrHPV+, the markers with the highest DORs were JAM3 (20.82 [95%CI 14.41-30.08]), C13ORF18 (19.50 [95%CI 11.65-32.65]), and PAX1 (17.13 [95%CI 9.20-31.89]). C13ORF18 was the most accurate marker of CIN2+; DOR 40.45 (95%CI 13.04-125.46). The WID-CIN index in our cohort distinguished CIN3+ cases from controls with an Area Under the Curve of 0.92.
Several methylation markers reported good sensitivity in the detection of CIN3+ whilst maintaining high specificity. We identified several genes with promise for use in novel methylation marker panels, where they may provide greater accuracy. Further verification in large scale clinical trials is required.

CO_006 - Optimizing Performance of Cytology in Cervical Cancer Screening Among High-risk HPV-positive Women Using HPV Integration Test: A Multicenter Cross-sectional Study

Cervical cancer screening

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Human papillomavirus (HPV) integration is a promising biomarker for predicting cervical cancer. The purpose of this study was to explore whether HPV integration test could improve the screening efficacy of cytology in high-risk HPV-positive women by a multicenter cross-sectional study.
From January 2021 to December 2023, a total of 3077 qualified women were enrolled in this study. We used sensitivity, specificity, positive predictive value, and negative predictive value to evaluate the effectiveness of each screening strategy for detecting grade 2 or worse cervical intraepithelial neoplasia (CIN2+) and CIN3+.
A total of 397 (12.9%) cases were HPV integration positive and 1214 had abnormal cervical cytology (39.5%) among the 3077 women enrolled in the study. After combining HPV integration test into cytology, The sensitivity for detecting CIN3+ increased from 72.9% (66.5 - 79.4%) to 94.4% (91.1 - 97.8%), while the specificity decreased from 62.6% (60.9 - 64.4%) to 58.3% (56.5 - 60.0%), and the positive predictive value and negative predictive value were significantly improved. Meanwhile, the HPV integration with cytology strategy provided more stable risk stratification across patients of different age groups.
Combining HPV integration test into cytology enables precise and stable identification of patients at high risk for CIN3+, it is an effective tool to enhance the effectiveness of cervical cancer screening in clinical practice.

CO_007 - Data from the new cervical cancer screening routine in Germany – combination with GynTect® methylation markers could have positive effects

Cervical cancer screening

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In 2020, cervical carcinoma (CC) screening regulations in Germany changed, leading to women over 35 with positive high-risk HPV tests being referred to dysplasia units for colposcopy, regardless of Pap smear results. This study assessed the impact of these changes and evaluated the GynTect® methylation kit for improving patient selection.
A comparison was made between patient data from the dysplasia unit at Klinikum Oldenburg from 2016-2019 and 2020-2023. The study involved measuring DNA methylation of six marker genes using the GynTect® kit on 126 FFPE samples to enhance risk identification for CC and minimize unnecessary colposcopies. For that, we tested 48 dysplasia-free, 52 CIN II, 22 CIN III, and 4 CC FFPE samples of patients with normal Pap smears.
The revised screening protocol significantly increased dysplasia unit visits (2228 versus 794 first visits, 1175 of them with unsuspicious Pap smear), with 73.53% of attendees being dysplasia-free. However, 109 CIN I, 110 CIN II, 81 CIN III, 4 CC, and 8 adenocarcinomas in situ were detected. Among the 126 samples tested with GynTect®, 44 were negative, 60 positive, and 23 invalid, with positivity rising alongside dysplasia severity (29.17% in dysplasia-free, 53.85% in CIN II, 63.64% in CIN III, to 100% in carcinoma cases).
The new screening process notably raises colposcopy rates, but only about ~25% show a neoplasia. Incorporating the GynTect® kit into screenings could help to detect CC and high-grade neoplasia and reduce unnecessary procedures, especially if paired with Pap smears and HPV testing.

CO_008 - Cervical Cancer Screening in Women Aged 25 to 59 Years: A Continuous Quality Improvement Study

Cervical cancer screening

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Ulssa, Porto, Portugal

To increase cervical cancer screening coverage and promote early diagnosis among women aged 25 to 59 years.
A multifaceted intervention was implemented, including: training and awareness sessions aimed at increasing cervical cancer screening uptake among healthcare professionals; requests for submission by email of cervical cytology results performed at other institutions; telephone contact with patients who did not respond within the established timeframe to the email request; and scheduling of overdue patients for cervical cancer screening. The effectiveness of the interventions was evaluated using the indicator ID045, a nationally defined primary care performance indicator that measures the proportion of eligible women aged 25 to 59 years with up-to-date cervical cancer screening, in accordance with national screening guidelines. Pre- and post-intervention ID045 values were obtained through the BI-CSP electronic platform and compared to assess changes in screening coverage over the intervention period.
A total of 1,313 women who were non-adherent to cervical cancer screening were initially identified. After applying exclusion criteria (previous total hysterectomy, diagnosis of cervical cancer, or no history of sexual activity), 1,231 women were included. After six months, screening status was updated in 30% of previously non-adherent women. Regarding the ID045 indicator, an improvement was observed, reaching the performance level classified as “Sufficient” (41–59%).
The corrective measures implemented resulted in an increased number of women screened for cervical cancer, representing population health gains through earlier disease detection.These interventions also contributed to greater awareness among both the target population and the healthcare team regarding the importance of cervical cancer screening.

CO_009 - The Role of Information Provision in Decision-Making on Cervical Cancer Screening Modalities: An International Survey

Cervical cancer screening

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Cervical cancer screening programmes in high-income countries are increasingly offering HPV self-sampling as an alternative to clinician-provided screening. Our study examined screening preferences, attitudes to information provision and its impact on decision-making regarding the available options.
In June 2025, the ACCESS Consensus Group (https://accesscg.org/), with the support of a third-party research organization (Edelman Data & Intelligence), conducted an online survey among 4,000 women aged 30–65 years from the United Kingdom (UK), the Netherlands (NL), Canada (CA), and the United States (US) (n=1,000/country). Quotas were applied to reflect national demographics by age, race/ethnicity, and income. The survey assessed preferences for clinician-collected versus self-collected screening before and after information provision related to accuracy and follow-up differences between screening modalities.
Overall, 80% of respondents reported having undergone screening in the past 5 years; 69% indicated insufficient knowledge to compare self-collected with clinician-collected screening. Among these women, 87% were satisfied with their screening provider. Clinician-collected screening was preferred over self-collected screening (71% overall), with this preference increasing after information provision (+6% overall). At least 84% found the information presented in the survey on test reliability and follow-up steps easy to understand, and at least 66% reported it would support decision-making. 62% reported that healthcare professionals' recommendations could influence screening modality choice.
Among a largely well-screened population which preferred clinician-collection, access to information was valued and helped inform decision-making. Given uncertainties about the accuracy of self-sampling, appropriate information provision will be critical to maintaining patient confidence as screening programmes consider offering multiple sampling modalities.

CO_010 - Organized cervical cancer screening in Brittany: follow-up at 1 year after a positive virological test with normal cytology

Cervical cancer screening

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To assess adherence to the recommended 12-month virological follow-up among women who had a positive high- risk HPV test with normal cytology (hrHPV+ / Cytology-) within the French national program of organized cervical cancer screening, and to identify factors associated with follow-up compliance.
We conducted a retrospective observational study using data from the Regional Cancer Screening Coordination Center of Brittany collected between July 2020 and March 2023. Women with hrHPV+/Cytology- screening result were included. The primary outcome was completion of a repeat hrHPV test between 6 and 12 months after the initial result. Secondary outcomes included analyze of women characteristics according to age, geographical area, initial sampler taker, and declaration of a general practitioner.
Among 762 113 eligible women, 12 985 (1.7%) had a hrHPV+/Cytology- result. At 1 year, 28.5% had no documented follow-up, and only 21.3% underwent follow-up in accordance with French recommendations, corresponding to 29.8% of women who were followed. Among women with appropriate follow-up, 53% remained hrHPV+, and 81.4% of these were referred for colposcopy. Loss of follow-up was more common among younger women, those living in urban areas. Conversely, recommended follow-up was more frequent in areas with higher health care availability and among women managed by gynecologists.
Implementation of guideline-recommended follow-up after hrHPV+/Cytology- screening remains suboptimal, despite well-documented increased risks of high grade precancerous lesions and invasive cancer in this population. Strategies to improve adherence include personalized reminders, use of self-sampling, personalized invitations to screening, harmonization of professional practices, and optimization of colposcopy referral pathways.

CO_011 - CIN 3 Detection in Women with Persistent High-Risk HPV and Negative Cytology: A Retrospective Study from Broomfield Hospital, UK

Cervical cancer screening

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Persistent high-risk human papillomavirus (hrHPV) infection is a recognised precursor to cervical intraepithelial neoplasia. However, management of women with persistently positive hrHPV and negative cytology remains clinically challenging. This study aimed to evaluate the incidence of high-grade disease in Essex population within NHS Colposcopy Screening Programme (CSP).
A retrospective cohort study was conducted at Broomfield Hospital, UK, over a two-year period (2024-2026). Women referred to colposcopy following persistent hrHPV positivity with negative cytology across three consecutive screening episodes were identified through Infoflex and Cyres Cinergy databases. Data were analysed using Microsoft Excel, and colposcopy findings and histology outcomes were reviewed.
A total of 356 women met inclusion criteria. Six women (1.68%) were diagnosed with CIN3 on histology despite persistently negative cytology. At colposcopy, two cases demonstrated low-grade appearance, but biopsy confirmed CIN3, while four demonstrated high-grade changes subsequently confirmed as CIN3.
A clinically significant proportion of women with persistent hrHPV infection and negative cytology harbour CIN3 despite normal smear results. These findings highlight limitation of cytology-only reassurances in persistent infection and support enhanced risk stratification in this subgroup. Earlier referral in selected high-risk populations may allow earlier detection pf high-grade dysplasia prior to progression towards invasive disease. HPV 16 and 18 account for approximately 70% of cervical cancers worldwide. Incorporation of HPV genotyping may facilitate earlier identification of women at highest risk, particularly those with HPV 16 and 18. Prospective evaluation of genotype-guided triage strategies is warranted.

CO_012 - Correlation of abnormal colposcopic findings with histology and previous cytological and HPV findings - Data from the register study conducted by AG-CPC Germany

Cervical cancer screening

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Since January 2020, a new guideline on organised cervical cancer screening was introduced in Germany with a defined algorithm for abnormalities. To determine the extent to which the early colposcopic examination of low-risk groups is necessary, AG-CPC launched a registry study. The aim of this evaluation is to investigate the relationship between abnormal colposcopic findings (minor/major) and the HSIL+ rate in addition to the HPV-type and previous cytology.
All patients presenting at one of 15 study centres between 1 July 2020 and 1 January 2026 were included according to the diagnostic algorithm. The group of minor change was divided into “low risk cytologies” (NILM, ASC-US, LSIL) and “high risk cytologies” (ASC-H, HSIL). HPV-Types were categorised as 16/18 versus others. The data was analysed using REDCap, Microsoft Excel and Python 3.11.
Of 12736 in total, 4890 patients with minor changes showed 25.2% HSIL+ and 10.3% CIN3+, compared to 64.4% HSIL+ and 42.2% CIN3+ in patients with major changes ($p<0.001$). Within the minor change “high-risk” subgroup, the HSIL+ rate increases to 39.7% (18%, CIN3+) and if we include HPV 16/18 to 55.5% (28.5%, CIN3+) ($p<0.001$). In contrast, patients with minor changes and low-risk cytology showed an HSIL+ rate of 20.4% (7.45%, CIN3+), decreasing to 16.6% (5.2%) when combined with HPV others ($p<0.001$).
Major and minor changes differ significantly in HSIL+ rates. However, a relevant proportion of minor changes are associated with high-grade lesions. Consideration of cytology and HPV type is essential to support appropriate biopsy decisions and avoid both over- and undertreatment.

CO_013 - Development and evaluation of an artificial intelligence tool for colposcopy – IACOL project

Colposcopy practice

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The primary objective of the IACOL project is to develop and evaluate an artificial intelligence tool based on convolutional neural networks. This tool is intended to assist in the diagnosis of conditions during colposcopy. The study's specific objective is to enhance the specificity of cervical lesion diagnosis, with the aim of reducing the number of unnecessary biopsies without compromising sensitivity.
A multicentre study was conducted. The algorithm was developed in collaboration with the Laboratoire d'Informatique de Paris 6. Its architecture uses convolutional neural networks. This integrates relevant clinical text data as well as colposcopy images. A number of use cases were explored. The initial study permitted the evaluation of the decision support for biopsy. The present study compared colposcopies with biopsies versus colposcopies considered normal by experts without biopsies. The second use case enabled the differentiation between cases where the expert did not biopsy normal cervix versus cervix with high-grade or higher histological lesions.
A total of 3,000 colposcopy examinations were analysed.
 The initial task, which entailed the evaluation of the necessity for biopsy, demonstrated a sensitivity of 78% and a specificity of 66% in a multicentre context, exhibiting variability in performance across different centres. The differentiation between cases with high-grade or higher lesions and controls with normal colposcopy findings without biopsy had an overall sensitivity of 75% and specificity of 74%, with variations in performance between centres.
The IACOL project demonstrates potential for enhancing colposcopic diagnosis; however, the variability in performance among centres necessitates further investigation.

CO_014 - Effect of an AI-guided colposcopy for detection of cervical precancer and cancer: a multicentre, randomized, crossover trial

Colposcopy practice

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Colposcopy remains as the reference standard to guide biopsy for identifying cervical intraepithelial neoplasia grade 2 or higher (CIN2+). Our team has developed an artificial intelligence (AI)-guided colposcopy to improve CIN2+ detection. We aimed to evaluate the effect of the AI-guided colposcopy in clinical practice.
We did a multicentre, randomized, crossover trial at four hospitals in China. Eligible patients, who were 18 years of age or older and tested positive on cervical screening, underwent colposcopy procedure. Ten colposcopists of varying levels of expertise were randomly assigned to independently evaluated cervical images with or without AI assistance. The AI produced a binary diagnosis and the patient-level probability of the presence of CIN2+. The main study outcome was histologically confirmed CIN2+ detected at cervical biopsies. Diagnostic performance of the colposcopists with or without AI assistance was compared.
Between Jan 1, 2023 and Jan 1, 2024, A total of 815 patients were prospectively recruited for the crossover trial. For AI alone to detect CIN2+, diagnostic sensitivity was 85.3% with a specificity of 56.4%. The AI assistance demonstrated improved specificity compared with the colposcopists (52.5% vs 35.3%, $p<0.001$), but no statistic difference in sensitivity (89.1% vs 89.5%, $p>0.999$).
In this randomized crossover trial of detecting CIN2+ with or without AI , the AI-guided colposcopy demonstrated positive human-AI interaction, which suggested its potential to facilitate an assistive diagnosis. Further utilization of this system could help colposcopists confirm where to perform a biopsy to diagnose high-grade lesions and reduce unnecessary biopsies.

CO_015 - Artificial Intelligence-Enabled Visual Guidance for Speculum-Free Screening and Visual Inspection of the Cervix

Cervical cancer screening

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Speculum-free cervical imaging and sampling devices are emerging to improve patient comfort and expand access to screening and colposcopy, including for home use and low-resource settings. We are developing a tampon-shaped soft robotic device capable of imaging the cervix and collecting samples for HPV testing and cytology. Safe deployment by non-expert users requires accurate identification of the cervical os and transformation zone (TZ). AI-driven visual guidance could enable this by providing real-time feedback on visibility, brush positioning, and TZ localisation.
We assessed automated cervical-os localisation in transvaginal endoscopic images using five state-of-the-art deep-learning architectures: EndoViT, YOLOv8, YOLOv1, DeepLabv3, and PSPNet. Models were trained and validated on 913 annotated images from 200 cases in the IARC Cervical Image Dataset, with pixel-wise labels from three gynaecologists. Ten-fold cross-validation evaluated segmentation and localisation using DICE, IoU, Detection Rate (DR), and centroid error. External validation used phantom images acquired with a prototype speculum-free device.
EndoViT achieved the strongest overall performance (DICE 0.50 ± 0.31; DR 0.87 ± 0.33), with robust localisation across TZ types. Performance was highest for TZ1–2 and remained acceptable for TZ3 despite smaller segmentation masks. The model generalised well to phantom data and operated in close to real time (11 fps), potentially enabling dynamic visual feedback.
AI-enabled guidance can reliably localise the cervical os in close to real time, supporting use of speculum-free screening and imaging devices without reliance on an optical path from outside the body, with potential to facilitate self-sampling and non-expert operation in low-resource settings.

CO_016 - Assessment of atypical glandular cell interpretation in Pap tests with the assistance of artificial intelligence

Cervical cancer screening

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Atypical glandular cells (AGC) on Pap tests are a diagnostic challenge. The aim of this study was to evaluate efficacy and diagnostic performance of AGC on Hologic Genius Diagnostics System (HGDDS). A retrospective analysis of 451 ThinPrep Pap test cases was conducted, including 207 cases of AGC, 25 cases of high-grade squamous intraepithelial lesion (HSIL), 25 cases of low-grade squamous intraepithelial lesion (LSIL), and 192 cases with benign/reactive diagnoses. All AGC cases had a follow-up result (66 cases of adenocarcinoma). The slides were randomized, scanned, and analyzed by HGDDS. An experienced cytologist reviewed all cases and rendered her diagnosis on HGDDS. Patient age and HPV test results were provided. Two cytopathologists independently reviewed the cases on HGDDS.
Diagnostic concordance between the two pathologists indicated strong agreement (kappa value 0.829). Sensitivity of AGC Paps for adenocarcinoma detection on HGDDS was 98.5% and 95.5%, respectively, comparable to the original ThinPrep interpretation (OPTI). Specificity for adenocarcinoma detection was significantly higher (84.6% and 85.6%) with HGDDS than 27.7% in OTPI. Overall, the diagnostic performance for AGC/HSIL interpretation to detect CIN2/3/adenocarcinoma was significantly improved on HGDDS compared with OTPI, especially for specificity and positive predictive value (PPV).
This is the first study evaluating AGC diagnosis using the HGDDS. The findings demonstrate that the sensitivity of adenocarcinoma detection as AGC on HGDDS is comparable to ThinPrep Imaging System, but the specificity and PPV are substantially improved. This suggests the potential of artificial intelligence to augment the performance for cervical cancer screening.

CO_017 - AI-powered visual diagnosis of vulvar disease: A pilot study

Vulvar and vaginal lesions

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Vulvar diseases encompass a wide spectrum of conditions, posing significant diagnostic challenges for gynecologists. These disorders often cause considerable physical and psychological distress to patients. Early and accurate diagnosis is crucial for reducing malignancy risk and alleviating patient suffering. Machine learning (ML)-trained image recognition software could potentially facilitate early diagnosis of vulvar diseases, offering a promising tool to address this clinical need. The objective is to develop a ML-trained image-based model for the detection of vulvar disease.
We collected and anonymized images of various vulvar conditions, including lichen simplex chronicus, lichen planus, high-grade squamous intraepithelial lesion (HSIL), differentiated vulvar intraepithelial neoplasia (dVIN), Paget's disease, squamous cell carcinoma, vitiligo, and normal vulvar tissues. All disease cases were histopathologically confirmed. Images were anonymized and preprocessed for quality. A machine learning-based image recognition model was then developed and trained to classify these conditions for early diagnostic support.
A total of 3,530 images were collected, comprising vulvar lichen simplex chronicus (n=770), lichen planus (n=85), high-grade squamous intraepithelial lesion (n=600), differentiated vulvar intraepithelial neoplasia (n=45), Paget's disease (n=125), squamous cell carcinoma (n=70), vitiligo (n=40), and normal vulvar tissues (n=600). In the multi-class classification task, the proposed model achieved an accuracy of 98.6% on the test set.
This pilot project demonstrated that our image-based deep learning model can effectively discriminate among nine categories of vulvar diseases, representing a promising tool for future use by clinicians and possibly patients. However, prospective studies are needed to validate the applicability and accuracy of our model in a real-world setting.

CO_018 - Quality assurance and controls for colposcopy Services: A pilot study from a tertiary care center in North India.

Education / Quality assurance

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To improve colposcopy procedure and gynecological oncology outpatient department (GYNONCO-OPD) attendance rates using the DMAIC (Define-Measure-Analyze-Improve-Control) methodology.
In this prospective observational study, the Ishikawa diagram was constructed to identify the causes of low procedure and GYNONCO-OPD attendance rates. Each of these causes were eliminated one at a time. Outcomes were recorded as the total number of procedures and GYNONCO-OPD attendances and the Patient Satisfaction Scale (PSS) scores on the five-point Likert scale.
The number of average colposcopies per month by the study's end had increased by 68.15% (8.1±1.0 vs. 13.62±3.2). Patient counselling and communication were associated with the highest increase in the number of procedures (121.95%), followed by appointment of a support nurse and provision of see-and-treat facility (97.29%, each). Allocation of a dedicated colposcopist and senior nurse, Schedule-of-Procedures (SOP) on management/follow-up/referrals, and improved IT support, each, resulted in an increase procedure rates of 72.63%. The highest increase (133.33%) in monthly GYNONCO-OPD attendance rates was seen with counselling and SOPs implementation, followed by establishment of a see-and-treat facility (122.22%). Among all interventions, communication and counselling facility received the highest PSS-score (3.78).
Improving communication and counselling skills dramatically improves colposcopy procedure rates and patient satisfaction. Quality assurance and auditing systems in colposcopy can play a pivotal role in attaining crucial healthcare-related goals.

CO_019 - Incorporation of High-Resolution Anoscopy into a Lower Genital Tract Pathology Unit

Colposcopy practice

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To incorporate high-resolution anoscopy into the care pathway for patients attending a lower genital tract pathology unit who meet IANS high-risk criteria and have abnormal screening results.
Gynecology specialists received specific training in high-resolution anoscopy. IANS evidence-based screening recommendations were reviewed and adapted to local resources. Screening was performed using anal co-testing (cytology plus HPV testing). An informed consent form, structured consultation protocol, and resource-adapted screening algorithm were developed. Activity and outcome indicators were defined to monitor implementation.
Screening was initiated in high-risk patients with HPV-related disease. Between October 2024 and January 2026, 129 eligible patients were screened (mean age 54.68 years). HPV vaccination coverage was 53.94%, and 28.68% were active smokers. The main indication was prior cervical or vaginal HSIL (37.98%), followed by persistent HPV16 infection (21.71%). Results were available for 113 patients. Abnormal anal cytology was found in 10.61% (all ASCUS/LSIL). Anal hpv positivity was 30.97%, with half negative for hpv16/18. High-resolution anoscopy was indicated in 22.12% of patients. As of the date of this abstract, 18 anoscopies have been performed and 7 are pending, with a mean waiting time of 76 days and mean pain score 2.21. Minor changes were identified in 61.11% of anoscopies and major changes in 5.56%. 2 HSIL were confirmed by biopsy.
Early results support strengthening anal cancer screening in women with HPV-related risk factors through guideline-based detection, treatment, and follow-up strategies.

CO_020 - Concordance between cervical and anal HPV testing in women with previous HPV-related lesions undergoing anal cancer screening.

Colposcopy practice

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Women with a history of HPV-related lower genital tract disease are at increased risk for anal cancer. However, the clinical relationship between cervical and anal HPV infection remains incompletely understood. This study aimed to evaluate the concordance between cervical and anal HPV test results in women undergoing anal cancer screening.
This analysis was conducted within a prospective study evaluating extended HPV genotyping for anal cancer screening between 2022 and 2024. All participants underwent both cervical and anal HPV testing using the BD Onclarity™ assay. Concordance was defined as either negativity at both anatomical sites or positivity with at least one shared high-risk HPV genotype. Women with invalid anal HPV test results were excluded. Agreement beyond chance was assessed using Cohen's kappa, and discordance asymmetry was evaluated using the McNemar test.
A total of 129 women were included. Overall, 71 cases (55%) were concordant and 58 (45%) discordant. Concordance for HPV16 was high: 24 of 25 women with anal HPV16 were also HPV16 positive at the cervical level. Among women diagnosed with AIN2+ at enrollment, 11 showed concordant HPV results, including 4 with HPV16 detected at both sites. Overall agreement between cervical and anal HPV testing was low (κ=0.08; 95%CI:0.07–0.23; p=0.28), with significantly unbalanced discordant results (McNemar p<0.01).
Cervical and anal HPV testing show low overall concordance in women with previous HPV-related disease, despite strong genotype-specific agreement for HPV16. Cervical HPV results cannot reliably predict anal HPV status, supporting a site-specific approach with dedicated anal assessment in clinically high-risk women.

CO_021 - Host-cell DNA methylation markers for anal cancer screening in immunocompetent women with genital HPV-related lesions

Basic science / Epidemiology

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There is no consensus on the optimal strategy for anal cancer (AC) screening in immunocompetent women. Although anal HPV testing is highly sensitive, its limited specificity highlights the need for triage tools. Methylation of tumor suppressor genes, such as ZNF582/ASCL1, has emerged as a potential triage tool for AC screening in high-risk populations. We aimed to evaluate the prevalence of anal HPV infection and to assess the potential role of ZNF582/ASCL1 methylation for AC screening in immunocompetent women.

We conducted a cross-sectional study including 195 immunocompetent women with HPV-related disease who were referred for AC screening (2021-2024). All participants underwent anal LBC and HPV testing, and high-resolution anoscopy when clinically indicated. Women were classified into three groups: no anal HPV infection (control group), anal HPV infection and/or low-grade anal lesions (LSIL/AIN), and women with histological HSIL/AIN. Methylation of ZNF582 and ASCL1 was analyzed in anal LBC using specific PCR (QIAsure®, Qiagen). DNA methylation levels were expressed as square-root–transformed ΔΔCq ratios for both genes (range: 0-8).

Anal HPV infection and HSIL/AIN was detected in 63.6% (124/195) and 8.2% (16/195) of the women. Methylation levels of ZNF582 were 0.04 (0.04-0.49), 0.04 (0.04-0.50) and 0.13 (0.04-0.35) for control group, LSIL/AIN and HSIL/AIN (p=0.64). Methylation levels of ASCL1 were 0.58 (0.04-1.49), 0.53 (0.04-1.29) and 0.46 (0.16-0.90) for control group, LSIL/AIN and HSIL/AIN (p=0.98).

In immunocompetent women with genital HPV-related lesions, ZNF582 and ASCL1 methylation levels are low and do not increase with anal lesion severity, limiting their utility as triage biomarker for AC screening.

CO_022 - Human Papillomavirus Infection in Women Who Have Sex with Women: Screening, Prevalence, Concordance, and Vaccination : a systematic review

Basic science / Epidemiology

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To conduct a systematic review using PubMed focusing on HPV screening, prevalence, concordance, and vaccination among WSW.
Out of a total of 155 articles, 79 articles were preselected via their abstracts using the PubMed search and read in full. Thirty-four articles were selected.
Screening: Women identifying as lesbian or as WSW appear to be significantly underscreened compared with women identifying as heterosexual or reporting sex exclusively with men (WSM).
 Prevalence: Women identifying as bisexual or reporting sex with both women and men (WSWM) appear to have a significantly higher prevalence of HPV infection and cervical lesions than women identifying as heterosexual, WSEM, or exclusively WSW. In contrast, lesbian women appear to have a significantly lower prevalence compared with heterosexual women.
 Concordance: No studies reporting HPV concordance rates among WSW couples were identified.
 Vaccination: The selected studies report conflicting results, precluding definitive conclusions.
The evidence gathered in this review indicates that HPV infection affects the WSW population with a meaningful prevalence, exposing them to a risk of cervical lesions. Despite this risk, this population appears to be underscreened. The lack of data regarding HPV concordance within WSW couples and HPV vaccination prevents firm conclusions on these aspects. Based on these findings, HPV vaccination and cervical cancer screening should be recommended for all women, regardless of sexual orientation or sexual practices.

CO_023 - Analysis of vaginal microbiome in postmenopausal women with HPV-associated cervical lesions

Basic science / Epidemiology

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Postmenopausal women exhibit altered vaginal microbiota, but little is known about the microbial profiles linked to cervical lesion progression. This study aimed to compare differences in the vaginal microbiome between premenopausal and postmenopausal women and to identify microbiota associated with high-grade squamous intraepithelial lesions (HSIL) in postmenopausal individuals. We performed nanopore 16S rRNA full-length sequencing on vaginal samples from 393 women divided into four groups: normal controls (HPV-negative), chronic inflammation (HPV-positive), low-grade squamous intraepithelial lesions (LSIL), and HSIL. Each group was further stratified by menopausal status. This comparative microbial analysis was performed to identify inter-group variations in vaginal microbiome composition.
1. Normal postmenopausal women showed significantly different α- diversity and β-diversity compared with premenopausal women, with decreased Lactobacillus and L. iners, but increased Sneathia, Atopobium, Streptococcus anginosus, and Atopobium vaginae. 2. Postmenopausal women with cervical lesions exhibited similar α-diversity but distinct β-diversity relative to controls, with significantly lower L. crispatus in the HSIL group. 3. Premenopausal women with HSIL had higher α-diversity and enriched Atopobium and Prevotella, with no significant differences in β-diversity across lesion grades.
Compared with premenopausal women, the vaginal microbiota of postmenopausal women shows higher diversity, reduced abundance of Lactobacillus, and significantly increased abundance of Atopobium vaginae and Streptococcus anginosus, etc. The abundance of L. crispatus is significantly reduced in postmenopausal patients with cervical HSIL. These findings suggest L. crispatus may serve as a potential microbial biomarker for cervical health surveillance in postmenopausal populations.

CO_024 - Analysis of vaginal microecological characteristics and its correlation with hpv infection in postmenopausal women

Basic science / Epidemiology

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To explore the differences in vaginal microecological characteristics and human papillomavirus (HPV) infection between postmenopausal and premenopausal women, as well as the correlation between vaginal microecology and high-risk HPV (HR-HPV) infection.
Clinical data of 7554 women (1353 postmenopausal and 6201 premenopausal) who underwent vaginal microecological examination and HPV testing in the Department of Obstetrics and Gynecology, Tianjin Medical University General Hospital, from January 2021 to December 2023 were collected retrospectively and analyzed statistically.
Compared with premenopausal women, postmenopausal women had lower normal vaginal flora (15.7% vs. 43.4%) and higher flora inhibition rate (41.2% vs. 2.4%, all $P<0.05$). They also had higher pH value, higher Nugent score, lower flora density, and fewer Gram-positive bacilli. HR-HPV infection rates were similar (27.3% vs. 25.5%, $P=0.170$). HPV16/52/58 were most common, with HPV16 more frequent in postmenopausal women. Abnormal vaginal microecology correlated with HR-HPV infection in both groups ($P=0.026$), especially with Nugent score ≥7, Gram-negative bacilli/vibrios dominance, or positive sialidase.
There are significant differences in vaginal microecology between postmenopausal and premenopausal women, with postmenopausal women still having a high prevalence of HPV infection. Abnormal vaginal microecology is closely associated with HR-HPV infection in postmenopausal women, which provides important insights for cervical health management in this population.

CO_025 - Long-Term Outcomes of Thermoablation for Treatment of Cervical Intraepithelial Neoplasia: Evidence from a Population-Based Cohort

Treatment and follow up

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To compare long-term recurrence following treatment of cervical intraepithelial neoplasia (CIN) using thermoablation (TA) versus large loop excision of the transformation zone (LLETZ).
We conducted a retrospective population-based cohort study using linked routine clinical data from the Scottish Cervical Screening Programme. Records were linked across cervical screening and longitudinal follow-up, colposcopy and pathology using a unique patient identifier. Women treated by thermoablation (TA) or large loop excision of the transformation zone (LLETZ) for biopsy-confirmed cervical intraepithelial neoplasia (CIN) between 2005 and 2024 were included. Women with invasive cervical cancer or adenocarcinoma in situ/cervical glandular intraepithelial neoplasia were excluded. The primary outcome was time to biopsy-confirmed recurrent CIN2+ (CIN2, CIN3 or cervical cancer) following initial treatment.
Among 59,843 women treated for CIN, 14,477 underwent TA and 45,366 LLETZ. Absolute recurrence rates were low in both groups. Median time to CIN2+ recurrence was shorter following TA than LLETZ (14 vs 19 months; $p<0.001$). After adjustment for age, CIN grade and calendar period, TA was associated with a higher risk of CIN2+ recurrence (hazard ratio 1.47, 95% CI 1.37–1.57) but the majority of women treated with TA remained free from high-grade recurrence over long-term follow-up.
TA achieved good long-term outcomes, although LLETZ was associated with lower recurrence. Given its simplicity, low cost and scalability, these findings support TA as a treatment option for appropriately selected women, particularly in LMICs. Policymakers should note that our results reflect use of mains-powered devices. Further evaluation of battery-powered handheld units is essential to inform safe scale-up.

CO_026 - Intraoperative human papillomavirus as an early test of cure following cervical loop electrosurgical excision procedure for high-grade squamous intraepithelial lesion

Treatment and follow up

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To evaluate if the intraoperative human papillomavirus (IOP-HPV) test has the same prognostic value as the HPV test performed at 6 months for the detection of HSIL/CIN2-3 recurrence after cervical loop electrosurgical excision (LEEP).
Multicentre prospective cohort study of women diagnosed with cervical HSIL/CIN2-3 treated with LEEP at 22 hospitals in Spain between 2020 and 2021. Immediately after the treatment, an HPV test was taken. Patients were followed for 24 months according to the national guidelines. We assessed the association between histological margins, IOP-HPV and HPV test at 6 months with persistent or recurrent disease, and the diagnostic accuracy of the tests.
A total of 1886 women were included with a mean age of 40 years. At diagnosis, 97% had a positive high-risk HPV test. The LEEP specimen confirmed HSIL/CIN2-3 in 81% of cases. The endocervical margin was involved in 15% of cases and the exocervical margin in 11%. An optimal sample for IOP-HPV testing was obtained in 98% of cases and was positive in 40%. Follow-up data at 6-months was available for 90% of women and the HPV test was positive in 23%. The mean follow-up time was 21 months. 5% of women developed persistent or recurrent disease. Disease recurrence was associated to positive endocervical margin, IOP-HPV and 6-month HPV results ($p<0,001$). The negative predictive values of the IOP-HPV and 6-month HPV test were 98.6% and 99.8%, respectively. The IOP-HPV is a feasible test-of-cure test after LEEP which could allow optimisation of follow-up strategies in women with negative results.

CO_027 - Colposcopic Lesion Regression Following Hexaminolevulinate (HAL) Photodynamic Therapy (PDT) in Patients with CIN2: Histological Correlation from a Post-hoc Subgroup Analysis of the Phase 3 APRICITY Study

Treatment and follow up

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To evaluate colposcopic lesion regression following hexaminolevulinate photodynamic therapy (HAL-PDT) in patients with cervical intraepithelial neoplasia grade 2 (CIN2) and to examine its correlation with histological outcomes.
This post-hoc subgroup analysis included baseline CIN2 patients from the Phase 3 APRICITY trial (NCT04484415), a multicenter, randomized, double-blind, placebo-controlled study. Participants received HAL-PDT or placebo. Colposcopic assessments focused on lesion area changes and complete visual resolution at 6 months post-treatment, with histological outcomes evaluated concurrently to assess regression, complete response and disease progression.
A total of 160 baseline HPV-positive CIN2 patients were included in the analysis (HAL-PDT, n=107; placebo, n=53). Lesion area reduction was observed in 90.7% (97/107)of the HAL-PDT group compared with 71.7% (38/53) in the placebo group (p=0.0025). Complete colposcopic lesion resolution was achieved in 61.7% (66/107)versus 41.5% (22/53) (p=0.0124). Histological regression to normal epithelium or low-grade squamous intraepithelial lesion (LSIL) occurred in 64.4% (69/107) of HAL-PDT-treated patients vs. 35.8% (19/53) in the placebo group (p=0.0005). Complete histological response, defined as normal histology, was 52.3% (56/107) vs. 24.5% (13/53) (p=0.0006).
CIN2-to-CIN3 progression was less frequent in the HAL-PDT group (15.9% vs. 30.2%; p=0.0307). No invasive cervical cancer was reported in either treatment arm.
In post-hoc subgroup analysis, HAL-PDT was associated with significant colposcopic lesion regression in CIN2 patients, with corresponding histological improvements and a reduced rate of disease progression. These findings underline clinical relevance of colposcopic assessment evaluating treatment response and support HAL-PDT as an effective, organ-preserving option for CIN2 management.

CO_028 - A Coriolus versicolor-based vaginal gel efficacy on HR-HPV clearance: preliminary results from PAPILOCAN clinical trial

Treatment and follow up

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The PAPILOCAN randomized clinical trial evaluated the efficacy of a Coriolus versicolor–based vaginal gel on high-risk HPV (HR-HPV) clearance as a secondary endpoint.
This randomized, double-blind, parallel-group clinical trial using an active control, included HR-HPV–positive women aged 30–65 years with ASCUS/LSIL cytology and concordant colposcopy. Participants were randomized (1:1) to receive either the Coriolus versicolor–based vaginal gel or an active control. Two regimens were assessed: standard (SR) — daily for 1 month, then every other day for 5 months — and intensive (IR) — daily for 3 months, then every other day for 3 months. Treatment lasted 6 months with a 6-month follow-up. HR-HPV status was determined by COBAS 4800 at baseline, 6, and 12 months. Clearance was classified as total (negative test or disappearance of all baseline genotypes) or partial (loss of ≥1 genotype with normal cytology and colposcopy). Fisher's exact test was used.
A total of 181 women (mean age 41.2 years) were included, with comparable baseline characteristics. After 6 months, HR-HPV clearance was 50.0% in treated vs 44.0% in controls (SR) and 53.3% vs 26.1% (IR). At 12 months, clearance was 54.5% vs 55.6% (SR) and 80.0% vs 55.0% (IR). The total clearance rate at 12 months was significantly higher with the intensive regimen vs active control (80.0% vs 45.0%, p=0.0365).
The intensive regimen of the Coriolus versicolor–based vaginal gel significantly enhanced HR-HPV clearance, supporting its use during the watchful waiting period.

CO_029 - Hormonal contraception and risk of progression in women diagnosed with cervical dysplasia grade 2

Treatment and follow up

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Many countries have implemented active surveillance for cervical intraepithelial neoplasia grade 2 (CIN2) in fertile women due to high regression rates and because excisional treatment is associated with increased risk of preterm birth. However, it is important to identify women at risk of progression to ensure timely treatment. Here, we aimed to examine if type of hormonal contraceptive (HC) is associated with risk of progression in women undergoing active surveillance for CIN2.
We conducted a nationwide, register-based cohort study, including women aged 18-40 years who had undergone active surveillance for CIN2 between 1998 and 2020. Our primary outcome was progression to CIN3 or worse (CIN3+) during the 2-year surveillance period. Exposure was defined as HC use 36 months prior to CIN2. The relative risk was estimated using modified Poisson regression analysis using non-users as reference.
A total of 13,218 women had undergone active surveillance for CIN2, and the majority was diagnosed at 23-29 years (60.4%). Preliminary results show that the absolute risk of CIN3+ was 37.9%, with no difference between non-users and women using hormonal contraceptives (39.3% vs. 37.4%, RR 0.98 [0.93 to 1.03]). However, when looking at type of hormonal contraceptive, risk of CIN3+ was lower for women using gestagen-only compared to non-users (RR 0.89 [0.81 to 0.97]), while risk was similar between non-users and women using combined contraceptives.
Progression of CIN2 occurs in more than one third of women undergoing active surveillance, however, among users of gestagen-only contraceptive the risk of progression was lower.

CO_030 - Excisional Treatments in Persons Over 50: Outcomes and Margins

Treatment and follow up

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CIN in persons ≥50 poses management challenges due to type-3 transformation zones and less spontaneous regression. hrHPV infection exhibits a bimodal age distribution, with a second peak in the fifth to sixth decade. Persistent hrHPV infection remains the main cause of CIN. Evaluating treatment outcomes in this population is essential to guide management.
Retrospective analysis of persons ≥50 undergoing excisional treatment between 2006–2024 in a London NHS Trust.
612 persons ≥50 underwent excisional treatment. Referral indications included low-grade (LG) disease (58.5%; n=358), high-grade (HG) disease/?glandular (34.5%; n=211), clinical (4.2%; n=26) and HPV+ve with negative/inadequate cytology (2.8%; n=17). Median age was similar in HG (54yrs) and LG (59.5yrs) disease (p=0.1374). Clear margins at first excision were achieved in 96.6% of LG (n=345) and 75.7% of HG-disease (n=143) (p<0.0001). HG-lesions (16.2mm; 4–30mm) had deeper excisions compared to LG (14.2mm; 3-30mm) (p<0.0001). Complete excision was associated with increased clearance of HG (87.6%; n=149) compared to LG-disease (64.1%; n=205) at 6 months (p<0.0001). LG-disease underwent higher local anaesthetic first excision (78.8%; n=252) than HG-lesions (67.1%; n=114) (p=0.0062). All HG-disease with positive margins (n=24) were offered a repeat excision (2nd excision n=12; hysterectomy n=8). Remaining 4 patients declined further treatment.
HG-lesions were associated with higher rates of positive margins, highlighting the need for adequate excision depth. Clearance rates are higher when excision is complete particularly in HG-disease. Persistent hrHPV/cytological abnormalities following LG-excision underscore the importance of continued surveillance. Tailored excisional strategies and careful follow-up for persons ≥50 is needed.

CO_031 - A Retrospective Review of Management of VIN over a 10-year period in a UK Hospital

Treatment and follow up

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To review all cases of vulval intraepithelial neoplasia (VIN) diagnosed at a district general hospital over a 10 year-period, assessing risk factors, monitoring and management.
A retrospective audit was undertaken of patients diagnosed with VIN between January 2014 and December 2023. In the absence of national follow-up standards for conservatively/surgically managed VIN, adapted standards from RCOG 'Guidelines for the Diagnosis and Management of Vulval Carcinoma' were applied.
101 patients were diagnosed with VIN (3 excluded due to missing notes). Mean age at diagnosis was 62 years; 73.5% (n=72) were smokers. Lichen sclerosus was present in 24.5% (n=24) and 37.8% (n=37) received steroid treatment. 18.4% (n=18) underwent conservative management of VIN, with no recurrence recorded in this cohort. Wide-local excision (WLE) was performed in 56.1% (n=55), with recurrence or progression of VIN in 16.32% (n=16). No statistically significant association was found between steroid use and VIN recurrence (χ^2=0.56, p=0.45). Follow up intervals varied: 3 monthly (9.18%), 6 monthly (61.2%) and annually (7.14%) depending on grade of VIN and stage in treatment process. 14.3% (n=14) of patients had no documented follow-up plan, 9.18% (n=9) did not attend planned follow-up, and 5.10% (n=5) had care transferred to oncology centres.
Our results were in line with recognised risk factors for VIN including increasing age and history of smoking. Lichen sclerosus was a frequent association but steroid use did not impact progression of VIN. The majority of patients were deemed to be followed up at appropriate intervals, although timing varied.

CO_032 - Clinical Outcomes and Management of High-Grade Vaginal Intraepithelial Neoplasia: A Retrospective Analysis

Vulvar and vaginal lesions

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High-grade vaginal intraepithelial neoplasia (VaIN) is a rare, often asymptomatic premalignant lesion of vaginal cancer. There is no definitive consensus regarding follow-up, which is frequently individualized according to patient characteristics. This study aimed to evaluate the incidence, management strategies, and follow-up outcomes of patients diagnosed with VaIN 2 and 3, as well as to analyze demographic features, comorbidities, follow-up duration, and progression to cancer.
A retrospective analysis was conducted using clinical records of patients with histologically confirmed high-grade VaIN followed at a Cervical Pathology Unit between 2012 and 2025. Data were analyzed using Microsoft Excel®.
A total of 125 patients were included, with a mean age of 53 years. Sixty-four cases of VaIN 2 and 61 cases of VaIN 3 were identified. The most frequent comorbidities were smoking (n=16), and human immunodeficiency virus infection (n=9). Fifty-five patients had previously undergone hysterectomy, including 16 for high-grade cervical lesions and 26 for cervical cancer. Concomitant high-grade vulvar intraepithelial neoplasia was observed in five patients. First-line treatment consisted predominantly of lesion excision combined with laser vaporization (n=107; 86%). Other approaches included clinical surveillance (n=9; 7%) and laser vaporization (n=5; 4%). During follow-up, 11 patients progressed to vaginal cancer. At the end of the study period, 16 patients (14%) had been discharged, 57 (41%) remained under follow-up at the institution. Two gynecological cancer related deaths were recorded. Despite treatment, a small proportion of patients progressed to invasive disease, underscoring the importance of long-term and careful follow-up for early detection of persistence or progression.

CO_033 - Long-term Efficacy and Safety of Tacrolimus Ointment versus Mometasone Furoate for Mild-to-Moderate Vulvar Lichen Sclerosus: A Multicenter Randomized Controlled Trial

Vulvar and vaginal lesions

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Topical corticosteroids are first-line for vulvar lichen sclerosus (VLS), but concerns over atrophy drive the need for alternatives. This trial compared long-term efficacy and safety of 0.1% tacrolimus ointment versus mometasone furoate cream in mild-to-moderate VLS.
120 patients with mild-to-moderate VLS were enrolled from four centers and randomly assigned to tacrolimus (n=60) or mometasone (n=60) following a 12-month tapering regimen. Co-primary endpoints included pruritus change (VAS) and clinical improvement in pigmentation and elasticity at 3, 6, and 12 months.
Pruritus improvement was comparable between groups at all time points. Mometasone was superior in restoring pigmentation and elasticity at 3 months ($P<0.05$), but this difference disappeared by 6 and 12 months. Tacrolimus caused more transient local irritation (28.3% vs. 1 patient), though symptoms generally resolved spontaneously.
0.1% tacrolimus offers non-inferior long-term efficacy to mometasone, providing an effective non-steroidal alternative for VLS patients with steroid phobia or concerns about long-term corticosteroid use.

CO_034 - Clinical characteristics of breakthrough infections after HPV vaccination: A multicenter case-control study in China

HPV vaccination

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To analyze the clinical characteristics of protective-type versus non-protective-type Human papillomavirus (HPV) breakthrough infections following 2/4/9-valent HPV vaccination, addressing the challenge of post-vaccination reinfection in China.
This multicenter cross-sectional case control study (Dec 2020– Jan 2026) across five hospitals analyzed demographic and pathological data. Patients with negative pre-vaccination HPV tests were categorized into protective-type (vaccine covered types) or non-protective-type (vaccine covered types) uncovered types) breakthrough infections based on post-vaccination testing.
Among 288 patients included, 125 had protective-type and 163 had non-protective-type infections. HPV16 (32.8%), HPV52 (32.0%), and HPV58 (20.8%) were dominant in the protective-type group. Binary logistic regression indicated that, compared to the non-protective group, the protective-type group had a significantly higher likelihood of multi-type infection (OR=1.891, p=0.020), persistent infection > 2 years (OR=2.688, p=0.009), and severe cervical histopathology (OR=2.524, p=0.017). Nonparametric tests identified > 4 sexual partners(p=0.032) and sexual debut between ages 16– 20 (p=0.002) as significant risk factors for protective-type infections.
This study represents the first comprehensive clinical analysis of the reinfected population after HPV vaccination. The findings suggest that protective-type breakthrough infections are characterized by high-risk types (HPV 16/52/58), long-term persistence, multiple infections, and high-grade lesions, providing a new perspective for research into HPV vaccine efficacy and breakthrough infections.

CO_035 - CSCCP Standardized Cervical Cytology Training in China: A Decade of Practice and Impact

Education / Quality assurance

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To address long-standing deficiencies in China’s standardized cervical cytology training and strengthen the professional workforce supporting national cervical cancer screening, the Chinese Society for Colposcopy and Cervical Pathology (CSCCP) launched a national standardized training program in 2016.
A comprehensive training network was established with four regional centers (South China, North China, West China and East China). A core faculty team composed of leading domestic experts was formed, collaborations with the American Society for Colposcopy and Cervical Pathology (ASCCP). Overseas Chinese American pathologists served as volunteer instructors. The training courses included lectures on normal and abnormal Pap cytology, interactive microscopie-based slide review led by instructors. Course-provided microscopes were available for all participants. At the course’s end, those who passed the assessment received a CSCCP certificate.
Over a decade, 150 training courses were organized, with 8,900 pathologists attending them. The assessment pass rate steadily rose from 88% (2021) to 96% (2025). More than 80 American or Canadian Chinese pathologists participated in teaching activities. A national survey indicated that 90% of the surveyed laboratories reported some of the pathologists had received the training courses, and 70% pathologists showed they prioritized the CSCCP program.
CSCCP’s standardized training has exerted a sustained, positive impact on optimizing cervical cytology practice, proving vital for advancing China’s cervical cancer prevention and control.

Abstracts of E-posters with oral commentary

PC_001 - Regional Distribution and Genomic Mapping of High-Risk Human Papillomavirus Genotypes in Central Mexico: A Population-Based Study from Aguascalientes

Cervical cancer screening

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To determine the prevalence and regional distribution of high-risk HPV genotypes, including those phylogenetically related to HPV 16 and 18, and to analyze their association with demographic and behavioral risk factors among young women in the state of Aguascalientes, Mexico.
A descriptive cross-sectional study was conducted including 211 women aged 15 to 29 years attending primary healthcare services in Aguascalientes. Participants completed a structured questionnaire addressing demographic characteristics and known risk factors for cervical cancer. Cervicovaginal samples were obtained for HPV detection using polymerase chain reaction (PCR), followed by molecular genotyping to identify high-risk HPV types and their regional distribution.
The behavioral risk factors most strongly associated with high-risk HPV infection were multiple sexual partners, inconsistent condom use, and early age at sexual debut, which was closely associated with age at first pregnancy. The overall prevalence of high-risk HPV infection was 39.3%. The most frequently detected genotypes were HPV 51 (10.4%), HPV 16 (9%), and HPV 66 (7.1%), revealing a genotype distribution pattern that differs from those commonly reported in European and North American populations.
Young women in Aguascalientes exhibit a distinct regional distribution of high-risk HPV genotypes, with a substantial prevalence of non-16/18 oncogenic types. These findings underscore the importance of regional HPV genotyping to inform tailored prevention strategies. Incorporating local epidemiological data into cervical cancer screening, vaccination policies, and surveillance programs may enhance the effectiveness of preventive interventions, particularly in low- and middle-income settings.

PC_002 - Optimizing Cervical Cancer Screening among Women Living with HIV: A Mentor Mother-Led Implementation Strategy

Cervical cancer screening

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To expand access to cervical cancer screening and ensure completion of continuum of care (CCC) among women living with HIV (WLWH) in Nigeria by integrating mentor-mother (MoMent) led HPV self-collection method into the national HIV program.
Following stakeholders' deliberation conference and refining of implementation strategies, the MoMent program integrated HPV self-collection across 15 clinical sites in Nigeria. Thirty Mentor Mothers recruited 1,500 WLWH aged 25–50 years. They conducted outreach, provided HPV education, facilitated community-based self-collection, transported specimens, returned results, and coordinated follow-up care. WLHIV testing positive for high-risk HPV (hrHPV) underwent digital colposcopy with acetic acid, Lugol's iodine, and biopsy as indicated; eligible lesions received thermal ablation or appropriate treatment after histologic confirmation. Those testing negative for hrHPV were advised to repeat screening in three years. Clinical outcomes included hrHPV detection and treatment of high-grade dysplasia.
A total of 1,509 WLWH completed self-collection (mean age 40 years); 69% were married, 71% employed, 89% uninsured, and 91% virally suppressed. Of the 1,390 validated results (92%) so far, 35% were hrHPV-positive. Among positives, 67% had non-16/18/45 HPV types, and 33% had hrHPV (16/18/45). 55 (40%) had more than one HPV type. Common genotypes were 58 (45%), 31 (17%), 52 (18%), and 16 (15%) and 35 (15%). CIN3 was the most frequent high-grade diagnosis. To date, 258 women have received treatment.
HPV self-collection to improve CC screening among WLHIV was feasible. The high hrHPV prevalence, non-16/18/45 HPV types and high-grade lesions highlight the need for accessible, community-based screening for WLWH.

PC_003 - Turning Awareness in Action: Understanding Facilitators and Barriers to Cervical Cancer Screening, Insights from the CASCADE "CN001" Study

Cervical cancer screening

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Women living with HIV (WLWH) face a higher risk of cervical cancer, yet many experience delays or miss screening despite clinical guideline recommendations. This study aimed to identify barriers and facilitators to cervical cancer screening in this population.
This prospective mixed-methods observational study was conducted at the Ponce Clinic, Atlanta's comprehensive HIV treatment facility. Women living with HIV were classified as having timely or untimely cervical cancer screening based on ASCCP guidelines. We assessed demographic factors, social determinants of health (including insurance status, Area Deprivation Index, Social Vulnerability Index, Social Deprivation Index, employment, food insecurity, and homelessness), clinical characteristics (Charlson Comorbidity Index, psychiatric diagnoses, substance and tobacco use, viral load, CD4 count), and healthcare utilization (most recent primary care visit) for associations with screening timeliness. Quantitative data were analyzed using descriptive statistics and group comparisons, and qualitative data will be analyzed to identify recurring themes related to screening barriers and facilitators.
A total of 500 participants were enrolled, regardless of cervical cancer screening due date. Timeliness data are currently available for 47 participants, of whom 9% were screened on time. Quantitative analyses are ongoing to determine factors associated with untimely screening. Qualitative thematic analysis is underway to identify recurring barriers and facilitators to cervical cancer screening.
Despite ASCCP guideline recommendations, preliminary results report 91% of WLWH experienced delays in cervical cancer screening. Ongoing analyses will inform the development of interventions to improve screening adherence and reduce cervical cancer risk in this population.

PC_004 - Stratifying risk of premalignant anal lesions among immunosuppressed women with genital human papillomavirus virus infection

Cervical cancer screening

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Immunosuppressed women are at high risk of anal cancer (AC). We aimed to evaluate the risk of high-grade squamous intraepithelial lesion/anal intraepithelial neoplasia (HSIL/AIN) among immunosuppressed women with genital human papillomavirus (HPV) infection and/or genital HSIL, and to assess different AC screening strategies in this population.
This cross-sectional study included 100 immunosuppressed women with genital HPV infection and/or HPV-related genital lesions, who underwent AC screening between 2019-2024. Immunosuppression included women living with human immunodeficiency virus (WLHIV), transplant recipients, systemic lupus erythematosus (SLE), and other autoimmune conditions (inflammatory bowel disease and chronic immunosuppressive therapy–treated diseases). HPV testing and liquid-based cytology (LBC) were performed, with referral to high-resolution anoscopy (HRA) when indicated. Histologically, HSIL/AIN was considered the reference standard.
Anal HPV was detected in 77% (77/100), with no significant differences between groups: WLHIV (73.68%; 28/38); transplant recipients (72%; 18/25); SLE (91.7%; 11/12) and others (80.0%; 20/25) (p=0.537). HRA identified HSIL/AIN in 42.9% (33/77) of patients, with prevalence >30% across all groups (p=0.358). HPV testing showed a 97.0% sensitivity and 32.8% specificity for HSIL/AIN, referring 77.0% of women to HRA. LBC reduced referrals (57.0%) with 87.1% sensitivity and 50.0% specificity. Positive HPV testing OR abnormal LBC achieved 100% sensitivity, 23.9% specificity, and 84.0% referrals.
Immunosuppressed women with genital HPV infection and/or genital HSIL are at high risk of anal HPV infection and HSIL/AIN, with no significant differences between groups. HPV testing and LBC are both suitable screening methods; the optimal algorithm should depend on goals and available resources, especially HRA referral capacity.

PC_005 - Concordance Between Anal and Genital HPV Genotyping in Immunocompetent Women

Cervical cancer screening

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Human papillomavirus (HPV) is the etiologic agent of cervical and anal cancer. Anal HPV may act as a reservoir contributing to genital infection and vice versa. A high genotype concordance between both sites would support this hypothesis. The aim of this study was to assess the concordance of HPV genotypes at genital and anal areas in immunocompetent women with HPV infection.
Cross-sectional study including 263 immunocompetent women referred for anal evaluation because of HPV infection or HSIL of the lower genital tract between 2019 and 2023. Pregnant women and those with HPV-related cancer were excluded. Cervical and anal liquid based cytology samples obtained within ≤3 months were tested for HPV genotyping (Cobas): HPV16, HPV18, and other high-risk HPV (non-16/18). Prevalence of genital and anal HPV infection and genotype concordance between sites was evaluated using chi-square tests. In multiple infections, concordance was defined when at least one genotype matched.
Anal HPV was detected in 63.5% (167/263) of the included women. Among the 132 women with cervical HPV16, 65.2% (86/132) had anal HPV and among them 68.6% (59/86) had concordan HPV 16 infection ($p<0.001$). 14 women showed cervical HPV18 infection, and 92.9% of them had anal HPV. Among them 77.0% (10/13) showed also anal HPV 18 infection($p<0.001$). In 122 women with other high-risk HPV (non-16/18), 59.0% (72/122) had anal HPV, with a genotype concordance of 77.8% (56/72) ($p<0.001$).
Genotype-specific concordance between cervical and anal HPV was high. The high level of genotype correlation suggests that HPV autoinoculation across adjacent anogenital sites may play a relevant role in HPV transmission to the anal canal.

PC_006 - Evaluation of HR-HPV genotyping in urine: comparison with cervical swabs and time-of-day effects

Cervical cancer screening

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To evaluate the performance of urine-based HPV detection using TemPlex™ High-Risk HPV Genotyping technology, compare it with cervical swab results, and assess the impact of different collection times on detection accuracy, thereby exploring its clinical potential in cervical cancer screening.
This prospective study was conducted in two phases and has received ethical approval. The first phase enrolled 47 patients undergoing colposcopy; cervical samples were tested using TemPlex™ technology and compared with hospital results to verify feasibility. The second phase expanded to 144 patients total, with simultaneous collection of cervical swabs and urine samples (29 morning, 44 forenoon, 74 afternoon) to analyze the effect of collection timing on HPV detection.
Compared with hospital results, TemPlex™ testing of cervical samples yielded an overall concordance rate of 93.62%, sensitivity of 97.22%, and specificity of 81.82%. Compared with cervical samples, urine testing showed an overall concordance of 92.52%, sensitivity of 93.16%, and specificity of 90.00%; specifically, morning urine achieved 100% concordance, sensitivity, and specificity; forenoon urine: 90.91%, 90%, and 100%; afternoon urine: 90.54%, 92.59%, and 85%.
TemPlex™ urine-based HPV detection, as a non-invasive approach, exhibits high accuracy in cervical cancer screening, particularly with morning samples. Future research should expand sample sizes to validate applicability across diverse populations and evaluate potential influencing factors.

PC_007 - Clinical Utility of a Rapid E7 Oncoprotein POCT Assay as a Functional Triage for HR-HPV Positive Women: A Dual-Center Study

Cervical cancer screening

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HR-HPV testing lacks specificity for cervical high-grade lesions. This study evaluated a rapid E7 oncoprotein point-of-care testing (POCT) assay as an objective, functional triage tool for identifying CIN2+ among HR-HPV positive women.
This dual-center prospective study enrolled 303 women referred for colposcopy. All participants underwent HR-HPV DNA testing, Thin-prep Cytology Test (TCT), and E7 oncoprotein assay. Histologically confirmed CIN2+ served as the clinical endpoint. Performance was primarily evaluated in the HR-HPV positive triage cohort (n = 244).
1. Disease Correlation: E7 positivity significantly increased with lesion severity, from 19.53% in < CIN1 to 92.77% in CIN2+ ($P < 0.001$). 2. Diagnostic Performance: In the HR-HPV positive cohort, the E7 assay demonstrated significantly higher sensitivity for CIN2+ compared to TCT (93.51% vs. 76.62%, $P < 0.05$) with comparable specificity (60.48% vs. 57.49%). 3. Non-16/18 Triage: In women positive for non-16/18 HR-HPV types (n = 162), the E7 assay maintained high sensitivity (92.31%) and a high negative predictive value (NPV, 96.10%). 4. Clinical Impact: E7 triage would have reduced unnecessary colposcopy referrals by 43.44% without compromising lesion detection.
The rapid E7 oncoprotein POCT assay provides a highly sensitive and objective functional triage strategy. Its superior performance in non-16/18 types and high NPV make it an ideal tool for reducing colposcopy burden, especially in resource-limited settings with insufficient cytopathology infrastructure.

PC_008 - Geographic inequalities from High-Grade Cervical Intraepithelial Lesions to Cervical Cancer in Isère, France

Cervical cancer screening

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This study identifies and describes geospatial clusters of High-Grade Cervical Intraepithelial lesions (HSIL) and incident cervical cancer (ICC).
This population-based cross-sectional study used HSIL data from the French cervical cancer screening program in Isère and ICC data from the Isère Cancer Registry. The analysis included women aged 25 to 65 years and diagnosed between January 2010 and December 2018. Cases were municipality-level geocoded. A Poisson probability-based model using SaTScan purely spatial scan statistics was performed to identify geographic clusters of higher (hot spots) or lower (cold spots) than expected proportions of cases and adjusted for age and date of diagnosis.
Among the 3,060 women with HSIL, spatial analysis identified two statistically significant clusters of HSIL: one hot spot in the West-centre (181 women (5.9%)) and one cold spot in the North (190 women (6.2%)). Among the 287 women with ICC, two statistically significant clusters of ICC were identified: one hot spot in the North (120 women (41.8%)) and one cold spot in the Southeast (18 women (6.3%)).
Geographic-level comparisons revealed that ICC hot spot merges with the HSIL cold spot. Lower detection rates of HSIL seems to increase cancer detection in a specific area. As we observed a high cancers screening disparity in Isère, and women still die from progressing HSIL that escape follow-up care, these findings suggest that, HSIL cold spot territory may be of specific attention and that increased screening and follow-up of positive lesions ultimately results in a significant reduction in the incidence of invasive cervical cancer.

PC_009 - Clinical Significance of Atypical Glandular Cells on Cervical Cytology

Cervical cancer screening

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To describe the clinical significance of atypical glandular cells (AGC) detected on cervical cytology and their association with cervical and endometrial pathology in patients undergoing cervical cancer screening at a tertiary referral hospital.
A retrospective descriptive study was conducted including patients with AGC cytology diagnosed at the Lower Genital Tract Unit of Hospital de Clínicas “José de San Martín”, Buenos Aires, Argentina, between January 2014 and December 2024. Pregnant patients were excluded. Clinical and demographic data were collected, and follow-up was reconstructed up to 12 months. All patients underwent colposcopic evaluation with endocervical sampling, and endometrial assessment was performed when risk factors were present. Histopathological outcomes were classified as benign, LSIL, HSIL, AIS, cervical carcinoma (squamous or glandular), and endometrial pathology. Descriptive statistical analysis was performed.
A total of 104 patients with AGC-NOS cytology were analyzed, representing 0.2% (104/54,068) of all cervical cytology tests. Mean age was 50.5 years (SD ±14), and 41.3% were postmenopausal. Histopathological abnormalities were identified in 47.1% of cases. The most frequent diagnosis was HSIL (12.5%), followed by invasive cervical adenocarcinoma (8.7%), LSIL (5.8%), and squamous cell carcinoma (3.8%). Endometrial pathology was detected in 9.3% of patients with risk factors, including endometrial adenocarcinoma (3.1%). Notably, 13.5% of patients with normal colposcopy showed significant pathology on endocervical samplin
Although infrequent, AGC cytology is associated with a high rate of clinically significant cervical and endometrial lesions. Comprehensive evaluation, including endocervical sampling and endometrial assessment when indicated, is essential even in cases with normal colposcopic findings.

PC_010 - Sensitivity and Specificity of a complete real-time PCR genotyping, identifying 19 high-risk (HR) and 9 low-risk (LR) HPV types for CIN2+ Detection

Cervical cancer screening

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HPV-based screening programs significantly improve cervical cancer prevention compared with cytology. This study aimed to assess the diagnostic performance of a complete real-time PCR genotyping, identifying 19 high-risk (HR) and 9 low-risk (LR) HPV types assay for detecting CIN2+ lesions
A prospective cohort study was conducted including 516 women aged 25–65 years. Participants underwent co-testing with Pap smear and complete real-time PCR genotyping for 19 high-risk (HR) and 9 low-risk (LR) HPV types. Colposcopy and biopsy if necessary were performed when cytology was ASCUS+ and/or the HPV test was positive for HR-HPV types. Histological HSIL (CIN2 p16+ or CIN3) was the gold standard. Sensitivity, specificity, PPV, and NPV were calculated for both methods with 95% confidence intervals
HPV was detected in 156 samples taken from the 516 participants (30.2%). HR-HPV was detected in 119 samples (23%).
 HSIL was diagnosed in 1.55% (8/516) of patients (mean age: 39 years).
 HR-HPV was detected in 100% of HSIL cases. Single infections occurred in 75% of cases, mainly HPV 31 (50%). The Pap smear was negative in 50% of HSIL cases.
 Pap smear: Sensitivity 50%, Specificity 95.6%, PPV 15.2%, NPV 99.2%.
 HR-HPV test: Sensitivity 100%, Specificity 78.1%, PPV 6.7%, NPV 100%
The complete real-time PCR genotyping assay we used in this study demonstrated excellent sensitivity and NPV for CIN2+ detection, supporting its role as a reliable primary screening tool. The predominance of HPV 31 aligns with global data and highlights the relevance of complete genotyping for risk-based managemen

PC_011 - Élimination du cancer du col de l'utérus au Sénégal 6 ans après l'appel à l'action de l'Organisation Mondiale de la Santé : état des lieux et perspectives sur l'offre de service

Cervical cancer screening

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Etaient de décrire la situation de l'elimination du cancer du col utérin au Sénégal
Il s'agissait d'une étude prospective, descriptive portant sur 158 postes de santé, 79 centres de santé et 18 hôpitaux régionaux. Les données étaient collectées à l'aide d'un questionnaire standardisé portant sur la vaccination contre le HPV , sur le dépistage, le traitement des lésions précancéreuses, les soins curatifs et palliatifs et elles étaient recueillies dans une base de données et les résultats étaient obtenus à partir de requêtes SQL programmées et exécutées directement au sein de cette base. Les graphiques ont été obtenues à partir du logiciel Excel 2013.
La vaccination contre le HPV était largement disponible dans les structures sanitaires (97%) et les effets secondaires rapportés étaient de 23,7%. Des ruptures temporaires de vaccins, un non-respect de la deuxième dose et une réticence parentale ont été observés respectivement à10%, 23,7% et 12,9%. Le dépistage du cancer du col de l'utérus était disponible dans la majorité des structures à 98,4. L'inspection visuelle après application de l'acide acétique constituait la méthode la plus utilisée (97,3%). Le e traitement des lésions précancéreuses n'était pas disponible au niveau des postes de santé. Les soins curatifs et palliatifs étaient disponibles dans 16,6% au niveau des hôpitaux.
L'offre de services reste insuffisante pour atteindre les objectifs d'élimination du cancer du col de l'utérus au Sénégal. Un renforcement du dépistage organisé, de la prise en charge précoce et des ressources humaines est nécessaire.

PC_012 - Knowledge, Attitudes and Perceptions Regarding HPV Vaccination Among women attending VIA center at a Tertiary-Level Hospital in Bangladesh

Cervical cancer screening

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This study aims to evaluate the knowledge, attitudes, and perceptions concerning the HPV vaccine and identify factors influencing vaccination among women attending the VIA center at a Tertiary level hospital in Bangladesh

A cross-sectional study was carried out among women attending the VIA center. In outpatient department of the shaheed Suhrawardy Medical college , Dhaka ,Bangladesh, from September 2024 to December 2024, utilizing a pre-designed, semi-structured questionnaire. Data were collected by face to face interviews from 456 women and analyzed using SPSS V-23.

Out of the 456 participants, 75.84% were unaware of the human papillomavirus, and only 25.16% knew about the vaccine against cervical cancer. Regarding patient attitudes towards vaccination, a high percentage of respondents were unsure, and 90% were unaware that HPV causes cervical cancer.Approximately 10% of respondents agreed that the vaccine should be included in the national immunization schedule. Most respondents had not taken the HPV vaccine due to a lack of knowledge and high cost, but 90% were willing to vaccinate their adolescent daughters.

Despite the proven benefits of the HPV vaccine, misconceptions and knowledge gaps persist, contributing to low vaccination rates. Awareness of the HPV vaccine among the women of Bangladesh is very low.A nationwide awareness campaign would increase this awareness level among the Bangladeshi population , especially among the parents of daughters.

PC_013 - Cervical screening coverage and HSIL burden across Gauteng Province: National Health Laboratory Service cytology analysis with HIV and CD4 linkage (2018–2022)

Cervical cancer screening

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To describe district-facility-level cervical cytology screening coverage and HSIL burden in Gauteng Province, South Africa, To quantify the proportion of HSIL in HIV-positive women, stratified by age group. To describe immunosuppression among HIV-positive HSIL.
A retrospective analysis was conducted using anonymised facility-level cervical cytology records extracted from the NHLS for Gauteng Province for the period January 2018–December 2022. Duplicate records generated through linkage to multiple HIV monitoring episodes were excluded by retaining one record per cytology episode. CD4 results were linked by selecting the test date closest to the cytology result date. Screening coverage among women aged 30–59 years was estimated using district female population denominators from the 2022/ District Health Barometer
The final dataset included 392,788 unique cervical cytology episodes. Screening coverage among women aged 30–59 years was lowest in the metropolitan districts (6.9% in the City of Johannesburg, 9.8% in Ekurhuleni, and 11.6% in Tshwane) and higher in the mixed urban–rural districts (14.0% in Sedibeng and 18.6% in West Rand). Tshwane had relatively higher screening coverage but the lowest HSIL proportion (8.9%). HSIL diagnosis were highest in Ekurhuleni and West Rand (both 12.8%). HIV-positive women accounted for most HSIL diagnoses in all districts (60%–78%). Among linked HIV-positive HSIL cases, about one-quarter had CD4 counts <200 cells/µL.
Cervical cytology screening coverage in Gauteng was low and varied by district. HSIL burden was high among HIV-positive women, with a substantial proportion having CD4 counts <200 cells/µL. These findings support strengthening integration of cervical cancer screening within routine HIV care.

PC_014 - Histological Yield of HR-HPV Positive, Cytology-Negative Referrals to Colposcopy in a Model 3 Hospital in Ireland

Cervical cancer screening

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To evaluate the histological yield of high-risk human papillomavirus (HR-HPV) positive, cytology-negative referrals to colposcopy in a Model 3 hospital in Ireland.
A retrospective audit was conducted using departmental digital colposcopy summary data (COMPUSCOPE) for all referrals between January and December 2025. Women referred following HR-HPV positive, cytology-negative cervical screening results were identified. Biopsy rates and histological outcomes were recorded. Histology was categorised as no cervical intraepithelial neoplasia (CIN), CIN1, CIN2, CIN3, or invasive disease. Cases without documented histological outcomes were excluded from analysis (1.1%). Data were analysed descriptively.
During the study period, 466 women were referred to colposcopy, of whom 90 (19.3%) were referred following HR-HPV positive, cytology-negative screening results. Cervical biopsies were performed in 57/90 cases (63.3%). Histological examination demonstrated no CIN in 11 cases (19.3%), CIN1 in 36 cases (63.2%), CIN2 in 7 cases (12.3%), and CIN3 in 1 case (1.8%). No cases of invasive carcinoma were identified. CIN2+ was identified in 14.0% of biopsied women and 8.9% of the overall HR-HPV positive, cytology-negative cohort.
HR-HPV positive, cytology-negative referrals represented 19.3% of colposcopy workload in this service. CIN2+ was identified in 8.9% of women, highlighting the presence of high-grade disease despite negative cytology in this referral group.

PC_015 - Sustaining and scaling HPV-based cervical screening in hospital-based antenatal care: an implementation evaluation

Cervical cancer screening

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To evaluate barriers and enablers to sustainable integration of HPV-based cervical screening, including self-collection, into Australian hospital-based antenatal care, with a focus on equity and system readiness.
A qualitative implementation evaluation was conducted using semi-structured interviews informed by Proctor's Implementation Outcomes Framework and the Theoretical Framework of Acceptability. Eleven stakeholders, including obstetricians, nurses, and midwives, were recruited across three Australian states from metropolitan and regional maternity services and non-government organisations. Stakeholders had attempted, supported, or considered implementing self-collection for cervical screening in antenatal care. Data were analysed thematically and mapped to implementation domains.
Preliminary findings identify antenatal care as an effective setting to reach under-screened or never-screened populations, particularly when screening is embedded within existing clinical workflows. Prior to self-collection, screening was not routinely offered, highlighting a gap between guidelines and clinical practice. Self-collection was considered acceptable to both clinicians and patients, time-efficient, and capable of reducing disparities by removing cost and access barriers. Five key implementation challenges identified were: IT systems, knowledge and awareness, pathology, workforce, policy and funding.
Self-collection within antenatal care represents an opportunity to improve equitable access for under-screened populations, contributing to national efforts to achieve equitable elimination of cervical cancer. Although Australia's National Cervical Screening Program recommends routinely checking cervical screening history and offering screening to eligible pregnant women, screening provision within hospital-based antenatal care remains limited. Self-collection in pregnancy is acceptable and feasible but constrained by modifiable system- and service-level barriers. Addressing these barriers is essential for sustainable implementation.

PC_016 - Determining the genetic risk for cervical cancer

Cervical cancer screening

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The aim of this study was to develop a polygenic risk model for cervical cancer using genetic polymorphisms to improve the early detection of high-grade squamous intraepithelial lesions in HPV-infected women.
We analyzed 45 single nucleotide polymorphisms (SNPs) in European populations, selected 18 SNPs with the strongest association with cervical cancer. PCR kits were developed to detect these SNP alleles. DNA samples from cervical canal scrapings from 1,522 patients were grouped based on HPV status and cytological/histological results: negative for intraepithelial lesion or malignancy (NILM, n=218), elimination of HPV without dysplasia (HPV+, n=527), low-grade squamous intraepithelial lesions (LSIL, n=315), and high-grade squamous intraepithelial lesions (HSIL, n=462). Odds ratios (OR) for each SNP were calculated by comparing the HSIL and HPV+ groups. A polygenic risk model was created based on significant OR values.
Nine SNPs showed a statistically significant association with HSIL:rs55986091-G; rs2516448-G;rs9271898-G;rs10175462-G ;rs4646903-A;rs1801133-G;rs73728618-T;rs2069837-G;rs187084-G.The results of the study showed that there were significant differences in the genetic risk between patients with successful HPV elimination and those with high-grade squamous intraepithelial lesions (HSIL). The polygenic model was able to stratify patients into low-, medium-, and high-risk groups based on their genetic data. When combined with HPV data, the accuracy of HSIL prediction increased to 82%.
The developed algorithm allows for SNP allele detection, genetic risk calculation, and targeted patient monitoring. By integrating genetic testing into cervical cancer screening, early high-grade squamous intraepithelial lesion (HSIL) detection can be enhanced, particularly in women who are HPV-positive. This provides a risk-stratified approach to preventive care.

PC_017 - Determinants of Non-Participation in Cervical Cancer Screening by Human Papilloma Virus Self-Sampling among Urban Women in Mumbai, India.

Cervical cancer screening

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1.To identify the factors influencing acceptance and refusal of Cervical Cancer screening using Human Papilloma Virus self-sampling (HPV-SS). 2. To assess the level of awareness regarding Cervical Cancer among women refused HPV self-sampling. 3. To explore the reasons for non-acceptance of HPV self-sampling.
A cross-sectional analytical study, in Mumbai suburban area to assess determinants of acceptance and refusal of HPV self-sampling (HPV-SS) for cervical cancer screening among women aged 30–55 years. Following household survey, eligible women attended awareness sessions, and 500 consenting women were recruited for HPV-SS. A structured questionnaire was administered to 115 women to assess factors influencing uptake and to 61 women who refused screening to identify reasons for non-acceptance. This study was funded by Department of Biotechnology, Government of India.
Among women who refused screening, 50.8% were over 40 years, 63.9% belonged to joint (extended) families, and 86.9% were currently married. The most common reasons for refusal were embarrassment (27.9%) and lack of family permission (27.9%). Awareness of cervical cancer was poor; 18.0% heard of cervical cancer, and knowledge of HPV was minimal (3.3%). Univariate analysis showed higher refusal among women from extended families, with lower education, lower income, and among women who were separated/widowed/divorced status. On Logistic regression, low household income (OR 79.92; 95% CI: 21.08–302.9) and extended family structure (OR 4.98; 95% CI: 1.91–12.97) were independent predictors of refusal.
Non-acceptance of HPV-SS was mainly influenced by socioeconomic factors, family structure, embarrassment, and limited awareness, highlighting the need for family-inclusive educational interventions to improve screening uptake.

PC_018 - Exploration of ASCUS triage management in 5824 cases of cervical cytology

Cervical cancer screening

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Explore the management of ASCUS triage in cervical cytology.
A retrospective analysis of 5,824 ASCUS patients at Jiangxi Maternal and Child Health Hospital in 2021 was done. All patients had HrHPV typing testing, p16 immunohistochemistry staining, and vaginal colposcopy examination, and their cervical cancer screening and menopause history was investigated. The gold standard was based on histopathological results of ≥ CIN2. Analyze the sensitivity and specificity of HrHPV typing detection and p16 immunohistochemistry staining for ASCUS triage and high - risk factors for ≥ CIN2 in the ASCUS population.
1,433 patients had ≥ CIN2. The sensitivity of HrHPV typing detection and p16 immunohistochemistry staining was 82.4% and 52.1% respectively, and the specificity was 53.1% and 57.6% respectively. In the ASCUS population, univariate analysis showed ≥ CIN2 was unrelated to previous screening ($P > 0.05$), but related to menopausal status, HrHPV testing, p16 immunohistochemical staining results, and previous abnormal cervical screening (all $P < 0.05$). Multivariate analysis revealed independent factors for ≥ CIN2 in the ASCUS population were previous abnormal screening history (within 5 years), menopausal status, HrHPV test results, and p16 immunohistochemical staining results.
In the ASCUS population, HrHPV DNA typing and p16 immunohistochemistry staining can be used for cervical cytology triage, and positive cases can have colposcopy examination. When there is a 5 - year history of abnormal cervical cancer screening, premenopausal status, positive HrHPV test results, and positive p16 immunohistochemistry staining, it's crucial to strengthen management for high - risk CIN2+ individuals.

PC_019 - Psychological Parameters in Individuals with a Positive HPV Test and Normal Cytology (Pap I or IIa) Compared to Individuals with a Negative or Unknown HPV Status (HAPPI study)

Cervical cancer screening

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For cervical cancer prevention, screening programs in Germany offer a combined HPV (human papillomavirus) and Pap test every three years from age 35, with Pap I/IIa considered normal. While a positive HPV test has no immediate clinical significance, it may lead to psychological distress. In particular, the long-term effects of a positive HPV result without cytological abnormalities on diverse psychological parameters remain insufficiently investigated. The HAPPI study compares psychological distress parameters such as stress, anxiety, and depressive symptoms in individuals with positive HPV tests and PAP I/IIa with individuals with negative and unknown HPV status.
The HAPPI study applies a cross-sectional survey to the groups HPV-positive, HPV-negative, and HPV-unknown (all normal cytology). The survey includes instruments on psychological distress (e.g., the Cervical Dysplasia Distress Questionnaire and the Hospital Anxiety and Depression Scale) and items on person-centeredness, knowledge about HPV and Pap results and perceived support needs. Planned analyses include a multivariate analysis of covariance with group as the independent variable, multiple dependent variables (distress, anxiety, depression, quality of life, coping, perceived patient-centeredness) and covariates (age, education, time since last HPV test).
The analyses provide insights into the psychological impact of a positive HPV test in women with normal cytology and inform comparisons with other groups. First data will be presented at the conference.
This study addressed a current research gap regarding HPV-related psychological burden in the German screening context. The results guided person-centered communication strategies, informed preventive measures, and supported counseling in cervical cancer screening.

PC_020 - Multiple Dimensions of Social Vulnerability and Cervical Cancer Screening Uptake: A cohort Study

Cervical cancer screening

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Our retrospective cohort study aimed to identify distinct social vulnerability profiles among pregnant women and to assess their associations with cervical cancer screening adequacy and intraepithelial lesion detection
Prospectively collected data from a single tertiary maternity unit in France (CHI-Montreuil) were analyzed, including 18,253 women aged ≥25 years who delivered between May 2019 and May 2025. Social vulnerability was evaluated using 15 indicators encompassing administrative, psychological, and violence-related dimensions. Multiple Component Analysis followed by Hierarchical Clustering on Principal Components identified six distinct vulnerability profiles. Associations between these profiles, inadequate cervical screening (last sample >3 years or never performed), and squamous intraepithelial lesion detection were examined using multivariable logistic regression adjusted for maternal age and body mass index.
Overall, 56.1% of women were up to date with cervical screening. Compared with the low-vulnerability reference group, all vulnerability profiles were associated with increased odds of inadequate screening, with the strongest association observed in women facing migration-related or linguistic barriers (adjusted odds ratio [aOR] 3.40, 95% CI 3.16–3.66). Profiles characterized by exposure to physical, sexual, or psychological violence and substance use also showed significantly higher odds of inadequate screening. Despite lower screening participation, women exposed to violence or substance use demonstrated significantly increased detection of squamous intraepithelial lesions.
Women with migration-related barriers face the greatest screening disadvantage. Violence-exposed women demonstrate both reduced screening and elevated disease burden. Profile-specific interventions would offer practical pathways to reduce cervical cancer screening inequalities among socially vulnerable populations.

PC_021 - Co-designing the ideal cervical screening program with and for people with disability

Cervical cancer screening

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The Australian cervical cancer screening program invites eligible people to participate in this free program, every 5 years. It is estimated that only one third of people with a disability, participate in the program. Low participation has been attributed to barriers, such as inaccessible services, stigma, and poor communication with health professionals. Sexual Health Quarters is seeking to co-design the ideal cervical screening program with and for people with disability.
Between March and August 2025, SHQ consulted with 102 individuals with disability, 11 carers of people with disability and 18 service providers, to explore barriers and enablers of participation in cervical screening and the components for the ideal model of care. Data were collected via surveys, interviews, and focus groups, and analysed using descriptive statistics and thematic analysis.
Four key themes emerged: 1) previous experiences with cervical screening tests; 2) knowledge of importance of screening; 3) recommendations for a home-based outreach model; and 4) elements of the ideal model of care – trauma-aware, person-centred care; flexibility in appointment location; use of accessible and inclusive communication; female clinicians; interpreter availability; and allowance for support persons during procedures
The findings indicate strong recommendation for an outreach service, provided it is designed around individual needs and community preferences. This consultation represents the first stage of a co-designed program and offers practical guidance for developing equitable and scalable cervical screening services for people with disability.

PC_022 - Influencing Factors in Cervical Cancer Screening Adherence: A Research Study

Cervical cancer screening

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To identify the factors that hinder adherence to cervical cancer screening among eligible women.
A cross-sectional observational study was conducted among women aged 25 to 59 years registered at a Family Health Unit (USF) in Portugal. A convenience sample was calculated. Data were collected through a self-administered questionnaire, and statistical analysis was performed using Microsoft Excel® and SPSS®.
A marginally significant association was observed between adherence to cervical cancer screening and educational level ($p = 0.052$). Having up-to-date screening was significantly associated with knowledge about screening and HPV ($p = 0.020$), as well as with explanations provided by the family physician and family nurse ($p = 0.002$ and $p = 0.009$, respectively). No statistically significant association was found between screening adherence and perceived pain or discomfort during the procedure. Up-to-date screening status was also significantly associated with feelings of embarrassment regarding the procedure and with awareness of the possibility of undergoing screening at the USF.
This study highlights the importance of health literacy, demonstrating that lack of knowledge about disease and screening may negatively impact screening uptake. The findings also underscore the role of family healthcare teams in health education, as professional counselling appears to influence how cervical cancer screening is perceived by the population. Furthermore, the fact that a substantial proportion of women were unaware that screening could be performed at their USF indicates a need for improved dissemination and promotion of this service.

PC_023 - Accuracy of HPV DNA Methylation tests in the Triage of High-Risk HPV–Positive Women

Cervical cancer screening

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This study evaluated the sensitivity and specificity of HPV DNA methylation testing as a triage tool for detecting high-grade cervical lesions, examining its association with high-risk HPV types and the effect of sampling method on test performance.
The study included 93 women with positive high-risk HPV results examined between October 2021 and May 2024. Clinician-collected and self-collected cervical samples were analyzed for FAM19A/miR124-2 methylation, and all hrHPV-positive women underwent colposcopy with cytology and biopsy when indicated.
These are preliminary results of an ongoing study. Methylation positivity was observed in 29.3% of HPV16 infections, 36.4% of HPV18 infections, 22.2% of other high-risk HPV types, and 20% when HR-HPV mRNA was detected. Overall, the HPV DNA methylation test demonstrated a sensitivity of 53% and a specificity of 88% for detecting CIN2+, irrespective of sampling method. When analyzed separately, sensitivity differed by sampling method, at 33.3% for self-collected samples and 71.0% for clinician-collected samples, while specificity remained identical at 88.9% for both methods.
Methylation positivity is associated with more oncogenic HPV types. Methylation test sensitivity to detect CIN 2+ lesions is better in clinician-collected samples compared to self-collected samples, but specificity is comparable. Further studies in larger, population-based cohorts are required to confirm these findings and to improve test performance, particularly in self-collected samples.

PC_024 - HPV Viral Load: A Potential Biomarker for Diagnosis and Clinical Monitoring

Cervical cancer screening

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Human papillomavirus (HPV) infection is highly prevalent worldwide. Although high-risk HPV DNA detection is the primary screening method for cervical cancer (CC), viral load has emerged as a relevant marker of infection persistence, lesion progression, and cervical neoplasia risk. High viral loads, particularly for HPV types 16 and 18, are associated with increased risk of CIN 2/3 and invasive cancer. Serial viral load monitoring and qPCR-based quantification enable improved risk stratification and more targeted clinical management.
HPV Quant21 is a real-time PCR assay for quantifying viral load of 21 HPV types. A total of 1,086 liquid-based cervicovaginal samples (Jan–Jul 2025) were analyzed in a private laboratory in São Paulo, Brazil. Viral loads ≥10^3 copies per 10^5 human cells were considered clinically significant. Among the samples analyzed, 170 (15.6%) were HPV-positive, including 34 (3.0%) cases of coinfection. A high viral load (≥10^3 copies per 10^5 human cells) was detected in 135 cases (12.4%), including samples with mild cytological abnormalities such as ASC-US (5.9%) and CIN I (5.2%), highlighting the potential role of viral load quantification in identifying cases at risk of persistence and progression, even in low-grade lesions.
Viral load quantification represents an advance in risk stratification of HPV infections, complementing qualitative detection methods. The low proportion of cytological abnormalities despite high viral load suggests that viral quantification may act as an early marker of persistence, preceding morphologically detectable cytological changes. This approach shows promising applications in reflex testing, prognosis, and therapeutic monitoring, supporting more individualized clinical decision-making.

PC_025 - The Diagnoses Value of Hypermethylated PCDHGB7 MSRE-qPCR in Endocervical Gastric-type Adenocarcinoma

Cervical cancer screening

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Accurate diagnosis of endocervical gastric type adenocarcinoma (GAS) remains a major challenge especially in biopsy. The objective of this study is to evaluate whether hypermethylation of PCDHGB7 may serve as a useful diagnostic marker for GAS.
A total of 261 cases were selected for the study including 83 cases of usual type endocervical adenocarcinoma (UEC), 90 cases of GAS, 49 lobular endocervical glandular hyperplasia (LEGH) or atypical LEGH (ALEGH), and 39 normal/benign cases. The 4 um-thick formalin-fixed paraffined embedded (FFPE) sections were used for DNA extraction. A novel enzymatic quantitative PCR (ME-qPCR) assay was developed for quantitative methylation detection. The final methylation value (Conversion ΔCT value) of the PCDHGB7 for each sample was calculated with normalization to GAPDH.
The average PCDHGB7 DNA methylation values vary from high to low in the order of UEC, GAS, LEGH/ALEGH, and benign/normal cases (Fig1A). The significant differences in methylation values were present both among the four groups, and between LEGH and GAS groups (Fig1B, Fig1C, $P<0.0001$). The ROC analysis yielded the area under the curve (AUC) value of 0.97 (Fig1D). The DNA methylation cutoff was 26.35 with the maximum Jorden index 0.8403. The performance of PCDHGB7 hypermethylation in distinguishing the endocervical adenocarcinomas from no carcinoma was well with a sensitivity 96.53% and specificity 87.50% (Table1 and 2).
GAS is HPV independent cervical carcinoma, which shares same IHC profile as LEGH/ALEGH. The most significant finding is that as a novel biomarker, PCDHGB7 hypermethylation can distinguish GAS from LEGH/ALEGH.

PC_026 - Microbiome and metabolomic changes associated with HPV clearance in women undergoing local excisional treatment for cervical intraepithelial neoplasia

Cervical cancer screening

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This study aims to compare the microbiota of HPV-cleared versus non-cleared CIN patients post-LEEP and to identify specific microbiota and metabolites associated with HPV clearance.
326 samples were collected from 43 patients diagnosed with HPV-related CIN and employed a multi-omics analysis of cervicovaginal secretion and cervical tissue microbiomes, alongside non-targeted metabolomic assessments and targeted analysis of short-chain fatty acids (SCFAs).
1.At the phylum level, a total of 11 phyla in cervicovaginal secretions and 16 in cervical tissue samples are identified, with 9 common to both. At the species level, 437 bacterial species were found in cervicovaginal secretions, compared to 907 in cervical tissue. An analysis of the top 20 most abundant bacterial species showed that half were present in both sample types. 2. Through conducting 5R 16S rRNA gene sequencing with cervical tissues, a total of 367 bacterial species in the HPV non-cleared (NR) group and 746 in the HPV-cleared (R) group were identified. Alpha diversity (Shannon/Simpson indices) increased in R patients post-LEEP, with distinct beta diversity patterns compared to NR patients (ANOSIM, $p < 0.05$). 3. The metabolomic data indicated that significant increases in acetic acid level were observed in the cervicovaginal secretions from R group following surgery. Metabolite enrichment analysis highlighted a significant presence of differential metabolites involved in glycerophospholipid metabolism.
Distinct microbial communities and metabolic alterations associated with HPV status were identified, highlighting specific bacterial species and metabolites that may influence the likelihood of HPV clearance.

PC_027 - Association Between Multiple Infection Pattern of HPV33 and the Risk of Cervical Carcinogenesis

Cervical cancer screening

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Human papillomavirus (HPV) co-infections are common, yet the synergistic effects of specific genotype combinations on cervical carcinogenesis remain incompletely understood. This study aimed to characterize HPV33 co-infection patterns and their associated genetic variations in relation to cervical lesion progression.
We enrolled 1770 HPV33-positive patients from the Obstetrics and Gynecology Hospital, Fudan University between 2018 and 2023, including 852 with HPV33 single-infection and 918 with multiple-infections. Logistic regression was used to assess associations between co-infection characteristics and cervical histopathology. In a subset of 90 cases, the full-length L1 gene of HPV33 was sequenced and phylogenetically analyzed to evaluate genomic variation by infection status.
The number of HPV33 co-infecting genotypes was positively correlated with cervical lesion severity($P < 0.05$). HPV52, HPV16 and HPV58 were the most frequent co-infecting genotypes and were significantly associated with increased risk of LSIL or worse: HPV16(OR=1.97, 95%CI: 1.17-3.34), HPV52(OR=2.07, 95%CI: 1.26-3.39), HPV58(OR=2.83, 95%CI: 1.42-5.64). A similar elevated risk was observed for HPV31(OR=4.85, 95%CI: 1.80-13.05). In models adjusting for multiple co-infections(≥3 genotypes), only HPV16 remained independently associated with LSIL(OR=1.72, 95%CI=1.03-2.85) and HSIL or worse(OR=3.16, 95%CI=1.75-5.72) Phylogenetic analysis classified most HPV33 sequences into sublineage A1, with no significant difference in L1 gene mutations between single and multiple infections.
HPV33 co-infection patterns, particularly those involving HPV16, are associated with an elevated risk of high-grade cervical lesions in this Chinese cohort. These findings underscore the heterogeneous oncogenicity of HPV co-infections and support genotype-specific risk stratification in cervical cancer screening programs.

PC_028 - Acceptability of HPV Self-Sampling Among Women Referred for Colposcopy in Singapore

Cervical cancer screening

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Despite having been identified to be at risk for high-grade lesions by HPV screening test, women on surveillance follow-up in colposcopy clinics showed a high rate of non-compliance. Possible barriers include embarrassment, time constraints and discomfort. HPV self-sampling has been used in some national programs to improve screen accessibility and participation. This study evaluates the acceptability of HPV self-sampling among women referred for colposcopy.
This prospective cohort study was conducted from February 2024 to June 2025 at Singapore General Hospital, Singapore. Women aged ≥ 25 years requiring a colposcopy were included. Participants received standardised instructions to perform vaginal HPV self-sampling, followed by colposcopy. Acceptability was assessed using a 10-point Likert scale questionnaire. Responses were represented with medians and interquartile ranges (IQR).
Of 216 women studied, colposcopic findings were: normal or non-specific changes (n, 45.8%), CIN1 (n, 32.4%) , CIN2 (n, 12.0%), CIN3 (n, 4.6%) and suspicious for cervical cancer (n, 5.1%). Self-sampling was highly acceptable, with median (IQR) scores of 8 (6-9) for liking the procedure, 9 (8-10) for ease of use, and 8 (7-10) for comfort. Scores for embarrassment and unpleasantness were low, with medians of 2 (1-5) and 3 (1-6) respectively. Willingness to undergo future HPV self-sampling and return for a Pap smear triage test were high, with medians of 9 (7-10) and 10 (8-10) respectively. Women preferred home-based sampling, with a median of 7 (5-9.25).
The high acceptance rate by women attending colposcopy clinics indicates a significant role of self-sampling for HPV surveillance in colposcopy practice.

PC_029 - The journey of HPV screening and vaccination: from North Macedonia through Eastern Europe to Central Asia (2022–2025)

Cervical cancer screening

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Across Eastern Europe and Central Asia, cervical cancer continues to threaten women despite the WHO 90-70-90 targets. This comparative evaluation traces the regional “journey” of HPV screening and vaccination—from North Macedonia's pilot programn to large-scale national systems—highlighting disparities, innovation, and shared progress toward equitable prevention.

Officially published national data and governmental communications (2022–2025) from nine countries—North Macedonia, Serbia, Uzbekistan, Moldova, Kazakhstan, Turkmenistan, Turkey, Georgia, and Bosnia and Herzegovina—were analysed. Indicators included screening coverage, HPV positivity, triage method, vaccination uptake, and year of implementation. Descriptive and comparative analyses identified patterns between Balkan and Central-Asian programmes. Only aggregated, publicly available data were used.

Screening coverage varied from 11.9 % (Uzbekistan) to 93 % (Turkmenistan). North Macedonia’s pilot programme confirmed feasibility of national rollout with 6 % positivity among high-risk cases. Serbia’s dual HPV + Pap testing achieved 12–15 % positivity, while Georgia’s shift from cytology to HPV testing doubled CIN 2+ detection. Turkey screened above 1 million women annually using reflex cytology. Vaccination uptake ranged from 98 % (Turkmenistan) to below 3 % (Bosnia and Herzegovina). Barriers included laboratory capacity, vaccine hesitancy, and digital inequity. Central-Asian programmes benefited from strong state governance; Balkan initiatives showed diagnostic innovation and early AI-supported triage.

From Skopje to Samarkand, regional collaboration is turning policy into protection. While disparities persist, measurable progress reflects a shared commitment to women’s health. Building interoperable registries, ensuring laboratory quality, and sustaining public trust remain essential to align all countries with WHO 2030 elimination goals.

PC_030 - Perceived barriers and facilitators to cervical screening among physically Disabled women in the UK: qualitative findings from a cross-sectional survey

Cervical cancer screening

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Physically Disabled women face multiple barriers to cervical screening, contributing to lower uptake and increased health inequalities. Little is known about the barriers and facilitators to cervical screening for physically Disabled women.
We conducted a cross-sectional online survey with 1,493 UK-based participants who identified as having a physical disability, impairment, condition, or difference that makes cervical screening difficult or impossible. In addition to multiple-choice questions, participants answered open-ended questions on their experience of attending screening, barriers to attending and their perceived potential facilitators to cervical screening.
Most participants chose to respond to the open-ended questions generating a large qualitative dataset. Codebook thematic analysis (Braun & Clarke, 2022) informed by the Social Model of Disability was used to manage, organise and theme responses to answer the question: What are Disabled women's perceived barriers and facilitators to cervical screening? The themes were: 1. Bodily and pain-related challenges; 2. Anxiety and psychological distress; 3. Trauma from sexual abuse or healthcare experiences; 4. Procedural problems; 5. Equipment and physical environment are problematic; 6. Healthcare professionals lack compassion, empathy and knowledge.
These findings suggest that to be inclusive of Disabled women, changes to screening need to be made, particularly regarding infrastructure (e.g. exploring HPV self-sampling, drop-in appointments) and healthcare professional training and support (e.g. greater awareness of trauma and intersectional issues, appropriate pain management procedures). To be equitable and inclusive, it is imperative that the needs of Disabled women are considered in changes to cervical screening programmes and any research conducted to inform those changes.

PC_031 - p16/Ki-67 Dual-Stain Enables Safe Deferral of Colposcopy in HPV16-Positive, Cytology-Negative Women

Cervical cancer screening

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To assess whether p16/Ki-67 dual-stain (DS) testing can safely stratify the risk of high-grade cervical intraepithelial neoplasia (HSIL/CIN2+) in HPV16-positive women with negative cytology (NILM), within a risk-based management framework.
This retrospective study included HPV16-positive, cytology-negative women with histopathological verification. Dual-stain testing was performed on cervical samples in a subset of cases. Histopathological outcomes were derived from standardized colposcopy-directed and random cervical biopsies with mandatory endocervical sampling. The occurrence of HSIL/CIN2+ (HSIL/CIN2 or worse) was compared between DS-positive and DS-negative groups. Fisher's exact test was used for statistical analysis.
Among 48 HPV16-positive NILM women with histopathological follow-up, DS results were available in 31 cases. 18 women (58.1%) were DS-positive and 13 (41.9%) were DS-negative. HSIL/CIN2+ was detected in 7 of 18 DS-positive women (38.9%), whereas no CIN2+ lesions were identified in the DS-negative group (0/13). HSIL/CIN2+ occurred significantly more often in DS-positive women (Fisher's exact test, $p = 0.025$). Dual-stain negativity demonstrated a negative predictive value of 100% for HSIL/CIN2+ (95% CI: 75.3–100%) in the study group.
In HPV16-positive, cytology-negative women, p16/Ki-67 dual-stain testing identifies a low-risk subgroup with no observed HSIL/CIN2+ lesions. These findings support the safety of deferring immediate colposcopy in HPV16-positive, cytology-negative and DS-negative patients within a risk-based management strategy, potentially reducing unnecessary colposcopic referrals, particularly in carefully selected populations.

PC_032 - Cervical adenocarcinoma in situ - from primary screening, diagnosis, and treatment to follow-up: A retrospective study

Cervical cancer screening

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To investigate the sensitivity of current screening methods for detecting cervical adenocarcinoma in situ (AIS), the diagnostic accuracy of biopsy and post-conization pathological examination, treatment modalities, and postoperative follow-up management outcomes, providing references for clinical practice.

This retrospective analysis was conducted on the clinicopathological data of 121 AIS patients treated between January 2008 and September 2024. The diagnostic process, general characteristics, sensitivity of different initial screening methods, sensitivity of colposcopy and conization for diagnosing AIS, further management after conization, postoperative pathology, and follow-up outcomes were analyzed.

Among 121 AIS patients, the sensitivity of cytological testing was 73.83% (79/107), but it exhibited low detection rates for glandular epithelial abnormalities (14.02%) and a high false-negative rate (26.17%). Human papillomavirus (HPV) testing demonstrated a sensitivity of 98.21% (110/112), whereas combined cytological and HPV testing did not outperform HPV testing alone. In terms of pathological diagnosis, mixed lesions accounted for 74.38% of AIS cases. The sensitivity of biopsy alone for diagnosing AIS was 69.49%, with 30.51% of the cases ultimately diagnosed through conization pathology. In the treatment of AIS, neither cervical conization nor total hysterectomy showed histologically confirmed disease persistence or recurrence.

HPV testing is preferred for initial AIS screening because of its high sensitivity. Because AIS often coexists with high-grade squamous intraepithelial lesions, pathologists may focus on squamous epithelial abnormalities and overlook glandular lesions, necessitating a collaborative diagnosis between biopsy and conization specimens. In terms of treatment, no significant difference in efficacy was observed between conization and total hysterectomy.

PC_033 - Effectiveness of Different Testing Strategies Applied for Cervical Cancer Screening from Shuangliu District, Chengdu City, China

Cervical cancer screening

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To evaluate the clinical value of different combination strategies of hr-HPV testing and TCT, a cervical cytology test, for cervical cancer screening, especially for HSIL+ in Shuangliu District, Chengdu City.
Paticipants had positive results for the baseline hr-HPV test, then undergo either cytology or colposcopy randomly. After 24 months, participants were called back, screening of cytology and hr-HPV were performed. Four protocols simulated: 1) TCT and hr-HPV screening, for colposcopy when either one positive; 2) TCT and hr-HPV screening, for colposcopy when both positive; 3) TCT for screening, for positive would go hr-HPV test, and for colposcopy with hr-HPV positive; 4) hr-HPV for screening, for positive would go TCT, and for colposcopy if TCT positive. HSIL+ on histological was the endpoint, the sensitivity, specificity, PPV, NPV, and AUC of different combination screening models were calculated.
2967 women were included in statistical analysis. 979 randomized to cytology and 1988 to hr-HPV genotyping. After 24 months, 2456 women were called back, positive rate of cytology was 3.2%, positive rate of hr-HPV was 8.7%. Positive rate of HSIL+ was 0.69%. Women with a negative baseline hr-HPV had a lower incidence of HSIL+ lesions. Cytology screening combined with hr-HPV for triage purpose is the best method, with a sensitivity of 88.9%, a specificity of 58.3%, PPV of 44.4%, NPV of 93.3%, AUC of 0.736, P=0.039 (95% CI: 0.555-0.917).
The sensitivity of hr-HPV testing is better than cytology. TCT for prescreening plus hr-HPV test for triage purpose shows better value for detection of HSIL+.

PC_034 - Improving Patient Understanding and Reducing Anxiety in Colposcopy Reporting via Large Language Models: A Randomized Controlled Trial

Education / Quality assurance

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Health literacy refers to the ability to acquire, understand, evaluate, and apply health information to support clinical decision-making. For patients without a gynecological background, colposcopy reports often cause confusion or anxiety. Therefore, we developed Colpo-LLM, a specialized model based on the open-source large language model (Qwen), designed to interpret colposcopy reports, and conducted a randomized controlled trial (RCT) to assess its clinical effectiveness in helping patients understand their condition and alleviate anxiety.
This open-label RCT was conducted between December 2025 and February 2026. Participants (Outpatients undergoing colposcopy) were randomized via RedCap into an experimental group (Colpo-LLM-interpreted reports) and a control group (original reports). Primary outcomes included objective understanding, anxiety levels (Likert scale), and self-perceived comprehension. Secondary outcomes focused on readability and interpretation accuracy.
A total of 260 participants were enrolled in the study, with a mean age of 42 ± 9.3 years. The experimental group demonstrated significantly higher objective understanding (84% vs. 58%, $P < 0.01$) and lower anxiety scores (3.42±0.84 vs. 4.78±0.95, $P < 0.01$) compared to the control group. Self-perceived understanding was also higher in the experimental group (4.2±0.75 vs. 3.1±1.05, $P < 0.01$). Readability improved markedly, with the experimental group's Flesch-Kincaid Grade Level at 5.2±0.9 vs. 9.5±1.1 for controls ($P < 0.01$). Finally, interpretation accuracy reached 95% in the experimental group compared to 72% in the control group ($P < 0.01$).
Colpo-LLM significantly enhances patient comprehension and reduces psychological distress. It represents a powerful tool for improving clinical communication and supporting informed patient decision-making in gynecological care.

PC_035 - Resource-Based Good Clinical Practice Recommendations for Colposcopy Standards and Quality Assurance in Colposcopy Practice

Education / Quality assurance

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Quality of colposcopy determines accurate diagnosis and treatment planning. India and low-middle income countries have varied re- source settings offering colposcopy services; this group's objective was to develop defined standards for colposcopy with quality assurance in them to reach the goal of cervical cancer elimination.
An expert group comprising colposcopists, gynecologists, and gynecologic oncologists collated existing literature and guidelines. A framework applicable to India and similar low-middle income countries with diverse resources for providing colposcopy services in a standardized manner, stratified according to basic and advanced colposcopy centers, was formulated and circulated among experts. The revised version was de- liberated in a face-to-face meeting to finalize the standards. Public com- ments were incorporated in the final document.
Basic and advanced colposcopy centers were defined; essential and desirable components at these centers were specified. Recommendations for quality assurance evaluation and audits of ongoing services at both types of centers were also defined. Guidelines and recommendations for advanced centers suited for training were made.
These good clinical practice recommendations will guide the provision and assessment of colposcopy services and can be widely applicable to all low-middle income countries.

PC_036 - Awareness and Knowledge about Cervical Cancer Prevention and HPV Vaccination -Survey among students at the University of Lahore, Pakistan-

Education / Quality assurance

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An important component to eliminate cervical cancer (CC), one of the most common causes of cancer-related deaths among women worldwide, is the population's participation in CC prevention. Low knowledge and awareness for CC prevention and human papillomavirus (HPV) vaccination might lead to insufficient participation. This study evaluates the knowledge and awareness for CC prevention and HPV vaccination and how health information is gained.
A structured quantitative online survey among students from a medical field at the University of Lahore, Pakistan was conducted questioning the knowledge and awareness on these topics.
Among the 163 participants knowledge on CC and HPV infection including their prevention was low. For example, only 69 (42%) perceive an infection with HPV as risk factor for CC. 56 (34%) respondents do not know about CC being preventable by Pap Smears. 10 (12%) females perceive themselves at risk for CC. Few participants know about transmission of HPV and preventive measures, like HPV vaccination 94 (58%) and condom use (67;41%), and effects and administration of the vaccination. Willingness for vaccination is moderate (about 65%). Health information is mainly gained through educational institutions, social media and health professionals, while health professionals and educational institutions are the most trusted.
Better education is necessary to improve knowledge and awareness of CC prevention and HPV vaccination to increase populations' participation in prevention which is urgent to eliminate cervical cancer as global health problem. Educational and health systems, as well as social media should be targets of educational strategies.

PC_037 - Comparative study of topical 5-aminolevulinic acid photodynamic therapy and surgery for the treatment of vulvar squamous intraepithelial lesion

Vulvar and vaginal lesions

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This study aimed to compare the clinical efficacy and safety of ALA-PDT with local surgical resection for vulvar squamous intraepithelial lesion (SIL).
A total of 137 patients with vulvar SIL were enrolled in this retrospective study. Among them, 39 patients received local resection and 98 patients received ALA-PDT. HPV genotyping and ThinPrep cytologic test (TCT) were used to evaluate treatment efficacy. In addition, colposcopy-directed biopsy was performed in all patients at 3-month follow-up and in patients with positive high-risk human papillomavirus (HR-HPV) and/or abnormal TCT results during the follow-up.
At 3-month follow-up and in high-grade SIL (HSIL) group the complete remission (CR) rate of the ALA-PDT group and surgery group was 91.0% (71/78) and 87.2% (34/39) (P = 0.531), respectively. The HPV clearance rates of the ALA-PDT group and surgery group were 44.9 % (44/98) and 43.6 % (17/39) (P = 0.889), respectively. The average numbers of ALA-PDT treatments were 5.34 for HSIL patients and 4.88 for low-grade SIL (LSIL) patients, respectively. The CR rate of HSIL patients and LSIL patients was 91.0 % (71/78) and 75.0 % (15/20) (P = 0.065), respectively. The HPV clearance rate of HSIL patients and LSIL patients was 43.6 % (34/78) and 35.0 % (7/20) (P = 0.487), respectively. The ALA-PDT group showed similar clinical efficacy and milder adverse effects compared with the surgical group.
ALA-PDT showed similar clinical efficacy as surgery in the treatment of vulvar SIL, but with milder adverse effects and maintaining the integrity of the vulvar structure.

PC_038 - Condyloma lata: an important gynecological finding for the diagnosis of secondary syphilis.

Vulvar and vaginal lesions

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To describe a case of secondary syphilis with exuberant vulvar manifestations initially misdiagnosed, emphasizing the importance of complete physical examination and differential diagnosis in atypical vulvar lesions.
This case report was based on data extracted from the patient's medical records. The patient provided written informed consent for publication, and the study was approved by the institutional Research Ethics Committee.
A 31-year-old nulligravid woman presented with painful, elevated vulvar and perianal lesions of two weeks' duration, without systemic symptoms. She used combined oral contraception, reported multiple sexual partners, and inconsistent condom use. She denied comorbidities, continuous medication use, allergies, or immunosuppression. She had previously been diagnosed with genital herpes in an emergency setting and treated with acyclovir, without clinical improvement. General physical examination revealed whitish plaques on the oral mucosa and erythematous macules on the palms and soles. Vulvar inspection demonstrated multiple moist, well-demarcated elevated plaques measuring 1–2 cm involving the labia majora, labia minora, and perianal region. Secondary syphilis was suspected. Intramuscular benzathine penicillin (2,400,000 IU) was administered, and serologic tests were requested. FTA-ABS was positive, and the initial VDRL titer of 1:256 decreased to 1:2 after three months. The patient showed marked clinical improvement within one week, with complete resolution of lesions on follow-up.
Secondary syphilis may mimic other genital dermatoses, particularly when vulvar lesions are painful or atypical. Comprehensive physical examination and inclusion of syphilis in the differential diagnosis are essential for timely treatment and prevention of transmission.

PC_039 - Focusing on VaIN2+ : development and validation of a prediction nomogram based on a large colposcopy cohort

Vulvar and vaginal lesions

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Vaginal intraepithelial neoplasia 2 or worse (VaIN2+) has long been underestimated. This study aimed to explore its clinical characteristics and develop a prediction model for individualized risk assessment.

We retrospectively analyzed the clinical characteristics and HPV genotype distribution in 3,259 women undergoing colposcopy at a single center between September 2012 and December 2024. A nomogram was developed based on predictors initially screened by least absolute shrinkage and selection operator (LASSO) regression and finalized through multivariable logistic regression. The model's discriminative ability, calibration, and clinical utility were assessed in both training and validation sets.

Among 1,192 VaIN2+ patients, older age, HPV infection, worse than ASCUS cytology, and concurrent cervical/vulvar lesions were more prevalent than in 2,067 women without vaginal lesions. HPV16, HPV58, HPV52, HPV33, and HPV18 were the most common genotypes. A nomogram was developed based on 14 independent predictors identified by multivariable analysis, including age ≥50, specific HPV genotypes (16, 58, 33, 56, 35, 39), cytological results (ASCUS and worse), concurrent cervical lesions (CIN1, CIN2/3, cervical cancer), concurrent vulvar lesions, and hysterectomy history. The nomogram demonstrated good discrimination, with AUCs of 0.761 in the training set and 0.781 in the validation set. Calibration was satisfactory, and decision curve analysis confirmed superior clinical net benefit across a wide threshold probability range.

By profiling VaIN2+ characteristics, this study developed the first prediction model integrating specific HPV genotypes with multiple clinical factors. Our model enables clinicians to proactively identify high-risk individuals, thereby facilitating earlier diagnosis and intervention for VaIN2+.

PC_040 - Genital involvement in chronic graft-versus-host disease after allogeneic hematopoietic stem cell transplantation: a case report.

Vulvar and vaginal lesions

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Chronic graft-versus-host disease (cGVHD) is the most common late complication after allogeneic hematopoietic stem cell transplantation (HSCT) and a leading cause of non-relapse morbidity and mortality. It is a multiorgan disorder, and genital involvement is frequent, often underdiagnosed, and associated with significant impairment in quality of life. Routine gynecologic surveillance after HSCT is essential for early detection and treatment of genital cGVHD and for monitoring HPV-associated lesions in immunosuppressed patients.
A 58-year-old woman developed vulvar burning and dyspareunia seven months after HSCT. Examination showed recurrent lichen-like vulvar lesions that responded to topical corticosteroids. At 12 months post-transplant, she was diagnosed with complete vaginal stenosis (figure 1).
Treatment with local estrogen therapy and progressive vaginal dilators was started, resulting in partial anatomical and symptomatic improvement (figure 2).
Female genital cGVHD occurs in approximately 25–52% of transplanted patients, typically within 7–10 months after HSCT. Disease distribution is vulvar-only in most cases, vaginal-only in a minority, and mixed in about one quarter. Genital involvement frequently coexists with cGVHD in other organs, particularly skin and oral mucosa. Common symptoms include dyspareunia, dryness, pain, and burning, while clinical findings often resemble lichen planus. Severe disease may lead to labial fusion, sclerosis, adhesions, and vaginal stenosis. Immune dysregulation related to cGVHD and prolonged immunosuppressive therapy also increases susceptibility to HPV infection and HPV-related cervical lesions. Diagnosis is primarily clinical, with biopsy reserved for uncertain cases. Management relies on topical immunosuppressants, local estrogen therapy, and vaginal dilators, with surgery indicated for advanced adhesions or stenosis.

PC_041 - Interobserver Reliability of the Swede Score in the Colposcopic Evaluation of Cervical Dysplasia

Colposcopy practice

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To assess interobserver agreement among colposcopists with different levels of experience in the application of the Swede score for the classification of cervical lesions using digital colposcopic images.
A cross-sectional, observational analytic study was conducted. Three colposcopists (one with limited experience and two experienced evaluators) independently assessed digital colposcopic images from 80 patients, randomly selected from a sampling frame of 450 cases. Interobserver agreement was evaluated using Fleiss' kappa coefficient for overall agreement among the three observers and Cohen's kappa coefficient for pairwise comparisons.
Most patients were aged 22–39 years, with reported sexual debut between 16 and 21 years. The most frequent diagnosis was cervical intraepithelial neoplasia grade 1 (CIN 1). Overall interobserver agreement was slight (Fleiss' κ = 0.162). Pairwise analysis demonstrated moderate agreement between two evaluators (Cohen's κ = 0.560), while agreement between the remaining pairs was poor to almost absent (Cohen's κ = 0.046 and 0.005, respectively). These findings indicate substantial diagnostic variability despite the use of a standardized scoring system.
The Swede score demonstrated low overall interobserver agreement, with marked variability between evaluator pairs. These results highlight the persistent subjectivity of colposcopic interpretation and underscore the need for improved standardization, structured training programs, and the integration of adjunctive tools such as digital colposcopy and artificial intelligence–based decision support systems to enhance diagnostic reproducibility and clinical reliability.

PC_042 - Predictors of CIN2+ in Conization Specimens From Women With Endocervical ASC-H Cytology

Colposcopy practice

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Endocervical cytology is accepted as an alternative to endocervical curettage during colposcopy, but the clinical significance of an ASC-H result remains poorly defined. This study aimed to determine the probability of identifying CIN2+ lesions in conization specimens from women with endocervical ASC-H cytology and to evaluate the predictive value of HPV16 and previous high-grade cytology.
A retrospective study included 68 women with liquid-based endocervical cytology reported as ASC-H during colposcopic assessment between March 2023 and June 2025. All patients underwent cervical conization at Hospital del Mar (Barcelona). Clinical, cytological, HPV (COBAS 4800 assay) and histological variables were collected. Statistical analysis used descriptive statistics and chi-square tests, with $p<0.05$ considered statistically significant.
Mean age was 40.3 years (range 25–66)l. Histology revealed CIN2+ in 49 cases (72.1%): CIN2 in 26.5%, CIN3 in 42.6%, one microinvasive carcinoma, and one AIS. Nineteen women (27.9%) had ≤CIN1 (18 CIN1 and one negative). HPV16 was detected in 38.8%, HPV18 in 6%, other high-risk genotypes in 52.2%, and 3% were negative. Previous high-grade cytology was associated with higher CIN2+ risk (86.1% vs 56.3%, $p=0.006$). HPV16 showed higher CIN2+ rates than other genotypes (84.6% vs 68.6%), without statistical significance ($p=0.056$). Among women with previous normal or low-grade cytology, 56.3% still had CIN2+, and neither HPV genotype nor prior biopsy reliably predicted low-grade outcomes.
Endocervical ASC-H cytology have a high probability of CIN2+ at conization. Previous high-grade cytology is the strongest predictor of significant disease, while HPV genotyping alone has limited discriminatory value.

PC_043 - Diagnostic accuracy of systematic approach using Swedescore or conventional colposcopy for the detection of cervical intraepithelial neoplasia grade 2 or worse: a multicentre non-randomized clinical study

Colposcopy practice

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Globally, colposcopy is often performed by non-experts with no formal training or routine use of colposcopic scoring tools. A systematic colposcopic scoring tool, the Swedescore, has been developed to enhance the detection of cervical intraepithelial neoplasia grade 2 or worse (CIN2+). We aimed to compare the systematic use of the Swedescore with conventional colposcopy for detecting CIN2+ in a non-expert setting.

Women (23–65 years) referred for colposcopy were included in a multicentre, non-randomized clinical study. Colposcopy was performed using the systematic approach of the Swedescore or the conventional method from May 2023 to December 2024. The primary outcome was the detection of CIN2+ in lesion-directed biopsies assessed by sensitivity (SN), specificity (SP), positive predictive value (PPV), and negative predictive value (NPV). Results were compared between the two arms, and stratified by age, human papillomavirus (HPV) vaccination status, screening method, index cytology, index HPV type, and colposcopists.

Among 929 women included (Swedescore: 534, conventional: 395), the overall detection of CIN2+ was slightly higher in the Swedescore compared to conventional (SN: 84.7% vs. 77.8%, SP: 37.3% vs. 30.9%, PPV: 47.6% vs. 43.9%, NPV: 78.3% vs. 66.7%). Sensitivity of detecting CIN2+ was significantly higher in the Swedescore arm compared to the conventional arm for women > 50 years (92.9% vs. 62.5%), those with high-grade cytology (92.4% vs. 83.2%), and when residents performed colposcopy (91.8% vs. 70.6%).

The systematic use of the Swedescore, compared to conventional method, is associated with slightly improved CIN2+ detection, particularly in older women and when residents perform colposcopy.

PC_044 - Audit of CIN 2 – Outcomes – Comparison of 3 time cohorts

Colposcopy practice

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CIN 2 management has changed with more 'conservative' management for younger nulliparous women. Lycke, Hammer et al – long term outcomes of conservatively managed CIN 2, showed increased risk of cancer, if not improved/ resolved in 2 years - 2.65% (95% C.I. 2.07% to 3.23%) after 20 years, vs LETZ group – stable - 0.76% (C.1. 0.58% to 0.95%).
A continuing audit of outcomes of CIN 2, with special reference to active surveillance patients. Patients were identified as having a biopsy confirming CIN 2. Their electronic records were interrogated, outcomes collated and analysed via Excel and statistics calculation.
The table shows the outcomes of patients diagnosed with CIN 2 on histology, less patients were treated after first visit in 2023 cohort, significantly less than 2021 cohort <table> <caption>Table of Outcomes for CIN 2</caption> <tbody> <tr> <td>CIN 2</td> <td>2013</td> <td>2021</td> <td>2023</td> </tr> <tr> <td>Total</td> <td>290</td> <td>213</td> <td>159</td> </tr> <tr> <td>Treated following 1st visit</td> <td>203 (70.1%)</td> <td>157 (73%)</td> <td>78 (49%) p= 0.019</td> </tr> <tr> <td>Active surveillance -treated</td> <td> </td> <td>11</td> <td>25 p=0.22</td> </tr> <tr> <td>Improved</td> <td>32 (10.9%)</td> <td>15 (7.0%)</td> <td>23 (14.4%) p=0.79</td> </tr> <tr> <td>Regressed</td> <td>25 (8.7%)</td> <td>30 (53.6%)</td> <td>30 (38.5%) p= 0.292</td> </tr> <tr> <td>DNA/ Trt elsewhere</td> <td>3</td> <td>4</td> <td>3</td> </tr> </tbody> </table> Regression occurred with a mean of 12.3 months (Range 6-24 months). <table> <caption>Referral cytology and Outcomes</caption> <tbody> <tr> <td> </td> <td>2021</td> <td>2021</td> <td>2023</td> <td>2023</td> </tr> <tr> <td>Referral cytology </td> <td>Treated</td> <td>Active surveillance</td> <td>Treated</td> <td>Active surveillance</td> </tr> <tr> <td>LG./ BNC Squamous</td> <td>35</td> <td>30</td> <td>21</td> <td>50</td> </tr> <tr> <td>HG moderate/ severe/ ?invasive</td> <td>120</td> <td>26</td> <td>56</td> <td>29</td> </tr> <tr> <td>Glandular</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Clinical Indication </td> <td>2</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td> </td> <td>p=0.000017</td> <td> </td> <td> </td> <td>p=0.0165</td> </tr> </tbody> </table> 2013 - Treated after initial active surveillance –20% showed ≤ CIN 1 on excision 2023 – Treated after initial active surveillance – 36% showed ≤ CIN 1 on excision
Overall over 3 time cohorts, most patients under active surveillance presented with ≤ LG cytology. Mean time to regression was 12.3 months in the latest cohort. All but one regressed within 24 months. Study shows importance of auditing CIN 2 outcomes.

PC_045 - Association Between Vaping, Smoking and Cervical Disease Outcomes in HPV-Positive Women

Colposcopy practice

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Cigarette smoking is a recognised cofactor in human papillomavirus (HPV) persistence and progression of cervical intraepithelial neoplasia (CIN) (e.g. Koshiol et al., 2008). The impact of electronic cigarette use (vaping) on HPV-related cervical disease remains unclear. This study, part of an ongoing observational programme evaluating vaping and smoking in colposcopy, aimed to assess the association between vaping, smoking and cervical disease outcomes at follow-up among HPV-positive women.
This is part of an ongoing observational cohort study. This analysis includes women from a previously described baseline cohort who subsequently had follow-up. Patients were categorised as controls, smokers, or vapers. Outcomes were classified using repeat cytology and repeat histology as clearance, persistence, or progression relative to baseline grade. Histology was available for 15 women at baseline and follow-up. Outcomes were summarised descriptively by exposure group.
Eighty-seven women were included (26 controls, 33 smokers, 28 vapers). Cytology outcomes were available for 52 women and histology outcomes for 15. On cytology follow-up, persistence was most common across groups, with more progression among vapers than controls. On histology follow-up, available data indicate persistence among vapers, but numbers were small. Requirement for treatment was more frequent among smokers (4/33, 12.1%) and vapers (3/28, 10.7%) than controls (1/26, 3.8%); this difference was not statistically significant.
These follow-up data suggest increased cytological progression and histological persistence among vapers versus controls. Interpretation is limited by small numbers and incomplete histology follow-up. Ongoing data collection will allow more robust assessment of the relationship between vaping exposure and HPV-related cervical disease.

PC_046 - Diagnostic outcomes after colposcopy at a tertiary clinic for women aged 50–74 referred after detection of oncogenic human papillomavirus at primary screening

Colposcopy practice

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To assess the diagnostic outcomes of women over 50 years referred for Colposopy at our unit with a positive test for oncogenic HPV
A retrospective study of all women over 50 years having a Colposcopy for a positive HPV test between 1st January 2018 and 31st July 2025
We reviewed the data collected in the EPIC electronic medical record for 1653 women aged 50 to 74 years (mean 58.9 years) referred for Colposcopy with a positive test for oncogenic HPV. Reflex liquid based cytology (LBC) was negative in 56.4% of cases, with 8% having possible high-grade (pHSIL) or worse. At Colposcopy 54.2% of cases were reported to have a type 3 transformation zone. In 1398 cases referred with a satisfactory reflex LBC, histology was taken in 56% of cases by biopy or endocervical currette. There were 137 cases with reported CIN2+ including 18 invasive cancers (13 with HPV 16 or 18 & 5 with non-16/18 types) and 4 with adenocarcinoma in situ (ACIS or CGIN). The majority of women (91.7%) were discharged to a follow up HPV test in the community.
The majority CIN2+ cases, representing only 8.3% of all referrals, were detected at first colposcopy. We would encourage high biopsy rates at first colposcopy and vigilance in selection for excisional treatment in TZ3 cases if there is no significant suspicion of high-grade abnormality. The longitudinal risks of cervical cancer in menopausal women with persistent HPV infections and no evidence of CIN2+ at first colposcopy is yet to be determined.

PC_047 - Catch-up HPV screening of elderly women – evaluation of a clinical protocol for HPV positive women

Colposcopy practice

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In the Swedish national screening recommendations from 2015, it was recommended that women at the upper age-limit for screening should not exit the program without a negative HPV test. However, a group of women have exited the screening program with only cytology test, likely with suboptimal quality. There is evidence showing that HPV-based screening may prevent cervical cancer in elderly women, but data is sparse on the clinical management in this group.
All women resident in Stockholm born in 1947-1952, who exited the screening program without a negative HPV-test, were identified through the Swedish National Cervical Screening Register. In February 2025, self-sampling kits were sent directly to women with a previous abnormality, while the rest were invited to order a self-sampling kit through an opt-in system. All HPV-positive women were referred for colposcopy, and recommended local estrogen daily for 4 weeks prior. Colposcopic features like atrophy and transformation zone type were noted according to a protocol. Treatment complications according to Clavien-Dindo were noted.
In Stockholm, 36,653 women were offered HPV self-sampling kits. Around 20% returned the kit, and out of these, around 10% (n=901) were HPV-positive. HPV-types 16,18,45 were present in 290 women, HPV 31,33,52,58 in 225 women, HPV 35,39,51,56,59,66,68 in 386 women. More results, including an evaluation of colposcopic features and histopathological results from treatment will be presented at the conference.
Developing a protocol, using risk stratification with HPV genotyping, colposcopic features and histopathological results from excisional treatment, is essential for the clinical management of HPV-positivity in elderly women.

PC_048 - State of sustainable practices in France to reduce colposcopy's environmental impact

Colposcopy practice

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The aim of this study was to present an overview of the current eco-friendly habits in colposcopy on a national scale.
We lead a cross-sectional observational study using a self-administered survey among healthcare professionals performing colposcopy in France. The survey was send using French Society of Colposcopy (SFCPCV) mailing list in winter 2025. It assessed colposcopy practices, equipment use, waste management and eco-responsible behaviors. Data were analyzed descriptively. Answers to open-ended questions were subjected to thematic analysis.
A total of 382 healthcare professionals including gynecologists and midwifes answered the survey. Colposcopy was mainly practiced using reusable equipment with individual disposable packaging. 37% of participants reported using a recycling system. 46% reported having awareness or training about environmentally responsible practices in their department. Several respondents prioritized teleconsultation to inform the patient of their results, and dematerialized procedure to send their reports. The most frequent habits reported to reduce the environmental impact were: to prioritize reusable tools, to rationalize the use of disposable items, and to optimize recycling. We noticed disparities depending on professionals' type of practice.
Even though there are no national recommendation upon eco-friendly habits in colposcopy, between one third and half of healthcare professionals are sensibilized on environmental impact and take actions to reduce product waste.

PC_049 - Clinical Utility of an Optoelectronic Imaging Tracing System for Diagnosis of High-Grade Cervical Lesions

Colposcopy practice

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To evaluate the performance of a novel Optoelectronic Imaging Tracing System (OITS) in diagnosing high-grade cervical intraepithelial neoplasia and to compare its effectiveness with existing methods, including HPV genotyping, liquid-based cytology (LBC), and colposcopy in cervical lesion screening.
This prospective observational study enrolled 303 women referred for colposcopy between September and December 2024. All participants underwent OITS examination prior to colposcopy, followed by directed cervical biopsy with histopathology as the reference standard. The diagnostic performance of OITS for detecting CIN2+ and CIN3+ lesions was compared with LBC, high-risk HPV (hrHPV) testing, HPV16/18 genotyping, and colposcopic impression. Sensitivity, specificity, predictive values, receiver operating characteristic (ROC) curves, and area under the curve (AUC) were calculated.
Histopathology identified 82 cases of CIN2+ and 34 cases of CIN3+. OITS demonstrated the highest diagnostic accuracy for CIN2+ detection, with an AUC of 0.798 (95% CI: 0.762–0.834), sensitivity of 97.6% (95% CI: 94.2-100), specificity of 62.0% (95% CI: 55.6-68.4), and a negative predictive value of 98.6% (95% CI: 96.6-100.5). OITS positivity increased with lesion severity and reached 100% in CIN3 and invasive cancer. Across stratified subgroups defined by HPV status, cytology, and colposcopic impression, OITS consistently maintained sensitivity above 93%, outperforming all comparator methods.
OITS shows excellent and stable performance in identifying high-grade cervical lesions among women referred for colposcopy. Its high sensitivity, strong rule-out capability, and objective assessment suggest that OITS may serve as an effective adjunct or alternative triage tool to optimize cervical cancer screening and referral strategies.

PC_050 - Methylation biomarkers in non-regressive cervical intraepithelial neoplasia grade 2 lesions: an epigenome wide association study

Basic science / Epidemiology

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Active surveillance can be offered for cervical intraepithelial neoplasia grade 2 (CIN2) due to high regression rates. There are currently no accurate predictive biomarkers for this cohort. DNA methylation has been proposed as a novel predictive technique. The aim of this study was to identify novel differentially methylated CpG sites that predict non-regression of CIN2.
DNA underwent bisulphite conversion followed by the Illumina Methylation EPIC BeadChip 850k array, from two serially-collected liquid-based cytology samples (at baseline and 12 months) from 58 women managed with active surveillance for histologically-confirmed CIN2. β and M values were compared between groups, in addition to change in methylation over time using linear regression, in R. False Discovery Rate (FDR) was used to correct for multiple testing.
Of 58 included women, 12 had non-regressive CIN2 lesions (6 progressive and 6 persistent) and 46 regressed within 24 months (79%) (31 regressed within 12 months and 15 between 12-24 months). Cg12754953 (ALDH9A1) showed increased methylation in non-regressors at 24 months, as compared to all regressors (FDR<0.1). Cg18887759 (MED25) showed increased methylation in non-regressors as compared to those regressing imminently (in the next 12 months) (FDR<0.1). Cg13556949 (TULP2) was significant in the Δ (delta) analysis.
This is the first epigenome-wide association study looking to identify significant CpGs sites in patients with CIN2 and a known outcome. We have identified several novel CpG sites including ALDH9A1, MED25, and TULP2 which may assist in predicting future regression or non-regression of CIN2.

PC_051 - Anal microbiome and inflammation alterations after curcumin treatment from a pilot safety and feasibility clinical trial

Basic science / Epidemiology

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Curcumin possesses potent anti-inflammatory and anti-tumor properties. However, curcumin's application for anal high-grade squamous intraepithelial lesions (aHSIL) has not been tested. Thus, we conducted a pilot clinical trial to evaluate safety and feasibility for curcumin's anal application. This pilot trial recruited participants with aHSIL to receive anal curcumin capsules at increasing dosages starting with 500 mg daily up to a maximum tolerated dose of 3,000 mg for 14 consecutive days. Pre- and post-intervention anal swabs were collected for microbiome (shotgun sequencing) and inflammation (MSD) testing. Linear decomposition models (LDM) and non-parametric tests were performed for microbiome and inflammation, respectively.
No significant side effects were reported (N=12); aHSIL shrinkages were observed. No significant difference was found for alpha and beta diversities for the anal microbiome pre- and post-intervention. At the species level, Mediterraneibacter faecis showed a lowest p value and had a trend of a significant increase after curcumin (p=0.052). Mediterraneibacter faecis has been identified as enriched in women without high-risk HPV infection. The increase in our data suggests curcumin's potential protective role on promoting beneficial microbiome like Mediterraneibacter faecis against HPV infection and anal disease progress. Our inflammatory marker results showed that interleukin-1 receptor antagonist (IL1ra) was statistically significantly reduced after treatment (p=0.027), suggesting a potential anti-inflammatory effect of curcumin at anal canal.
The result suggests the feasibility of anal curcumin application for aHSIL. Our findings also provide preliminary evidence indicating curcumin's protective effects on promoting beneficial microbiome like Mediterraneibacter faecis against HPV infection and reducing inflammation for aHSIL.

PC_052 - Obstetric and neonatal outcomes in HPV-positive pregnant women

Basic science / Epidemiology

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Over the past decade, the incidence of genital diseases associated with human papillomavirus (HPV) has increased worldwide. Persistent infection with high-risk oncogenic HPV types is strongly linked to cervical cancer and other anogenital malignancies, detected in up to 95% of cervical cancer cases in women of reproductive age. Data on placental involvement, vertical transmission, and pregnancy outcomes remain inconsistent, highlighting the need for improved management strategies.
A prospective study was conducted from 2022 to 2024 involving 96 pregnant women. Group I included 64 women with HPV infection, while the control group consisted of 32 HPV-negative pregnant women. Clinical course of pregnancy, placental characteristics, labor outcomes, and neonatal status were assessed. Ultrasound examination was used during pregnancy, followed by macroscopic placental evaluation after delivery.
The mean age of participants was comparable between groups. Placental ultrasound abnormalities, including vascular changes and intervillous space enlargement, were more frequent in HPV-positive women. Postpartum placental examination revealed higher placental weight and thickness in Group I, with focal calcifications noted more often. Women with HPV infection had increased rates of perineal trauma, placental defects, and preterm birth, all cases of which were associated with premature rupture of membranes. Neonatal Apgar scores did not differ significantly between groups; however, congenital malformations were diagnosed four times more frequently in newborns of HPV-positive mothers.
HPV infection during pregnancy is associated with increased obstetric and perinatal risks, emphasizing the importance of early diagnosis, enhanced prenatal surveillance, and individualized management to improve maternal and neonatal outcomes.

PC_053 - Stratifying risk of premalignant anal lesions among immunocompetent women with genital human papillomavirus virus infection

Basic science / Epidemiology

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The incidence of anal cancer is rising, and women with genital HPV infection or genital HSIL are recognized as being at risk of developing it. The aim is to evaluate the risk of HSIL/AIN among women with genital HSIL and to assess the diagnostic performance of different screening tools in these population.
A cross-sectional study including 354 immunocompetent women referred for anal evaluation because of HPV infection/genital HSIL between 2019-2024. Participants were categorized according to the genital site affected by HSIL (uterine cervix, vagina, vulva, or multicentric disease), and a control group of 99 immunocompetent women with genital HPV infection and/or low-grade SIL was included. All patients underwent anal HPV testing, liquid-based cytology, and high-resolution anoscopy when clinically indicated.
Anal HPV infection and HSIL/AIN were identified in 62.5% and 5.6% of women, respectively. Women with multicentric disease showed higher prevalence of HSIL/AIN compared with the control group (20.7%, vs. 2.0%; p=0.031), and the other genital HSIL groups (6.0% for cervical; 0%, for vaginal; 3.2% for vulvar; p=0.003). Genital HSIL, particularly multicentric disease, was a strong marker of anal involvement. No HSIL/AIN occurred among women with a negative anal HPV test. Anal HPV testing showed optimal sensitivity (100%) and negative predictive value (100%) for the diagnosis of HSIL/AIN, whereas cytology had lower sensitivity (68.4%).
Immunocompetent women with genital HPV infection, particularly those with multicentric HSIL, are at increased risk of anal HPV infection and HSIL/AIN and HPV testing appears to be the most efficient approach for anal screening in this population.

PC_054 - A cross-sectional study on the seroprevalence of 14 HPV neutralizing antibodies among women with current HPV infection who are negative, positive, or at different stages of cervical lesions

Basic science / Epidemiology

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To investigate the serum distribution of neutralizing antibodies against 14 types of HPV in normal women who are currently HPV-negative or HPV-positive, as well as in women at different stages of cervical lesions.
Females aged 18–75 were enrolled, and their plasma samples were collected for test of neutralizing antibodies against HPV L1 capsid protein using a competitive Luminex immunological assay (cLIA). This assay can detect antibodies against 2 low-risk types (HPV 6, 11) and 12 high-risk types (HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59). Antibody titers for the 12 hrHPV types were summarized and log-transformed for inter-group comparisons.
A total of 3,028 participants (enrolled Feb 2023–Jan 2026) were included: 1,090 hrHPV-negative, 1,197 hrHPV-infected, 270 CIN1, 155 CIN2, 94 CIN3/AIS, and 219 cancer (103 post-treatment). Overall, HPV antibody titers increased progressively from HPV-negative individuals to cancer patients ($P<0.001$). Among hrHPV-negative or hrHPV-infected women, titers increased significantly with age ($P<0.001$). No significant age-related difference in titers was observed in CIN1, CIN2, CIN3/AIS, or cancer groups ($P>0.05$). However, in treated cancer patients, titers decreased significantly with age ($P<0.05$).
hrHPV antibody titer is a potential biomarker for cervical lesion progression, with its age association showing a disease stage-specific pattern. Monitoring hrHPV antibody dynamics may aid in risk assessment and prognosis, particularly during post-treatment follow-up.

PC_055 - A 13-Year Analysis of HPV-Associated Lower Genital Tract Carcinomas in the Southeastern United States

Basic science / Epidemiology

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This study aimed to characterize the epidemiologic profile of HPV-associated lower genital tract carcinomas among women receiving care in one of the largest healthcare systems in the southeastern US.
A retrospective analysis was conducted to describe demographic factors (age at initial diagnosis, race, ethnicity, and marital status) and clinical factors (lymph node metastasis status and vital status), compared across cervical, vaginal, and vulvar cancers.
A total of 2,542 diagnoses of HPV-associated lower genital tract carcinomas were identified at the University of Alabama at Birmingham Hospital between January 2012 and April 2025. Of these, 56.98% were cervical cancer, 13.66% were vaginal cancer, and 35.43% were vulvar cancer. Twenty-four women had multiple or recurrent cancers. Mean ages at diagnosis differed significantly by cancers (P<0.0001): 50.63, 62.65, and 60.93 years for cervical, vaginal and vulvar cancer respectively. No age differences were observed in cervical or vaginal cancers by race; however, vulvar cancer showed a younger mean age in Black patients (57.73 years; P=0.08). White women comprised most cases across all cancers (P<0.0001). Over 18.5% of vaginal and vulvar cancers had undetermined lymph node status at diagnosis, whereas cervical cancer had the highest proportion of non-lymph node metastasis (91.80%, P<0.001).
The younger age and higher proportion of non-lymph node metastasis at diagnosis in cervical cancer may suggest earlier detection due to routine screening. This warrants further investigation into the development of screening strategies for vaginal and vulvar cancers to facilitate earlier diagnosis and potentially improve prognosis.

PC_056 - Multicentric Disease of the Lower Anogenital Tract: Management and Outcomes

Basic science / Epidemiology

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To describe the clinicopathological characteristics of patients with multicentric disease of the lower anogenital tract (LAGT) and to analyze factors associated with persistence and/or recurrence.
Retrospective study including patients diagnosed with multicentric LAGT disease between 2011 and 2021. Epidemiological, clinical, histopathological, and therapeutic data were collected. Follow-up was up to 24 months. Univariate and multivariate analyses were performed to identify factors associated with persistence and/or recurrence
Among 1,993 patients diagnosed with HPV-associated intraepithelial lesions, 13.4% (268/1,993) presented multicentric LAGT disease. Thirty-seven patients were excluded due to inadequate follow-up; 231 patients were included. Median age was 32 years (range 16–78), and 17.3% were postmenopausal. Immunosuppression was present in 25.1%, most frequently due to HIV infection (65.5%). Lesions were synchronous in 68.4% and metachronous in 31.6%. The median number of affected sites was three, with the cervix–vulva association being the most frequent (12.5%). The most common lesions were low-grade squamous intraepithelial lesions: vulvar (61.9%), vaginal (45%), and cervical (40.3%). Treatment was tailored according to lesion site and grade. During a median follow-up of 19 months, persistence occurred in 26% and recurrence in 10.8%, with the vulva being the most frequently affected site. Surgical margin involvement was the main independent factor associated with persistence and/or recurrence ($p < 0.001$)
Multicentric LAGT disease is increasingly frequent and represents a diagnostic and therapeutic challenge. Surgical margin involvement is the strongest predictor of persistence and/or recurrence, underscoring the importance of adequate treatment and close follow-up.

PC_057 - ROCK Inhibition Disrupts Cell-in-Cell-Associated Dormancy and Restores Chemosensitivity in Gastric-Type Cervical Adenocarcinoma

Basic science / Epidemiology

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Gastric-type cervical adenocarcinoma (GCA) is a non-human papillomavirus (HPV)-associated cervical cancer subtype marked by poor response to standard chemoradiotherapy and early metastatic dissemination despite low proliferative activity. Progress in understanding its biology has been limited by the lack of representative experimental models. We aimed to establish an in vitro GCA model, characterize dormancy-associated features, and explore therapeutic vulnerabilities.
Clinicopathologic, immunohistochemical, and transcriptomic analyses were performed on tumors from patients with GCA and usual-type cervical adenocarcinoma. A patient-derived GCA cell line (GCAT1) was established and characterized in vitro and in vivo. Cell-in-cell (CIC) formation, dormancy-associated signaling, invasive behavior, and therapeutic sensitivity were assessed. RHO-associated kinase (ROCK) signaling was pharmacologically inhibited using fasudil.
GCA exhibited a distinct phenotype marked by low proliferative indices, elevated expression of the dormancy regulator NR2F1, and suppression of cell cycle pathways, while retaining high invasive potential marked by increased MMP-2 and MMP-7 expression. CIC structures were frequent in GCA tissues and spontaneously formed in GCAT1 cells, where they correlated with NR2F1 activation and cell cycle arrest. ROCK inhibition by fasudil disrupted CIC formation,reduced NR2F1 expression, promoted cell cycle re-entry, and significantly sensitized GCA cells to cisplatin. Notably, dormancy release did not affect migration or invasion, indicating functional independence between dormancy and invasion programs.
GCA maintains therapy-resistant dormancy through a ROCK–CIC–NR2F1 signaling network,whereas invasiveness is regulated by distinct mechanisms. These findings support combined therapeutic targeting of dormancy- and invasion-associated pathways to limit GCA progression.

PC_058 - Distribution and role of high-risk human papillomavirus genotypes in women with cervical intraepithelial neoplasia: A retrospective analysis from Wenzhou, southeast China

Basic science / Epidemiology

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To add the growing literature on baseline of highrisk human papillomavirus (HR-HPV) genotype distribution in cervical intraepithelial neoplasia (CIN) before the widespread using of HPV vaccines in Chinese mainland and to improve risk stratification of HR-HPV–positive women.
HPV genotypes were analyzed with Flowcytometry Fluorescence Hybridization Method. And then HPV prevalence, HR-HPV genotype distribution and the correlation of HR-HPV genotypes with CIN2+ (CIN2 or severer) were analyzed. The role of multiple HR-HPV types infection with or without HPV16/18 in the pathogenesis of CIN2+ was also analyzed.
The 6 most common HR-HPV genotypes were HPV16, 58, 52, 33, 18, and 31 in descending order. Compared to HR-HPV–negative women, HPV16, 33 or 58 positive women had higher risk of CIN2+ (OR = 5.10, 95% CI = 2.68-9.70; OR = 3.09, 95% CI = 1.39-6.84; OR = 3.57, 95% CI = 1.85-6.89, respectively). And women who were infected by multiple HR-HPV types infection with HPV16/18 also had higher risk of CIN2+ (OR = 2.58, 95% CI = 1.35-4.92). However, multiple HR-HPV types infection without HPV16/18 did not increase the risk significantly (P = .08). Compare to bivalent Cervarix® and quadrivalent Gardasil®, HPV prophylactic vaccine targeting HPV31, 33, 52, and 58 might provide women more protection from HPV-induced cervical cancer in China. The women who infected by HPV16, 33, 58, or multiple HR-HPV types with HPV16/18 have higher risk of CIN2+ and need to be paid more attention in screening processes.
These findings have important implications for cervical cancer prevention.

PC_059 - Changes in the awareness of cervical cancer and the characteristics of the vaccination population after HPV vaccine introduction in China

Basic science / Epidemiology

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To explore the continuous changes in women's awareness of cervical cancer and the characteristics of the vaccinated population after the introduction of HPV vaccines in China.
We evaluated the continuous changes in women’s awareness through a questionnaire survey and analyzed the demographics, sexual history, and screening history of vaccinated women.
From 2016 to 2020, the percentage of women who had heard of cervical cancer, HPV, and HPV vaccines continuously increased, with an especially significant increase occurring after 2018. The women’s detailed knowledge also showed similar trends. The education and income levels and cervical cancer awareness rates were higher in vaccinated than in unvaccinated women. Among the 10985 vaccinated women, only 135 women (1%) were under the age of 18, as many as 7389 had a sexual history before vaccination, but only 3204 had a cervical cancer screening history.
The introduction of HPV vaccines , together with the widespread media coverage and health education, has led to an upward trend in women's awareness of cervical cancer. Most of the vaccinated women had a college-level education or above and had higher cervical cancer awareness. The current problem is that the vaccination rate for young girls is less than 1%, despite continuous promotion. An expanded pilot program on HPV immunization for local girls is an efficient way to increase the HPV vaccination rate among adolescents. Conversely, the cervical cancer screening rate is still low, indicating a need to emphasize the importance of screening while promoting HPV vaccination.

PC_060 - Acceptability, Tolerability, and High-Resolution Anoscopy Findings from a Phase I Dose-Escalation Trial of Anal Curcumin in Persons Living with HIV with High-Grade Anal Dysplasia

Treatment and follow up

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People living with HIV (PLWH) experience a disproportionate burden of high-grade anal intraepithelial neoplasia (AIN), underscoring the need for novel, low-toxicity interventions. This phase I study evaluated anal curcumin as a non-surgical preventive approach.
This open-label, 3+3 dose-escalation trial enrolled PLWH ≥30 years with biopsy-proven AIN2/3 or high-grade cytology. Participants self-administered escalating doses of anal curcumin capsules daily for 14 days. Safety, tolerability, and disease status were assessed through adverse event reporting and high-resolution anoscopy (HRA). Acceptability was measured using structured questionnaires.
Seventeen participants were enrolled (mean age 49 years); one was lost to follow-up. Most participants were men who have sex with men (94%) and 88% were Black. All were receiving antiretroviral therapy; 88% had undetectable HIV viral load, and two had CD4 counts <250 cells/µL. Baseline cytology was: ASCUS (n=2), ASC-H (n=9), LSIL (n=3), and HSIL (n=3). HPV-16 was detected in 3 participants, other high-risk HPV types in 10, HPV was negative in 3, and status unknown in 1. Baseline histology was AIN 1 (40%), AIN 2 (13%), and AIN 3 (47%). Day 15 disease distribution remained stable. There was high acceptability (81%), but medication adherence was 60%. Most participants (69%) reported no side effects; adverse events were mild and included diarrhea (13%) and local discomfort (7%). Quality of life was unaffected (81%). Instruction clarity was rated 100%. HRA was well tolerated.
Early findings support the feasibility and acceptability of anal curcumin as a non-surgical preventive intervention. Ongoing analyses will inform biologic activity, dose optimization, and translational potential.

PC_061 - Long-term Efficacy and Safety of Hexaminolevulinate Photodynamic Therapy (HAL-PDT) in CIN2 Patients: Results from a Phase III Randomized Controlled Trial

Treatment and follow up

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To evaluate the long-term efficacy and safety of portable hexaminolevulinate photodynamic therapy (HAL-PDT), a non-surgical, cervix-preserving treatment, in patients with cervical intraepithelial neoplasia grade 2 (CIN2).
HAL-PDT combines HAL ointment with an automated CL7 drug delivery system. This subgroup analysis is based on a phase III randomized controlled trial (NCT04484415), in which patients receiving HAL-PDT were followed for 12 months to evaluate the durability of clinical and virological outcomes.
In the modified intention-to-treat population, the mean number of PDT cycles was 1.73 (range: 1–2). At 12 months, the response rate was 47.2% (51/108; 95% CI: 37.54–57.06), with histologic regression observed in 51.9% of patients (56/108; 95% CI: 42.03–61.57), demonstrating durable efficacy beyond the initial 6-month blinded phase. Notably, the HPV clearance rate increased over time, from 33.6% at 6 months to 45.9% at 12 months. This upward trend was particularly evident for high-risk types. HPV16 clearance rate rose from 42.1% to 58.8%, and HPV16/18 clearance rate from 39.4% to 55.4%. Treatment-emergent adverse events were predominantly mild, most commonly vaginal discharge (16.0%; 19/119), abdominal pain (6.7%; 8/119), and vulvovaginal pain (5.0%; 6/119). Device usability was favorable, with 100% successful insertions by gynecologists and high patient compliance.
HAL-PDT demonstrated robust long-term efficacy, favorable safety, and sustained HPV clearance rates over 12 months. These findings support HAL-PDT as an effective non-surgical management option for CIN2.

PC_062 - Look and LEEP: A 5-year audit of the colposcopy clinic at Groote Schuur Hospital. Cape Town. South Africa

Treatment and follow up

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The aim of this study was to evaluate the concordance between the pre-treatment cytological and colposcopic diagnosis and the ultimate histopathological outcome, thereby determining the percentage of overtreatment that occurs in a colposcopy clinic that employs the 'See-and-Treat' approach.
This was a retrospective, descriptive cohort study that analyzed data from 715 women with presumed High Grade lesions on colposcopic assessment, who had undergone the 'See-and-Treat' treatment approach from 2017 to 2021 at Groote Schuur Hospital Colposcopy clinic. Overtreatment was defined as final histopathology results of Cervical Intraepithelial Neoplasia grade 1 (CIN 1) or less.
Of the 715 women, there were 109 (15.24%, 95% CI 0.13 – 0.18) with a histopathology result of CIN 1 or less. There was a statistically significant association between overtreatment age and HIV status. HIV negative women exhibited an elevated risk of overtreatment. No statistically significant association was found between smoking status, HIV viral load, CD4 count or parity.
The overtreatment rate in this study can be considered acceptable and comparable with rates reported in the literature. HIV negative women should be considered for a biopsy prior to LEEP to decrease risk of overtreatment, but the risk should be weighed against the risk of loss to follow up.

PC_063 - Measurement of satisfaction and determinants of dissatisfaction among HPV-positive women treated with thermoablation under the 'test - triage - treat' approach in a Sub-Saharan African hospital: case of Bafoussam Regional Hospital in Cameroon

Treatment and follow up

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Measure satisfaction and identify the determinants of dissatisfaction of HPV-positive women managed by thermal ablation according to the “Test-Triage-Treat’’ approach at the Bafoussam Regional Hospital (BRH).
We conducted case-control analytical study nested within a descriptive cross-sectional study, from 8 April 2024 to 25 June 2025. It included all HPV-positive women managed by thermo-ablation according to the 3T approach at BRH since the opening of the screening room and who provided their informed consent. A pre-tested questionnaire was used to collect the data and satisfaction was measured using a quantitative score. Statistical analyses allowed us to measure satisfaction and identify the determinants of dissatisfaction after binary logistic regression based on adjusted odds ratios and 95% confidence interval, with a significance threshold set at 5%.
Out of 201 respondents, 158 (78.6%) were satisfied with their care according to the 3T approach at the BRH, while 21.4% were dissatisfied. The study revealed that a high standard of living [aOR : 3, 54 (95% CI : 1,43 - 8,76) ; p value = 0.006] and the male sex of the provider during thermal ablation [aOR : 2,43 (95% CI : 1,09 - 5,38) ; p value = 0.029] significantly increased the likelihood of dissatisfaction.
Nearly eight out of ten women were satisfied to the 3T approach. The high standard of living and the male gender of the provider during thermal ablation increased the likelihood of dissatisfaction by three and two times, respectively.

PC_064 - Effectiveness of a multi-ingredient Coriolus versicolor-based vaginal gel in patients coinfected with HPV and HIV: a pilot observational study.

Treatment and follow up

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HIV-positive patients have a higher risk of developing persistent HPV infections than uninfected individuals. They also havereport lower clearance rate and higher viral load, increasing the severity of HPV-dependent lesions. A Coriolus versicolor-based vaginal gel has shown efficacy in repairing low-grade cervical lesions and enhancing HR-HPV clearance in immunocompetent women. This study aimed to evaluate the effectiveness of this gel in HIV-positive women for HR-HPV clearance and repair of low-grade cervical lesions after 6 months of treatment.
This was a descriptive, prospective, observational, pilot study including HIV-positive women, aged 25-60 years, with abnormal cervicovaginal cytology and HR-HPV infection. Patients received a Coriolus versicolor-based vaginal gel once daily for 1 month and every other day for 5 months. Lesion repair was defined as cytological normalization with concordant colposcopy. HR-HPV clearance was assessed using a hybrid capture test and categorized as complete (negative HR-HPV test) or partial (loss of at least baseline genotype). IRC approval was obtained, all participants gave informed consent.
Twenty-eight patients (mean age 45.7 years) were included; 10 met acquired immunodeficiency syndrome criteria, 53.6% were smokers and 71.4% were on antiretroviral therapy. HPV-16 was the most prevalent genotype (57.1%), followed by HPV-18 (50.0%). HR-HPV clearance rates were 92.9% from which 71.4% achieved total clearance. Cytological normalization with concordant colposcopy was observed in 71.4% of cases.
These results suggest that the Coriolus versicolor-based vaginal gel could be an effective therapy in the management of HPV infection in HIV-positive patients, showing outcomes comparable to those reported in immunocompetent patients.

PC_065 - Preliminary results on a Coriolus versicolor-based vaginal gel for cervical healing and HR-HPV clearance post-conization

Treatment and follow up

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Excisional treatment for cervical intraepithelial neoplasia (CIN) can lead to postoperative bleeding, delayed healing, and persistent high-risk HPV (HR-HPV). These risks are greater in patients with positive surgical margins, who require follow-up at 3 months. This study assessed a Coriolus versicolor-based vaginal gel effectiveness enhancing cervical re-epithelialization, reducing bleeding, and promoting HR-HPV clearance.
Observational, prospective, single-center, controlled study in women ≥18 years undergoing excisional treatment for CIN. Patients were assigned to: A) treatment group (perioperative application and once daily for 3 months), B) untreated controls. At 21 days, re-epithelialization was assessed by colposcopy using a 4-point Likert scale (percentage of re-epithelialized surgical bed): 4=75–100%, 3=50–75%, 2=25–50%, and 1=<25%; postoperative bleeding was assessed similarly: 4 (no bleeding), 3 (<menstruation), 2 (equivalent to menstruation), 1 (>menstruation). HR-HPV testing (COBAS) was performed before surgery and at follow-up. Viral clearance was defined as a negative test or loss of ≥1 baseline genotypes. Statistical analysis used Fisher's exact test.
Sixty-six patients were included (treated=35, control=31), mean age 42.4 years. Satisfactory re-epithelialization (≥50%) was observed in 88.6% of treated vs 74.2% controls (p=0.20); minimal/no bleeding was reported in 80.0% vs 58.1% (p=0.065). Among margin-positive women (treated=15; control=8), HR-HPV clearance at 3 months was significantly higher in treated patients (80.0% vs 25.0%, p=0.0228). In women ≥50 years (treated=4; control=5), clearance was 75.0% vs 0% (p=0.0476).
The Coriolus versicolor-based vaginal gel improved cervical healing and significantly enhanced HR-HPV clearance in margin-positive patients, supporting its potential as a complementary tool after excisional treatment for CIN.

PC_066 - Test of cure positivity after LLETZ in an era of primary hrHPV screening

Treatment and follow up

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Large loop excision of the transformation zone (LLETZ) is highly effective treatment for abnormal cervical cytology, with reported success rates exceeding 90%. However, following the introduction of primary hrHPV screening in the UK, persistence of hrHPV after treatment has become an increasingly challenging issue. This audit aimed to determine the rate of positive hrHPV test-of-cure (TOC) and to identify potential risk factors.
A retrospective review was conducted of all outpatient LLETZ procedures performed within a London NHS Trust across two hospital sites between 1st December 2022 and 30th November 2024.
A total of 419 patients underwent at least one LLETZ procedure (median age 38, range 25-68). All index smears were hrHPV positive, with high-grade cytology in 74% (n=308) and low-grade cytology in 26% (n=111). Final histology demonstrated cervical cancer in 3% (n=14), CIN2+ in 66% (n=276), CIN1 in 21% (n=87), and no CIN in 10% (n=42). Six-month TOC results were available for 382 patients, of whom 77% (n=295) were hrHPV negative. Positive TOC was identified in 23% (n=87): 4% (n=14) hrHPV only, 13% (n=50) low-grade cytology, and 6% (n=23) high-grade cytology. Among those with positive TOC, only 2% (n=2) were HPV vaccinated and 25% (n=22) were smokers. Over half had a high-grade index smear (67%, n=58) and/or high-grade histological diagnosis (CIN2+ 57%, n=50), with positive resection margins in 21% (n=18) and suboptimal LLETZ depth in 29% (n=25).
Rates of positive TOC were higher than expected, particularly in patients with high-grade disease. Suboptimal LLETZ depth may be a contributing factor.

PC_067 - Burden of CIN2+ in patients with hrHPV and low-grade cervical cytology

Treatment and follow up

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Management of persistent hrHPV infection with low-grade cytological abnormalities remains challenging. While excisional treatment may be offered, its benefits must be balanced against the risks of persistent hrHPV and potential complications, including preterm birth. As a result, some patients prefer conservative management unless high-grade disease is confirmed. We aimed to evaluate the prevalence of CIN2+ among patients undergoing large loop excision of the transformation zone (LLETZ) for low-grade cytological abnormalities.
A retrospective review was conducted of all outpatient LLETZ procedures performed for low-grade cytological abnormalities within a London NHS Trust across two hospital sites between 1 December 2022 and 30 November 2024.
419 patients underwent a LLETZ procedure, of whom 25% (n=103) had low-grade cytological abnormalities on preceding smear (median age 43, range 25–68). All smears were hrHPV positive, with low-grade dyskaryosis in 76% (n=78), borderline change in squamous cells in 21% (n=22), and normal cytology in 3% (n=3). Final histology revealed cervical cancer in 1% (n=1), CIN2+ in 55% (n=56) and CIN1 in 24% (n=25); no CIN was identified in 20% (n=21). CIN2+ was identified alongside low-grade dyskaryosis in 58% (n=45) and borderline change in squamous cells in 55% (n=12), with no CIN2+ detected in patients with normal cytology. Over half of patients diagnosed with CIN2+ had a history of prior abnormal smears (56%, n=32).
CIN2+ occurs in a substantial proportion of patients with low-grade cytological abnormalities. These findings should inform shared decision-making and counselling, in particular in the management of persistent abnormal smears.

PC_068 - Use of HPV-first and self-collection for post-treatment test-of-cure of CIN2/3

Treatment and follow up

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Women treated for cervical intraepithelial neoplasia grade 2/3 (CIN2/3) remain at elevated long-term risk of recurrence and cervical cancer, highlighting the need for an accurate and reliable post-treatment test-of-cure. Current follow-up protocols vary widely and frequently rely on cytology-based strategies, despite their limited sensitivity. Increasing evidence supports the use of HPV-first testing as a standalone approach, with growing interest in self-collection to improve adherence. This review synthesizes current evidence on HPV-first testing and self-collected samples for post-treatment surveillance of CIN2/3, focusing on diagnostic performance, patient acceptability, and implementation challenges.

A narrative review of published studies and guidelines was conducted. Outcomes of interest included sensitivity and specificity for detection of residual/recurrent CIN2+, concordance between self- and clinician-collected samples, patient acceptability, and feasibility within health systems.

HPV-first testing consistently demonstrated superior sensitivity and negative predictive value compared with cytology. Self-collected samples showed strong concordance with clinician-collected specimens, supporting their reliability. Acceptability was high, with women reporting increased comfort, privacy, and convenience. Implementation studies suggest that HPV-first/self-collection strategies may reduce loss to follow-up and optimize resource use. Remaining challenges include assay validation, integration into standardized protocols, and ensuring equitable access across diverse populations.

HPV-first testing combined with self-collection represents a feasible, effective, and patient-centered approach for post-treatment test-of-cure of CIN2/3. Incorporating HPV genotyping and persistence patterns may further enhance risk-based surveillance, enabling personalized follow-up while minimizing unnecessary interventions. Adoption of these strategies could enhance surveillance outcomes and reduce cervical cancer risk, while further research is needed to establish long-term impact and guideline integration.

PC_069 - Peripartum Outcomes of Cervical Intraepithelial Neoplasia Diagnosed During Pregnancy

Treatment and follow up

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Physiological changes of the cervix during pregnancy, including epithelial thinning, decidual reaction, and altered vascular patterns, may compromise diagnostic accuracy for cervical intraepithelial neoplasia (CIN). Moreover, spontaneous regression of cervical lesions after delivery has been reported. This retrospective study aimed to clarify peripartum outcomes of CIN diagnosed during pregnancy.
We reviewed 77 pregnant women diagnosed with CIN following abnormal cervical cytology and subsequent colposcopic and histopathological evaluation at our institution. All patients were managed expectantly during pregnancy and classified as CIN1 (n = 28), CIN2 (n = 16), or CIN3 (n = 33). Changes in lesion status before and after delivery were analyzed.
Postpartum regression or partial regression was observed in 67.8% (19/28) of CIN1 cases, 62.5% (10/16) of CIN2 cases, and 27.2% (9/33) of CIN3 cases. Disease progression occurred in four patients (two progressed from CIN1 to CIN3 and two from CIN2 to CIN3); however, no progression to invasive carcinoma was observed.
Expectant management during pregnancy appears safe for CIN up to grade 3, as no cases progressed to invasive cancer. While CIN1 and CIN2 frequently regress after delivery, CIN3 shows a higher persistence rate, highlighting the need for careful postpartum surveillance.

PC_070 - From Treatment to HPV Clearance: Persistence of Human Papillomavirus After Cervical Conization

Treatment and follow up

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To evaluate the rate of human papillomavirus (HPV) persistence and time to HPV clearance after cervical conization, and to identify clinical and behavioral factors associated with persistence.
A retrospective observational study was conducted including women who underwent cervical conization in 2023 at a tertiary hospital. Patients who were lost to follow-up or underwent hysterectomy after conization were excluded. Clinical and laboratory data, including age, age at first sexual intercourse, smoking status, HPV vaccination before and after diagnosis, cytology, and HPV genotype, were collected and compared between women with negative and positive HPV tests at the time of analysis.
Of 200 women, 183 were included. The mean age was 43.1 ± 10.0 years, and HPV 16 was the most frequent genotype (36%). HPV negativity was observed in 25% of women at 6 months and 69% at 18 months. The mean time to HPV clearance was 10.5 ± 5.2 months. At the time of analysis, 25% had persistent HPV infection. Persistence was associated with older age (47.3 ± 10.0 vs. 41.7 ± 9.6 years; p = 0.001), postmenopausal status (35.6% vs. 15.2%; p = 0.003), and higher rates of post-diagnosis vaccination (65.7% vs. 41.3%; p = 0.012). No associations were found with smoking, reproductive history, prior vaccination, or initial HPV 16/18 infection.
Most women achieved HPV clearance within 18 months after conization. Older age was associated with viral persistence, supporting the need for careful and individualized post-treatment surveillance, particularly in older women.

PC_071 - The clinical features, management, and outcomes of cervical cancer in pregnancy: a single-center cohort

Treatment and follow up

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To describe the clinical features and outcomes of pregnancy-associated cervical cancer (PACC) in a high-burden setting. The primary objective is to analyze overall survival (OS) across three clinical cohorts: Antenatal Pregnancy Preservation, Antenatal Pregnancy Interruption, and Postnatal Diagnosis.
This historical cohort study (2000–2025), conducted at a Brazilian tertiary referral center, analyzed 26 patients with histopathologically confirmed PACC. Patients were stratified into Antenatal Pregnancy Preservation (n=12), Antenatal Pregnancy Interruption (n=6), and Postnatal Diagnosis (n=8). The primary outcome, OS, was estimated using the Kaplan–Meier method and compared across cohorts using the log-rank test.
The cohort showed high clinical severity, with 50% of cases presenting as locally advanced disease (FIGO IB3–IIIC2), and heterogeneous oncologic outcomes. The Postnatal cohort (87.5% Stage I) was predominantly managed surgically, achieving 100% no evidence of disease (NED). The Interruption cohort had the highest tumor burden (66.7% FIGO IIIB–IIIC1), with a 66.7% NED rate. The Preservation cohort, managed with neoadjuvant chemotherapy in advanced cases, achieved 58.3% NED while maintaining a 100% live birth rate, with 75.0% prematurity. Despite differences in stage distribution and NED rates, no significant difference in OS was observed among cohorts (p=0.65). Integrated management at a tertiary referral center appears to mitigate the impact of divergent disease severity and treatment timing, resulting in comparable OS across clinical strategies (p=0.65). Although limited by low statistical power (N=26), these findings support the centralization of PACC care to optimize survival outcomes in this high-risk population.

PC_072 - Long-term HPV Clearance of APL-1702 in Patients with HSIL: A Post-Hoc Analysis of the APRICITY Study

Treatment and follow up

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To report the observed 12-month HPV clearance rates for overall HPV, HPV 16, and HPV 16/18 in patients with cervical high-grade squamous intraepithelial lesions (HSIL) following APL-1702. This analysis, using observed data, reflects efficacy in clinical practice, where only patients who complete follow-up are included, and no data imputation is applied.
Data from the multicenter, randomized, placebo-controlled APRICITY trial (NCT04484415) were used for this post-hoc analysis. Eligible patients received 1-2 treatments of APL-1702 and completed 12-month follow-up. HPV clearance rates were assessed in the total population, as well as in the CIN2 and CIN3 subgroups.
Among evaluable patients with HSIL, the 12-month HPV clearance rates were generally favorable: overall HPV clearance rate was 59.2% (77/130), with higher clearance rates for HPV 16 at 68.7% (57/83), and for HPV 16/18 at 69% (58/84). In CIN2 patients, HPV clearance rates were notably higher: 64.3% (45/70) for overall HPV, 76.9% (30/39) for HPV 16, and 77.5% (31/40) for HPV 16/18. In the CIN3 subgroup, overall HPV clearance rate was 53.3% (32/60), with HPV 16 and HPV 16/18 clearance both at 61.4% (27/44).
Observed data demonstrate that APL-1702 achieves high HPV clearance, especially for HPV 16 and HPV 16/18 genotypes, across both CIN2 and CIN3 subgroups. Patients with CIN2 showed favorable outcomes, with clearance rates exceeding 76%. These clinical findings support the therapeutic potential of APL-1702, particularly for patients with CIN2 lesions.

PC_073 - Fertility Outcomes After Cervical Excisional Procedures in High-grade Squamous Intraepithelial Lesions: A Systematic Review and Meta Analysis

Treatment and follow up

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To evaluate fertility-related obstetric risks associated with two mainstream cervical excisional procedures, loop electrosurgical excision procedure (LEEP) and cold knife conization (CKC), for the treatment of high-grade squamous intraepithelial lesions (HSIL) , with the aim of informing fertility-preserving treatment strategies.
A systematic search of PubMed, Embase, Cochrane Library, Web of Science, and Chinese database (CNKI, VIP and CBM) was conducted to identify randomized controlled clinical studies directly comparing pregnancy outcomes following LEEP versus CKC for HSIL, published up to January 2026. Pooled analyses were performed for the outcomes of interest, including preterm birth and miscarriage. Meta-analysis was conducted using RevMan 5.4.1, and heterogeneity was assessed using the I^2 statistic.
The pooled analysis indicated a non-significant trend favoring LEEP over CKC for lower risks of adverse pregnancy outcomes. Specifically, LEEP was associated with a reduced risk of miscarriage (OR 0.39, 95% CI 0.10–1.46; 8 studies, 566 participants) and preterm birth (OR 0.44, 95% CI 0.18–1.09; 7 studies, 576 participants). The pooled incidence of miscarriage was 9.6% (95% CI 1.8%-22.1%) for LEEP versus 16.60% (95% CI 9.60%-24.70%) for CKC. Similarly, the pooled incidence of preterm birth was 11.8% (95% CI 6.40%-18.50%) versus 21.30% (95% CI 8.50%-38.00%).
Current evidence indicates comparable effects on fertility-related obstetric safety between LEEP and CKC for HSIL, with no statistically significant difference in adverse pregnancy outcomes. Both procedures are associated with higher adverse outcome rates compared to the general population.

PC_074 - Predictors of HPV persistence following LLETZ for cervical intraepithelial neoplasia at an Irish colposcopy service

Treatment and follow up

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Persistent high-risk human papillomavirus (HPV) following excisional treatment and incomplete excision marginal status is associated with an increased risk of residual or recurrent disease. Our study aims to evaluate factors associated with HPV persistence following LLETZ, including excision margin status, histological grade, age, and squamocolumnar junction (SCJ) visibility.
A retrospective cohort study was conducted of women undergoing LLETZ at one Irish colposcopy centre from 2019 to 2024. Data collected included age, histological grade, excision margin status (complete or incomplete), squamocolumnar junction visibility at colposcopy, and follow-up HPV result. The primary outcome was HPV detected versus not detected at follow-up. Associations were assessed using univariable analysis and multivariable logistic regression.
A total of 1,542 women were included, of whom 453 (29.4%) had detectable HPV at follow-up. HPV persistence was more common following incomplete excision compared with complete excision (30.6% vs 28.5%, $p < 0.05$). Age did not significantly impact HPV persistence. SCJ visibility did not significantly influence HPV outcome, with similar HPV detection rates observed in women with visible and non-visible SCJ ($p > 0.05$). Interestingly, higher histological grade was showed increased HPV clearance ($p < 0.01$). On multivariable analysis, incomplete excision remained independently associated with persistent HPV infection ($p < 0.05$).
Incomplete excision following LLETZ is associated with an increased risk of persistent HPV infection. Age and SCJ visibility do not appear to significantly influence HPV clearance, supporting the continued use of excision margin status as a key determinant of post-treatment follow-up.

PC_075 - An analysis of patient and colposcopic factors associated with HR-HPV test of cure following LLETZ in an Irish colposcopy service

Treatment and follow up

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To assess the association between age, LLETZ loop colour (excision size), and SCJ visibility with HR-HPV test of cure outcomes.
A retrospective cohort study was conducted of women undergoing LLETZ at a single centre between 2019 and 2024. Data collected included age, LLETZ loop size, SCJ visibility and follow-up HR-HPV result. The primary outcome was defined as detection of HR-HPV at follow-up. Associations were assessed using univariable analysis and multivariable logistic regression.
A total of 1,542 women were included. HR-HPV was detected 453 women (29.4%), while 1,089 (70.6%) were HR-HPV negative at follow-up. Mean age did not differ between women with failed and successful TOC (45.2 vs 46.4 years, $p > 0.05$), and detection rates were similar between premenopausal and postmenopausal women ($p > 0.05$). Failed TOC was not associated with LLETZ loop size ($p > 0.05$). SCJ visibility did not significantly influence HPV outcome, with failed TOC observed in 92.3% of women with visible SCJ compared with 91.3% of those with non-visible SCJ ($p > 0.05$). On multivariable analysis, age, menopausal status, loop size, and SCJ visibility were not independently associated with failed TOC.
Age, LLETZ loop size, and SCJ visibility do not appear to significantly influence HPV persistence following LLETZ. These findings support a consistent HR-HPV–based follow-up approach following treatment, irrespective of patient or colposcopic characteristics.

PC_076 - Risk Factor Assessment and Predictive Model Development for Pelvic Lymph Node Metastasis in Early-Stage Cervical Adenocarcinoma

Treatment and follow up

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This study aimed to evaluate the incidence and risk factors of pelvic lymph node metastasis (PLNM) in early-stage cervical adenocarcinoma and to create a predictive nomogram for PLNM incidence, thus aiding clinicians in deciding on the appropriateness of pelvic lymphadenectomy.
We conducted a retrospective analysis of 226 patients with early-stage cervical adenocarcinoma. We employed univariate and multivariate logistic regression to pinpoint high-risk factors for PLNM and developed a nomogram via R software.
PLNM was detected in 39 patients (17.26%). Univariate analysis revealed significant correlations between PLNM and factors such as clinical imaging assessments of tumor size (cT), depth of cervical stromal invasion, lymphovascular space invasion (LVSI), uterine body invasion, HPV-related adenocarcinoma, tumor markers (CEA, CA125, CA199), as well as clinical symptoms including postcoital and abnormal vaginal bleeding ($P < 0.05$). Multivariate analysis pinpointed CA199 (OR 4.618; 95% CI, 1.617–13.187), LVSI (OR 3.032; 95% CI, 1.07–8.592), and abnormal vaginal bleeding (OR 20.177; 95% CI, 1.932–210.664) as independent prognosticators for PLNM ($P < 0.05$). A predictive nomogram was developed, integrating CEA, CA199, cervical stromal invasion depth, cT value, LVSI, and abnormal vaginal bleeding, by employing stepwise logistic regression and the Akaike information criterion. The nomogram exhibited superior diagnostic efficacy with an AUC of 0.918. Calibration analysis showed a P-value of 0.837, indicating no significant difference between predicted and actual outcomes.
This model effectively identifies patients at increased risk for PLNM in cervical adenocarcinoma and more accurately predicts positive PLNM cases.

PC_077 - The efficacy of LA-PDT vs PDT for CIN2/3 in reproductive women: a prospective case-control study

Treatment and follow up

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To compare the efficacy of laser ablation combined with photodynamic therapy (LA-PDT) versus PDT alone in the treatment of cervical intraepithelial neoplasia grade 2/3 (CIN2/3).
Patients diagnosed with CIN2/3 in Tongji Hospital from January 2024 to January 2025 were enrolled. Based on patients' choice, they were allocated to either LA-PDT or PDT group. Pathological regression and human papillomavirus (HPV) clearance were compared at 12-month follow-up between the two groups.
Excluding those lost to follow-up, there were 77 patients in the LA-PDT group and 68 patients in the PDT group. At the 12-month follow-up, both the pathological complete remission rate and HPV clearance rate were significantly higher in the LA-PDT group compared to the PDT group (98.7% vs. 86.4%, $P < 0.05$; 92.3% vs. 86.4%, $P < 0.05$). Univariate and multivariate analyses indicated that the pre-treatment pathology of CIN3 was an independent risk factor for both lesion persistence and HPV persistence. Among the 111 patients with CIN2, the pathological complete remission rate was 98.2% and the HPV clearance rate was 95.5%. Among the 33 patients with CIN3, both the pathological complete remission rate and HPV clearance rate were significantly higher in the LA-PDT group than in the PDT group (94.1% vs. 56.3%, $P < 0.05$; 76.5% vs. 37.5%, $P < 0.05$).
Laser ablation combined with photodynamic therapy for CIN2/3 demonstrates high efficacy and saves time and economic costs. The combined therapy shows significant advantages over PDT alone, particularly for patients with CIN3.

PC_078 - Effect of topical photodynamic therapy with 5-aminolevulinic acid in the treatment of high-risk cervical low-grade squamous intraepithelial lesions

Treatment and follow up

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This study aimed to investigate the clinical efficacy of 5-aminolevulinic acid photodynamic therapy (ALA-PDT) in the treatment of high-risk cervical low-grade squamous intraepithelial lesion (LSIL) and to analyze the influence of different risk factors on the efficacy.
The clinical data of 173 patients with persistent cervical LSIL and high-risk human papillomavirus (HR-HPV) infection were retrospectively analyzed. After treatment, HPV and TCT were reexamined every 3 months, and colposcopic biopsy was performed if necessary.
At 6-month follow-up, the rates of HPV clearance, lesion complete remission (CR), persistence and progression were 71.54%, 89.23%%, 8.46%, and 3.47%, respectively. The HPV clearance rate showed an upward trend with time. Moreover, the CR rates of patients with 41-50 years old group, positive HPV16/18 genotyping, and type 3 transformation zone (TZ) were 73.58%, 84.13%, and 82.83%, respectively, and these rates were significantly lower compared to patients without the corresponding high-risk factors (P=0.000, 0.01, 0.009). Furthermore, the 6-month CR rate and 2-year HPV clearance rate of the patients with both positive HPV16/18 genotyping and TZ3 were significantly lower than those of the patients without the two high-risk factors (73.53% vs. 94.74%, P=0.010; 78.95% vs. 97.67%, P=0.028, respectively).
ALA-PDT is a safe and effective treatment for high-risk cervical LSIL. Its efficacy could be affected by age, HPV genotyping, and cervical TZ type.

PC_079 - Effect and rational application of topical photodynamic therapy with 5-aminolevulinic acid (5-ALA) for treatment of cervical intraepithelial neoplasia with vaginal intraepithelial neoplasia

Treatment and follow up

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This study aimed to evaluate clinical efficacy and safety of 5-ALA PDT for cervical intraepithelial neoplasia with vaginal intraepithelial neoplasia (CIN & VAIN).
A retrospective analysis was performed on 69 patients diagnosed with CIN & VAIN and receiving 5-ALA PDT. All patients were first followed up at 3, 6 and 12 months after treatment, then every 6 months thereafter.
At 6-month follow-up, the lesions complete remission (CR) rate was 78.3% (54/69), while the HPV clearance rate was 53.6% (37/69). Among the 15 patients who did not achieve CR, one exhibited a progressive lesion, five had persistent lesions, and nine experienced degraded lesions. Furthermore, our findings indicated that neither the lesions CR rate nor the HPV clearance rate was significantly influenced by the lesion grade (P=0.547 and P=0.119). Over the follow-up period, the HPV clearance rate showed an increasing trend, and reached 80.5% at 2-year follow-up. Additionally, the HPV subtypes were found to be associated with lesion CR, with patients infected with HPV16/18 exhibiting a higher CR rate (P=0.005). Throughout the 4-year follow-up period, only one patient experienced a recurrence and was diagnosed with cervical low-grade squamous intraepithelial lesion (LSIL).
5-ALA-PDT is a non-invasive, effective, and safe therapy for treating CIN & VAIN and can maintain the structural and functional integrity of target organs. However, its efficacy could be affected by HPV subtypes.

PC_080 - Vulvar HSIL diagnosed in the first trimester of pregnancy: A case report.

Treatment and follow up

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High-grade squamous intraepithelial lesion of the vulva (HSIL/VIN2-3) associated with high-risk HPV is uncommon during pregnancy and presents diagnostic and therapeutic challenges due to limited treatment options and the immunological changes of gestation. Management should be individualized, prioritizing maternal–fetal safety while maintaining lesion control.
A 36-year-old pregnant woman with a history of cervical HSIL treated by conization presented at 9 weeks gestation with pruritic vulvar lesions. Biopsy confirmed vulvar HSIL/VIN2 (picture1). Conservative management was chosen, consisting of a topical Coriolus versicolor–based external gel, which was well tolerated and achieved partial clinical improvement with lesion flattening (picture2). The pregnancy evolved with progressive cervical shortening and failed cerclage, leading to preterm delivery at 26+2 weeks due to premature rupture of membranes and uterine activity. The neonate evolved without sequelae. Postpartum, topical immunomodulatory therapy with imiquimod was administered (picture3), followed by fractional CO_2 laser therapy (picture4), which achieved complete lesion resolution confirmed by negative co-testing and biopsies (picture5)
This case illustrates the feasibility of conservative management of vulvar HSIL during pregnancy and the variable behavior of these lesions under gestational immune modulation. Prior cervical pathology may increase obstetric risk and requires close surveillance. Non-surgical approaches, such as Coriolus versicolor–based therapy, may represent safer options during pregnancy by supporting the local immune response and promoting partial lesion regression within a conservative management strategy. Fractional CO_2 laser therapy appears to be effective for persistent postpartum disease and may be considered a first-line definitive treatment after delivery.

PC_081 - Cervical Ulcer With Complete Resolution After Coriolus Versicolor based vaginal Gel: A Clinical Case.

Treatment and follow up

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Cervical lesions—whether HPV related or not—can negatively affect women's well-being. Promoting cervical re-epithelialization is key to preventing infection, chronic inflammation, and progression to high-grade lesions. Coriolus Versicolor based vaginal gel is a safe, well-tolerated product designed to support cervical transformation zone repair, improve mucosal integrity, and help restore vaginal microbiota balance.

A 35-year-old nulligravid woman was referred for HPV 58 positivity with negative cytology and a history of CIN1 treated abroad. Initial colposcopy showed ectropion and mild acetowhite areas, with biopsies confirming cervicitis. Three months later, she presented with postcoital bleeding. Colposcopy revealed a cicatricial cervix marked epithelial fragility, and extensive ulceration (picture1). Repeat HPV testing, cytology, and STI screening were negative. Biopsies showed a large ulcerated area with intense inflammation but no dysplasia or malignancy. Coriolus Versicolor based vaginal gel was prescribed daily, and menstrual cup use was discontinued.

After two months, symptoms resolved and colposcopy showed marked improvement (picture2). At three months, near-complete re-epithelialization was observed (picture3). At six months, the cervix was fully re-epithelialized, HPV testing remained negative and postcoital bleeding had resolved (picture4). The patient was discharged.

This case illustrates a benign but extensive cervical ulcer in a previously treated cervix. Rapid recovery following Coriolus Versicolor based vaginal gel suggests that non-surgical mucosal repair therapies may be valuable in inflammatory or HPV-related cervical conditions. It represents a safe, noninvasive option for cervical mucosal repair.

PC_082 - Implement the CIN2 refined management strategy in China

Treatment and follow up

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The studies show that the natural regression rate of CIN 2 is high. Chinese female patients with CIN 2 of childbearing age were followed up for 3 to 66 months. 63% to 79% regressed, 9% to 22% persisted, 12% to 15% progressed to CIN 3, and no progression to cervical cancer was found. Therefore, it poses a challenge to the conventional resectable treatment of CIN 2.
The management of CIN 2 requires accurate identification and hierarchical management of different risk populations. While protecting women's reproductive needs, it is necessary to pay attention to reducing the risk of missed diagnosis and progression of diseases.
For low-risk population of CIN 2 (SCJ visible under colposcopy, curettage from the cervical canal showed without HSIL, no history of treatment for cervical lesions, etc.): Women under 25 years old conservative observation is preferred. Women aged 25 and above with fertility needs can choose conservative observation, ablation therapy and photodynamic therapy, etc. For high-risk groups of CIN 2 (those with large lesion areas, persistent positive HPV 16/18, cytological ASC-H, HSIL, AGC, and a high risk of lesion persistence/progression), cervical resection treatment is adopted (LEEP or CKC).
The management of CIN 2 requires accurate identification and hierarchical management of different risk populations. While protecting women's reproductive needs, it is necessary to pay attention to reducing the risk of missed diagnosis and progression of diseases.

PC_083 - Comparison of the efficacy of different regimens of ALA-PDT in high-risk HPV infection patients with cervical low-grade squamous intraepithelial lesions: a real-world cohort study in China

Treatment and follow up

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Persistent high-risk human papillomavirus (hrHPV) infection is a major cause of cervical cancer. Low-grade squamous intraepithelial lesions (LSIL) are often managed by observation, but some progress to high-grade lesions or cancer. 5-aminolevulinic acid photodynamic therapy (ALA-PDT) is a minimally invasive option, yet the optimal regimen remains unclear. This real-world retrospective cohort study evaluated the efficacy of different ALA-PDT regimens for LSIL with hrHPV infection.
A total of 326 patients with histologically confirmed LSIL and hrHPV infection from 11 centers were included. Based on patient preference, participants received either three sessions (one regimen) or six sessions (two regimens) of ALA-PDT. Clinical remission, pathological outcomes, and hrHPV clearance at 3–6 months follow-up were analyzed.
Among 268 patients with complete follow-up, clinical remission occurred in 77.24%. The 6-session group showed a higher clinical remission rate than the 3-session group (82.61% vs. 71.54%, $P = 0.0408$). Pathological remission was achieved in 91.42% overall, without significant difference between groups (94.20% vs. 88.46%). hrHPV clearance was 74.25% overall and significantly higher with six sessions (84.06% vs. 63.85%, $P < 0.001$). Subgroup analysis showed no significant differences between regimens in HPV16/18-positive patients. However, among non-HPV16/18 infections, six sessions yielded markedly higher clinical remission (94.87% vs. 69.77%), pathological remission (97.44% vs. 83.72%), and hrHPV clearance (97.33% vs. 67.44%) (all $P < 0.05$).
ALA-PDT is effective for cervical LSIL with hrHPV infection. Compared with three sessions, six sessions significantly improved pathological remission and hrHPV clearance, especially in non-HPV16/18 infections, suggesting a six-session regimen may be the preferable therapeutic strategy.

PC_084 - Impact of an Electronic Human Papillomavirus Vaccination Catch-up Module for Women with Criminal-Legal System Involvement

HPV vaccination

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>The purpose of this study was to examine the acceptability and initial impact of an electronic human papillomavirus (HPV) catch-up module for women aged 27-45 involved in the criminal-legal system. The sample for this web-based, virtual pilot study was recruited from a larger reproductive health study on cervical health literacy for women involved in the criminal-legal system. After creation of an electronic HPV vaccination catch-up module and obtaining of initial stakeholder feedback on acceptability and usability, we evaluated knowledge, beliefs, self-efficacy about, and intention to receive HPV vaccination pre and post, as well as actual vaccine receipt at six months post intervention. A total of 32 women participated in the study. Results suggest an increase in knowledge, self-efficacy, and perceived susceptibility to HPV, post completion of the electronic HPV education module. At six months post-intervention, seven women had received vaccination and one had an appointment for vaccination. The results suggest that the web-based HPV education module is both feasible to implement, acceptable to the population of interest, and has potential to increase vaccination in this population.

PC_085 - Role of HPV vaccination in post-treatment clearance: A comparative cohort study

HPV vaccination

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The objective of this study is to assess whether adjuvant human papillomavirus (HPV) vaccination is associated with improved HPV clearance six months after standard management of HPV-related cervical lesions.
A comparative cohort analysis of women diagnosed with HPV infection and abnormal cervical results was conducted in a single clinical setting. The vaccinated group received a complete 3-dose HPV vaccine series (n=43); the comparison group did not receive HPV vaccination (n=20). The standard care management protocol encompassed CO2 laser ablation, loop electrosurgical excision procedure (LEEP), and/or observation guided by cytology and biopsy. The primary outcome was defined as HPV test negativity at 6 months, or "viral clearance".
The overall 6-month HPV clearance rate was 72.1% in vaccinated patients compared to 65.0% in unvaccinated patients. Among patients with documented HPV positive results at baseline, clearance was higher with vaccination: 77.8% compared with 57.1%, corresponding to a risk ratio of 1.36 (Fisher’s exact p=0.17). In the subgroup with CIN2/3, clearance was 83.3% in vaccinated patients versus 55.6% in unvaccinated patients.
Adjuvant HPV vaccination was associated with higher 6-month HPV clearance in this group, with the most significant differences observed among higher-grade cervical lesions. In order to confirm the benefits observed and to provide guidance for clinical recommendations, it is necessary to conduct larger prospective studies that take into account baseline disease severity.

PC_086 - Digital health intelligence and community mobilization to expand HPV vaccine coverage and cervical cancer screening

HPV vaccination

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Achieving the WHO target of vaccinating at least 90% of the eligible population against human papillomavirus (HPV) and ensuring adequate screening for precancer among women aged 25–65 remains a major challenge to cervical cancer elimination. To close this gap, we implemented an integrated approach that pairs community multiplier training with an innovative, real-time digital health intelligence platform.
Objectives: To deploy a platform integrating Brazilian public health information systems, train health teams in its use, identify individuals overdue for vaccination or screening, enable smart scheduling through active outreach, and strengthen community engagement through trained community multipliers
The intervention combined community multiplier workshops with a digital platform integrating data from the Primary Care Health Information System, the National Immunization Program Information System, and the electronic citizen record. The tool supported risk identification, patient tracking, and the organization of active case-finding workflows. Funding mobilization by civil society and validation by universities, health professionals, and community members reinforced multistakeholder governance.
After implementation, HPV vaccination coverage increased from 78.8% to 95.0% in Paracuru and from 89.8% to 105.5% in São Gonçalo do Amarante, both located in Northeast Brazil. Follow-up visits among women with precursor lesions rose by 24%, from 14.4% (2024) to 38.4% (2025).
The strategy demonstrated operational feasibility and high acceptability, improving identification of individuals missing vaccination or screening and strengthening active surveillance. Community multipliers enhanced dissemination of HPV knowledge by valuing local culture, social bonds, and trusted communication networks both in schools and in the local community.

PC_087 - Students knowledge, attitudes, and practices regarding HPV vaccination in Cotonou in 2026.

HPV vaccination

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-Determine the level of knowledge among parents and children about HPV and its links to cervical cancer. -Analyze the perceptions and beliefs that influence the attitudes of parents and children toward HPV vaccination. -Identify the factors that impact acceptance of HPV vaccination.
This cross-sectional study evaluated students from 63 schools selected through multistage sampling. Data were collected using a structured, digitized questionnaire on KoboToolbox.
A total of 1,469 students, mostly in 5th grade (28.52%) with a mean age of 12 ± 1.46 years, were surveyed. More than half were aware of HPV (67.19%), cervical cancer (59.02%), and the HPV vaccine (57.86%), mainly through school (40.02%) and social media (17.83%). Most students did not know HPV transmission routes (54.18%), while 27.09% correctly cited sexual transmission. Knowledge of vaccination as prevention was reported by 54.93%, primarily targeting girls aged 9–14. The majority of students had a low level of knowledge (54.11%) and practice (40.70%), while their attitude remained generally positive (38.93%). Slightly over half (51.06%) were unwilling to be vaccinated, mainly due to fear of side effects (24.57%). Multivariate analysis showed low knowledge decreased vaccine acceptance (OR=0.21), while fear of vaccination increased it (OR=2.47). Awareness of personal risk and knowledge of preventive measures were positively associated with acceptance ($p<0.05$). Neutral (OR=0.25; 95% CI [0.07–0.65]) and positive attitudes (OR=0.09; 95% CI [0.03–0.24]) were associated with lower knowledge. Knowledge (54.11%) and practice (40.70%) were low, while attitudes remained generally positive (38.93%).
These results highlight the need to strengthen targeted educational interventions in schools.

PC_088 - Shielding the Future: A Comparative Study of HPV Vaccination Perspectives Between Medical and Non-Medical Students

HPV vaccination

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To evaluate Knowledge, Attitude, and Practice (KAP) regarding Human Papillomavirus (HPV) and vaccine hesitancy among medical and non-medical students.
A cross-sectional, questionnaire-based study was conducted among 400 students (200 medical; 200 non-medical). The pre-validated survey assessed knowledge (4 items), beliefs (10 items), and practices (6 items). Internal consistency of questionnaire was assessed using Cronbach's alpha (0.76). Independent t- test was performed to compare KAP between the two groups.
Participants were predominantly female (65%) and aged 21–25 years (64%). While 74% of medical students received formal vaccine education, gaps persisted; only 18% linked HPV to six cancers and 41% knew the recommended administration age. Among non-medical students, awareness of cervical cancer (84%) outweighed awareness of HPV (60%) and its vaccine (56%). Significant safety concerns emerged; 37% of non-medical and 12.4% of medical students were unsure of vaccine safety. Misconceptions regarding infertility were markedly higher in the non-medical group (62.75% vs. 24.8%). Independent t-tests revealed medical students had significantly higher Mean Knowledge Scores (0.65 ±0.29 vs. 0.58 ±0.35; p value=0.023) and more positive Mean Attitude Scores (0.91 ±0.40 vs. 0.66 ± 0.65; p=0.000). Willingness to vaccinate was 93.5% in medical vs. 60% in non-medical students.
Significant knowledge gaps and myths regarding HPV vaccination persist in both groups, though more pronounced among non-medical students. The high prevalence of misconceptions concerning infertility and safety highlights the need for targeted educational interventions beyond the medical curriculum to reduce hesitancy and improve vaccine uptake.

PC_089 - Development of a chatbot as a public health strategy to promote health literacy on cervical cancer prevention

HPV vaccination

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To develop a chatbot integrated with WhatsApp as a public health strategy to promote health literacy about cervical cancer prevention.
Methodological study that integrates a national social impact project developed by the Women of Brazil Group aimed at eliminating cervical cancer by promoting knowledge about HPV vaccination and preventive screening. Developed based on Google Ventures' Design Sprint methodology between April and December 2025 to support women trained by the project to engage in social mobilization and the dissemination of accurate information. The content was developed by a multidisciplinary health team from the project, based on official national and international health guidelines. Prototyped by a team that develops health technology.
The study resulted in the construction of a structured database on HPV, vaccination, screening tests, and primary, secondary, and tertiary prevention actions for cervical cancer within the scope of Brazil's Unified Health System (SUS). A chatbot was developed with a defined flow, language appropriate for health literacy, and security and monitoring mechanisms. The prototype was implemented on a platform hosted on a private cloud and integrated with Artificial Intelligence models. It is available for free access to more than 24,000 people trained by the project.
The chatbot, culturally contextualized and evidence-based, strengthens health literacy, expands access to reliable information, and promotes informed decisions about vaccination and preventive screening. It is a scalable, low-cost, and high-reach digital intervention aimed at expanding access to quality information and contributing to adherence to vaccination and screening actions.

PC_090 - Link between Oral lichen planus and rapid cervical HPV infection progression to CIN2+

HPV vaccination

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Oral lichen planus (OLP) is a rare autoimmune disease affecting mucous membranes. Institute Pasteur suggested the link between OLP and HPV16 that is confined to HPV16-related specific impairment of keratinocytes that then emerged as the target for CD8 lymphocytes. The question is what might trigger these autoaggression. This study was launched because of OLP-recognition in several women with the newly-diagnosed HPV16 cervical infection within 3 years of wartime that coincided with fast CIN2+progression and reported OLP exacerbation (lowered estrogen?). The aim was to ascertain possible link between OLP recalcitrant course and HPV16 progression to CIN2+.
The study had accrued 16 patients with OLP. All of them provided the recordings that they had been HPV-clean before 2022. 9 of them were recognized with CIN2+ at the time of accrual, other 7 developed CIN2+ within 8-12 months. Their LEEP samples were scrutinized using hematoxylin-eosin staining, immunohistochemistry to reveal reserved cells RC (cytokeratin (CK)7) and check their proliferative status (CK19, p63, Ki68). Other 20 LEEP samples of women OLP-free who had undergone LEEP due to CIN2+ were taken as control.
It turned out that all OLP-patients showed CK7 expression at clear margins at prior LEEP +eitherCK19, p63, Ki68. In control group only 10% were tested positively for these markers combination and they were then recognized with CIN2+recurrence. Also biopsy of OLP sites were positive CK7+eitherCK19, p63, Ki68.
Recognition of OLP should prompt cervical HPV-testing, if it appears to be positive, it is the evidence for high alert with regard to CIN-progression.

PC_091 - HPV epidemiology in Mexican vaccinated and unvaccinated patients undergoing colposcopy consultation: an ambispective study of the last 10 years.

HPV vaccination

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To describe and compare the epidemiological distribution of HPV genotypes over a 10-year period using cross-sectional data from colposcopy consultations in northern Mexico.
An observational, cross-sectional, ambispective study was conducted among 356 women aged 18 years or older attending in a university hospital in northern Mexico. Cervical samples were analyzed for 32 high-risk and low-risk HPV genotypes using reverse hybridization. Data on sociodemographics, HPV vaccination, and prior HPV/STI history were collected. For comparison, 356 participants were grouped into two periods: 2015–2017 (n=248) and 2023–2025 (n=108).
Among the 356 patients analyzed to date, 205 (57.6%) tested positive for high-risk HPV, and 39.8% were positive for low-risk HPV genotypes (n=108 from second period). A substantial increase in HPV vaccination coverage was observed between periods: 2.8% in the first period (2015) compared to 30.6% in the second period (2025). During the second period, 73.3% of patients reported a history of sexually transmitted infections, and 32.3% presented coinfection with high-risk HPV. Genotype distribution shifted over time. In the first period, HPV genotypes 16 and 18 were the most prevalent, whereas in the second period, genotypes 31 and 56 predominated.
A marked shift in the distribution of high-risk HPV genotypes has been observed over the past decade in this population. The reduced predominance of HPV 16 and 18 and the emergence of other high-risk genotypes may be associated with increasing vaccination coverage. These findings highlight the importance of continued vaccination efforts, ongoing epidemiological surveillance, and adaptation of screening and prevention strategies to evolving genotype patterns.

PC_092 - Dynamics of HPV Awareness Levels and Vaccination Status among Medical Students and Obstetrician–Gynecologists in Ukraine

HPV vaccination

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To assess five-year dynamics of HPV awareness and vaccination coverage among medical students and physicians in Ukraine.
A comparative analysis of two anonymous questionnaire-based surveys conducted five years apart was performed. The initial survey included 83 medical students and 78 gynecologists. The follow-up survey involved 136 medical students (mean age 19.27 ± 0.03 years) and 47 gynecologists (mean age 41.51 years). Both surveys used a standardized questionnaire to assess knowledge of cervical cancer risk factors, the oncogenic potential of HPV, and vaccination status. Statistical analysis included descriptive statistics and the nonparametric Mann–Whitney U test; differences were considered statistically significant at $p < 0.05$.
Awareness of smoking as a risk factor for cervical cancer increased among students from 53.0% to 57.4% and among physicians from 66.8% to 93.6%. Understanding of the role of HPV in cervical cancer development rose from 55.6% to 87.5% among students and from 93.0% to 100% among physicians. The proportion of respondents indicating the need for HPV vaccination before the onset of sexual activity increased from 54.1% to 82.4% among students and from 86.2% to 97.9% among physicians. Knowledge regarding vaccine effectiveness in males also improved in both groups. However, actual vaccination rates remained low, increasing from 3.4% to 11.0% among students and from 6.3% to 17.0% among physicians.
Over the past five years in Ukraine, awareness of HPV and the preventive role of vaccination among medical students and physicians has increased; however, low vaccination coverage indicates a gap between knowledge and its practical implementation.

PC_093 - Why Colposcopists Should Embrace Extended Genotyping in a Mixed Vaccination World

HPV vaccination

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HPV vaccination has resulted in 1) a previously reported reduction of HPV16 and HPV18 prevalence and associated disease and 2) a previously unappreciated increase in non-vaccine genotypes1-3. Both have implications for the practice of colposcopy – a decrease in easier-to-detect HPV 16/18 lesions reduces the sensitivity and specificity of colposcopy while the 12-other non-vaccine genotypes pose stratified different disease risks.
We review published prevalence information from 4 national Pre-Market Approval (PMA) clinical trials and recent real-world-evidence using the BD Onclarity HPV Assay, and assess its impact on colposcopic accuracy.
A time-dependent decrease in HPV16/18 infections [69% and 42% reduction in HPV16 and HPV 18 prevalence, or a combined reduction of 62% (all age groups)] and a contemporaneous increase in non-target vaccine types detected by the BD Onclarity assay was observed. Non HPV-16/18 carcinogenic types recorded a relative increase in prevalence of 19.5% ($P < 0.001$), driven by increases in HPV types 39, 51, 52, 59, and 68. This was also reflected in type-specific CIN2/CIN3/AIS incidence and prevalence among 21-25 year olds [relative difference in prevalence for HPV16/18-positive CIN2/CIN3/AIS -43.8% and +56.6% and + 92.5%, respectively, for nonHPV16/18 and non-HPV16/18/31/33 types ($p<0.001$)].
The success of HPV vaccination has resulted in a HPV virome shift in the screening population, where most disease is now caused by non-vaccine types, some of which have increased in prevalence. Within the 12-other group, different viruses have different abilities to cause CIN2+ disease. Leveraging this information to improve the efficacy of colposcopy is discussed.

PC_094 - Development of an Expert-Annotated Colposcopic Image Dataset for AI-Assisted Cervical Lesion Interpretation

Z. J. ZIENIEWICZ

Although colposcopy is a key diagnostic tool for evaluating cervical intraepithelial neoplasia, its effectiveness is highly dependent on the operator. To address interobserver variability and support the development of artificial intelligence-based decision support systems, we have constructed a clinically integrated, expert-annotated colposcopic image dataset.
The repository contains 6,263 high-quality digital colposcopic photographs derived from 737 examinations conducted at the academic referral center. The images were annotated using the Computer Vision Annotation Tool. This generated a total of 14,386 tags and 24,959 segmentation masks.
The annotations include anatomical regions, colposcopic features defined according to the 2011 International Federation of Cervical Pathology and Colposcopy classification, image quality metrics, and artifact identification.
All images are linked to structured clinical
metadata, including cytology results, human papillomavirus status, and histopathological results. This dataset is a structured, AI-ready resource designed for training and validating deep learning models for the detection, classification and segmentation of cervical lesions.

PC_095 - CIN II+ Detection Rates – Does Colposcopic Biopsy Strategy Matters? A multi-Center Analysis

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Objective: This study compares two institutional strategies for diagnostic colposcopy: intensive uniform sampling at Center 1 and selective sampling at Center 2. Both institutions manage identical patient populations with equivalent risk levels.
Methods: We analyzed 45,079 colposcopies during 2020-2025. Center 1 utilized a high-frequency biopsy policy (92.1% rate of n=16,507), while Center 2 followed a selective policy based on visual suspicion (35.8% rate of n=28,572).
Results: Among patients referred to colposcopy due to abnormal cytology (n=8,262), Center 1 (n=844) identified high-grade lesions (CIN II+) in 19.1% of cases, nearly doubling the 10.6% yield at Center 2 (n=7,418) (OR=2.01,95% CI 1.67-2.41, p < 0.001). For hrHPV+ patients with normal cytology, Center 1 detected CIN II+ in 17.5% of cases (n=2,749) versus 6.3% at Center 2 (n=6,874) (OR=3.16; 95% CI 2.75-3.64, p<0.001).
In HGSIL-specific referrals, Center 1 detected CIN III+ in 41.7% of patients (n=187) versus 34.4% at Center 2 (n=703), (OR=1.36, 95% CI 0.98-1.89; p<0.05).
Conclusions: Intensive sampling strategies significantly enhance the detection of high-grade disease in patients with abnormal cytology and hrHPV+. Relying solely on visual inspection (selectivity) leads to substantial under-diagnosis of occult lesions, highlighting the necessity of multiple biopsies in high-risk cohorts regardless of colposcopic appearance.

Abstracts of E-posters

EP_001 - Curcumin Solid Liquid Nanoparticles and free Curcumin activates innate immune cells and reduces exhaustion markers and pro-inflammatory cytokines in humans

Basic science / Epidemiology

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Curcumin, a natural compound derived from Curcuma longa (turmeric), possesses potent anti-inflammatory, anti-oxidative, and anti-tumor properties. Recent studies indicate that curcumin is an anti-inflammatory and potential anticancer agent that regulates key molecules involved in cancer progression; however, its precise mechanisms of action in terms of immune cells are not understood clearly. Here we aimed to study the effects of curcumin formulations (SLNP and free) on immune cells in humans.
Peripheral blood mononuclear cells (PBMCs) were isolated from healthy donors and treated in vitro with curcumin-loaded solid lipid nanoparticles (SLNPs) or free curcumin with and without TCR stimulations. Various innate and adaptive immune cells were monitored post treatment using high-dimensional multi-color flow cytometry and the cytokines of the supernatants were measured using the Meso Scale Discovery (MSD) platform.
Curcumin treatment in vitro significantly activated the monocytes (classical and intermediate), neutrophils, and myeloid dendritic cells with increased cell numbers. In contrast, curcumin (SLNPs/free) significantly decreased polymorphonuclear myeloid-derived suppressor cells (PMN-MDSCs) and reduced PD-L1 expression on monocytes, MDSCs and reduced CCR5 expression on CD4 T cells. In addition, MSD analysis revealed reduced levels of pro-inflammatory cytokines (IFN-g, TNF-a, IL-2, IL-17a, IL-1a, IL-12p70, and IL-6) with high levels of anti-inflammatory cytokine TGF-b1 indicating heightened anti-inflammatory properties.
These data clearly suggest that curcumin treatment significantly altered the innate immune cell populations and cytokine levels in blood from healthy humans. These findings support the potential of curcumin as a therapeutic agent to improve immune cell functions while mitigating anti-inflammatory property.

EP_002 - The clearance of HR-HPV of vaginal self-sampling and triage value of extended genotyping for cervical cancer screening

Basic science / Epidemiology

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To investigate the clearance of HR-HPV in vaginal self-sampling in cervical cancer screening.
This prospective cross-sectional study, recruited 20 103 women aged 30-59 for vaginal self-sampling cervical cancer screening across 13 provinces in China. The next generation sequencing or fluorescent PCR method were used to detect 14 HR-HPV. A total of 404 HR-HPV positive women were following-up 15 months.
After following-up 15 months, the persistent HR-HPV rate was 45.54% (184/404), the clearance rate was 54.46%. Among them, clearance rate of HPV16/18 was 59.44%, the other 12 HPV was 50.87%, and there was no significant difference between two groups (P>0.05). The differences were not statistically significant in HR-HPV single infection (71.53%, 67.93%) before and after follow-up (P>0.05). Compared with baseline data, HPV52 was still the first, and HPV16 changed from the second to the third. There was a significant difference in the clearance of HR-HPV between two age groups (P<0.05), the lowest in the 55-59 age group (42.46%). After 15 months , the persistent infection rates of HR-HPV subtypes were statistically different (P<0.05). However, there was no significant difference in HR-HPV persistent positive between ≦LSIL group (P>0.05).
The clearance rate of HR-HPV of vaginal self-sampling at 15 months following-up is higher than 50% and young women is higher than that older one. There was no significant difference in clearance rate of HPV16/18 and non-HPV16/18 . Stratified management should be carried out according to ages, HPV subtypes and duration.

EP_003 - Immunology of the Lower Genital Tract: Defense Mechanisms and Clinical Perspectives

Basic science / Epidemiology

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Introduction: The lower genital tract represents a critical interface between the immune system and the external environment. Its immunology is essential for understanding susceptibility to sexually transmitted infections, vaccine responses, and the homeostasis of the local microbiota. To analyze the main immunological mechanisms of the lower genital tract, highlighting the interaction between innate immunity, adaptive immunity, and microbial factors, as well as their clinical implications.
Methods: A narrative review of the recent scientific literature was conducted, including experimental studies, clinical research, and meta-analyses published in the last ten years.
Main Results: Evidence shows that epithelial cells, resident lymphocytes, and secretory immunoglobulins (especially IgA) play a key role in local defense. The vaginal microbiota, dominated by Lactobacillus, modulates the immune response and contributes to protection against pathogens. Disruptions in this balance are associated with an increased risk of infections and reproductive complications.
Conclusions: The immunology of the lower genital tract is an essential field for the development of preventive and therapeutic strategies. Understanding these mechanisms opens the door to more effective interventions in sexual and reproductive health, including mucosal vaccines and microbiota-based therapies. Keywords: mucosal immunity, lower genital tract, vaginal microbiota, sexually transmitted infections

EP_004 - The mechanism of SIRT6-mediated de-2-hydroxyisobutyrylation modification of hnRNP-Q1 in regulating the progression of cervical cancer

Basic science / Epidemiology

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To clarify the pathogenesis of HPV and provide potential molecular targets for cervical cancer (CC) treatment. This paper will investigate the oncogenic mechanism of HPV E6/E7 from the perspective of identifying the 2-hydroxyisobutyrylation modification level of hnRNP-Q1 regulated by HPV E6/E7, and clarify the role of HPV E6/E7 in regulating SIRT6-mediated modification of hnRNP-Q1 and its binding mRNA targets in the invasion and angiogenesis of cervical cancer cells.
Co-Immunoprecipitation (Co-IP) assay identified the 2-hydroxyisobutyrylation modification of the hnRNP-Q1 protein, and cell invasion and angiogenesis assays clarified the role of this modification of hnRNP-Q1 in tumorigenesis in cervical cancer; Furthermore, Co-IP assay determined that the deacetylase SIRT6 regulates the modification level of the hnRNP-Q1 protein, and reveal that HPV E6/E7 mediates SIRT6 to regulate the modification of the hnRNP-Q1 protein.
Here, we investigated that hnRNP-Q1 promotion of cervical cancer cell invasion and angiogenesis, which are the underlying mechanisms of poor prognosis of hnRNP-Q1 in cervical cancer patients. Furthermore, it was identified that SIRT6 regulates the de-2-hydroxyisobutyrylation modification of the hnRNP-Q1, and HPV E6/E7 is involved in regulating the level of this modification. Mutagenesis experiments revealed that the lysine sites of hnRNP-Q1 undergoing modification are located in the RRM2/3 functional domains.
Our results illustrated that hnRNP-Q1 and its deacetyltransferase SIRT6 as important regulators of tumorigenesis during cervical cancer pathogenesis and establish the scientific basis for targeting these molecules for treating CC.

EP_005 - Urethral intraepithelial neoplasia in male partners of HPV-persistent women: a need for targeted screening.

Basic science / Epidemiology

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This study aims to examine the possible role of male partners in the persistence of HPV-related cervical lesions. In the absence of clinical HPV lesions on the penis, we performed urethral HPV genotyping and distal urethral biopsies under colposcopy
Male partners, who had no clinical HPV lesions on 5% acetic acid urethrocolposcopy, of 204 women with persistent HPV infection, underwent urethral HPV genotyping. Of these, 90 women had normal cytology, while 49 had LSIL, 55 had HSIL, and 10 had VaIN. Men who tested positive for HPV underwent a biopsy.
The average age of the couples was 49 years. 204 men were examined, of whom 167 (82%) had HPV infection, including high-risk HPV (HR-HPV) identified in 123/167 men (74%) and low-risk HPV in 12/167 men (7%). Acidophilia was observed in 103 men (61.7%), with histological confirmation of UIN in 92 cases (89%), of which 92% were LSIL (low grade) and 3% were HSIL (high grade). Only 3 of the 25 men without acidophilia (12%) were infected with HR HPV. 28% of women who had reflex cytology had a male partner with UIN. This rate reached 51% in cases of female LSIL and 69% in cases of female HSIL.
In the absence of clinical HPV lesions on the penis, acidophilia of the distal urethra, revealed by urethrocolposcopy indicate UIN, mainly associated with HR-HPV. This finding highlights the importance of targeted screening for men, particularly partners of women with persistent HPV infection, in order to optimise the management of at-risk couples

EP_006 - Anatomy and Morphological Variations of the Uterine Cervix: The Contribution of Imaging to Gynecologic Surgery

Basic science / Epidemiology

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This narrative review aims to synthesize current data on the anatomy and morphological variations of the uterine cervix, emphasizing the contribution of imaging modalities to optimizing gynecologic surgical management.
A narrative literature review was conducted . Selected studies included anatomical, morphometric, ultrasound, magnetic resonance imaging (MRI), and surgical investigations focusing on the uterine cervix. Publications describing cervical morphological variations and their impact on surgical decision-making were analyzed.
The literature demonstrates significant interindividual variability in cervical length, diameter, canal configuration, and anatomical relationships with adjacent pelvic structures . Transvaginal ultrasound and MRI are essential tools for assessing cervical morphology, offering high-resolution visualization of stromal architecture and cervical canal orientation . These variations have a direct impact on surgical planning and technique selection during cervical conization, simple and radical hysterectomy, and oncologic cervical procedures .
A thorough understanding of the anatomical and morphological variations of the uterine cervix, supported by modern imaging techniques, is fundamental for individualized, safe, and effective gynecologic surgery. Integrating detailed cervical morphologic assessment into preoperative planning may improve surgical precision and reduce intraoperative complications

EP_007 - The Importance of the Vaginal Microbiome in Intimate Health: An Updated Overview

Basic science / Epidemiology

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The vaginal microbiota (VM) plays a fundamental role in maintaining gynecological health and, under ideal conditions, is predominantly composed of species of the genus Lactobacillus. An imbalance in this microbiota (vaginal dysbiosis) is associated with infections such as bacterial vaginosis, candidiasis, and mixed vaginitis, as well as adverse effects on fertility, pregnancy outcomes, and increased susceptibility to other sexually transmitted infections (STIs). In addition to pathogen detection, VM analysis enables assessment of microbial composition, diversity, and epithelial protection. Molecular techniques such as real-time PCR allow simultaneous identification of multiple microorganisms, supporting a more preventive and personalized clinical approach.
A total of 903 samples received between February and July 2025 were analyzed in a private laboratory in São Paulo, Brazil. A quantitative PCR assay (Femoflor Screen, Biomédica®) was used to detect and quantify 13 clinically relevant microorganisms, allowing assessment of eubiosis or dysbiosis with standardized interpretation based on validated microbiological algorithms.
The following findings were identified: Lactobacillus spp.: 807 (89.3%) Conditional anaerobes (Gardnerella vaginalis, Prevotella bivia, Porphyromonas spp.): 523 (57.9%) Candida spp.: 119 (13.7%) Mycoplasma hominis: 69 (7.6%) Ureaplasma urealyticum/parvum: 277 (30.7%) STIs: Chlamydia trachomatis: 7 (0.8%) Trichomonas vaginalis: 5 (0.6%) Neisseria gonorrhoeae: 3 (0.4%) Mycoplasma genitalium: 11 (1.2%) Viruses: HSV-1: 1 (0.1%) HSV-2: 2 (0.2%) Cytomegalovirus: 19 (2.1%)
The incorporation of tests that identify components of the vaginal microbiota into routine gynecological practice contributes to more accurate diagnoses, reduces empirical treatments, and improves the management of intimate health, particularly in women with recurrent symptoms, infertility, or those planning pregnancy.

EP_008 - Exploring the Mechanism of Bruceine D Against Cervical Cancer by Network Pharmacology and the Effect of Bruceine D on the EGFR Pathway

Basic science / Epidemiology

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Background: Bruceine D (BD), sourced from the traditional Chinese medicinal plant Brucea javanica, it has been utilized in treating various malignancies, including lung, liver,leukemia,and pancreatic cancer. However, its specific effects on CC have not been thoroughly explored. Materials and methods: We identified potential targets for BD using the PharmMapper database and intersected these with CC targets to construct a protein-protein interaction (PPI) network. We built a herb-active compound-target network, performed survival analysis, and validated key hub genes via the Human Protein Atlas. Molecular docking studies confirmed BD's binding interactions. Cell viability, colony formation, cell adhesion, transwell migration, annexin V/PI apoptosis, and western blot assays were conducted to assess BD's effects on Hela and Caski CC cell lines. Results: We identified 58 potential targets for BD from the PharmMapper database, with 14 intersecting targets relevant to CC. The PPI network highlighted ESR1, HSP90AA1, ANXA5, EGFR, CASP7, and CCNA2 as key targets. GO and KEGG enrichment analyses revealed significant biological processes and pathways, including the EGFR signaling pathway. Molecular docking showed strong binding affinity of BD to EGFR. Cell-based assays demonstrated that BD significantly reduced the viability, colony formation, adhesion, and migration of Hela and Caski cells in a dose-dependent manner, while inducing apoptosis. Western blot analysis confirmed the inhibition of the EGFR signaling pathway by BD. Conclusions: Our study indicates that BD exhibits significant anticancer effects against CC through multiple mechanisms, positioning it as a promising therapeutic agent for further investigation and clinical validation.

EP_009 - Routine Use of Conversational Artificial Intelligence for Cervical Screening Awareness in HIV Care in Low Resource Setting: A CFIR-Guided Exploration

Cervical cancer screening

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Conversational Artificial Intelligence (CAI) may enhance awareness of cervical cancer (CC) screening in HIV care settings. Guided by the Consolidated Framework for Implementation Research (CFIR), this study explored facilitators and barriers to routine CAI use from patient and provider perspectives
We conducted focus groups with women living with HIV (WLWH) and interviews with clinic staff following a 6-month CAI deployment for CC awareness in six HIV clinics in Plateau and Oyo States. Data were deductively coded to CFIR constructs and thematically integrated to assess feasibility, equity, and perceived impact
Intervention Characteristics - CAI was generally easy to use after a brief orientation, supported by clear navigation and plain language. However, limited language options, lack of preserved chat history, and intermittent technical issues (e.g., slow responses) reduced reliability and engagement. Characteristics of Individuals - Brief coaching and prior smartphone experience improved digital confidence, particularly among younger participants. Variation in digital literacy limited uptake in some settings. Outer Setting (Equity and Access) – Offline, low-data functionality, and private onboarding facilitated access. Barriers included device ownership gaps, data costs, and language constraints, especially for non-Android users. Process/Inner Setting - Structured onboarding and active staff support promoted engagement. Sustainability concerns included inconsistent integration into routine care and high staff workload without defined implementation leads.
CAI is perceived as a feasible, useful tool for cervical screening awareness in HIV clinics when locally tailored, multilingual, reliable, and embedded into routine workflows. Sustainable scale-up requires assisted onboarding, improved technical reliability, low-data solutions, and clearly defined implementation roles.

EP_010 - Barriers to Cervical Cancer Screening in Algeria: A Prospective Multicenter Study of 130 Cases

Cervical cancer screening

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Assess Algerian women's knowledge of cervical cancer and its link to HPV, analyze screening uptake and acceptance of HPV testing, identify barriers, and propose strategies to improve cervical screening coverage in Algeria.
This was a prospective, single-center study conducted over 6 months, including 130 women aged 25 to 65 attending gynecology consultations. Inclusion criteria were: first gynecological consultation, no prior screening, or last screening more than 5 years earlier. Women with a history of precancerous lesions or cervical cancer were excluded.
The mean age was 37 years. Most participants were married (82%) and had a university education (63%). While 87% had heard of cervical cancer and 70% knew it is preventable through screening, only 18% had ever undergone screening. The link between HPV and cervical cancer was known by 57% of participants. The main barriers identified were: screening not being offered (38.6%), lack of information (20%), and seeking healthcare only when symptoms appear (23.4%).
Despite relatively good awareness, participation in screening remains insufficient. Improving information, promoting HPV testing, and adapting screening methods are essential to increase cervical screening coverage in Algeria.

EP_011 - Assessing Gaps in Cervical Cancer Treatment Initiation for Women Living with HIV in Kenya

Cervical cancer screening

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The aim of this research is to improve linkage to treatment for women living in Kenya with precancerous lesions or positive HPV tests. The primary research objectives are to 1) identify the variables/reasons why women at Coptic Hope Center would be eligible for treatment, but are not able to initiate treatment, 2) find statistically significant data and supportive evidence; and 3) help Coptic Hope Center develop plans that can target the variable of women who are not undergoing treatment (follow-up surveys, home visits, etc.).
The method used in this study retrospective observational study consists of gathering data from the Taifa Care health system that houses data from 11 Coptic sites from May 2021-May 2025. Patient IDs, correlated with an individual, are associated with screening result, screening method, treatment initiation, and the variables mentioned above.
Across the 11 Coptic sites from 2021-2025, results showed that of the 655 positive individuals (eligible for cervical cancer treatment) in the database, 357 individuals initiated treatment on the same day as their recorded ‘positive test’ (55.1%). There was statistical significance associated with age, employment status, marital status, facility, and CD4 cell count.
Strong conclusions can be drawn that of a negative association treatment initiation at time of positive screening with populations of 1) 50 and older, 2) separated individuals, and 3) patients at site 13074. Targeted interventions for these groups that were not likely to initiate treatment at the time of a positive screening are important future steps.

EP_012 - The role of colposcopy in identifying precancerous changes in the cervix

Cervical cancer screening

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Cervical cancer is a health problem in many countries. Azerbaijan is a country in the Transcaucasian region, located on the border of Europe and Asia. In Azerbaijan, every woman can undergo free cytological and colposcopic examination under the state insurance program. The purpose of this study was to evaluate colposcopy in the detection of severe intraepithelial lesions of the cervix and the ratio of these results with the results of a biopsy at the Turan Private hospital in Baku, Azerbaijan. This is a retrospective study of 241 colposcopies and 161 colposcopy-guided biopsies through 2023. The 2011 IFCPC Nomenclature of Colposcopy was used.
The average age of the participants was 44 years, mostly multiparous (80%). The main indications were contact bleeding, suspicious cervical cancer, positive HPV, abnormal cytological examination. In 25% of cases, colposcopy was normal. Abnormal pattern of the 2 degree (58/241) -24% Invasion (5/241) -2 % Abnormal colposcopik findigs of the 1 degree (118/241)-49% Of 118 patients with Abnormal Colposcopic findings Grade 1- 98 were taken for biopsy, the rest were under observation Norm (60/241)- 25 %. After histological analysis of biopsies, after a biopsy performed under the supervision of colposcopy, we found: 41 HSIL - (49/161) 25 % 3 canser (3/161) - 1,8 % 64 LSİL (64/161) - 39,7 % 52 norm (52/161) 32,2% The coincidence with the colposcopy was: 41/58 -71 % (HSİL) 64/98 -65% (LSİL) 3/5 60 % (Cr)
Colposcopy retains all its importance in the diagnosis of precancerous lesions of the cervix.

EP_013 - SOX1/PAX1 Methylation Testing for Triage of Cervical Type 3 Transformation Zone (TZ3)

Cervical cancer screening

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To evaluate the efficacy of SOX1/PAX1 methylation testing in the triage of women with cervical Type 3 Transformation Zone (TZ3), comparing its performance with conventional screening modalities.
A total of 259 women with TZ3 underwent human papillomavirus (HPV) genotyping assays, thin - layer cytology test (TCT), and SOX1/PAX1 methylation detection. Histopathological examination served as the gold standard for diagnosing cervical intraepithelial neoplasia grade 2 or higher (CIN2+). Diagnostic parameters including sensitivity, specificity, and the number needed to colposcopy (NNC) for detecting one CIN2+ case were calculated. Additionally, subgroup analysis was performed in postmenopausal women.
Among 259 women with colposcopically confirmed TZ3, the SOX1/PAX1 gene methylation assay exhibited outstanding diagnostic performance for CIN2+ lesions, achieving a sensitivity of 91.18% (95% CI: 77.04–96.95), specificity of 84.00% (95% CI: 78.65–88.21), and AUC of 0.876 (95% CI: 0.814–0.938)—significantly outperforming traditional HPV-based and cytological screening methods. It enabled robust risk stratification (high-risk positivity rate 46.27%, low residual risk 1.56%) and efficient triage of hrHPV-positive cases, substantially reducing unnecessary colposcopy referrals.
SOX1/PAX1 methylation testing demonstrates considerable effectiveness in the triage of TZ3 particularly in hrHPV positive and postmenopausal populations.

EP_014 - Optimizing HPV Detection in Urine via Ultra-Short Fragment Targeting: A Comparative Study with Cervical Samples

Cervical cancer screening

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Urine is an ideal non-invasive specimen for HPV detection; however, its severe cfDNA fragmentation limits sensitivity. Targeting short cfDNA fragments can enhance detection rates. This study aims to quantitatively analyze the distribution differences of HPV DNA amplicons of varying lengths in urine versus cervical samples, developing a novel method targeting ultra-short fragments to significantly improve urine HPV detection rates, thereby providing a more sensitive and reliable non-invasive screening option for cervical cancer.
We designed primers for HPV type-specific E6/E7 genes, targeting amplicons ranging from 50-200 bp. Droplet digital PCR was employed to perform absolute quantification of HPV-positive urine and cervical exfoliated cell samples, systematically comparing HPV DNA copy number differences across amplicon lengths between the two sample types.
Digital PCR analysis revealed significant sample-type differences: in cervical exfoliated cell samples, HPV DNA copy numbers detected across 50-200 bp amplicons showed no significant variation, indicating good DNA integrity. In urine samples, detected HPV DNA copy numbers exhibited a strong negative correlation with amplicon length ($R^2 > 90\%$), with shorter amplicons yielding higher copy numbers. Primers targeting 50 bp ultra-short fragments detected HPV DNA concentrations up to 10-fold higher than those targeting 200 bp fragments.
This study successfully developed a novel urine HPV detection method based on short-fragment targeting, significantly enhancing detection efficiency. The "ultra-short fragment targeting" strategy provides critical theoretical and technical support for developing highly sensitive, non-invasive urine-based cervical cancer screening approaches.

EP_015 - The application value of rapid detection of E7 protein in the diagnosis of cervical precancerous lesions

Cervical cancer screening

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This study preliminarily explores the role of rapid HPV E7 oncoprotein detection in the diagnosis of cervical precancerous lesions.
A total of 219 patients aged 20-70 years who underwent colposcopy and biopsy for high-risk HPV positivity at Peking University People's Hospital between August 8, 2025 and October 28, 2025 were selected. All patients underwent rapid HPV E7 oncoprotein testing before colposcopy. Samples were taken from the cervix, and then added to a test card. Results were read within 15 minutes. Histopathological diagnosis was considered the gold standard.
A total of 176 patients were included . 134 patients (76.1%) were positive for HPV E7 oncoprotein, and 42 patients (23.9%) were negative. Pathological examination revealed CIN1+ in 139 patients (79.0%), and chronic inflammation in 37 patients (21.0%). Among the CIN1 patients, 86 were positive for E7 oncoprotein, and 96 had pathological CIN1. The concordance rate between E7 detection results and pathological CIN1 was 89.58%. Among the 27 patients with pathological CIN2, all were positive for E7 oncoprotein; among the 16 patients with pathological CIN3, all 16 were positive for E7 oncoprotein. The rapid test of E7 oncoprotein compared with histological results showed : sensitivity 92.81%, specificity 86.49%, positive predictive value (PPV) 96.27%, and negative predictive value (NPV) 86.49%.
The rapid test results of E7 oncoprotein were largely consistent with the histopathological results of high-grade squamous intraepithelial lesions of the cervix, The rapid E7 oncoprotein test method is convenient, requires no equipment or laboratory, provides results within 15 minutes, making it clinically valuable.

EP_016 - HPV negative case-report

Cervical cancer screening

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Cervical cancer is primarily associated with persistent infection by high-risk human papillomavirus (HPV). Nevertheless, a small proportion of cases, particularly certain adenocarcinomas, are HPV-negative. These rare tumors exhibit distinct biological characteristics, including a specific tumor microenvironment and neoantigen expression that may represent future diagnostic or therapeutic targets. Novel biomarkers could potentially be used to improve early detection. This study highlights the limitations of screening strategies based solely on HPV testing and addresses the diagnostic and therapeutic challenges of HPV-negative cervical cancer.

 We report the case of a 55-year-old woman who had not undergone cervical screening for four years and presented with abnormal uterine bleeding, abdominal pain, and general deterioration. Clinical examination and computed tomography revealed a uterus suspicious for malignancy. Histopathological analysis confirmed invasive adenocarcinoma with negative HPV DNA testing. Staging demonstrated invasion of the left parametrium and uterine isthmus, with evidence of peritoneal carcinomatosis. Systemic chemotherapy with carboplatin and paclitaxel was initiated.

Despite treatment, the clinical course was unfavorable and required supportive care. The literature confirms the rarity of HPV-negative cervical cancers and identifies potential biomarkers such as PRAME, HMGA2, ETV4, MEX3A, TM7SF2, SLC19A1, and TTYH3, some associated with poorer overall survival.
HPV-negative cervical cancers require rigorous diagnostic confirmation. The absence of specific targeted therapies underscores the need for reliable biomarkers and personalized treatment strategies to improve patient outcomes.

EP_017 - Assessment of Acceptability and Clinical Utility of Self-Sampling for HPV Detection in Transgender Men Attending a Gender Clinic in Bogotá, Colombia: A Cross-Sectional Study

Cervical cancer screening

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To evaluate the acceptability, clinical utility, and frequency of HPV infection among transgender men using self-sampling as a cervical cancer screening strategy.
A cross-sectional study with prospective data collection was conducted in 2025 among transgender men with an intact cervix receiving care at the Gender Clinic of Hospital de Chapinero. Participants performed vaginal self-collection for high-risk human papillomavirus (hrHPV) testing, including full genotyping of oncogenic types. Clinical and sociodemographic data were obtained through structured surveys. Acceptability was evaluated using a standardized instrument assessing comfort, clarity of instructions, confidence in sample adequacy, and willingness to repeat testing. The protocol incorporates a screen-and-treat approach, with planned ablative therapy for individuals testing positive for hrHPV to facilitate timely management and reduce loss to follow-up. Analyses are descriptive at this stage.
Enrollment is ongoing, with 70 participants included to date. Laboratory processing for hrHPV detection and genotype distribution is in progress; prevalence results will be reported upon completion. Initial feedback indicates overall positive reception of the self-collection method. Three participants reported dissatisfaction due to discomfort and uncertainty regarding correct sample collection. No clinically significant complications have occurred.
Early implementation suggests that hrHPV self-sampling in this gender-affirming setting is feasible and safe, with encouraging acceptability. Final analyses will clarify infection frequency, genotype patterns, and the effectiveness of this strategy for cervical cancer screening in transgender men.

EP_018 - High-Grade Cervical Intraepithelial Lesions: Prevalence and impact of municipality-level social inequalities on the time to obtain a diagnosis and follow-up in the French Cervical Cancer Screening Program.

Cervical cancer screening

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This study analyzed High-Grade Cervical Intraepithelial Lesions (HSIL) detected within the French cervical cancer screening program and assessed the impact of municipality-level social inequalities on the time to access diagnosis and initial treatment.
We conducted a retrospective cross-sectional study among 305,940 asymptomatic women living in Isère (France) who underwent at least one Pap smear between January 1, 2010 and December 31, 2018. Women with abnormal screening results were referred for additional diagnostic procedures. HSIL diagnoses were compliant to the WHO Classification of tumors. Social disparities were assessed at the municipal level using the French Deprivation Index.
The prevalence of HSIL in screened population was 0.4%. At 25–29-years, the probability of diagnosing HSIL was 12.2%, halving after 50-years. Women with HSIL had a median diagnosis time of 58 days and a median time to first treatment proposal of 50 days [IQR: 27–83]. Women from the most socioeconomically disadvantaged quintiles experienced significantly longer diagnostic delays than women from more advantaged groups (quintile 2: 0.72 [95% CI: 0.58, 0.91]; quintile 3: 0.76 [95% CI: 0.60, 0.98]). No significant association was found between socioeconomic factors and delays in treatment initiation.
The prevalence of HSIL was higher among women under 35-years. Additionally, women from socioeconomically disadvantaged backgrounds and those with low-grade cytology experienced significantly longer times for diagnostic procedures access. Given the potential progression to invasive cervical cancer, it may be advisable to allocate specific resources to ensure appropriate follow-up for women with low-grade cytological lesions, particularly those residing in socioeconomically disadvantaged municipalities.

EP_019 - Cervical Screening in low- and middle-income countries: A finalised project in Uganda

Cervical cancer screening

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To present the outcomes of a cervical cancer screening program in Kamwenge (Western Uganda), previously some of it reported at the Spanish Association for Cervical Pathology and Colposcopy (AEPCC) Congress 2025.
Cross-sectional study nested within a screen-triage and treat model combining biannual outreach campaigns and routine facility-based services led by trained local staff with periodic support from international volunteers. The study period was March 2022–October 2025. Women were mobilized through community engagement activities. Eligibility criteria: ≥25 years for WLWHIV; ≥30 years for HIV-negative women; up to 65 years. Participants received standardized pre-test counselling, completed a structured questionnaire, and underwent HIV and HPV testing (screening test). Samples were processed onsite using GeneXpert®. HPV-positive women underwent colposcopy(triage also with extended genotyping). Treatment: Thermal ablation was offered when the transformation zone was fully visible,and no endocervical extension; otherwise, LLETZ was performed
A total of 1,138 women were screened. HPV prevalence was 22.1%. Subgroup p3 (31,33,35,52,28) was most prevalent.HIV prevalence was 17%; among WLWHIV, 38% were HPV-positive versus 18% in HIV-negative women. Overall, 7% required treatment, half of whom were WLWHIV. Follow-up attendance was low (20%). Only nine participants reported prior HPV vaccination
In a setting where women typically seek care only when symptomatic, community engagement and continuous staff training were critical to achieving program uptake and high-risk HPV detection. Given the substantial loss to follow-up, same-day treatment—particularly for HPV 16/18/45 and for other genotypes in WLWHIV—are prioritized. WHO-aligned strategies were adapted to local context through four years of sustained field engagement.

EP_020 - Spatial and Temporal Mapping of Cervical Lesions Using Cervical Cell Lift: A Two-Year Longitudinal Observation

Cervical cancer screening

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Cervical Cell Lift (CCL) is a non-invasive technique that enables spatial mapping and grading of cervical lesions while preserving epithelial topology. Building on prior validation studies, we aimed to determine whether CCL can longitudinally capture lesion dynamics and reduce reliance on repeated biopsy during follow-up.
CCL samples were collected from a single patient at the initial visit, and at 1 and 2 years after conization. Immunostaining for MCM and HPV-E4 was performed to identify proliferative regions and HPV-productive areas. Biopsy and histological findings obtained during routine follow-up were retrospectively reviewed and compared with CCL mapping results.
At the initial visit, biopsies at 3 and 6 o'clock revealed CIN3. CCL demonstrated an MCM-positive region extending from 6 to 1 o'clock. Conization confirmed CIN3. At 1 year, histology showed LSIL, with CIN1 at 12 o'clock. CCL revealed persistent MCM-positive areas and a newly emerging E4-positive region. At 2 years, histology remained unchanged, whereas MCM-positive regions had disappeared on CCL, leaving only a small residual E4-positive area.
CCL enabled longitudinal observation of spatial and temporal changes in cervical lesions over a two-year period. This technique provided dynamic mapping information that complemented the point-in-time assessment obtained through routine histology. Further studies with larger cohorts are required to validate its clinical utility as a non-invasive follow-up modality.

EP_021 - Invasive Stratified Mucin-Producing Intraepithelial Lesion (iSMILE) in a High-Risk Patient: Diagnostic and Management Challenges

Cervical cancer screening

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Invasive stratified mucin-producing carcinoma (iSMILE) is a rare HPV-associated subtype of endocervical adenocarcinoma, representing the invasive counterpart of stratified mucin-producing intraepithelial lesion (SMILE). Its overlapping squamous and glandular features often result in diagnostic difficulty.
A 49-year-old G2P2 HIV-positive woman on HAART presented with a high-grade squamous intraepithelial lesion on Pap smear. Colposcopic findings were suspicious for microinvasion, and a cone biopsy revealed HPV-associated SMILE with invasive components, lymphovascular invasion, and margins were positive. Following multidisciplinary team (MDT) discussion, the patient underwent a class III radical hysterectomy with bilateral pelvic lymph node dissection.
Final histopathology confirmed invasive stratified mucin-producing carcinoma (iSMILE) measuring 3 × 2.5 mm with a 7 mm depth of invasion, negative lymphovascular space invasion, clear parametria, and negative lymph nodes. Immunohistochemistry was positive for p16 and PAS-D. The disease was staged as FIGO IB2 (FIGO 2018 staging), and no adjuvant therapy was indicated as per the MDT consensus.
This case illustrates the diagnostic challenges posed by SMILE and iSMILE and highlights the importance of cone biopsy and comprehensive pathological evaluation to exclude invasive disease before definitive treatment.

EP_022 - Accuracy analysis of cervical cancer screening using urine and vaginal self-sampling versus clinician-collected samples: A systematic review and meta-analysis

Cervical cancer screening

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The aim of the present study was to explore the differences in diagnostic performance between vaginal self-sampling, urine self-sampling, and clinician sampling in cervical cancer screening.
Per PRISMA 2020 guidelines, we searched PubMed, Cochrane Library, Web of Science and Embase. Study quality was assessed via Cochrane Review Manager 5.3, and diagnostic performance was evaluated by pooling sensitivity, specificity and SROC AUC using STATA 18.0.
This meta-analysis enrolled 15 studies involving 3665 participants with abnormal cervical cancer screening results. The pooled sensitivity, specificity and area under the curve (AUC) of self-sampling methods were 0.88 (95% CI: 0.85, 0.91), 0.81 (95% CI: 0.68, 0.89) and 0.92 (95% CI: 0.89, 0.94), respectively. For HR-HPV, vaginal self-sampling yielded a sensitivity of 0.92 (95% CI: 0.90, 0.94), specificity of 0.80 (95% CI: 0.58, 0.92) and AUC of 0.93 (95% CI: 0.91, 0.95), while urine self-sampling had a sensitivity of 0.83 (95% CI: 0.77, 0.88), specificity of 0.81 (95% CI: 0.65, 0.91) and AUC of 0.88 (95% CI: 0.85, 0.91). For lesions >CIN2, vaginal self-sampling showed a sensitivity of 0.98 (95% CI: 0.96, 0.99), specificity of 0.63 (95% CI: 0.48, 0.77) and AUC of 0.98 (95% CI: 0.96, 0.99); urine self-sampling presented a sensitivity of 0.95 (95% CI: 0.91, 0.97), specificity of 0.62 (95% CI: 0.31, 0.86) and AUC of 0.95 (95% CI: 0.93, 0.97).
Vaginal and urine self-sampling for HPV testing show promising diagnostic potential, with vaginal sampling outperforming urine. Both methods have similar sensitivity for detecting lesions >CIN2.

EP_023 - Neuroendocrine tumor of the uterine cervix

Cervical cancer screening

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To describe a clinical case of a 65- year- old female patient diagnosed with small cell neuroendocrine carcinoma of the uterine cervix.
A restrospective, observational, and descriptive study.
A 65-year-old patient presented to the Cervical Pathology Department in August 2024 with abnormal uterine bleeding. Speculum examination revealed a 5 × 5 cm exophytic cervical mass extending to the upper third of the vagina. Exocervical and endocervical cytology revealed squamous cell carcinoma. A cervical biopsy showed fibrinohemorrhagic material. Transvaginal ultrasound revealed an anteverted uterus measuring 10 × 7 × 7 cm with an endometrial thickness of 46 mm. Due to discordance between cytological, colposcopic, and histological findings, an extended biopsy using a loop electrosurgical excision (LEEP) was performed. Histopathological analysis confirmed small cell neuroendocrine carcinoma of the cervix. The patient was referred to the Oncology Department. Chest, abdominal, and pelvic MRI revealed multiple lesions consistent with metastatic disease. The patient was staged as FIGO stage IVB, and palliative care was initiated. Clinical course was unfavorable, and the patient died in October 2024.
Neuroendocrine tumors of the uterine cervix represent approximately 0.9% to 1.5% of all cervical malignancies. High-risk human papillomavirus, particularly types 16 and 18, is present in nearly all cases. These tumors have a high propensity for lymph node metastasis and early hematogenous spread. Given their low prevalence, further studies are needed to better clarify their natural history.

EP_024 - Scaling up Cervical Cancer Prevention through NGO–Government Partnerships: Evidence from Western and Central India

Cervical cancer screening

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To document scalable models of cervical cancer prevention achieved through NGO–government collaborations in Western and Central India, and identify lessons for replication.
Programmatic experiences from Maharashtra, Gujarat, Madhya Pradesh, and Chhattisgarh were synthesized. Data were drawn from screening registers, NGO reports, and government guidelines (2018–2024). Initiatives included HPV vaccination pilots, VIA-based screening, and self-sampling studies.
In Maharashtra, the Tata Trusts–Municipal Corporation collaboration screened over 1.2 lakh women (30–49 years) across 15 urban health centres, achieving 72% follow-up completion for VIA-positive cases. The Khud Se Jeet campaign reached nearly 5 million citizens through community and media outreach. In Gujarat, HPV vaccination pilots in Surat and Bhavnagar covered 22,000 adolescent girls (two-dose schedule) with >90% second-dose completion. Madhya Pradesh integrated cervical screening with maternal and HIV services across 250 health facilities, increasing coverage from 11% to 38% in two years. In tribal Chhattisgarh, ASHA (Accredited Social Health Activists) facilitated HPV self-sampling reached 3,500 women, with 84% test acceptability and 92% result return rates.
Nationally, the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) has expanded VIA-based screening to >650 districts, and National Technical Advisory (NTAGI) in 2022 endorsed HPV vaccine introduction into the Universal Immunisation Programme
These experiences show that NGO–government synergy drives scale and sustainability. NGOs contributed training, logistics, and community trust, while government ensured financing and integration. Enablers included health-worker training (over 10,000 ASHAs/ANMs), flexible screening methods, and effective referral pathways. With India preparing for nationwide HPV vaccination rollout in 2025, these models offer practical strategies to accelerate cervical cancer elimination.

EP_025 - From The Four Corners of India To a Unified Goal: Toward Elimination of Cervical Cancer

Cervical cancer screening

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Key Objectives Reduce cervical cancer incidence and mortality across India. Strengthen the role of professional societies in national implementation. Expand access to colposcopy services via regional centers. Build capacity through standardized training and certification. Align national strategies with WHO's cervical cancer elimination targets.
This initiative involved collaboration among key professional bodies including the Indian Society of Colposcopy and Cervical Pathology (ISCCP), Federation of Obstetric and Gynaecological Societies of India (FOGSI), Asia Oceania Research Organization in Genital Infections and Neoplasia (AOGIN), and IFCPC India members. Strategies included the establishment of regional colposcopy centers, implementation of standardized certification programs, and delivery of training courses to enhance diagnostic and treatment capabilities.
The coordinated efforts have led to the development of a robust network of trained professionals and accessible colposcopy services across diverse regions. These initiatives have significantly improved early detection and management of cervical pre-cancers, contributing to a measurable impact on cervical cancer control.
Conclusion India's multi-pronged, regionally inclusive approach exemplifies how national unity and professional collaboration can drive progress toward the WHO's goal of cervical cancer elimination. This model offers valuable insights for other countries facing similar public health challenges.

EP_026 - Impact of COVID-19 pandemic on cervical cancer screening in Bangladesh: A registered based study.

Cervical cancer screening

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To evaluate the impact of COVID-19 pandemic in cervical cancer screening programme in pre, post and during COVID period.
First COVID case was declared 8th March 2020 in Bangladesh. We try to evaluate the number of screening done during COVID-19. We compare the results of screening during COVID pandemic (2020-2021) with pre (2019) and post COVID (2022) period from the registered cases.
In Bangladesh, a national cervical cancer screening strategy was implemented to cover women aged 30 years and above over a 10-year period (2012–2022), targeting a total population of 22,030,703. Screening coverage gradually increased from 1.53% in 2012 to 52.16% in 2018. However, during the COVID-19 period, coverage declined (46.07% in 2019, 44.54% in 2020, and 79.54% in 2021) compared with the pre- and post-COVID periods, reflecting a partial scale-down of screening services. In 2022, post-COVID screening coverage reached 95.08%. The WHO has set a new target of achieving 70% screening coverage by 2030. Based on the 2022 census, the target population is approximately 24 million. Of these, 3,675,007 women were screened by 2022, leaving a backlog of 13,715,785 women (including the previously unscreened population). To meet the 2030 target, this backlog must be covered over the next eight years, requiring screening of approximately 1.7 million women per year.
Deviation and interruption of cervical cancer screening will lead to delays in cancer identification.

EP_027 - Performance and limitations of a cervical cancer screening campaign in an urban cameroonian setting : the experience of douala

Cervical cancer screening

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To evaluate the outcomes of the cervical precancerous lesion screening campaign using the Pap smear conducted on October 3 and 4, 2023, at the Gyneco-Obstetric and Pediatric Hospital of Douala.
A descriptive and retrospective cross-sectional analysis was carried out on the data collected using a questionnaire during the campaign.
926 women studied. Participation rate of 27.23%, usable smear rate of 64.3%; 35.6% of smears were unsatisfactory, 2.5% showed dysplastic lesions with 13 ASCUS (2.1%), 1 ASCH (0.16%), 1 HSIL (0.16%), cancer rate 0.16%, corresponding to documented squamous cell carcinoma. All patients with abnormal smears were recalled and managed.
The screening campaign was beneficial despite some loss of energy and materials. It seems necessary to rethink the screening strategy to optimize results.

EP_028 - Impact of the Introduction of HPV/Pap Co-Testing on the Detection of High-Grade Cervical Dysplasia (CIN II+) in Women Aged 35 and Older: A Study from two German Colposcopy Units

Cervical cancer screening

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In January 2020, Germany introduced HPV/cytology co-testing into its cervical cancer screening program for women aged 35 years and older. This study assessed the impact of this change on the detection of high-grade cervical dysplasia (CIN II+) by evaluating the predictive value of HPV/cytology co-testing after its implementation.
We retrospectively analyzed a multicentric patient collective of women referred to colposcopy after abnormal screening results between January 2020 and December 2024 at two German colposcopy units. In total, 5,413 patients were included and stratified by age according to the national organized screening guideline (Organisierte Krebsfrüherkennungsrichtlinie). Cervical biopsies obtained during colposcopy and LEEP/LOOP specimens served as the reference standard. The positive predictive value (PPV) of HPV/cytology co-testing for CIN II+ was calculated for women aged ≥35 years.
Overall, 45.85% of biopsied women were diagnosed with CIN II+. Among 3,839 women aged ≥35 years who underwent co-testing and biopsy, CIN II+ was detected in 41.83% and CIN III+ in 32.04%. HPV positivity was associated with a significantly increased risk of high-grade disease across all cytological categories, including low-grade findings. Notably, 61.6% of CIN II+ lesions in co-tested women followed referral for low-grade cytology. All HPV-positive cytologies exceeded the German threshold for colposcopy referral, which requires a 10% probability of CIN II+ detection.
HPV/cytology co-testing improves the detection of high-grade cervical dysplasia, particularly in women with low-grade cytological abnormalities. These findings confirm higher sensitivity of HPV-based screening and highlight the importance of triage strategies to ensure detection while minimizing unnecessary treatment.

EP_029 - Knowledge, Attitudes and Practices Regarding Cervical Cancer Screening Among Indigenous Women

Cervical cancer screening

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To analyze factors associated with knowledge, attitude, and practice (KAP) related to the Pap smear test among Indigenous women.
Analytical cross-sectional study conducted with 129 Indigenous women eligible for cervical cancer screening, from a population of 281 women living in Indigenous territory. Outcomes were the domains of Knowledge, Attitude, and Practice (KAP), categorized as adequate and inadequate. Associations were estimated using Poisson regression with robust variance, with calculation of prevalence ratios (PR) and 95% confidence intervals (95% CI).
Adequacy was observed in 93.8% for knowledge, 74.4% for attitude, and 71.3% for practice, demonstrating a progressive reduction in adequacy along the KAP continuum. Inadequate knowledge was associated with basic sanitation (PR=0.47; 95% CI: 0.24–0.91) and hysterectomy (PR=0.40; 95% CI: 0.19–0.83). Inadequate attitude was associated with employment status (PR=2.05; 95% CI: 1.08–3.90) and alcohol consumption (PR=0.41; 95% CI: 0.18–0.92). Higher education presented PR values equal to zero for inadequate attitude, reflecting the absence of cases in these categories, with unstable estimates. Inadequate practice was associated with Evangelical religion (PR=0.34; 95% CI: 0.14–0.82), absence of active sexual life (PR=2.53; 95% CI: 1.31–4.89), and hysterectomy (PR=2.18; 95% CI: 1.08–4.40).
Among Indigenous women, knowledge, attitude, and practice related to the Pap smear test present specific patterns, indicating the need for culturally sensitive screening strategies adapted to the organization of care in Indigenous territories.

EP_030 - Home- Versus Hospital-Based HPV Self-Sampling for Cervical Cancer Screening in Rural West Region of Cameroon: a Cluster Randomised Controlled Trial

Cervical cancer screening

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We aimed to compare the effectiveness of home- vs hospital-based self-sampling for Human Papilloma Virus (HPV) testing in increasing participation in complete cervical cancer (CC) screening.
A cluster-randomized controlled study was conducted in rural Dschang Health District, Cameroon. In health areas (HAs) assigned to home-based arm, a Community Health Worker (CHW) and a nurse went door-to-door counseling and offering to eligible women (30 to 49 years old) vaginal self-sampling for HPV testing. HPV-positive women were invited for triage and treatment at Dschang Hospital (DH). In hospital-based arm, a CHW went door-to door counseling and issuing invitation cards for screening at DH. The primary outcome was completion of full screening, comprising primary HPV testing, triage of HPV-positive women, and treatment when needed within three months of inclusion. Analysis was by intention to treat. NCT06166420.
In home-based arm 1089 out of 1112 (97.9%) included participants did HPV test against 152 out of 967 (15.7%) in hospital-based arm ($p<0.001$). High-risk HPV test positivity was 17.3% in home-based arm against 24.3% ($p=0.03$). In home-based arm, 79(42%) HPV positive women did not proceed to triage. In total 1010 (90·8%) participants completed screening in home-based arm against 152 (15.7%) in hospital-based arm (risk ratio 5.78, 95% CI 4.87- 6.85, $p < 0.001$). CIN2+ lesions were present in 0.9% HPV positive women in home-based arm versus 8.4% ($p=0.049$). Screening coverage was 69.6% in home-based arm against 12.9%.
The home-based strategy increased CCS by nearly six-folds, reaching coverage close to 70% despite the challenge of loss to follow-up.

EP_031 - Interventions involving community health workers and their effect on cervical cancer screening uptake in sub-Saharan Africa: A systematic review

Cervical cancer screening

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Sub-Saharan Africa (SSA) has the highest incidence and mortality rates of cervical cancer, largely due to limited screening coverage. Community health workers (CHWs) are lay health providers who strengthen healthcare delivery; however, their influence on cervical cancer screening (CCS) uptake remains insufficiently explored in Sub-Saharan Africa (SSA). This systematic review evaluates the impact of CHW-involved interventions on CCS uptake in SSA.
A systematic search of MEDLINE, EMBASE, and Cochrane databases was conducted in June 2023 and updated in May 2025. Studies were included if they: (1) they were conducted in SSA among females eligible for CCS and published between January 2003 and June 2023; (2) compared CHW-based interventions with standard or non-CHW approaches; and (3) reported CCS uptake and additional possible outcomes were linkage to triage and/or treatment after primary screening or attendance to follow-up visits. Only studies using a controlled design were included. A descriptive analysis was performed. PROSPERO registration: CRD42024495220.
Six studies met the inclusion criteria. Despite methodological limitations, all studies involved CHWs in health education and counseling. CHWs conducted home visits to recruit participants for CCS, reschedule follow-up appointments, facilitate access to care, and provide childcare during screening attendance. Interventions involving CHWs significantly increased CCS uptake in three out of the five studies assessing it as the primary outcome and improved follow-up attendance in the single study examining this indicator.
The effectiveness of CHW-based interventions varies by type and context but shows potential to enhance CCS uptake in SSA.

EP_032 - A six-methylation-marker panel as an effective triage alternative for HPV-positive women: a population-based prospective cohort

Cervical cancer screening

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This study aimed to assess the triage performance of a six-gene methylation panel (ASTN1, DLX1, ITGA4, RXFP3, SOX17, and ZNF671) in detecting cervical intraepithelial neoplasia grade 2/3 or worse (CIN2+/3+).
A total of 603 HPV-positive women were enrolled in this study. Immediate and 3-year cumulative CIN2+/3+ risks were estimated through stratification by HPV genotypes, in combination with cytology or methylation panel status. The screening performance of the methylation panel alone or in combined with HPV16/18 genotyping was compared with cytology using area under the curve (AUC), sensitivity, and specificity. In addition, net reclassification improvement (NRI) and integrated discrimination improvement (IDI) were calculated to evaluate the incremental predictive value.
Among 603 HPV-positive women, 42/66 women were diagnosed with CIN3+ at baseline and during 3-year follow-up. The methylation panel achieved uniformly low baseline CIN3+ risks across all subgroups (1.35% overall; ≤3.85% by subtype) and significantly reduced 3-year cumulative CIN3+ risks compared to cytology (2.03% vs. 6.42% overall, 5.77% vs. 12.50% for HPV16/18+, and 1.53% vs. 5.46% for HR12+). Combined with HPV16/18 genotyping, the methylation panel showed comparable baseline CIN2+/3+ detection performance to cytology (all $P>0.05$) but significantly superior 3-year cumulative performance (AUC: 0.79/0.81 vs. 0.70/0.69, sensitivity: 81.6%/90.9% vs. 65.8%/66.7%, all $P<0.05$), with significant improvements in risk classification confirmed by NRI (0.17/0.25) and IDI (0.11 for both, all $P<0.001$).
The methylation panel exhibits robust screening efficacy for CIN2+/3+ in HPV-positive women, with particular advantages in long-term risk prediction. It is a promising tool for refining risk stratification and strengthening cervical cancer prevention efforts.

EP_033 - Prevalence of Abnormal Cervical Cytology and High-Risk HPV in Older Women with Pelvic Organ Prolapse

Cervical cancer screening

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Pelvic organ prolapse (POP) is a common condition in older women. While cervical cancer screening is essential, adequate visualization of the cervix can be challenging in patients with advanced prolapse. Furthermore, chronic inflammation associated with prolapse or pessary use may mimic dysplasia. This study evaluates the prevalence of cytological abnormalities and high-risk HPV (HR-HPV) infection in women with POP.
We retrospectively analyzed 1,797 women who underwent surgery for POP at our institution between 2019 and 2024. Preoperative cervical cytology (Bethesda system) and HR-HPV testing status were evaluated. Clinical characteristics, including age and histological outcomes of high-grade cases, were assessed.
The mean age was 72.6 years. The prevalence of cytological abnormalities (ASC-US or worse) was 1.4% (n=26). The breakdown was: ASC-US 0.6%, LSIL 0.1%, ASC-H 0.3%, HSIL 0.3%, and AGC 0.2%. Among the 5 patients with abnormal cytology who underwent HPV testing, the HR-HPV positivity rate was 40.0% (2/5). Histological follow-up of high-grade cytology cases (HSIL/ASC-H) revealed a mixture of true High-grade Squamous Intraepithelial Lesions (HSIL) and benign findings associated with severe atrophy or inflammation.
The prevalence of cytological abnormalities in this cohort of older women was low. Most low-grade abnormalities were attributable to atrophy or inflammation rather than HPV-driven oncogenesis. However, since true HSIL was identified even in this low-risk population, routine preoperative screening remains a crucial step for appropriate surgical management.

EP_034 - Screening for cervical cancer ; An analysis of modalities in a private healthcare setting

Cervical cancer screening

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Cervical cancer screening modalities vary across different resourse settings. Consequently, there is a need to analyse the same, based on socio-demography of the population and be able to counsel and screen maximum possible women. It is necessary to strike on the longer pre-invasive phase of cervical cancer,Screen and Treat.This will help in reducing the cancer burden and achieve the goal of 90-70-90 by 2030.
430 women were screened as opportunistic screening. They were screened by co testing,using LBC and VIA. Few were additionally screened by HPV. The mean age for screening was from 25 to 60yrs. All women coming to the OPD were counselled for screening. Apart from complaints related to cervicitis and vaginitis,the women presenting with complaints of menorrhagia,dysmenorrhoea etc were also screened. Pregnant women were excluded from the analysis.
VIA and LBC were equally good for screening.VIA was negative in women whose cytology was abnormal. In this analysis cytology was abnormal in 6%,VIA was positive in 5.5%. Positivity for HPV was 8%. VIA positivity with negative LBC was noted in 5.81%. Conversely, VIA-negative cases showed cytological abnormalities on LBC in 2.8% cases, including LSIL in 1.6%, ASCUS in 0.46%, ASC-H in 0.46%, and HSIL in 0.23% cases. HPV testing was performed in 105 women and was positive in 1.16%. Additionally, 0.7% women had isolated HPV positivity with both VIA and LBC being negative.
Spending time and efforts on the counselling of women for screening is important for cervical cancer awareness. COTESTING IS MORE USEFULTHAN SINGLE METHOD FOR SCREENING.

EP_035 - A Portable Soft Robotic Device Enabling Speculum-Free Cervical Assessment and Sampling

Cervical cancer screening

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Cervical cancer is largely preventable, yet discomfort and anxiety associated with speculum-based examinations contribute to reduced participation and loss to follow-up. In low- and middle-income countries, limited access to colposcopy delays care, while in England large numbers of colposcopies reveal no disease, highlighting inefficiencies in triage. To address this, we present a proof-of-concept tampon-shaped soft robotic device whose handheld, portable design enables HPV sampling, reflex cytology and visual inspection of the cervix within a single insertion, without reliance on a direct external optical path between clinician and cervix, and evaluate it in pre-clinical phantom studies.
A tampon-scale silicone soft robot incorporating an inflatable anchoring chamber and a steerable segment housing an internal camera and cytology brush was assessed through bench and phantom testing using manual syringe actuation. Inflation pressure, dilation forces and bending workspace were compared with anatomical data and reported speculum loads. Phantom trials evaluated the ability to visualise the full transformation zone (TZ) across cervical orientations.
The device achieved up to 40 mm lumen dilation using pneumatic volumes deliverable with a standard 5 mL syringe, generating circumferential radial forces comparable to those of a speculum while reducing focal wall loading. The steerable segment provided 11–18 mm lateral reach and enabled full TZ visualisation within two seconds across a range of phantom cervix positions.
This proof-of-concept soft robotic platform demonstrates the feasibility of integrating visual assessment and cervical sampling without external line-of-sight in a handheld, portable system and offers a pathway toward more acceptable, speculum-free screening and diagnostic workflows.

EP_036 - High-Risk HPV Testing in ASC-US Cytology: Clinical Outcomes and Implications for Cervical Cancer Prevention

Cervical cancer screening

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Atypical squamous cells of undetermined significance (ASC-US) are a common abnormal cervical cytology finding requiring appropriate triage. High-risk human papillomavirus (hrHPV) testing is recommended; however, follow-up adherence varies. While primary HPV screening at extended intervals is increasingly adopted internationally, cervical cancer screening participation and HPV vaccination coverage remain relatively low in Japan. This study evaluated hrHPV positivity, histological outcomes, and follow-up in ASC-US cases to clarify practical management issues. This study evaluated hrHPV positivity, histological outcomes, and follow-up in ASC-US cases to clarify practical management issues.

We retrospectively analyzed 434 women diagnosed with ASC-US between April 2014 and March 2019. These included 143 women identified through cervical cancer screening (8,152 screened cases) and 291 symptomatic patients undergoing cytology in routine clinical practice (10,993 cases). hrHPV positivity, colposcopy-directed biopsy findings, and follow-up cytology were evaluated.

ASC-US prevalence was 1.8% in the screening group and 2.7% among symptomatic patients. Overall hrHPV positivity was 41.9%, higher in the screening group (58.7%) than in symptomatic patients (35.1%). Among hrHPV-positive cases, histology showed cervicitis in 27.7%, CIN1 in 49.7%, CIN2 in 29 cases, CIN3 in 10 cases, and one microinvasive carcinoma; 11 patients underwent conization. At one year, 58.9% of hrHPV-positive cases regressed to NILM, compared with 90.4% of hrHPV-negative cases.

ASC-US with hrHPV positivity carries a clinically relevant risk of cervical intraepithelial neoplasia, supporting active colposcopic evaluation. Given Japan’s relatively low HPV vaccination and screening uptake, improved education and follow-up adherence are essential to strengthen cervical cancer prevention.

EP_037 - Harnessing Machine Learning to Assess Cervical Cancer Health Access

Cervical cancer screening

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Cervical cancer remains a preventable disease, yet mortality rates vary widely across U.S. counties. Screening with Pap smears and HPV vaccination are proven interventions, but utilization differs by geography and population characteristics. Understanding these patterns is critical for improving preventive care delivery. This study aims to model cervical cancer mortality at the county level and identify factors associated with health access indicators such as screening and vaccination. The intended outcome is a predictive framework that can inform resource allocation and public health strategies.

We developed a Gaussian linear regression model using county-level data. Predictor variables included Pap smear screening coverage, smoking prevalence, rural-urban classification, and racial/ethnic composition. Data were sourced from national health databases and census records. Counties with higher rural classifications exhibited elevated mortality rates. Hispanic and African American populations were disproportionately affected. Behavioral risk factor such as smoking was positively associated with mortality, while higher early-stage diagnostic rates correlated with improved outcomes.

In this study, we applied a machine learning model to examine cervical cancer outcomes and their relationship to health access indicators. The model shows that social and behavioral factors substantially shape county-level mortality, with rurality, smoking, and higher proportions of Hispanic and African American populations contributing to elevated risk, while higher early-stage detection diagnostic rates are associated with lower mortality. This approach efficiently identified key access-related drivers and can support targeted screening and vaccination strategies to advance equity. Future work will incorporate additional social determinants and validate the model in clinical settings.

EP_038 - Comparative Effectiveness of HPV Testing as a Cervical Screening Tool

Cervical cancer screening

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Evaluation of the effectiveness of cervical screening using HPV testing and the Pap test in the diagnosis of cervical intraepithelial squamous lesions.
A prospective longitudinal cohort study was conducted at the Belarusian State Medical University from 2020 to 2025 and included 189 women aged 18–35 years with HPV-associated, histologically confirmed cervical intraepithelial lesions. Patients were divided into LSIL (n = 109; 57.67%) and HSIL (n = 80; 42.33%) groups. All participants underwent cervical screening with the Pap test and real-time PCR–based high-risk HPV testing, including separate identification of HPV genotypes 16 and 18. Screening results were compared with histological findings from targeted cervical biopsy, which served as the diagnostic gold standard.
The median age was significantly higher in the HSIL group than in the LSIL group (30 vs. 27 years; $p = 0.002$). All patients were HPV-positive. HPV genotype 16 was detected 2.5 times more frequently in HSIL cases (60.0% vs. 24.77%; $p < 0.001$), highlighting its major role in high-grade lesions. Pap testing using liquid-based cytology showed limited concordance with histology. In the LSIL group, agreement was observed in 36.7% of cases, with frequent false-negative results (51.36%). In the HSIL group, concordance reached 43.75%, while false-negative cytology (NILM or LSIL) remained common.
Cervical screening based on primary HPV testing followed by extended colposcopy and targeted cervical biopsy is currently the most effective and accessible approach for early diagnosis and risk stratification of cervical intraepithelial lesions within secondary cervical cancer prevention strategies.

EP_039 - Digital Droplet PCR Detection of CADM1, MAL, and PAX1 Methylation for Risk Stratification of CIN2+ in HPV-Positive Women

Cervical cancer screening

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To evaluate the diagnostic performance of CADM1, MAL, and PAX1 promoter methylation measured by digital droplet PCR (ddPCR) for detection of CIN2+ and cervical cancer in HPV-positive women.
In this prospective observational study, cervical samples were collected from women attending routine gynecological screening. HPV testing and liquid-based cytology were performed. DNA was extracted and subjected to bisulfite conversion. Promoter methylation of CADM1, MAL, and PAX1 was quantified using ddPCR. Histopathology served as the reference standard in women with HSIL cytology and/or suspicion of malignancy. Methylation positivity rates and quantitative methylation levels were compared across diagnostic categories (NILM, LSIL, HSIL, cervical cancer). Receiver operating characteristic (ROC) analysis and multivariate logistic regression were performed.
For CADM1 and MAL, methylation levels increased significantly mainly in carcinoma cases. For PAX1, methylation levels were significantly higher in carcinoma compared to all non-cancer groups. For CIN2+ detection, CADM1 demonstrated the highest diagnostic performance (AUC approximately 0.67). For cervical cancer detection, PAX1 demonstrated strong performance (AUC > 0.8). Combined CADM1 and MAL methylation significantly improved diagnostic performance, with AUC approximately 0.74 for CIN2+ and above 0.9 for cervical cancer detection. At optimal thresholds, specificity reached 100% with sensitivity approximately 70%. In multivariate analysis, CADM1 methylation remained an independent predictor of HSIL+, whereas MAL and PAX1 were not statistically significant.
Methylation of CADM1 and MAL, particularly in combination, demonstrates strong diagnostic potential for identifying high-grade lesions and cervical cancer in HPV-positive women. ddPCR provides high analytical sensitivity, especially at low methylation levels.

EP_040 - Experience with HPV testing in cervical cancer screening in tertiary care hospital in India

Cervical cancer screening

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This study aims at identifying prevalence of HPV infection among females who have undergone cervical cancer screening with HPV DNA test at Gynaec OPD in Safdarjung hospital,New Delhi from 2024 to 2025,helping in early detection of precancerous lesions of cervix.
Cross-sectional study was conducted to assess prevalence of HPV infection, primarily employing the HPV-DNA test for cervical cancer screening,from year 2024 to 2025 at Gynaec OPD,Safdarjung hospital.Females with HPV + were subjected to cotest and triage test colposcopy
2327 women between 30 to 65 yrs who presented to the Gyn clinic during their pelvic examination using the Roche Cobas HPV test with Cervex brush sampler. HPV test was positive 226 women(9.7%),of which 82 were positive for HPV 16, 23 for HPV 18, 124 for others;107for more than 1 genotype.The commonest age group was 40-50yrs; mean age was 13 were nulliparous,73 had one child,140 had 2 or more children. The common gyn complaint associated was white discharge per vaginum. Co-testing was performed in 109 females-Pap was normal in 89, abnormal in 20- 5 LSIL,5HSIL,3ASCUS,4 ASC-H,1 suspicious of malignancy,2 showing SCC.
HPV testing offers higher sensitivity, earlier detection of disease,a longer negative predictive value, allowing for extended screening intervals. HPV testing can be used as a primary screening test, as a co-test with cytology, or for triage of abnormal cytology results. It represents a significant advancement in cervical cancer screening, offering improved sensitivity.It has global cervical cancer elimination when integrated with vaccination ,meeting WHO target of 90-70-90.

EP_041 - Screening in Remote & Resource-Limited Areas: Experiences from the East and North-East India

Cervical cancer screening

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Persistent infection with high-risk HPV types is the principal cause of cervical cancer, yet health system constraints, particularly in East and North-East India pose significant barriers to timely detection and treatment.
Published literature, national program reports, and field experiences from Assam, Arunachal Pradesh, Nagaland, Meghalaya, West Bengal, Odisha, and Sikkim were reviewed. Screening strategies such as VIA/VILI-based “screen-and-treat” models integrated into NPCDCS, mobile outreach camps, and tele-colposcopy pilots assessed. Role of frontline health workers (ASHAs, ANMs, nurses) and school-based HPV vaccination initiatives was also assessed.
VIA/VILI emerged as the most feasible frontline approach, with pooled sensitivity of 67.6% and specificity of 84.3%. Uptake improved when screening was free, community- based and supported by ASHAs. Same-day treatment with cryotherapy or thermal ablation reduced loss to follow-up.
Tele-colposcopy and smartphone-based imaging facilitated remote triage where specialists were scarce. District-level hub-and-spoke models improved coverage and early CIN2+ detection. ASHAs played a pivotal role in community mobilization, counseling, and follow-up. In Sikkim school-based HPV vaccination achieved >97% coverage by integrating class registers, parental meetings and teacher participation. However, tribal groups remain underrepresented and referral linkages for screen-positive women remain a key bottleneck.
Screen-and-treat with VIA remains an essential, scalable strategy for resource-limited settings, while HPV testing should be phased in as infrastructure matures. Mobile outreach, tele-colposcopy, and strong ASHA engagement are critical enablers of uptake and continuity of care. School-based HPV vaccination demonstrates high feasibility and impact. Together, these approaches provide a practical roadmap for advancing cervical cancer elimination in East and North-East India.

EP_042 - Noninvasive aprouch to detect CIN lesions

Cervical cancer screening

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Due to the impact of surgical treatment on future reproductive function, in young patients of reproductive age it is necessary to treat only CIN lesions that have the potential for progression. The goal is to increase the individualisation of the patient's approach and treatment, and identification of any reversible cofactors that may modulate HPV expression. Combination and selection of optimal non-invasive tests in the diagnosis of CIN lesions, that can determine which precancerous lesion do not require additional invasive diagnostic and therapeutic procedures.
This was prospective observational cohort study that included 183 patients. Questionnaire related to risk factors for HPV infection, Pap smear, HPV testing, colposcopic examination, one-carbon metabolic parameters (vitamin B9, vitamin B12, homocysteine) from blood samples and pathohistological sample of cervix was taken.
Based on the ROC analysis, the cut-off values of vitamin B9≤19.5nmol/L and homocysteine≥9.35µmol/l ($p<0.01$, AUC:0.635 95%IP:0.554-0.716) together represents a diagnostic predictor of CIN2+ lesions. Vitamin B12 values did not prove to be a relevant parameter for differentiating CIN lesion. Based on the results of this study, a classification score of 0.39 was determined as diagnostically significant ($p<0.001$ AUC 0.880 95%IP: 0.831-0.929). The lower the score, the more certain the subject will have a CIN2+lesion, while scores greater than 0.39 predict a lower-grade CIN lesion or its absence.
Values of vitamin B9 and homocysteine can serve as parameters for deciding on folate and vitB12 supplementation in clinical practice as conservative treatment of HPV infection.

EP_043 - Mueller Polarimetric Colposcopy: An Innovative, Label-Free Approach for High-Precision, Real-Time In Vivo Detection of Cervical Precancer

Cervical cancer screening

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Mueller polarimetric imaging is a polarization-based, label-free optical technique promising to improve early cervical cancer detection. Our previous studies showed that this technique effectively distinguishes precancerous lesions from healthy squamous epithelium. Its clinical translation requires accurate characterization of metaplastic transformations, involving replacement of glandular with squamous epithelium, frequently confounded with precancerous lesions during colposcopy, limiting diagnostic performance.
 This study aims to demonstrate that Mueller polarimetric imaging reliably detects cervical metaplastic transformations, a critical prerequisite for robust precancer detection.
An in vivo clinical study (COLPOTERME) is conducted at Kremlin Bicêtre University Hospital, designed to investigate cervical microstructure for improved prematurity prediction. The cervix of pregnant women provides a unique in vivo model to characterize metaplastic transformations. To date, ~400 women have been analyzed using an in-house fast Mueller polarimetric colposcope to map multiple anisotropy and scattering cervical properties involved in these transformations.
Mueller polarimetric imaging reliably distinguishes glandular epithelium, squamous epithelium, and different degrees of metaplasia by quantifying remodeling of the extracellular matrix in the connective tissue underlying the basal membrane, a structural feature inaccessible to conventional colposcopy. Deep learning algorithms were implemented to enable fast, real-time, automated segmentation of cervical tissue, reducing operator dependence.
Mueller polarimetric imaging, coupled with deep learning-based segmentation provides a fast, quantitative, and reproducible method for comprehensive cervical tissue characterization. It accurately detects metaplastic transformations and demonstrates a strong potential to differentiate them from precancerous lesions. A clinical trial is currently being prepared to evaluate its performance for improved in vivo detection of cervical precancerous lesions.

EP_044 - Treating Cervical Cancer While Preserving Pregnancy - A Multidisciplinary Challenge

Cervical cancer screening

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Cervical cancer is the most common gynecological malignancy diagnosed during pregnancy and represents a major therapeutic challenge. Management requires balancing optimal maternal oncologic treatment with fetal safety. We report a case of cervical cancer diagnosed during pregnancy, managed with neoadjuvant chemotherapy to allow continuation of gestation.
We describe a 37-year-old Angolan pregnant woman (G5P3) with no relevant medical history, who presented in the first trimester with recurrent vaginal bleeding. A 4-cm exophytic cervical lesion was identified. She had never participated in an organized cervical cancer screening program. Cervical biopsy and co-testing revealed HPV-16 infection and high-grade squamous intraepithelial lesion (HSIL, CIN 3). Due to colpo-histological discrepancy, an extended biopsy at 18 weeks of gestation confirmed invasive squamous cell carcinoma. Pelvic MRI showed disease consistent with FIGO stage IB2.
After multidisciplinary discussion and considering the patient's strong desire to preserve the pregnancy, neoadjuvant chemotherapy with carboplatin every three weeks and weekly paclitaxel was initiated, with planned postpartum restaging. The pregnancy progressed without complications. An elective cesarean section was performed at 34 weeks after fetal lung maturation, resulting in the delivery of a healthy newborn weighing 2145 g, Apgar of 8, 9, and 10. Postpartum pelvic MRI demonstrated stable disease. Two months after delivery, the patient underwent radical hysterectomy (Wertheim–Meigs procedure) without complications and remains under oncologic follow-up.
This case highlights the importance of a multidisciplinary and individualized approach to cervical cancer during pregnancy. In selected cases, neoadjuvant chemotherapy can be a safe option, allowing fetal maturity while maintaining adequate oncologic control.

EP_045 - Three conizations, one diagnosis: the challenge of treating persistent HSIL

Cervical cancer screening

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This study reports two clinical cases of persistent high-grade squamous intraepithelial lesion (HSIL) undergoing sequential conizations, discussing factors associated with lesion persistence or recurrence.
This is a descriptive study, a case report of two clinical cases of HSIL undergoing three conizations due to lesion persistence. The information was obtained through analysis of the hospital clinical record, including clinical, cytological, and histological data.
The first clinical case reports a 43-year-old woman followed in hospital appointments since 2019 after detection of LSIL and HPV 58. Due to the persistence of the same HPV until 2024, LASER conization was proposed. After the first conization in 2025, the anatomopathological result revealed HSIL with positive surgical margins. A second conization was performed, which maintained HSIL intercepted by the endocervical surgical margin. The patient was proposed for a third conization, after which the histological examination did not demonstrate any residual lesion. The second clinical case reports a 31-year-old woman with persistent HSIL and HPV 16 since 2020. She underwent loop electrosurgical excision procedure (LEEP) in 2020 and 2022 with positive surgical margins. Due to the persistence of CIN2, LASER conization was proposed, which allowed complete excision of the lesion. Both patients maintain clinical follow-up, with no evidence of recurrence to date.
Although conization is often curative, the persistence of high-risk HPV, especially type 16, and a positive cervical margin are important factors in lesion persistence, requiring surveillance and retreatment.

EP_046 - HPV Infection and Cervicovaginal Microbiome Composition in Pregnant women living with HIV

Cervical cancer screening

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This study aims to characterize the prevalence and diversity of cervical HPV infection and investigate their association with cervicovaginal microbiome composition in pregnant women living with HIV receiving care on an outpatients basis, followed up at the Gaffrée and Guinle University Hospital (HUGG), in Rio de Janeiro, Brazil.
Cervical smear samples were collected, and DNA was extracted. HPV infection was determined by reverse hybridization on a nylon membrane containing probes for 35 types of HPV (multi-HPV flow chip kit, MOBIUS). Microbiome analysis was performed by V3-V4 16S sequencing.
Sixty one samples have been collected and analyzed. HPV was found in 39 samples (63.9%). The most prevalent type of HPV were genotypes 44/55 (18%) and 16 (15%). HPV types 16 and 18 were identified in 6 and 4 samples, respectively. Coinfection with more than one type of HPV was observed in 22 samples (56.4%). Preliminary analysis of the cervicovaginal microbiome demonstrated a predominance of Lactobacillus iners, Gardnerella vaginalis and Bifidobacterium scardovii across the study population. The alpha and beta diversity analyses are being calculated.
This study stands out as one of the few to describe the microbiome profile of pregnant women living with HIV, exploring its relationship with HPV infection. Additionally, it emphasizes the importance of studying the vaginal microbiome in the context of various obstetric conditions, included the outcome of deliveries.

EP_047 - Comparative Analysis of HPV Genotyping and Microbiome Profiles in Cervical Samples Obtained by Urine, Self-Collection, and Healthcare ProfessionalsLS

Cervical cancer screening

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Cervical cancer remains a major public health concern, especially in low- and middle-income countries. Persistent high-risk HPV infection is the main causal factor, and the cervical microbiome may influence viral persistence. This study compared the analytical performance of four commercial HPV assays and evaluated microbiome profiles from urine, vaginal self-collected, and clinician-collected samples.
A cross-sectional study was conducted among 100 women aged >21 years referred for colposcopy due to histological CIN2+ findings. HPV DNA detection was performed on urine, self-collected vaginal, and clinician-collected cervical samples, all obtained during the same visit and analyzed using four commercial HPV assays (Cobas, Quant_21, Seegene, and Flowchip). Microbiome(FEMOFLOR SCREEN) and STIs were evaluated in all samples using a multiplex panel.
Urine sampling was the most accepted technique (53%), followed by vaginal self-collection (17%). All four HPV assays demonstrated consistent detection of HPV16, HPV18, and other high-risk types. HPV16 was found in approximately 35–40% of samples, other high-risk types (OHR) in 60–70%, and HPV18 in less than 10%. Urine, self-collection, and professional collection yielded similar results, indicating that the sample type can be flexibly chosen according to context.

A high level of agreement was observed across detection methods for most microbiota components, indicating consistent performance regardless of the sample type.
Comparable HPV genotyping results were obtained across all collection methods, supporting flexible sampling strategies in screening programs. The specific detection of several vaginal microbiota components showed a high level of agreement across different collection methods, highlighting the efficiency of the molecular approach across sampling strategies.

EP_048 - Application of Self-Sampled Cervical Exfoliated Cells for HPV E6/E7 mRNA Detection in Cervical Cancer Screening: A Multicenter Clinical Validation Study

Cervical cancer screening

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To assess the clinical validity and acceptability of self-collected cervical exfoliated cells for HPV E6/E7 mRNA testing as a primary cervical-cancer screening tool.
In this five-centre prospective validation study (March 2023–April 2024), we enrolled 809 women aged 21–69 years attending routine gynaecology clinics. Each participant first collected a vaginal sample using a provided brush, then immediately underwent physician-collected cervical sampling. Both specimens were tested for 14 high-risk HPV E6/E7 mRNA transcripts with a branch-DNA signal-amplification assay. Concordance was calculated with 95 % CIs and κ statistics. A structured questionnaire explored comfort, preference and perceived barriers.
Analytical cohort comprised 778 paired samples. Positive, negative and overall agreement between self- and clinician-sampling were 90.78 % (84.86–94.53), 97.80 % (96.34–98.69) and 96.53 % (95.00–97.60), respectively, with κ = 0.883 (0.840–0.927). Stratification by age (<30, 30–39, ≥40 years) and by region (Shanghai, Jiangsu, Zhejiang) showed ≥95 % agreement and κ >0.8 in every subgroup. Among 737 respondents, 95.93 % were willing to reuse self-sampling, 93.49 % rated the procedure comfortable, and 64.31 % preferred to perform it in hospital settings; main drivers were ease of use (43.55 %), convenience (40.57 %) and privacy (30.53 %).
Self-sampled HPV E6/E7 mRNA testing achieves near-equivalent accuracy to clinician collection while offering superior acceptability, indicating its utility for expanding cervical screening coverage.

EP_049 - Value of Transcervical Resection of the Endocervical Canal in the Diagnosis of Cervical Gastric-type Glandular Lesions: A Single-Center Retrospective Study

Cervical cancer screening

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To compare the detection rates of hysteroscopic Transcervical Resection of the Endocervical Canal (TCREC) and Loop Electrosurgical Excision Procedure (LEEP) for diagnosing precursor lesions of cervical gastric-type glandular lesions, and to evaluate the clinical application value of TCREC.
A retrospective analysis was conducted on clinical data from 130 patients with gastric-type mucinou glandular lesions treated at the Center for Lower Genital Tract and Anal Diseases, Obstetrics and Gynecology Hospital of Fudan University between 2020 and 2024.
(1) 12 patients without hysterectomy, the pathological concordance rate between TCREC and LEEP was 41.7% (5/12). (2) 37 patients who underwent LEEP and TCREC, and hysterectomy（MRI lesion <2 cm）: the diagnostic accuracy of LEEP alonwas 9/37 (24.3%), with a post-hysterectomy pathological upgrade rate of 28/37 (75.7%). The diagnostic accuracy after subsequent TCREC was 23/37 (62.2%). Residual lesions were found in 37/37 (100%) hysterectomy specimens, with a pathological upgrade rate of 14/37 (37.8%). (3)81 patients who underwent LEEP and hysterectomy(MRI lesion ＞4 cm): The accuracy of LEEP was 66.7% (51/81), with a pathological upgrade rate of 33.3% (30/81).
When lesion <2 cm, the combined use of LEEP and TCREC demonstrates a significantly superior detection rate for diagnosing cervical gastric-type glandular lesions compared to LEEP alone. However, even after combined LEEP and TCREC, the residual lesion rate in subsequent hysterectomy specimens remains 100%. When lesion >4 cm , the diagnostic concordance rate of LEEP is substantially improved; nevertheless, the residual lesion rate for glandular disease found in hysterectomy specimens after LEEP alone is 98.8%.

EP_050 - Expression profile of immunological panel IL1β, IL10, IL18, TNF-α, TLR4, GATA3, CD68 on cervical samples with positive/negative hr-HPV DNA/E6 E7 mRNA status and cytological estimation.

Cervical cancer screening

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To investigate IL1β, IL10, IL18, TNF-α, TLR4, GATA3, CD68 on hr-HPV DNA/hr-HPV E6 E7 mRNA positive/ negative cervical status and TBC estimation.
22 cervical samples with positive hr-HPV DNA status and normal cytology (PAPI/II) and 20 with abnormal cytology (ASCUS, LSIL, HSIL, CIS, CIN1, CIN2/3) were analyzed. Real-Time qPCR, hybridization, cytological examination were applied.
In hr-HPV DNA–positive group with normal cytology, 77.2% showed an elevated inflammation index (IFI ≥ 50) with reactive inflammatory changes. Over 50% had polymicrobial infections causing moderate to severe dysbiosis. Additionally, 58.9% were positive for hr-HPV E6/E7 mRNA, indicating oncotransformation activity. In hr-HPV–positive patients with abnormal cytology, elevated IFI > 95–100% was found in 95% without reactive cellular changes, while 100% were hr-HPV E6/E7 mRNA positive. In both hr-HPV–positive groups, IL-1β, IL-18, TNF-α, and CD68 expression was significantly increased, suggesting a protumoral role. The control group (n=20) was hr-HPV DNA/E6/E7 mRNA negative, with IFI <50 and normal cytology. After cytological revision was found that >40% of studied cases (routine patient flow) are abundand of superficial cervical layer. In the progress of the study 6 patients were studied secondary and estimated with more advanced cytological abnormalities HSIL, CIN1.
Hr-HPV DNA/E6 E7 mRNA non-invasive tests for prevention, diagnosis and monitoring of CC should be properly positioned in the algorithm for combating the disease. A combined approach using an IL-1β, IL-10, IL-18, TNF-α, TLR4, GATA3, and CD68 panel together with microbiome assessment and hr-HPV DNA/RNA testing is justified. Grants: D-117/29.05.2024; D-314/18.12.2024 - Medical University-Sofia, Bulgaria.

EP_051 - Advancing Cervical Cancer Elimination in Albania Through Screening and Early Diagnosis

Cervical cancer screening

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To evaluate cervical cancer screening tests and early diagnostic strategies in Albania, with a focus on the role of HPV testing and advanced cytological methods like Liquid Cytology and p16/Ki-67 dual-staining in improving early detection.
A retrospective study conducted at a tertiary oncology center in Tirana analyzed 640 women diagnosed with cervical cancer between 2015 and 2022. And also a retrospective study was conducted with 147 outpatient women between 2021 and 2024. Cervical smears were collected using Liquid Cytology, and the results were classified according to the Munich III system. HPV analyses were performed using the Polymerase chain reaction (PCR) method to detect HPV High-Risk (HR) strains.
The results demonstrate that the highest incidence in women aged 40–60 years, with a mean age at diagnosis of 49 years. Early sexual debut, multiparity, smoking, and rural residence were associated with advanced-stage diagnosis. Urban residence was more common among diagnosed cases, women from rural areas were more likely to present with advanced disease. Squamous cell carcinoma was the predominant histological subtype. Preliminary data from HPV and Thinprep Co-testing in Albania demonstrated the feasibility and potential impact of guideline-aligned screening strategies with international guidelines (WHO, ACOG, NHS).
There is a statistically significant correlation between HPV HR strains and abnormal pap smear results. Therefore, it would be advisable to implement HPV-based primary screening for early cervical cancer detection, taking into consideration the lack of HPV vaccination and the lifestyle of the at-risk Albanian women population.

EP_052 - Glandular lesions and AIS - Correlation of abnormal cytology and histological findings

Cervical cancer screening

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An estimated 10-20% of the 500,000 cervical cancer cases are adenocarcinomas with adenocarcinoma in situ (AIS) as a preliminary stage. Compared to others, the AIS shows an increasing incidence highlighting the need for improved screening parameters. Since colposcopic criteria are unspecific, the aim of this evaluation was to determine the correlation between atypical glandular cytology and the rate of AIS detection.
All patients presenting at one of 15 study centres between July 1, 2020 and January 15, 2026 were included according to the German diagnostic algorithm. Glandular cytologies (AGC endocervical NOS; AGC endocervical favor neoplastic; AIS; AIS with features suspicious for invasion; Endocervical adenocarcinoma) were examined for CIN2+ (including squamous-cell-carcinomas), CIN 3+ and AIS+ (including adenocarcinomas), followed by a comparison of sampling (cervical biopsy [CB] vs. endocervical curettage [ECC]). The AIS-detected group was further examined for the frequency of glandular cytologies. Data analysis was performed using REDCap, Microsoft Excel, and Python.
Among 538 Patients presented with glandular cytology, the CIN2+ and CIN3+ rate both where significantly higher compared to AIS+ ($p<0.001$). No significant difference was observed between CB and ECC sampling ($p>0.4$). Of the patients diagnosed with a histologically verified glandular lesion, over 50% had non-glandular cytologies including 19.6% NILM.
There was a significant higher CIN2+/CIN3+ detection compared to AIS+ within the group of glandular cytologies. This emphasizes the difficulty of reliably narrowing down AIS based on medical history alone, yet demonstrates that by considering all findings including colposcopy, this critical patient group can be more effectively recognized and treated.

EP_053 - Diagnostic accuracy of human papillomavirus tests on self-collected menstrual blood for the detection of cervical lesions: a systematic review and meta-analysis

Cervical cancer screening

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Human papillomavirus (HPV) test is the most commonly used method for cervical cancer screening, but the participation rates remain low in many countries. Self-sampling menstrual blood (MB) HPV test may offer a solution to this issue. The aim of this meta-analysis was to examine the accuracy of MB HPV test in detecting cervical cancer and cervical intraepithelial neoplasia (CIN).
Electronic databases (PubMed, Embase, and Cochrane) were searched for articles published through October 23, 2024, with the following search terms: (menstrual blood OR menstruation) AND (human papillomavirus). Observational studies (eg. cross-sectional studies, retrospective studies and prospective studies) that reported cervical histopathological biopsy outcomes in women undergoing self-sampling MB HPV testing were included. Data extraction was performed by two independent reviewers according to the PRISMA guidelines. Meta-analyses were conducted based on sensitivities and specificities and corresponding 95% Confidence intervals (CIs). The risk of publication bias and heterogeneity were also assessed. Data were analyzed from October to November 2024.
Seven studies involving 1 672 adult women were included. The overall sensitivity and specificity of HPV testing from the MB samples for the diagnosis of CIN and cervical cancer were 0.96 (95% CI=0.74–1.00, I^2 = 86.14) and 0.53 (95% CI=0.11-0.91, I^2 = 98.24), respectively.
The evidence from this meta-analysis, which includes women with and without CIN and cervical cancer, shows the high sensitivity and low specificity of the MB HPV test. Further large-scale diagnostic studies that combine multiple testing modalities are recommended to support and validate the application of the MB HPV test.

EP_054 - Kōpū Collective: health equity in co-designed community cervical cancer prevention services

Cervical cancer screening

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Māori are the Indigenous people of Aotearoa New Zealand, and alongside Pacific people experience disproportionately high rates of cervical cancer compared to non-Māori. Expand the implementation of co-located colposcopy clinics, in culturally safe community spaces to improve timely engagement with diagnostic and treatment services and ultimately improve outcomes for women and their families. Alongside this, developing resources for women and providers, and informing future planning of colposcopy services for Māori to ensure long-term sustainability and the continuation of reduced rates of cervical cancer.
Piloting a Marae based colposcopy clinic. 'Marae' are traditional meeting places for Māori, they are safe spaces to connect and be well, and have adapted to accommodate health and social needs for Māori communities. Our clinic was piloted at Maraeroa Marae health clinic in Porirua, Wellington. Our team conducted qualitative analysis of feedback and experiences of women and families who attended MMHC for colposcopy.
Feedback was overwhelmingly positive. Women appreciated the clinic being close to home, less costs associated with transport/parking, and travel time (including need for time off work/childcare arrangements). It is a warm, comfortable, and welcoming environment in which family and partners are welcome. We identified the need for information/resources that better reflect community needs, created by and for Māori, 'not about us, without us'.
Co-located community colposcopy services are culturally safe and accessible and will improve timely engagement with screening and ultimately improve outcomes for Māori women and their families. The clinics are welcomed by communities.

EP_055 - Diagnostic Value of HPV Integration Testing in Cervical Adenocarcinoma and Adenocarcinoma in Situ: A Multicenter Retrospective Study

Cervical cancer screening

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Cervical adenocarcinoma(ADC)and adenocarcinoma in situ (AIS) remain challenging targets for screening, partly because cytology has suboptimal sensitivity for glandular lesions. HPV integration is a critical event in cervical carcinogenesis and may improve detection beyond conventional tests. We therefore evaluated the diagnostic performance of HPV integration testing in AIS and ADC.
We conducted a multicenter retrospective cohort study including 207 patients diagnosed between January 2019 and December 2023 (74 AIS and 133 invasive ADC), with Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology as the lead center. All patients underwent HPV genotyping, cervical cytology, HPV integration testing, and histopathological evaluation.
HPV16 and HPV18 were the predominant genotypes, accounting for 93.10% of HPV-positive cases. On cytology, only 22.71% showed atypical glandular cells (AGC). HPV integration testing achieved a sensitivity of 84.06% for detecting AIS/ADC, significantly higher than cytology (≥ASCUS, 64.72%; $p<0.01$). HPV integration testing combined with biopsy-based histology identified 96.61% of AIS/ADC cases. Integration read counts increased with lesion severity; mean reads were higher in invasive ADC than AIS (564.42±1400.84 vs 461.31±122.35), but the difference was not statistically significant ($p=0.615$).
HPV integration testing demonstrated high diagnostic sensitivity for cervical adenocarcinoma, complementing conventional screening and enabling earlier detection; its role in risk stratification warrants further validation in larger cohorts.

EP_056 - Study on Sampling Methods for Human Papillomavirus (HPV) Detection and the Correlation of HPV Infection Between Female Patients and Their Male Partners

Cervical cancer screening

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Relevant studies on male HPV infection remain scarce. This study was conducted to investigate the characteristics of HPV infection in men by collecting data on HPV infection status among partners of HPV-infected women, and to explore the implication of male HPV infection in the context of female HPV infection.
Exfoliated cells were collected from each male subject using three distinct methods, including urethral sampling, sampling with a moistened swab alone, and sampling with a moistened swab after pre-treatment with a nail file.
The HPV positive rates corresponding to the three sampling methods for male exfoliated cells were 5.6%, 43.3%, and 63.7%, respectively. Notably, the number of HPV genotypes detected by moistened swab sampling after nail file pre-treatment was significantly higher than that detected by the other two methods. Based on the concordant analysis of HPV genotypes between partners, the overall concordance rate of HPV genotypes between couples was 72%. Stratified analysis by age showed that the concordance rate of HPV genotypes between male partners aged 20–29 years and their female partners was 87.5%, whereas the rate decreased to 66.6% among men aged 30–39 years. Men aged 50–65 years exhibited the highest HPV positive rate, reaching 86.8%.
Sampling with a moistened swab following pre-treatment with a nail file is an optimal approach for the detection of HPV in male exfoliated cells. The HPV positive rate in men and the concordance rate of HPV genotypes between couples are associated with age.

EP_057 - The role of HPV integration testing in preventing underdiagnosis in women with a transformation zone type 3

Cervical cancer screening

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HPV integration is an important factor in the occurrence of cervical cancer and cervical lesions. This study focused on the role of HPV integration testing in the risk stratification strategy of patients and the prevention of under-diagnosis.
Screening TZ3 women over 45 years of age who underwent biopsy or LLETZ to compare HPV integration with cytological testing in terms of risk stratification strategies. To determine the efficacy of HPV integration in the prevention of missed diagnosis.
In the detection of CIN3+, HPV integration testing had higher specificity than cytological testing (82.2% [95% CI 78.7-85.2%] versus 55.5% [95% CI, 51.3-59.7%], $P < 0.001$). The risk of CIN3+ for the triage strategy of HPV16/18 genotyping with HPV integration test (58/98, 59.1%) was higher than that of HPV16/18 genotyping with ASCUS+ (46/126, 36.5%). In 150 patients with paired data on biopsy and LLETZ specimens, 65 women were diagnosed with normal and CIN1, of which 13 women had under-diagnosis (13/65, 20.0%). 11 under-diagnosed patients (11/13, 84.6%) could be screened by HPV integration testing, while cytological testing could only screen out 3 underdiagnosed patients (3/13, 23.0%). Combining HPV integration testing with high-grade cytology screening strategies, 13 under-diagnosed patients were all screened out (13/13, 100%).
HPV integration testing could improve the specificity of screening, was conducive to screening CIN3+ patients, and played an important role in preventing under-diagnosis.

EP_058 - The value of HPV integration testing for detecting cervical precancer or cancer miss-diagnosed by colposcopy-directed biopsies: a cross-sectional study

Cervical cancer screening

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To explored the value of human papillomavirus (HPV) integration testing in preventing the missed diagnosis of cervical intraepithelial neoplasia grade 2/3 (CIN2/3) or cancer by colposcopy-directed biopsies.
A total of 417 HPV-positive patients whose colposcopy-directed biopsies revealed normal or CIN1 and subsequently underwent diagnostic cervical conization were enrolled. The predictive value of HPV integration and cytology for discovering CIN2/3 or cancer were analyzed and compared. Among the 417 patients enrolled, postoperative pathological examinations revealed 91 cases of CIN2/3 and 3 cases of cancer. A total of 76 patients tested positive for HPV integration, while 341 patients tested negative. Higher percentage of CIN2/3 or cancer was revealed post-conization in those with positive HPV integration compared with those who tested negative (57.9% [46.5-69.3%] vs. 14.7% [11.0-18.3%], P value = 0.000). Compared to high-grade cytology, HPV integration had higher sensitivity (46.8%[36.7-56.9%] versus 24.5%[15.8-33.2%], P value = 0.003) and comparable specificity (90.1%[86.8-93.4%] versus 91.3%[88.3-94.4%]) in predicting postoperative pathological upgrading. The combination of high-grade cytology and HPV integration could detect 90.9% of missed CIN2/3 or cancer, and a double-negative result indicated normal or CIN1 in 84.0% cases. HPV integration is a valuable predictor for detecting CIN2/3 or cancer miss-diagnosed by colposcopy-directed biopsies.

EP_059 - The Association Between HPV Type, HPV Integration Status and CIN3+ In Women with High-Risk HPV Positive: A Mediation Analysis

Cervical cancer screening

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Studies on the role of human papillomavirus (HPV) integration in the chain of HPV genotype influencing Cervical intraepithelial neoplasia grade 3 or more severe (CIN3+) risk remain scarce. The aim of this study is to explore the relationship between HPV type, HPV integration status, and CIN3+. This is a multicenter cross-sectional study of cervical cancer protection program in China. A total of 3077 high risk HPV positive women were included in the final analysis. Using high-throughput viral integration detection to perform The HPV integration test. Structural equation model was used to examine the mediating effect.

Among the patients, 29.5% were infected with HPV 16/18, 12.9% were positive for HPV integration, and 5.9% had CIN3 detected on biopsy.The standardized path coefficient for the direct effect of HPV type on CIN3+ was 0.087. For the indirect effects, the standardized path coefficient for HPV type to HPV integration was 0.404, and for HPV integration to CIN3+ was 0.771. The mediating effect of HPV integration accounted for 78.1% of the total effect.

This research has elucidated the mediating role of HPV integration in the progression from HPV type to CIN3+. It supports the notion of using HPV integration test for triaging patients with HPV16/18 infection. and boosts the confidence of healthcare professionals in using new detection tools.

EP_060 - Follow up a patients with primary ASCUS in Pap test.

Cervical cancer screening

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The purpose of this work was to study of women with a primary cytological diagnosis of ASCUS and simultaneous evaluation of colposcopy findings.
Totally 2631 women with liquid-based cytology method were investigated. The study involved 113 (4,3%) women aged 21-65 years with ASCUS in Pap test, whose were observed for 24-36th months in period 2020-2023. Patients underwent repeated liquid-based cervical cytology (ThinPrep) with combine HPV typing test and colposcopy examination every 6-12 months after the first study.
At the end of the first year of observation normal cytological result has 19,4% (22) patients, cytological and colposcopy picture of LSIL was detected in 42,6% (48) and in 38,0% (43) patients was detected HSIL/CIN2+. Aggression in the development of lesions was observed in 8 (16,7%) patients with HPV positive (16,18,33) previously LSIL in Pap test. Progressing of lesion was detected by colposcopy after 24 months in patients in whose CIN2+ was confirmed by punch biopsy or LEEP. By the end of the 36th month of study, spontaneous regression of lesions was observed by cytological and colposcopy exams in 19 (39,5%) patients with LSIL, and persistent colposcopy picture of LSIL remained in 21(43,7%) HPV positive women.
Analyzing the results patients with primary ASCUS and persistent LSIL has higher possibility of progression of lesion and HSIL detected in next 24-36 months of follow up. Combination of HPV typing test, cytological and colposcopy examinations increases the likelihood of detecting progression in patients with primary abnormal result during follow up.

EP_061 - Visual Diagnosis of Cervical Pathology: Opportunities and Limitations in the Interpretation of Extended Colposcopy

Colposcopy practice

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To evaluate the diagnostic value of extended colposcopy in cervical pathology, taking age-related characteristics into account, by comparing quantitative colposcopic findings with the results of morphological verification.
This study included 86 women with cervical pathology aged 25–45 years. The participants were divided into two age groups: 25–34 years (n=32; 37.2%) and 35–45 years (n=54; 62.8%). All women underwent extended colposcopy using magnification ×7–×15. Colposcopic assessment included acetowhite epithelium, iodine-negative areas, mosaicism, punctuation, and atypical vascular patterns. Colposcopic findings were compared with the results of morphological verification. Statistical analysis was performed using Pearson's χ^2 test, with statistical significance set at $p<0.05$. Acetowhite changes were observed in 71.9% of women aged 25–34 years and in 57.4% of those aged 35–45 years ($\chi^2=1.86$; $p=0.17$). Iodine-negative areas (48.1% vs 28.1%; $\chi^2=4.02$; $p=0.045$) and mosaicism/punctuation (38.9% vs 18.8%; $\chi^2=4.21$; $p=0.040$) were significantly more frequent in the older group. CIN I–III lesions were diagnosed in 35.2% of women aged 35–45 years compared with 15.6% of women aged 25–34 years ($\chi^2=4.17$; $p=0.041$).
The diagnostic value of colposcopy varies with age. Colposcopic findings mainly reflect epithelial reactions and should not be regarded as independent markers of precancerous cervical lesions without morphological verification.

EP_062 - Leukoplakia (Keratinizi

Colposcopy practice

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To characterize the recurrent clinical association between congenital transformation zone and leukoplakia (keratinizing white epithelium) observed in routine colposcopic practice.
A case series study was performed in patients diagnosed with congenital transformation zone during colposcopic evaluation. Three representative clinical cases were selected to illustrate the spectrum of keratinizing epithelial changes within the transformation zone. All patients underwent targeted biopsy and HPV testing. Colposcopic appearance was correlated with histopathological findings and inflammatory status.
Congenital transformation zones consistently demonstrated thin to moderate keratinizing white epithelium resembling leukoplakia. Histological analysis predominantly revealed hyperkeratosis or parakeratosis without evidence of cervical intraepithelial neoplasia. In selected cases, reactive epithelial alterations associated with chronic cervicitis were observed. No invasive lesions were identified. The congenital transformation zone represents a biologically active epithelial interface characterized by prolonged squamous metaplasia and increased proliferative activity. Disordered epithelial maturation may facilitate surface keratinization, accounting for the recurrent clinical appearance of leukoplakia-like lesions in this anatomical setting.
Congenital transformation zone appears to predispose to clinically visible keratinizing epithelial changes secondary to increased epithelial turnover and incomplete maturation. Recognition of this pattern is essential to avoid overtreatment while preserving appropriate biopsy strategies. Further investigation is warranted to clarify the biological mechanisms underlying epithelial keratinization in congenital transformation zone

EP_063 - HGCIN in women above 50 years of age: Cytology versus primary HPV based cervical screening

Colposcopy practice

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Establish increased detection of CINII or worse in women above 50years of age as cervical screening UK moved from cytology-based to primary-HPV. Background concerns of second peak of cervical cancers (1000/3000) in UK in women above 50s.
All women referred to colposcopy unit above 50 years of age were identified by Cyres and colposcopy database-viewpoint. Data 12 months period from 1/1/2015 to 31/12/2015 cytology-based was compared to primary-HPV-based 1/1/2022 to 31/12/22.
Total-referrals n=2877(2015) vs n=4804(2022) Abnormal n=1658(2015) vs n=2913(2022) increased LLETZ-treatments n=493(2015) vs n= 679(2022) Diagnostic-biopsies n=2592(2015) vs n=2621(2022) Women >50 yo n=200 (7%) vs n=404 (8%) Appointments in colposcopy-unit n= 8544(2015) vs n=10669(2022) increased Abnormal cervical screening Low-Grade n=80(2015) vs n=200(2022) High-Grade n=14 (7%) vs n=34 (8%) Glandular n=1(2015) vs n=5(2022) TZ3 n=84(2015) vs n=180(2022) LLETZ n=21(2015) vs n=98(2022) >CINII n=14(2015) vs n=34(2022) increased Cancer n=0(2015) vs n= 3(2022) Genera- Anaesthetics LLETZ n=3(14% 2015) vs n=17(17% 2022) Depth of LLETZ >15 n=2(2015) vs n=16(2022) Hysterectomy n= 2(2015) vs n=8(2022)
Primary-HPV-screening increased the abnormal referrals from 95 (2015) to 242 (2022) High-grade 14 (7.5%) 2015 to 34 (10%) 2022. Three cancers were detected in 2022. Majority of colposcopies were unsatisfactory due to TZ3. Type 3 treatments (depth >15) increased 2/21 (2015) to 16/98 (2022) patients required 2nd LLETZ procedure even hysterectomies 2 (2015) vs 8 (2022). Aim should be to achieve Type 3 treatments by technique or performing under general-anaesthetics. Consider extending screening above 64 years by self-sampling, methylation-assays or newer technologies to prevent 1000 cancers in this age group.

EP_064 - Precision Colposcopy: Toward Individualized Risk Stratification of Cervical Lesions

Colposcopy practice

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To evaluate value of extended colposcopy in the differential diagnosis of cervical intraepithelial lesions using the International Federation of Cervical Pathology and Colposcopy (IFCPC) terminology (2011).
Prospective cohort study was conducted at Belarusian State Medical University from 2020 to 2025 and included 189 women aged 18–35 years with HPV-associated, histologically confirmed cervical intraepithelial lesions. Patients were divided into LSIL (n = 109) and HSIL (n = 80) groups. Extended colposcopy was performed using a Leisegang 3ML LED colposcope, with findings interpreted according to IFCPC criteria.
Median age was 27 [25; 29.5] years in Group1 and 30 [27.5; 32] years in Group2, with statistically significant intergroup differences (U = 2459.5; p = 0.002). In addition to dense, rapidly appearing acetowhite epithelium (χ^2 = 47.66; p < 0.001) with sharp, regular margins (χ^2 = 15.79; p < 0.001) and elevation above surrounding tissues (χ^2 = 9.97; p = 0.002), statistically significant colposcopic markers of HSIL included type3 transformation zone (χ^2 = 9.14; p = 0.003) and coarse punctation (χ^2 = 20.14; p < 0.001). Histological-colposcopic concordance according to IFCPC terminology was 72.69%. The sensitivity and specificity of extended colposcopy for HSIL were 75.87% and 69.05%, respectively.
Assessment of colposcopic findings using IFCPC terminology is an effective tool for early diagnosis and risk stratification of cervical intraepithelial lesions, supporting accurate clinical decision-making and improved quality of care. The study demonstrates the value of extended colposcopy in the differential diagnosis of cervical lesions, as evidenced by high concordance between colposcopic features and histological findings.

EP_065 - From Cervical Anatomy to Colposcopic Diagnosis: A Clinical Case of HPV-Related Low-Grade Dysplasia

Colposcopy practice

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To illustrate the contribution of anatomy-guided colposcopy in the diagnosis of HPV-related low-grade cervical dysplasia through a clinical case
We report the case of a 50-year-old woman, gravida 3 para 3, with a history of dystocic vaginal delivery and no significant past medical history, who presented with chronic pelvic pain and dyspareunia. Cervico-vaginal cytology revealed inflammatory changes. Colposcopic examination was performed, including inspection without preparation, application of 5% acetic acid, and Lugol's iodine test. High-risk HPV testing and a directed cervical biopsy were carried out.
Speculum examination showed a friable cervix with contact bleeding and cervical ectropion. After acetic acid application, a well-defined acetowhite lesion was observed on the posterior cervical lip, without abnormal vascular patterns. Lugol's iodine staining revealed a corresponding iodine-negative area. High-risk HPV testing was positive. Histopathological examination of the targeted biopsy demonstrated low-grade cervical dysplasia (CIN 1).
This case highlights the importance of detailed knowledge of cervical anatomy in colposcopic evaluation. The correlation between anatomical localization, colposcopic findings, HPV positivity, and histopathology allows early detection of low-grade cervical dysplasia and supports appropriate patient management

EP_066 - Bridging Guidelines and Clinical Practice in the Management of Cervical Intraepithelial Neoplasia During Pregnancy

Colposcopy practice

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Background:
Management of cervical intraepithelial neoplasia (CIN) during pregnancy is challenging because pregnancy-related cervical enlargement, eversion of the columnar epithelium, stromal edema, and physiological vascularity often obscure lesion margins and complicate colposcopic interpretation, while overtreatment carries obstetric risks.
Objective:
To evaluate the clinical course of CIN diagnosed during pregnancy and clarify management strategies, with attention to pregnancy-specific colposcopic findings in CIN3.
Methods:
We retrospectively reviewed 126 pregnant patients who underwent colposcopic evaluation following abnormal cervical cytology. Cases were classified as CIN1, CIN2, or CIN3 based on histology. Management during pregnancy and postpartum outcomes were analyzed. In addition, detailed colposcopic findings were examined in three patients with CIN3 during pregnancy.
Results:
Forty-one patients (32.5%) were diagnosed with CIN1, and none showed progression to high-grade disease or invasive cancer during pregnancy. CIN2 and CIN3 were diagnosed in 25 (19.8%) and 35 (27.8%) patients, respectively. Although colposcopic assessment was occasionally limited by inward migration of the transformation zone and increased vascularity, excisional treatment during pregnancy was avoided unless invasion could not be excluded.
In the three CIN3 cases, colposcopy demonstrated pregnancy-specific high-grade features, including dense acetowhite epithelium and coarse mosaic or punctation, without atypical vessels, ulceration, or other signs of invasion. All were managed conservatively. No invasive cancer developed, and diagnosis and treatment were achieved after delivery.
Conclusion:
The primary goal of CIN management during pregnancy is exclusion of invasive cancer rather than treatment. Even in CIN3, recognition of pregnancy-specific findings allows safe avoidance of overtreatment. Colposcopy-centered surveillance with postpartum reassessment provides a safe and effective strategy.

EP_067 - Diagnostic Limitations of Colposcopy in Cervical Adenocarcinoma in Situ: An Analysis of 16 Cases

Colposcopy practice

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AIS is a precursor of invasive adenocarcinoma and is increasingly detected through cervical cancer screening. However, AIS frequently arises within the endocervical canal, limiting direct visualization and reducing the diagnostic accuracy of colposcopy. The true diagnostic value and limitations of colposcopic assessment in AIS remain insufficiently clarified.To evaluate colposcopic findings and diagnostic outcomes in patients with cervical AIS, with particular emphasis on pathological upstaging following diagnostic excision.

We retrospectively analyzed 16 patients diagnosed with cervical AIS who underwent diagnostic conization followed by definitive surgical management. Pre-treatment evaluation included cervical and endometrial cytology, high-risk human papillomavirus testing, colposcopic examination using IFCPC terminology, colposcopy-directed biopsy, and endocervical curettage. Final diagnoses were based on conization specimens. Clinicopathological features and diagnostic concordance were assessed.

The median patient age was 43 years (range, 26–64). AGC were the most frequent referral cytology, identified in 9 patients (56%). HR-HPV was detected in 12 patients (75%), while 4 patients (25%) were HPV-negative. Colposcopic findings were often normal or non-specific. Despite this, pathological upstaging to invasive carcinoma was identified in 10 patients (62.5%) after conization, including microinvasive and early-stage adenocarcinoma. Positive conization margins were observed in 2 patients (12.5%). Tumor width ranged from 1 to 15 mm, and depth of invasion ranged from 1 to 7 mm. All patients achieved negative follow-up cytology after definitive treatment.

Colposcopy has significant diagnostic limitations in cervical AIS. Normal or non-specific colposcopic findings do not reliably exclude invasive disease, emphasizing the essential role of diagnostic excision in patients with suspected glandular abnormalities.

EP_068 - Perceptions of Guinean Women Regarding an Educational Game for Cervical Cancer Prevention: A Cross-Sectional Study

Education / Quality assurance

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To understand the perceptions of Guinean women regarding an educational game aimed at the prevention of cervical cancer.
A cross-sectional study conducted in November 2023 with nine Guinean female university students from a Brazilian public institution, selected using the snowball sampling technique. The game “Na Trilha da Prevenção do Câncer de Colo do Útero” was applied in three sessions. The process included signing the Informed Consent Form, application of the game, and data collection through a sociodemographic form and a questionnaire with open-ended questions. The statements were subjected to content analysis. The study was approved by the Research Ethics Committee of the University of International Integration of Afro-Brazilian Lusophony (Ethics Committee Approval No. 6,291,321).
The participants had a mean age of 26 years; they were Black, single, Christian, had low income, and were agronomy students. Regarding reproductive profile, they were sexually active, with no use of contraceptives or history of abortion. The women reported positive experiences with the game, highlighting the retrieval and deepening of knowledge about prevention, greater understanding of self-care, and acceptance of the dynamics, which were considered stimulating and conducive to enjoyable learning through interaction and technological resources. Critical reflections emerged regarding previous practices and recognition of the importance of expanding educational actions, evidencing the transformative potential of the intervention.
Guinean women perceived the educational game as a dynamic and stimulating resource for acquiring knowledge about cervical cancer prevention. The intervention promoted self-care, constituting an innovative and culturally appropriate pedagogical strategy for health education.

EP_069 - Colposcopic Accuracy of Fellows-in-training in the Diagnosis of Premalignant and

Education / Quality assurance

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Cervical cancer remains a global public health concern and is the second most common cancer among women in the Philippines. Colposcopy is essential in detecting premalignant and malignant cervical lesions. This study aimed to evaluate the diagnostic accuracy of colposcopy performed by gynecologic oncology fellows-in-training among patients referred to the colposcopy unit of the Philippine General Hospital from January 1, 2022 to December 31, 2024.
This cross-sectional study reviewed records of women who underwent colposcopy during the study period. Colposcopic impressions by fellows-in-training were compared with final histopathologic diagnoses which served as the gold standard. Diagnostic accuracy and correlations between specific colposcopic findings and histopathology were analyzed.
A total of 320 women were included, with a mean age of 44.2 years; most were premenopausal (76.9%) and multiparous. Common referral indications included suspicious cervix (50.6%), HPV positivity (19.1%), and abnormal Pap smear (14.1%). Histopathology revealed normal findings in 64.7%, LSIL in 23.1%, HSIL in 9.4%, and invasive cancer in 2.8%. Overall concordance between colposcopic and histopathologic diagnosis was 27.2%, with underdiagnosis in 4.7% and overdiagnosis in 68.1%. Senior fellows demonstrated higher accuracy than junior fellows, particularly for HSIL and invasive cancer. Acetowhitening was highly sensitive but nonspecific, while dense acetowhitening, coarse vascular patterns, and invasive features were more predictive of clinically significant disease.
Colposcopy performed by fellows-in-training demonstrated modest diagnostic accuracy, with improved performance among senior trainees. Overdiagnosis was common, particularly for low-grade lesions, highlighting the need for structured training and integration of HPV-based screening to enhance diagnostic precision.

EP_070 - Translation and Adaptation of the Cervical Dysplasia Distress Questionnaire for Use in Individuals with positive, negative or unknown HPV status

Education / Quality assurance

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A positive human papillomavirus (HPV) test result, even in the presence of normal cytology, has been associated with psychological distress. However, standardized instruments to assess HPV-related psychological burden are lacking in the German context. The Cervical Dysplasia Distress Questionnaire (CDDQ) is a validated English measure assessing distress related to gynecological examinations as well as fears associated with an abnormal Pap smear. This study aims to translate and adapt the CDDQ for use in individuals with positive, negative, or unknown HPV status and normal cytology.
Translation and adaptation procedure follows the team translation approach TRAPD (translation, review, adjudication, pretest, documentation). The CDDQ subscales were translated into German by two translators and a bilingual reviewer, and the measure was adapted for different HPV status groups. Content validity was assessed via cognitive interviews with n=5 participants per group (HPV-positive, HPV-negative, HPV-unknown), focusing on relevance, comprehensiveness and comprehensibility in accordance with COSMIN criteria. Interviews were conducted iteratively and analyzed descriptively to inform item refinement.
This study evaluated linguistic clarity, content validity, and feasibility of the adapted German CDDQ versions. Results of the translation and adaptation process were presented at the conference.
The adapted German CDDQ is expected to provide a relevant and comprehensible instrument for assessing HPV-associated psychological distress. Findings are expected to guide further refinement of the questionnaire prior to its application in a larger study population. The final German CDDQ may support improved person-centered communication in cervical cancer screening.

EP_071 - A World Without Cervical Cancer: Global Perspective

Education / Quality assurance

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Once deemed a silent killer, cervical cancer today stands at a historic crossroads—preventable, detectable, and potentially eliminable. In 2020 WHO launched the global cervical cancer elimination initiative, defining elimination as an incidence below 4 per 100,000 women-years through achievement of the 90–70–90 targets for HPV vaccination, screening, and treatment. This study evaluates global preparedness to achieve elimination by 2030, compares regional progress, examines disparities between high-income countries (HICs) and low- and middle-income countries (LMICs), and aims to identify successful models and propose evidence-based solutions.
A narrative review and comparative analysis were conducted using data from GLOBOCAN 2020–2023 (IARC), the WHO Global Health Observatory, UNICEF and Gavi reports, peer-reviewed literature, and real-world case studies, including India's mobile diagnostic van program. Indicators assessed included HPV vaccination coverage, screening uptake, and treatment access.
Globally, cervical cancer causes over 660,000 cases and 350,000 deaths annually, with nearly 90% occurring in LMICs. HPV vaccination remains ~21% worldwide and screening below 20% in most LMICs, compared with 60–80% in high-income countries. India contributes nearly one-fourth of global deaths, with vaccination below 1% and lifetime screening near 2%, while countries such as Australia and Rwanda achieving >85–90% coverage are projected to reach elimination by 2035.
HPV DNA testing with self-sampling and screen-and-treat approaches are essential to reduce loss to follow-up and advanced-stage disease. Without rapid scale-up of HPV vaccination, HPV-based screening, and equitable treatment access, cervical cancer elimination in high-burden countries is likely to be delayed well beyond 2030.

EP_072 - Bridging the Gaps: Regional Lessons from India's HPV Vaccination Innovative Initiatives

HPV vaccination

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The primary objective was to evaluate innovative approaches from the four corners of the country to the Human Papillomavirus (HPV) vaccination initiatives in India. It aimed to explore current vaccination strategies, regional disparities and suggest strategies for nationwide scale-up of acceptability of vaccination.
A systematic review of literature from 2000 to 2023 was conducted, focusing on peer-reviewed articles, government reports,national health journals and health organization publications. The data regarding innovative strategies, including school-based vaccination programs, mobile health clinics, digital media campaigns, and community engagement efforts was analyzed to identify barriers and successes in the implementation of these initiatives. The review also examined the involvement of local communities and healthcare workers.
Tamil Nadu (South Region) demonstrated the most effective HPV vaccine implementation, attributed to strong public health infrastructure and school-based vaccination programs. Gujarat and Punjab (West & North region) showed moderate success, with community health worker engagement. Assam (East zone) despite efforts through mobile clinics and awareness campaigns, faced barriers such as low health literacy, logistical barriers and limited access in tribal regions. Programs tailored to local cultural contexts and community leaders played a significant role in overcoming some of these barriers.
India has made strides in implementing innovative HPV vaccination strategies, but much remains to be done to achieve nationwide coverage. Successful models from specific states can be scaled, with a focus on overcoming logistical challenges, addressing cultural barriers, and improving education about the vaccine. Sustainable, community-driven efforts will be key to the long-term success of HPV vaccination.

EP_073 - Unveiling Public Perspectives: A KAP Analysis on HPV Vaccine Hesitancy and Misinformation in a Lower-Middle-Income Country

HPV vaccination

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To analyze factors affecting HPV vaccine hesitancy and uptake among general population.
A cross-sectional survey was conducted using a pre-validated questionnaire among 400 participants. The questionnaire collected demographics, 4 knowledge, 7 attitude, and 4 practical statements. Cronbach's alpha assessed internal consistency of myths (0.7), while binary logistic regression evaluated the relationship between myths and willingness to vaccinate. Each myth was individually analyzed in relation to vaccination intent.
The majority of participants were female (73.3%), with 32.0% graduates or above and 26.7% undergraduates. Homemakers (44.0%) and students (33.3%) were the largest occupational groups. Over half were married (54.7%) and 41.3% reported having children. Awareness was low: 48.0% had heard of cervical cancer, 30.7% of HPV, and 25.3% of the HPV vaccine. Only 16.0% knew the vaccine is intended for both boys and girls, while 70.7% responded “don't know.” Vaccination intent was limited, with 83.3% unsure about personal vaccination. The main reason for hesitancy was lack of information (83.3%), while 16.7% cited fear of side effects and cost. Participants reported that awareness programs (66.7%), observing others take the vaccine, and multi-pronged support including doctor counseling, government recommendation, affordability, and public awareness would improve confidence. Belief in fear of side effects ($p = 0.034$) and the misconception that vaccination is unnecessary in asymptomatic individuals ($p < 0.03$) were significantly associated with unwillingness to vaccinate.
HPV vaccine knowledge and awareness are low in this population, and myths significantly influence hesitancy. Targeted education, awareness campaigns, and multi-level support are essential to improve vaccine acceptance and uptake.

EP_074 - HGCIN in HPV vaccinated women

HPV vaccination

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To evaluate CINII or worse in vaccinated women referred to colposcopy clinic at Guys-and-St-Thomas-NHS-Foundation-Trust-London with moderate/severe dyskaryosis. On background presumption of HPV vaccinated women should not develop >CINII based on effectiveness of HPV vaccine clinical trials.
All women referred to colposcopy unit with moderate/severe-dyskaryosis identified by Cyres, colposcopy database viewpoint, Cervical-Screening-Management-Syatem CSMS for immunisation, screening data as well as EPIC database for histology results were reviewed. Retrospective-study over 24 months, time-frame 1/4/22 to 31/3/24
Number: Among vaccinated-women severe-dyskaryosis n=33, moderate-dyskaryosis n=125. Type of vaccine: Cervarix administered in n=25 of severe-dyskaryosis, n=112 of moderate-dyskaryosis. Gardasil-quadrivalent n=2 severe-dyskaryosis and n=7 of moderate-dyskaryosis. Patients not sure n=6 severe-dyskaryosis n=6 moderate-dyskaryosis. Dose: 3 doses were administered in n=25 severe-dyskaryosis and n=107 moderate-dyskaryosis, 2 doses n=5 severe-dyskaryosis and n=8 in moderate-dyskaryosis. 1 dose severe-dyskaryosis n=1 and moderate-dyskaryosis n=6 Age at vaccination: 12-14years-old =99/158 further analysis@presentation Histology >CINII: Among vaccinated patients referred with severe-dyskaryosis >CINII n= 31 (93%) 40% <30years all had LLETZ treatment Among vaccinated patients referred with moderate-dyskaryosis >CINII n= 84 (67%) 51% <30yo, LLETZ n= 83, Conservative n= 42
72% of vaccinated women had CINII or worse. Cervical screening programme in UK tests for 14 high-risk HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68. It could be 1st generation vaccines prevented HPV 16/18 associated CINII so it was due to non-HPV 16/18 types or it could be HPV 16/18 associated lesions. Multicentre audit underway. Consider genotyping to establish efficacy of vaccination.

EP_075 - Effectiveness of HPV Vaccination After Excisional Procedures on the Cervix for High-Grade Cervical Intraepithelial Squamous Lesions

HPV vaccination

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Evaluation of the effectiveness of human papillomavirus (HPV) vaccination after loop electrosurgical excision procedure (LEEP) performed for high-grade cervical intraepithelial squamous lesions (HSIL).
A prospective longitudinal cohort study was conducted at the Belarusian State Medical University from 2020 to 2025 and included 80 women aged 18–35 years with histologically confirmed HSIL associated with high-risk HPV, all of whom underwent LEEP. Participants were divided into a vaccinated group (n = 31), who received the quadrivalent HPV vaccine within 7 days after LEEP, and an unvaccinated group (n = 49). HPV testing was performed at 6, 12, and 24 months during follow-up. Statistical analysis used nonparametric methods, with significance set at $p < 0.05$.
The median age was 25 [24; 27.75] years in Group 1 and 28 [24; 30] years in Group 2, with no significant intergroup difference ($U = 662.00$, $p = 0.369$). At 6 months after LEEP, HPV positivity was detected in 2 patients (6.45%) in Group 1 and 3 (6.12%) in Group 2 ($p = 0.953$). At 12 months, positive HPV tests were observed in 2 (6.45%) and 7 (14.28%) women, respectively ($p = 0.280$). At 24 months, high-risk HPV persistence was significantly lower in vaccinated patients (9.68% vs. 32.65%; $p = 0.034$). HS
HPV vaccination in the post-excisional period combines primary and secondary prevention of cervical cancer, expanding the clinical application of HPV vaccines. Our results confirm that adjuvant HPV vaccination after LEEP for HSIL is a promising approach to preventing recurrence of precancerous cervical disease.

EP_076 - Awareness of cervical cancer screening, association with Human Papilloma virus and vaccination among older teenagers

HPV vaccination

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To assess awareness of cervical cancer screening, asssociation with HPV and vaccination status among older teenagers in UK
A survey was conducted in a class of 22 school girls in UK, aged over 17 years in 2025. The survey was authorised by the School approval process for collection of anonymous data through open survey. An approved questionnaire with access to free comments was circulated.
The analysed data revealed that 17 had been vaccinated for HPV. One had not received the vaccine and 3 were unsure. 15 were well aware of the association between HPV and cervical cancer while 7 were not. 13 responded that they would have a smear while one was sure to decline. 8 were unsure of screening. Fear of pain/discomfort, failure of prioritisation of health need and embarrassment were cited. For understanding on continued surveillance despite vaccination, 6 did not think that screening was needed after vaccination. 16 understood that continued screening was needed. When asked if they understood how a smear test was done, 9 did not know and 13 did. A lack of education around the topic, intrusive nature of the test and failure to prioritise the topic were cited.
This small survey among older teenage girls demonstrates a need for education in this age group to ensure that they all have a good understanding of prevention of cervical cancer. This can be achieved through universal vaccination in eligible population and preparation for future screening by providing adequate information and opportunity for health education.

EP_077 - Evolution of the National HPV Vaccination Program in North Macedonia: Vaccine Types and Coverage Outcomes

HPV vaccination

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To describe the importance, vaccine types, and coverage trends of the human papillomavirus (HPV) vaccination program in North Macedonia and to identify key challenges affecting vaccination uptake since program introduction.
This descriptive analysis reviews the evolution of the national HPV vaccination program in North Macedonia from 2009 to 2025. Information was derived from national immunization program data, publicly available health reports, and professional experience related to vaccine implementation and service delivery.
HPV vaccination has been included in the national immunization program since 2009; however, coverage has remained variable and consistently below levels required for population-level impact and alignment with World Health Organization (WHO) cervical cancer elimination targets. Between 2009 and 2023, the program used bivalent and quadrivalent HPV vaccines, providing protection against HPV types 16 and 18, with additional low-risk type coverage in the quadrivalent formulation. In 2024, the program transitioned to the nonavalent HPV vaccine, expanding protection to additional high-risk oncogenic HPV types and increasing the potential for cervical cancer prevention. Despite this advancement, vaccination uptake continues to be influenced predominantly by organizational factors, public awareness, vaccine confidence, regional disparities, and healthcare provider engagement rather than vaccine type alone.
Although the transition to the nonavalent HPV vaccine represents an important step toward broader protection against HPV-related disease, improving vaccination coverage in North Macedonia requires strengthened program organization, enhanced communication on vaccine importance, safety, and effectiveness, and sustained involvement of healthcare professionals.

EP_078 - Awareness Level of Medical Students Regarding HPV and Gender Differences in Ukraine

HPV vaccination

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To assess the knowledge of medical students regarding the human papillomavirus (HPV), with consideration of gender differences.

An anonymous questionnaire developed by the authors was administered to 136 students of Vinnytsia National Medical University (years 1–6). The mean age of participants was 19.27 ± 0.03 years; the sample included 22 males and 114 females. Descriptive statistics were applied, along with the Mann–Whitney U test for quantitative variables and Fisher's exact test for categorical variables. Statistical significance was set at $p < 0.05$.

Female students were significantly more likely to provide correct responses to the following questions: awareness of HPV (97 [85.1%] vs 14 [63.6%]); knowledge that vaccination prevents cervical cancer (92 [80.7%] vs 12 [54.5%]); understanding that vaccination is most effective before sexual debut (100 [87.7%] vs 12 [54.5%]); perception of vaccine safety (103 [90.4%] vs 14 [63.6%]); and knowledge of the required number of doses for adults (57 [50.0%] vs 5 [22.7%]). Other differences were not statistically significant.

Overall knowledge levels were distributed as follows: low—22.7% of males and 5.3% of females; moderate—50.0% of males and 53.5% of females; high—27.3% of males and 41.2% of females. Vaccination uptake among female students was low, with only 15 (13.2%) reporting having been vaccinated.

HPV awareness among medical students in Ukraine varies, with female students demonstrating significantly higher levels of knowledge, particularly regarding vaccination. Despite this awareness, vaccination coverage remains low, highlighting the need for improved educational strategies and motivation.

EP_079 - Comparative analysis of the short-term effects of Silicon Dioxide (SiO2) + Sodium Selenite + Citric Acid (Deflagyn ®) on cervical remission and re-epitheliation in HPV infections associated with “Cervical Intraepithelial Neoplasia” grade I (CIN I) and “Atypical Squamous Cells of Undetermined Significance” (ASC-US).

Treatment and follow up

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To compare the effects of a new topical therapy composed of sodium selenite, silicon dioxide, and citric acid on cervical re-epithelialization, against the outcomes observed in patients undergoing standard cytological and colposcopic surveillance, evaluated clinically using the Swede colposcopic scoring system.
A non-randomized, parallel clinical trial with paired groups was conducted, including a total sample of 20 HPV-positive patients aged 25 to 35 years, recently diagnosed (less than 1 year) with CIN I or ASC-US, and without prior treatment for cervical dysplasia. Comparative analysis was performed through cytological and colposcopic supervision using the Swede Score, assessed quarterly in both groups, evaluating lesion regression and cervical re-epithelialization.
In the pharmacological group, 80% presented negative cytology for malignancy or displasia at the 3-month follow-up, while 20% remained positive for CIN I. Colposcopic evaluation demonstrated 100% remission according to the Swede Score. In the control group, 100% showed negative cytological results at 3 months. However, colposcopic assessment revealed progression in 33.3% and persistence in 50% of cases based on the Swede Score.
This study shows that when evaluated clinically through colposcopy using the Swede Score, the sodium selenite, silicon dioxide, and citric acid compound shows remission of cervical intraepithelial lesions and preventing their progression. As well it shows the importance of analyzing the discrepancies between sensitivity and especificity between screening methods on HPV associated intraepthielial lesions.

EP_080 - Effectiveness of a Coriolus versicolor–Based Vaginal Gel on High-Risk HPV Clearance and Cervical Cytology Outcomes: A Retrospective Cohort Study

Treatment and follow up

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To evaluate the effectiveness of Papilocare®, a Coriolus versicolor–based vaginal gel on high-risk human papillomavirus (HR-HPV) clearance and cervical cytological outcomes in women undergoing conservative management.
This retrospective cohort study included 600 women with cervical HPV infection managed between January 2023 and August 2025. Three hundred women received Papilocare®, a Coriolus versicolor–based vaginal gel, while 300 were followed with standard clinical surveillance alone. HPV DNA testing and cervical cytology were performed at baseline and at six months. Clearance rates and associated factors were analyzed.
Baseline demographic characteristics, HPV genotype distribution, and cytological findings were comparable between groups. Overall HPV clearance was significantly higher in the treatment group compared with controls (89.3% vs. 44.7%, p<0.001). Clearance of HR-HPV genotypes was markedly improved with treatment, including HPV 16 (91.2% vs. 41.5%, p<0.001) and HPV 18 (91.3% vs. 44.4%, p=0.017). Cytological normalization occurred more frequently in the treatment group (89.9% vs. 59.5%, p<0.001) across all abnormal cytology categories (ASC-US, ASC-H, LSIL, HSIL). Multivariable logistic regression identified use of the vaginal gel as the strongest independent predictor of HPV clearance (adjusted OR 8.45; 95% CI: 3.05–23.43; p<0.001).
Use of a Coriolus versicolor–based vaginal gel was associated with significantly higher rates of HR-HPV clearance and cervical cytological normalization compared with standard follow-up alone. This non-ablative local therapy may represent a clinically relevant adjunct to conservative management strategies for HPV-positive women, although prospective randomized trials are needed to confirm these findings.

EP_081 - Clinical Course of CIN1 in Women with HPV-16 Infection: Implications for Colposcopic Follow-up

Treatment and follow up

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To assess the clinical significance of CIN1 in HPV-16–positive women and the role of colposcopy in their surveillance.
Women referred for colposcopic evaluation due to HPV-16 positivity were examined using IFCPC terminology. Directed biopsies were obtained from suspicious areas, and only histologically confirmed CIN1 cases were included. Patients were managed according to risk-based follow-up strategies including repeat HPV testing, cytology, and colposcopy.
CIN1 lesions in HPV-16–positive women most commonly presented as thin acetowhite epithelium with subtle vascular patterns. Although some lesions may regress spontaneously, persistent HPV-16 infection remains an important predictor of progression. Regular colposcopic surveillance enabled early identification of suspicious changes and supported timely biopsy when needed.
CIN1 in HPV-16–positive women requires closer monitoring than CIN1 linked to other HPV genotypes. Risk-adapted follow-up with repeat HPV testing and colposcopy is recommended to ensure early detection of progression while avoiding unnecessary treatment.

EP_082 - Initial assessment of a Coriouls versicolor-based anal gel for the treatment of low-grade anal intraepithelial lesions

Treatment and follow up

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Anal cancer risk is higher in women with a history of HPV lesions, immunocompromised, and over 45 years. This study assessed effectiveness and safety of a Coriolus versicolor-based anal gel in women with high-risk HPV (HR-HPV) and low-grade anal lesions, evaluating cytological normalization and viral clearance at 6 months.
Observational, single-center, prospective, exploratory, and non-comparative study in women ≥35 years with ASCUS/LSIL anal cytology with concordant anoscopy and positive anal HR-HPV. After ethical approval, patients received the anal gel once daily for the first month and every other day until 6 months. Safety and tolerability were assessed by recording adverse events and conducting a survey 4 weeks after the start of treatment. Lesion repair was defined as normal cytology with concordant anoscopy. Viral clearance was defined as total (all baseline genotypes) or partial (≥1 baseline genotypes) elimination by PCR.
Thirty women (mean age 54 years) were included, 23 of whom were HIV positive. Five patients (17%) discontinued treatment, four due to moderate adverse effects, in two cases with predisposing factors. At 6 months (N=27), 8 patients (30%) had normal cytology, 16 (59%) remained ASCUS/LSIL, and 3 (11%) progressed to HSIL. The progressions occurred in patients who did not complete treatment. Fourteen patients (52%) cleared HR-HPV.
The Coriolus versicolor-based anal gel showed a safe and well-tolerated profile, as well as potential effectiveness in viral clearance in a high-risk cohort. Further studies are needed to confirm its potential as a complementary tool in the management of these patients.

EP_083 - Efficacy of a Coriolus versicolor-based vaginal gel on HR-HPV clearance and low-grade cervical lesions repair: final pooled results from the PALOMA 1 and PALOMA 2 randomized clinical trials.

Treatment and follow up

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PALOMA 1 RCT demonstrated the efficacy of a Coriolus versicolor-based vaginal gel in low-grade cervical lesions and HR-HPV clearance. PALOMA 2 confirmed these findings, showing consistent and reproducible results, enabling a pooled analysis to strengthen evidence on HR-HPV clearance and lesion repair at 6 months.
Randomized, multicenter, prospective, open-label, parallel-group, watchful-waiting-controlled clinical trials. Unvaccinated HR-HPV positive women (30-65 years) with ASCUS/LSIL cytology and concordant colposcopy were randomized (1:1:1:1): A) Standard regimen: once daily for one month, followed by every other day for five months; B) Intensive regimen: once daily for three months, followed by every other day for three months; C) Very Intensive regimen: once daily for six months; D) Control group. Cervical lesion repair (cytology normalization and concordant colposcopy) and HR-HPV clearance (total or partial) were assessed after the 6 months. IRC approval and informed consents were obtained. Chi-square test was used.
Data from 101 patients were analyzed: 48 in the treatment group and 53 in the control group. A significantly higher rate of HR-HPV clearance and lesion repair was observed in the treatment group compared with controls (77.1% vs 45.3%; p=0.0011). The subgroup of patients positive for HPV/16/18/31 also showed significantly higher clearance and lesion repair rates in the treatment group (69.6% vs 33.3%; p=0.0107).
The pooled analysis of PALOMA 1 and PALOMA 2 shows that a Coriolus versicolor-based vaginal gel significantly enhances HR-HPV clearance and lesion repair. The reproducibility of both trials supports the robustness of these findings and its clinical value during the watchful waiting approach.

EP_084 - Efficacy of a Coriolus versicolor-based vaginal gel on HR-HPV clearance: final results from the PALOMA 2 clinical trial.

Treatment and follow up

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The PALOMA 2 randomized clinical trial assessed the efficacy of a Coriolus versicolor-based vaginal gel in promoting high-risk HPV (HR-HPV) clearance among women with low-grade cervical lesions under watchful waiting.
This randomized, multicenter, prospective, open-label, parallel-group, watchful-waiting-controlled trial included unvaccinated HR-HPV–positive women aged 30–65 years with ASCUS/LSIL cytology and concordant colposcopy. Participants were randomized (1:1:1:1) to: A) Standard regimen: once daily for 1 month, then every other day for 5 months; B) Intensive regimen: once daily for 3 months, then every other day for 3 months; C) Very Intensive regimen: once daily for 6 months; D) Control group.
 HR-HPV clearance was assessed at 6 and 12 months and defined as total (no detectable baseline genotypes) or partial (loss of ≥1 genotype with normal cytology and concordant colposcopy). Ethical approval and informed consent were obtained. Chi-square test was used.
A total of 124 women (mean age 41.1 years) were included, with homogeneous baseline characteristics. Among 109 completing the 6-month visit, HR-HPV clearance rates were 57.7% (A), 88.5% (B), and 75.9% (C) versus 53.6% (D) ($p<0.01$ for B vs D). In women positive for HPV 16/18/31 (n=56), clearance was 57.7% (A), 93.3% (B), and 64.3% (C) versus 30.8% (D) ($p=0.0011$ for B vs D). At 12 months, regimen B maintained sustained clearance in 77.3% of women compared with 50.0% in controls ($p=0.05$).
The intensive regimen of Coriolus versicolor-based vaginal gel demonstrated significant efficacy in promoting HR-HPV clearance, supporting its role as a non-invasive, evidence-based option during the watchful waiting approach.

EP_085 - Is Endocervical Curettage (ECC) Necessary for All HPV16/18-Positive Patients? A Stratified Analysis of 710 Cases

Treatment and follow up

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To explore the necessity of immediate colposcopy and endocervical curettage (ECC) referral for HPV16/18-positive individuals.
A retrospective analysis was conducted on 710 HPV16/18-positive patients who underwent colposcopy at Peking University People's Hospital from 2021 to 2024, with analysis of age, TCT results, colposcopic impression, pathological findings and other indicators.
Pathological results showed 50% normal/inflammation, 17% LSIL, 31% HSIL (15% CIN2, 16% CIN3) and 2.5% cervical cancer. Univariate analysis identified age and lack of regular screening as correlated with CIN2 ($P<0.05$). Logistic regression analysis confirmed colposcopic assessment, TCT results, type 1 transformation zone and absent transformation zone as independent factors for CIN2 ($P<0.05$), with HSIL assessment indicating high risk and normal/inflammation assessment low risk.
Age, screening history, colposcopic impression, TCT results and transformation zone type can assess the risk of HPV16/18-positive individuals and guide the clinical decision of immediate colposcopy and ECC referral.

EP_086 - Management of CIN in Pregnancy: A Challenging Case of LLETZ with Concomitant Decidual Polyps and Cerclage

Treatment and follow up

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To present a challenging case of high-grade cervical intraepithelial neoplasia diagnosed during pregnancy and to highlight the role of individualized, multidisciplinary management in achieving oncological safety while preserving pregnancy.
A 41-year-old pregnant woman, was referred at 15 weeks of gestation due to abnormal cervical cytology (Pap smear IV, HSIL). Colposcopic examination demonstrated an extensive coarse mosaic on the anterior cervical lip and acetowhite epithelium extending into the endocervical canal. A directed cervical biopsy was performed during the second trimester. Pelvic magnetic resonance imaging (MRI) was used to further assess the risk of invasive disease. Management decisions were made following discussion by a multidisciplinary oncofertility counseling board.
Histopathological analysis of the cervical biopsy revealed at least severe cervical dysplasia. Pelvic MRI showed no evidence of invasive carcinoma. Based on these findings, large loop excision of the transformation zone (LLETZ) was performed at 20 weeks of gestation. The procedure was technically challenging due to the presence of two large decidual cervical polyps. Excisional treatment was successfully completed, with transection of the polyp using a LigaSure device. Considering the increased risk of cervical insufficiency and preterm birth, a prophylactic cervical cerclage was placed during the same procedure. Final histopathological examination confirmed cervical intraepithelial neoplasia grade 3 with clear surgical margins. The postoperative course was uneventful.
This case illustrates that, in selected patients, excisional treatment of high-grade cervical lesions during pregnancy can be safely performed. Careful colposcopic evaluation, appropriate imaging, and multidisciplinary decision-making are essential to optimize maternal oncological outcomes while minimizing obstetric risks.

EP_087 - Efficacy of Thermal Ablation in HPV 16 and 18 positive females of age 30-45

Treatment and follow up

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To evaluate the efficacy of Thermal Ablation in HPV 16 and 18 positive females aged 30–45 years.
A total of 110, HPV 16/18 positive women, confirmed by Cobas 4800 testing, were enrolled. Colposcopy revealed Type 1 transformation zones with lesions confined to one cervical quadrant. Cases with microinvasion, glandular abnormalities, STI, or PID were excluded. Of these, 78 had normal colposcopy findings, and 30 had low-grade lesions,2 females had high grade lesions (Swede score 4–5). Cervical biopsies revealed LSIL (25), chronic cervicitis (5), and HSIL (2). Thermal ablation was performed using the Thermocoagulator, with follow-up at 15 days, 2 months, and one year.No one has been reported post procedure symptoms of lower abdominal pain,fever, foul smelling vaginal discharge.
One year post-treatment, T.O.C (Test of Cure)Cobass 4800 done,105 patients (95.5%) were HPV negative; 5 remained positive but showed no new lesions. All participants were counselled thoroughly regarding HPV vaccination.Females with ectropion,chronic cervicitis were reported significant decrease in leucorrhoea.
Thermal ablation is an efficient, cost-effective, and practical treatment for HPV 16 and 18 positive women. Complete visibility of the squamocolumnar junction and entire lesion ensures successful outcomes, and regular follow-up remains essential for treated females.

EP_088 - Clearance of HR- HPV short time after LEEP of Cervical Cancer or AIS may be a prognostic sign of normal final pathology

Treatment and follow up

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Test of cure or test of low risk for residual disease are needed in early-stage cervical cancer (ESICC) and adenocarcinoma in situ (AIS). We examined if negative high-risk human papillomavirus (HR-HPV) short time after Loop Electrosurgical Excision Procedure (LEEP) in women diagnosed with ESICC and AIS can be a prognostic sign of normal histology in the final pathology sample
We present data of 149 women with ESICC and AIS positive to HR-HPV who had a repeat HPV test, short time, 3-12 weeks post-LEEP and before the final treatment. We compared characteristics of negative and positive HR-HPV women
After LEEP 69 women were negative and 80 positives for HR-HPV. HR-HPV negative after LEEP included higher incidence of adenocarcinoma and AIS. In the negative HR-HPV post-LEEP the final histology was without malignancy in 67 women (97.1%) and 2 (2.9%) had residual cancer. In 38 women with cancer and 31 women with AIS, negative HPV HR after LEEP was corelated with absence of cancer in final pathology in 97% and 100% of the women respectively. 14 HPV negative women underwent radical hysterectomy/trachelectomy after LEEP and 85.7% had no residual tumor. The negative predictive value for residual cancer in HR-HPV negative was 97%
Clearance of HR -HPV short time after LEEP has a high correlation with the absence of residual cancer in the pathology or in the follow up. HR-HPV test after LEEP might serve as a new parameter for risk assessment and may lead to a less radical operation

EP_089 - Investing In Life :Subsidised CervicaL Cancer Diagnosis and Treatment To Reduce Mortality In Zimbabwe

Treatment and follow up

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to assess the feasability of introducing a subsidy for cervical cancer diagnosis and treatment to evaluate the impact of the subsidy on cervican cancer mortality
a policy analysis was conducted ,incoporating economic evaluation and feasability assessment .Two options were considered,introducing a 50% subsidy for cervical cancer diagnosis and treatment and streghthening public awareness and human resources foe health. ,
The economic evaluation revealed that the subsidy option would avert 1678 cervical cancer deaths with a cost effective ratio of $1255.90 per death averted ,the awareness option would avert 220 deaths
implenting a 50% subsidy for cervical cancer diagnosis and treatment is a feasable and cost effective strategy to reduce mortality in Zimbabwe. The Ministry of health and childcare should consider implementing this policy to improve cervical cancer prevention and control

EP_090 - ALA-PDT Following Limited Loop Electrosurgical Excision Procedure in Patients with High-grade Squamous Intraepithelial Lesions Desiring Fertility Preservation: A Retrospective Case Series with Literature Review

Treatment and follow up

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Standard excisional treatments for high-grade squamous intraepithelial lesions (HSIL) are associated with adverse obstetric outcomes. This study aimed to evaluate the clinical efficacy and safety of a conservative combined approach—Limited Loop Electrosurgical Excision Procedure (Limited LEEP) followed by 5-aminolevulinic acid photodynamic therapy (ALA-PDT)—for HSIL patients desiring fertility preservation.
A retrospective analysis was conducted on eight patients with histologically confirmed HSIL and a strong desire for pregnancy. "Limited LEEP" was performed to excise only colposcopically visible lesions while minimizing stromal loss. This was followed by three sessions of 20% ALA-PDT (635 nm laser, 100 J/cm²) starting 2–4 weeks post-surgery. Clinical outcomes were assessed via TCT, HPV testing, and colposcopy over a 6-to-12-month follow-up period.
Complete regression of HSIL was achieved in all eight patients (100% clearance rate) during the follow-up. Seven out of eight patients (87.5%) showed complete high-risk HPV clearance. No significant perioperative complications, such as hemorrhage or infection, were reported. Postoperative examination revealed excellent cervical healing with preserved anatomical integrity and no signs of cervical stenosis.
The sequential combination of Limited LEEP and ALA-PDT demonstrates promising efficacy in eradicating HSIL and high-risk HPV while maximizing cervical tissue preservation. This "hybrid" strategy represents a potentially safer alternative for young patients requiring a balance between oncological safety and future reproductive function.

EP_091 - Genomic HPV profiling at CIN2 and subsequent risk of progression

Treatment and follow up

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Human papillomavirus (HPV) causes nearly all cervical cancers (CC). While most infections clear, some persist and progress to high-grade lesions (CIN2 or CIN3) and cancer. Reliable molecular markers to distinguish lesions that progress from those that regress are lacking. Although HPV integration, lineages, sublineages, and SNPs affect prognosis in CC, their role in premalignant lesions is unclear. We aim to identify HPV molecular markers at CIN2 diagnosis associated with progression to CIN3 or worse (CIN3+).
This observational cohort study includes 439 women with HPV-positive CIN2 (2000–2010) and managed with active surveillance (no treatment unless progression or persistent CIN2 after 2 years). Women were defined at diagnosis (index CIN2) and followed for up to 2 years and 4 months. Tissue biopsies from index CIN2 are analyzed using a whole-genome HPV Next Generation Sequencing (NGS) assay to determine genotype, lineage, sublineage, SNPs, and integration status. Associations with progression are evaluated using uni- and multivariable logistic regression models estimating odds ratios.
Proof-of-concept analyses in nine randomly selected cases have confirmed feasibility and adequate DNA quality, with successful detection of genotype, lineage, sublineage, SNPs, and integration status. Analyses of the remaining cohort are ongoing. We expect to present results from at least half of the cohort, including associations between molecular markers and progression.
Distinct HPV integration patterns, lineages, sublineages, and SNP profiles may differentiate women with CIN2 who progress from those who regress. Such markers may improve risk stratification, guide timely treatment, and reduce over- and under-treatment in screening programs.

EP_092 - Comparison of RESERVED CELLS PROLIFERATIVE PATTERN AT CLEAR MARGINS OF LEEP SAMPLE IN HIV-patients or refugees with otherwise uncompromised WOMEN AS POSSIBLE MARKER OF HIGH RISK OF HPV-persistence and CIN2+ RECURRENCES

Treatment and follow up

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High-grade cervical intraepithelial neoplasia (CIN2+) driven by persistent HPV-infection constitutes the risk of cancerous transformation, but CIN2+ isn't a solid entity but rather a variety of lesions with different malignant potential. Considering the high risk of recurrences that the women who underwent CIN2+treatment (LEEP) retain throughout their life, failure of follow-up may happen despite all precautions taken for immunosuppressed (HIV, etc) patients. Therefore detection of early markers heralding HPV-progression is of high priority. Reserved cells (RC) may habour HPV when the load of viral copies is lower detection threshold. Our study aimed at recognition of RC with elevated markers of cellular proliferative activity in the clear margins of LEEP-samples in comparison between immunosuppressed women and refugees with otherwise uncompromised patients.
The study accrued 84 CIN2+patients selected for LEEP who were split in three arms: HIV, refugees to Kharkiv (REF), otherwise healthy (control). Hematoxylin-eosin staining and immunohistochemistry of LEEP-samples was applied to reveal RC (expression of cytokeratin (CK)7) and their proliferative status (CK19, p63, Ki68).
It turned out that HIV and REF matched and were associated with higher CK7 expression at clear margins than control (43%, 47%, 18% respectively), and also in combination (CK7+) with either overexpressed CK19, p63, Ki68 (24%, 20%, 3%); that correlated with number of recurrent CIN2+ within 2-year follow-up (25%, 24%, 12%) – all CK7+patients.
Recognition of elevated RC markers at LEEP-sample clear margins might be viewed as high risk of unrecognized CIN2+. Both HIV and refugees are prone to recurrent CIN2+ judging by elevated RC-proliferation markers.

EP_093 - Histological outcomes following LLETZ for hrHPV with moderate dyskaryosis

Treatment and follow up

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The UK NHS Cervical Screening Programme classifies cervical cytology using the British Society for Clinical Cytologists system, in which abnormalities equivalent to high-grade squamous intraepithelial lesions in the Bethesda system are subdivided into moderate and severe dyskaryosis. Moderate dyskaryosis is considered a surrogate marker for CIN2. Although treatment has traditionally been recommended, conservative management of CIN2 is now accepted in selected cases. We reviewed histological outcomes following large loop excision of the transformation zone (LLETZ) performed for moderate dyskaryosis, to assess the burden of high- and low-grade disease.
A retrospective review was conducted of all outpatient LLETZ procedures performed for moderate dyskaryosis within a London NHS Trust across two hospital sites between 1 December 2022 and 30 November 2024.
A total of 419 patients underwent at least one LLETZ procedure, of whom 141 (34%) had hrHPV with moderate dyskaryosis on preceding smear (median age 37 years, range 25–67). Final histology demonstrated cervical cancer in 0.5% (n=1), CGIN in 0.5% (n=1), CIN3 in 21% (n=29), CIN2 in 43% (n=61), CIN1 in 26% (n=36), and no CIN in 9% (n=13). Where known, patients with CIN2+ were more likely to have high-grade colposcopic findings (61%, n=56 vs 33%, n=16; p=0.00142) compared with those with CIN1 or less. Smoking history, HPV vaccination status and prior abnormal cervical cytology were similar between groups.
Moderate dyskaryosis is associated with a wide spectrum of cervical pathology, with CIN2 being the most common histological outcome. Colposcopic impression may assist in identifying patients suitable for conservative management.

EP_094 - Efficacy and Influencing Factors of Modified Ermiao Granules in Treating Cervical HR-HPV Infection

Treatment and follow up

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To evaluate the therapeutic efficacy of Modified Ermiao Granules for high-risk human papillomavirus (HR-HPV) infection and analyze the factors influencing its curative effect.
A retrospective study was conducted on 416 patients with cervical HR-HPV infection who met the inclusion and exclusion criteria at Jiangsu Provincial Hospital of Traditional Chinese Medicine from February 2021 to February 2024. Among them, 316 cases in the experimental group received Modified Ermiao Granules, and 100 cases in the control group were administered conventional Western medicine. The Full Analysis Set (FAS) and Per-Protocol Set (PPS) were adopted for statistical analysis, with Logistic regression, Propensity Score Matching (PSM), and Inverse Probability of Treatment Weighting (IPTW) applied to control confounding factors.
The total HR-HPV negative conversion rate in the experimental group (70.25%) was significantly higher than that in the control group (31.00%, $P<0.001$). Logistic regression analysis demonstrated that Modified Ermiao Granules was a significant favorable factor for HR-HPV negative conversion (OR=5.256, 95%CI:3.228-8.559, $P<0.0001$). Subgroup analysis showed that the granule exhibited better efficacy in patients infected with specific HR-HPV subtypes, aged 24-44 years, or with baseline high-grade squamous intraepithelial lesion (HSIL).
Modified Ermiao Granules exerts a significant effect in improving the HR-HPV negative conversion rate in patients with cervical HR-HPV infection and has a good safety profile. HR-HPV subtypes, age, and disease course are the key factors influencing the therapeutic effect of Modified Ermiao Granules.

EP_095 - Photodynamic Therapy for Persistent HPV Infection: A Fertility-Preserving, Office-Based Therapeutic Innovation

Treatment and follow up

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Objective Persistent human papillomavirus (HPV) infection represents a major clinical challenge due to its association with cervical intraepithelial lesions, cancer risk, and impaired reproductive outcomes. Conventional destructive or surgical treatments may compromise cervical integrity and fertility. Photodynamic therapy (PDT) has emerged as a minimally invasive alternative. This study reviews current evidence and reports preliminary clinical outcomes supporting PDT as a therapeutic innovation.
Methods PDT involves topical application of 5-aminolevulinic acid followed by red-light activation, inducing selective apoptosis of infected or dysplastic cells while stimulating local immune response. Published clinical studies were reviewed, and a preliminary personal series was analyzed. Treatment was performed in an outpatient setting with weekly sessions and virological follow-up.
Results Clinical studies report histologic regression rates of 80–92% and HPV clearance rates comparable to excisional procedures, with fewer complications and preservation of cervical anatomy. PDT enhances local immune activity, contributing to viral elimination. In a preliminary series involving 9 patients (14 HPV infections), complete viral clearance was observed in 9 cases, marked viral load reduction in 4, and only one increase.
Conclusion Photodynamic therapy is an effective, well-tolerated, fertility-preserving treatment for persistent HPV infection. Its non-invasive nature, office-based feasibility, and favorable safety profile make PDT a promising therapeutic innovation in contemporary cervical disease management.

EP_096 - CERVICAL SARCOMA A Case Report

Treatment and follow up

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We report the case of a 52-year-old female patient with no significant past medical or surgical history, who presented with abnormal genital bleeding. Clinical examination: Gynecological examination revealed, on vaginal examination and speculum inspection, a cervical mass suspicious for malignancy. Diagnostic procedure: A cervical biopsy was performed. Histopathological analysis confirmed the diagnosis of cervical sarcoma. Immunohistochemical studies were used to support the diagnosis and tumor classification. Radiological assessment: A pelvic MRI was performed for local staging and assessment of tumor extension.
We report the case of a 52-year-old woman with no significant past medical history, who presented with abnormal genital bleeding. Gynecological examination: On vaginal examination and speculum inspection, a cervical mass was identified. A cervical biopsy was performed. Histopathological examination confirmed the diagnosis of cervical sarcoma. Pelvic MRI was conducted to assess local and distant extension.
Histopathological examination of the cervical biopsy was consistent with cervical sarcoma, confirming the malignant mesenchymal nature of the tumor. Pelvic MRI findings: Presence of a cervical tumor confined to the cervix. No invasion of adjacent pelvic structures. No distant metastases or secondary localizations were detected. Based on clinical, histological, and radiological findings, the tumor was considered localized at diagnosis.
Cervical sarcoma is a rare and aggressive neoplasm with nonspecific clinical presentation, most commonly abnormal genital bleeding. Accurate diagnosis relies on histopathological examination complemented by immunohistochemistry, while pelvic MRI plays a crucial role in staging and therapeutic planning. Early detection and multidisciplinary management are essential to improve prognosis and reduce the risk of recurrence.

EP_097 - laparoscopic pelvic lymphadenectomy

Treatment and follow up

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To describe the role of complementary laparoscopic pelvic lymphadenectomy in the staging and management of high-risk endometrial adenocarcinoma.
We report the case of a 52-year-old postmenopausal woman with no significant medical history who presented with postmenopausal bleeding. Pelvic ultrasound revealed a rapidly progressive, heterogeneous hypoechoic mass occupying the entire uterine cavity. Pelvic MRI suggested intrauterine polyposis. The patient underwent total hysterectomy with bilateral salpingo-oophorectomy. Histopathological examination of the surgical specimen confirmed endometrial adenocarcinoma with deep myometrial invasion exceeding 70%. Given the high-risk features, a complementary pelvic lymphadenectomy was performed via a laparoscopic (coelioscopic) approach.
Laparoscopic pelvic lymph node dissection was successfully completed without intraoperative complications. The minimally invasive approach allowed adequate lymph node sampling with reduced postoperative morbidity and rapid recovery. Histological analysis of the lymph nodes contributed to accurate surgical staging and guided further oncologic management.
Postmenopausal bleeding remains a key warning sign of endometrial malignancy and warrants prompt investigation. Deep myometrial invasion is a major prognostic factor requiring complete staging. Laparoscopic pelvic lymphadenectomy is a safe and effective complementary procedure in high-risk endometrial cancer, providing accurate staging while preserving the benefits of minimally invasive surgery.

EP_098 - Risk of Occult Invasive Cervical Cancer According to Preoperative CIN Grade

Treatment and follow up

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Background: Cervical intraepithelial neoplasia grade 2 (CIN2) and grade 3 (CIN3) are both categorized as high-grade squamous intraepithelial lesions (HSIL); however, whether the risk of occult invasive cervical cancer is comparable between these entities remains unclear.
Methods: We retrospectively analyzed patients who underwent cervical conization between January 2005 and May 2010 after a biopsy-based diagnosis of CIN1, CIN2, or CIN3. Adenocarcinoma in situ (AIS) was excluded. In addition, an independent cohort of patients preoperatively diagnosed with CIN2 over a 6-year period was incorporated. The primary outcome was the presence of invasive cervical cancer in the final pathological diagnosis.
Results: Invasive cancer was identified in 1 of 35 patients with preoperative CIN1 (2.9%), 0 of 139 patients with CIN2 (0%), and 61 of 564 patients with CIN3 (10.8%). Among CIN3 cases, invasive cancer was significantly associated with older age and higher-grade cytology. Cytology class ≥4 was an independent predictor of invasive disease.
Conclusions: Despite being classified within the same HSIL category, CIN2 and CIN3 demonstrated markedly different risks of occult invasive cervical cancer. CIN2 showed an extremely low risk of invasion, whereas CIN3 carried a substantial risk. These findings support risk-adapted management strategies based on precise CIN grading.

EP_099 - HPV Clearance After Excisional Treatment for CIN2+: Real-Life Data on the Use of a Coriolus versicolor–Based Vaginal Gel

Treatment and follow up

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To evaluate HPV clearance rates after excisional treatment for CIN2+ in patients treated with or without a Coriolusversicolor–based vaginal gel in a real-life clinical setting.
This retrospective, monocentric study included patients treatedsurgically for CIN2+ with documented hrHPV positivity at baseline and available HPV testing at 6 months. Patients weremanaged with standard follow-up alone or with adjunctiveCoriolus versicolor–based vaginal gel. The primary endpointwas HPV clearance at 6 months.
Ninety-three patients were included: 60 received adjunctivevaginal gel and 33 underwent standard follow-up alone. HPV clearance at 6 months was observed in 73.3% of patients in the treatment group and 69.7% in the control group, with no statistically significant difference between groups (p = 0.89). The vaginal gel was well tolerated, and no treatment-relatedadverse events were reported.
In this real-life retrospective cohort, high HPV clearance rates were observed following excisional treatment for CIN2+, regardless of adjunctive vaginal gel use. These findingssupport the effectiveness of surgical treatment and highlightthe need for prospective studies to clarify the role of adjuvant therapies in post-treatment HPV persistence.

EP_100 - Impact of Electrocoagulation and Postoperative Medication on Cervical Adhesion in Postmenopausal Women Following LEEP: A Retrospective Cohort Study

Treatment and follow up

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To investigate the effects of intraoperative electrocautery and postoperative medication on cervical adhesion after loop electrosurgical excision procedure (LEEP) in postmenopausal women with high-grade squamous intraepithelial lesion (HSIL).To investigate the effects of intraoperative electrocautery and postoperative medication on cervical adhesion after LEEP in postmenopausal women with HSIL.
In this retrospective cohort study, 229 eligible postmenopausal HSIL patients who underwent LEEP were included. Patients were divided into: Group A (no electrocautery + medication, n=55), Group B (electrocautery + medication, n=86), and Group C (electrocautery + no medication, n=88). The primary outcome was cervical adhesion incidence (cervical stenosis/atresia preventing 3-mm probe passage) at 4–6 months.
Baseline characteristics were comparable across groups (P>0.05). The overall adhesion rates differed significantly (P=0.043), being highest in Group C (43.18%), followed by Group A (30.91%) and Group B (25.58%). Subgroup analysis showed the non-medication group (C) had a significantly higher adhesion rate than the combined medication groups (A+B) (43.18% vs. 27.66%; RR=1.56, 95% CI: 1.09-2.23, P=0.016). Among patients receiving postoperative medication, there was no significant difference in adhesion rates between those with (Group B) and without (Group A) intraoperative electrocautery (25.58% vs. 34.55%; RR=0.74, 95% CI: 0.44-1.24, P=0.490).
Postoperative medication is associated with a significantly reduced incidence of cervical adhesion after LEEP in postmenopausal women. Among patients receiving such medication, the use of intraoperative electrocautery for hemostasis did not show a significant additional impact on adhesion rates. These findings offer evidence-based guidance for the clinical prevention of cervical adhesion in this population.

EP_101 - Microbial and Metabolic Profiles Associated with HPV Infection and Cervical Intraepithelial Neoplasia: A Multi-Omics Study

Treatment and follow up

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Cervical cancer is the most common malignancy of the female reproductive system, and persistent high-risk human papillomavirus (HPV) infection is its principal etiologic driver. Emerging evidence indicates that cervicovaginal microbiota can modulate HPV persistence and the progression of cervical intraepithelial neoplasia (CIN); however, almost nothing is known about the intratissue cervical microbiome. Moreover, the metabolic milieu—especially short-chain fatty acids (SCFAs) and broader lipid metabolites—may shape local immunity and HPV outcomes, yet integrated data across both cervicovaginal secretions and cervical tissue are lacking. This study aims to identify specific bacterial species and metabolic signatures that correlate with HPV status and CIN progression, thereby uncovering potential biomarkers for early detection and therapeutic targeting.
Participant Recruitment: 94 women aged 20–50 years were enrolled After HPV genotyping and pathology review, participants were assigned to:NC (HPV-negative controls , n = 27 、 NH (HPV-positive without CIN , n = 24) 、 CIN (cervical intraepithelial neoplasia, n = 43 Sample Collection: Cervicovaginal secretions and cervical tissue. DNA Extraction & 5R-16S rRNA Sequencing. lMetabolomic Profiling: SCFAs and untargeted metabolites. Bioinformatics & Statistics.
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It's compositionally distinct but share key species (e.g., Lacticaseibacillus iners, Prevotella bivia).CIN is marked by reduced microbial diversity, enrichment of specific anaerobes, and pronounced dysregulation of glycerophospholipid metabolism.L. iners, P. bivia and select lipids (PE 18:1/0:0, PI 40:6) correlate strongly with HPV persistence and lesion severity.Integrated microbiome–metabolome signatures accurately discriminate HPV-negative, HPV-positive, and CIN groups (AUC ≥ 0.90), pointing to tractable biomarkers for early detection and targeted intervention

EP_102 - Management for hpv-associated multicentric intraepithelial lesions of the lower genital tract in women with autoimmune diseases: a case report

Treatment and follow up

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Women with autoimmune diseases face persistent HPV infection and lower genital tract multicentric intraepithelial lesions, posing clinical challenges. This case report provides reference for clinical management of these high-risk patients.
We report a case of 52-year-old woman with a long-standing history of systemic lupus erythematosus (SLE) complicated with HPV-associated multicentric intraepithelial lesions of the lower genital tract. During multidisciplinary management of immune and cardiopulmonary complications, we performed six-year active surveillance.
Given the patient's 10-year SLE history with long-term immunosuppressants and corticosteroids, her condition progressively deteriorated, culminating in severe cardiopulmonary complications (pulmonary hypertension, heart failure) during initial colposcopy. We instituted rigorous follow-up including cytological screening, high-risk HPV genotyping, and colposcopic evaluation, alongside multidisciplinary rheumatology-immunology and cardiology management. After six years of systematic surveillance and adequate colposcopy, the patient achieved dual outcomes: sustained lupus remission with controlled systemic disease, and gradual regression of HPV-related lesions.
This case highlights three critical insights: 1. Autoimmune disorders impair HPV clearance, predisposing to multicentric genital tract lesions; 2. Stabilizing immune pathology via multidisciplinary care is cornerstone of managing HPV-related lesions; 3. Active surveillance with cytology, high-risk HPV genotyping, and adequate colposcopy is a viable alternative to excision and ablation under certain conditions. The findings emphasize the paramount importance of treating primary autoimmune conditions before addressing HPV manifestations. Clinicians should prioritize longitudinal monitoring over immediate intervention while maintaining readiness to escalate treatment during immunological stability. This dual approach balances oncological vigilance with systemic disease control, crucial for patients on long-term immunosuppressants and corticosteroids.

EP_103 - Inguinal lymph node metastasis of HPV-positive squamous cell carcinoma with unknown primary site

Treatment and follow up

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To describe a rare case of inguinal lymph node metastasis from an HPV-positive squamous cell carcinoma with an unknown primary site.
A 48-year-old white woman presented with a right inguinal lymph node enlargement of 30 days' duration, measuring approximately 3 cm, firm and fixed. Gynecological history included sexual debut at 15 years of age, and 10 lifetime sexual partners. In 2006, she had persistent LSIL on cervical cytology, colposcopy showing minor abnormalities, and biopsy consistent with CIN 1. Transvaginal ultrasound was normal. Inguinal ultrasound revealed an elongated, hypoechoic right lymph node measuring 3.5 cm, suggestive of infarction. Upper gastrointestinal endoscopy, colonoscopy, and abdominal computed tomography were unremarkable. Pelvic magnetic resonance imaging showed lymphadenopathy suspicious for neoplastic degeneration in the right inguinal and right internal iliac chains, as well as reactive left perirectal lymph nodes up to 8 mm. Tumor markers (CEA, CA 19-9, CA 125, alpha-fetoprotein, and CA 72-4) were within normal limits. Lymph node biopsy revealed metastatic squamous cell carcinoma, with immunohistochemistry positive for p16.
Neoadjuvant chemotherapy with cisplatin combined with radiotherapy to the tumor bed and lymphatic drainage chains was initiated. Post-treatment PET scan showed no evidence of metabolically active neoplastic tissue. Follow-up pelvic MRI demonstrated small residual lymph nodes compatible with treated disease.
This case highlights the rarity and diagnostic complexity of HPV-positive metastatic squamous cell carcinoma with an unknown primary site. The history of HPV-related cervical disease supports a possible cervical origin despite the absence of an identifiable primary lesion.

EP_104 - A Retrospective Analysis of the Therapeutic Efficacy of Photodynamic Therapy, Chinese Medicine Paiteling, and CO2 Laser in High-risk HPV-associated Cervical Low-grade Squamous Intraepithelial Lesion

Treatment and follow up

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Cervical cancer remains a significant global health issue, primarily due to persistent high-risk human papillomavirus (HR-HPV) infection. While low-grade squamous intraepithelial lesions (LSIL) often regress spontaneously, persistent infection increases the risk of progression. No standardized therapy currently eliminates HR-HPV or reverses LSIL effectively. This study compares the efficacy of photodynamic therapy (PDT), Chinese medicine Paiteling, and CO_2 laser therapy.

A total of 130 patients with HR-HPV-positive LSIL treated at the First Affiliated Hospital of Wenzhou Medical University (2022–2023) were retrospectively analyzed. Patients underwent PDT (n=25), Paiteling (n=44), or CO_2 laser (n=61). Cytology and HR-HPV status were assessed at 6 and 12 months. Statistical analysis was performed using SPSS 29.0 and GraphPad Prism 9.5.1.

At 6 months, NILM rates were higher in PDT (88.0%) and Paiteling (90.9%) groups than in the CO_2 group (75.4%). HR-HPV clearance was highest in PDT (52.0%), with no significant differences between groups. At 12 months, all PDT and Paiteling patients achieved NILM, compared to 82.8% in the CO_2 group. HR-HPV clearance improved in all groups, with the highest in PDT (68.0%). HPV 16/18 clearance reached 100% in PDT.

All three therapies showed therapeutic benefits. PDT and Paiteling were more effective in cytological regression, while PDT achieved the best HR-HPV and HPV 16/18 clearance, suggesting it may be the most effective option for managing HR-HPV-associated LSIL.

EP_105 - Optimized Management of Positive Margins after Initial LEEP in HSIL Patients

Treatment and follow up

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Currently, the management of patients with (Loop electrosurgical excision procedure) HSIL who still have positive margins after LEEP surgery is not standardized. This study aims to develop an optimized management plan for patients with HSIL who still have positive margins after LEEP.
We conducted a retrospective review of 61 patients with positive surgical margins following LEEP surgery. We compared the incidence of residual disease or recurrence among these patients after selecting different treatment modalities. Additionally, we performed statistical analyses of the preoperative and postoperative examination results for these patients. Furthermore, we discussed the specific management strategies for patients with positive surgical margins following LEEP surgery.
Among patients with positive surgical margins after LEEP surgery, there was no significant difference in the incidence of residual or recurrent lesions between those who underwent surgical treatment and those who opted for conservative treatment (P = 0.172). Among all patients with positive surgical margins after LEEP surgery, positive margins were associated with residual/recurrent disease (P = 0.039). In the conservative treatment group, human papillomavirus (HPV) infection (P = 0.002) and positive cervical cytology test (TCT) results (P = 0.02) were associated with residual/recurrent disease, and positive HPV testing after LEEP surgery was an independent risk factor for residual or recurrent disease (OR, 17.568; 95% CI, 1.551–199.001; P = 0.021).
Our research indicates that conservative treatment may be prioritized for patients with positive margins following LEEP surgery.

EP_106 - Personalized Management of CIN2: An Evaluation of the Efficacy of Surgery, Physical Therapy, and Active Surveillance

Treatment and follow up

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This study aimed to evaluate the clinical significance of excisional surgical treatment, physical therapy, and observational management in patients diagnosed with cervical intraepithelial neoplasia (CIN) grade 2.
A cohort of women diagnosed with CIN2. Participants were categorized into three groups based on the management strategy received: the Surgery Group, the Physical Therapy Group, and the Observation Group. All patients were followed up for 6 to 12 months, undergoing concurrent cytology and human papillomavirus (HPV) testing. Disease regression rates and HPV clearance rates were compared among the three groups.
The Surgery Group demonstrated the highest rates of disease regression (96.9%) and HPV clearance (84.0%) at the 6-12 month follow-up. The Physical Therapy Group also showed high efficacy (disease regression: 97.4%; HPV clearance: 75.3%), with outcomes comparable to the Surgery Group in terms of disease regression, while exhibiting advantages such as being less invasive and having a lesser impact on fertility. The Observation Group, although having lower regression (74.0%) and clearance rates (45.5%) overall, showed a significantly higher rate of spontaneous regression in younger patients (e.g., under 25 years old 95.8%), supporting its viability as a management option for select individuals.
The management of CIN2 should be individualized. While surgical intervention ensures high efficacy, physical therapy offers an effective and less invasive alternative. Active surveillance is a reasonable strategy, particularly for young patients likely to experience spontaneous regression, thereby avoiding potential overtreatment and surgical risks.

EP_107 - Giant Vulvar Elastofibroma: A Rare Location with Early Recurrence

Vulvar and vaginal lesions

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Elastofibroma is a rare benign soft tissue tumor that usually develops in the subscapular region in older women. It is characterized by slow-growing fibroelastic proliferation. Vulvar localization is extremely rare. Early recurrence is particularly rare after complete surgical excision.
We describe the case of a 64-year-old multiparous woman (G4P4) who had already undergone surgical treatment for a vulvar elastofibroma in 2015 measuring 23 cm in length. Two months after surgery, the patient developed a recurrent vulvar mass that has grown in size over the last 10 years. A large, firm vulvar tumor measuring approximately 35 cm was identified on clinical examination in 2026 . In order to confirm the diagnosis and rule out any malignant transformation, complete surgical excision is planned, followed by histopathological examination.
Intraoperative findings, definitive histopathological results, and postoperative findings will be reported at a later date, as the surgery is scheduled to take place in one month. Based on the limited information available in the literature, a favorable clinical outcome is expected after complete surgical resection.
Vulvar elastofibroma is a very uncommon condition. Since early recurrence is uncommon, it emphasizes the significance of precise diagnosis, suitable surgical treatment, and ongoing monitoring. This case adds to the scant data on elastofibroma vulvar presentations and recurrence risk.

EP_108 - From Visualization to Decision: A Focal Approach to the Management of HPV-Associated Cervical Pathology

Vulvar and vaginal lesions

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To evaluate the impact of enhanced cervical visualization during routine gynecologic examination on the quality of diagnostic assessment in HPV-positive women and its role in guiding focal treatment strategies.
A prospective observational study was conducted in HPV-positive women referred for cervical evaluation. Examinations were performed under optimized visualization conditions ensuring uniform illumination and stable cervical exposure. Completeness of transformation zone (TZ) visualization, physician-reported diagnostic confidence (on a 5-point scale), and patient-reported comfort (on a 5-point scale) were assessed. Sixty-two HPV-positive women examined within screening or follow-up programs.
 Completeness of TZ visualization, diagnostic confidence, and patient comfort. Complete visualization of the cervical transformation zone was achieved in 85.5% of patients, including women with anatomically and clinically challenging examination conditions (TZ2–3, contact bleeding, signs of atrophy). Mean physician-reported diagnostic confidence was 4.4 ± 0.6 compared with 3.2 ± 0.8 under standard examination conditions ($p < 0.01$). In 41.9% of cases, enhanced visualization enabled more precise localization of suspicious cervical areas, directly influencing subsequent treatment decisions. Clear delineation of lesion margins allowed the application of targeted tissue-sparing interventions, including directed biopsy, local ablation, and photodynamic therapy, with treatment confined exclusively to visually confirmed HPV-associated foci. A visualization-oriented approach facilitated treatment de-escalation, reduced unnecessary damage to intact cervical tissue, and optimized the extent and timing of local intervention.
Optimization of visualization conditions provides a foundation for transitioning from extensive and potentially excessive interventions toward personalized, focal, tissue-sparing management of HPV-associated cervical pathology.

EP_109 - Buschke–Löwenstein Tumor in a Neovagina Associated with Rokitansky Syndrome: A Therapeutic Challenge Managed with Combined Medical and Surgical Treatment, case report

Vulvar and vaginal lesions

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describe therapeutic approach used for complete resection of giant condylomata acuminata in a patient with a history of Mayer-Rokitansky-Küster-Hauser syndrome and surgically created neovagina
The case of a sexually active patient with a history of Mayer-Rokitansky-Küster-Hauser syndrome is reported. She had a surgical history of neovagina creation using the McIndoe technique. 20 years after neovagina creation, the patient developed large verrucous lesions, which were previously superinfected, as commonly occurs, and treated prior to combined medical-surgical management at a high-complexity hospital. Partial resection of the lesions was performed, achieving promising results, and subsequently, treatment with 5-fluorouracil was initiated due to residual masses within the vaginal canal that were impossible to resect because of their size and the risk of vesical or rectal perforation
Report of a relatively common pathology (condylomatosis) that is infrequent in a neovagina in a patient with a history of Mayer-Rokitansky-Küster-Hauser syndrome. The medical and surgical approach performed is presented, consisting of partial resection of giant condylomata acuminata and the use of topical 5-fluorouracil as adjuvant therapy
Giant condyloma acuminatum is a rare entity that is usually treated aggressively due to its biological behavior. It is of utmost importance to implement HPV immunoprevention in patients with a neovagina, since the characteristics of this anatomical structure may predispose to HPV infection and the development of proliferative lesions. The effectiveness of topical therapy as an adjuvant in the eradication of these lesions is emphasized, particularly when complete surgical resection could negatively affect the preexisting anatomy

EP_110 - Multiple Primary HPV-Associated Malignancies: Cervical and Subsequent Vulvar Cancer in Young Female Patients — Diagnostic Errors

Vulvar and vaginal lesions

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Multiple primary tumors of the anogenital region, although rare, are often underdiagnosed and misinterpreted as recurrences. We report a clinical observation of five patients initially diagnosed with cervical cancer (FIGO stage T1b1–3N0M0), who later developed vulvar cancer. These cases were initially considered recurrences of cervical cancer

Five patients aged 21–27 at diagnosis Early sexual activity (ages 12–14) in all Three patients had a history of smoking from ages 12–14 Early childbirth between ages 16 and 18 in all All underwent type III radical hysterectomy, two after neoadjuvant chemotherapy Both primary and secondary tumors were HPV-associated squamous cell carcinomas All patients developed vulvar lesions within 1–3 years; two cases involved inguinal-femoral lymph node metastases, and two showed vaginal involvement

Radiochemotherapy was ineffective in all cases Immuno- and chemotherapy were administered afterward Patients were referred at the stage of vulvar and perianal involvement with rectal extension (4 cases); three had invasion of the vagina, urethra, bladder, and pelvic bones Lesions were extensive but locally confined, with no spread to iliac, pelvic, or abdominal regions

The isolated lesions, uniform morphology, and lack of metastasis suggest secondary vulvar cancer, not cervical cancer recurrence. Early accurate diagnosis could have altered treatment strategies and led to improved outcomes. Distinguishing cervical cancer recurrence from second primary cancer is vital, especially in young HPV-related patients. A multimodal approach (histopathology, HPV genotyping, PET-CT, immunohistochemistry) is essential for new tumor lesions. Early surgical intervention is crucial in unclear cases

EP_111 - Outcomes of anal carcinoma patients referred to Colposcopy for Lower genital tract disease assessment.

Vulvar and vaginal lesions

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Anal cancer in women is increasing, estimated doubling in incidence by 20351. Women with anal cancer, may have metachronous or synchronous lower genital tract disease. This audit assesses lower genital tract diease in patients with anal carcinoma.
All patients with a diagnosis of anal cancer, extracted from EPR. Their records were interrogated and any colposcopy outcomes extracted from the Colposcopy database.
50 patients were diagnosed with anal cancer 2021 – 2025, age range 37-92 years old, median age 67 years old. 20 were diagnosed in 2025. 29/50 were White ethnicity. 50% in lower 2 quintiles IMD. 29 patients (13/20 2025 patients) were referred for a baseline lower genital tract assessment. 8/50 patients had previous CIN, 3 previous VIN, 2 prior VAIN. 2 patients – had evidence of adherent tumour to vagina – thus advise was given to general surgery to perform colostomy. 4/50 patients showed HPV positive/ LG cytology, and 3 patients were diagnosed with VIN. One patient had vulvar lesions, which were secondary anal cancer nodules.
The incidence of anal carcinoma appears to be rising, especially amongst females and while the yield of CIN/VIN and VAIN is low, it is helpful in advising surgery to consider colostomies. References: 1.C R Smittenaar, K A Petersen, K Stewart and N Moitt. Cancer incidence and mortality projections in the UK until 2035. www.bjcancer.com | DOI:10.1038/bjc.2016. 2.Clifford et al. A meta-analysis of anal cancer incidence by risk group: Toward a unified anal cancer risk scale. Int. J. Cancer. 2021;148:38–47.

EP_112 - vulvar carcinoma case report

Vulvar and vaginal lesions

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To report a case of vulvar carcinoma in an elderly patient presenting with nonspecific symptoms, highlighting the importance of early biopsy in persistent vulvar complaints.
We report the case of a 72-year-old woman with no significant past medical history who presented with chronic vulvar pruritus. Clinical gynecological examination revealed a small, localized mass on the right labia majora. No inguinal lymphadenopathy was detected. A vulvar biopsy was performed to determine the nature of the lesion. Histopathological analysis was conducted using standard techniques.
Histological examination of the biopsy specimen revealed a malignant epithelial tumor consistent with vulvar carcinoma. The diagnosis was established at an early stage due to prompt investigation of persistent symptoms. Further staging investigations were initiated to guide therapeutic management. The patient was referred to the gynecologic oncology department for multidisciplinary care.
Vulvar carcinoma often presents with nonspecific symptoms such as pruritus, particularly in elderly women. These symptoms may lead to delayed diagnosis if underestimated. Careful clinical examination and early biopsy of any suspicious vulvar lesion are essential for timely diagnosis and improved prognosis. This case underscores the importance of vigilance in the evaluation of persistent vulvar symptoms in older patients.

EP_113 - When HPV 16 attacks on all fronts – diagnostic and therapeutic strategies

Vulvar and vaginal lesions

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Cancers and precancerous lesions related to high risk HPV (hrHPV) are steadily increasing in Europe, with an estimated 263,227–503,010 cervical precancerous lesions and between 14,600 and 27,500 precancerous lesions of the vagina, vulva, or anus. Extracervical lesions are often under-recognised by both patients and clinicians. We report the case of a 39-year-old active smoker presenting with extensive invasive vulvar lesions and HPV16-induced HSIL associated with multisite disease.
Case report
Diagnostic strategy: Exclusion of immunosuppression (HIV 1&2 serology, serum protein electrophoresis, full blood count, quantitative immunoglobulins [IgA, IgM, IgG], CD4 and CD8 counts) and associated infections (hepatitis B and C, syphilis, Neisseria gonorrhoeae, Chlamydia trachomatis). Systematic search for associated HPV-induced lesions at anal and cervical sites (HPV testing with reflex cytology, high resolution anoscopy and colposcopy), and ENT assessment. Mapping of all lesions. Therapeutic strategy: invasive lesions were managed surgically with excision allowing assessment of tumour size and depth of stromal invasion. Cervical HSIL was treated by conisation, anal and vaginal lesions by electrosurgical resection, and vulvar HSIL with topical imiquimod in order to preserve functional anatomy. Post-treatment surveillance: smoking cessation and comprehensive follow-up at six months.
In extensive multisite disease, systematic lesion mapping with multiple biopsies is crucial. Treatment targets lesions rather than the causal hrHPV infection; therefore, close surveillance is mandatory.

EP_114 - Zoon's vulvitis: an uncommon idiopathic dermatosis successfully treated with topical estrogen.

Vulvar and vaginal lesions

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To report a case of Zoon’s vulvitis with persistent clinical presentation and initial therapeutic failure, emphasizing diagnostic confirmation and therapeutic alternatives.
This is a case report based on data extracted from the patient’s medical records. The patient provided written informed consent for publication, and the study was approved by the Research Ethics Committee of the institution in question.
A 47-year-old postmenopausal woman presented with a two-month history of painful erythematous vulvar lesions. She had previously been treated in primary care with topical healing agents without improvement. She denied comorbidities, continuous medication use, or substance abuse. Menopause occurred at age 40, with prior use of oral hormone therapy for four years and sexual abstinence for seven years. Physical examination revealed vulvar atrophy and tender erythematous macules involving the posterior fourchette and extending to the vaginal introitus, without vaginal or cervical involvement. Initial differential diagnoses included Zoon’s vulvitis, erosive lichen planus, and vulvar hematoma associated with atrophy. A punch biopsy was performed, and low-potency topical corticosteroid therapy was initiated without response. Histopathology demonstrated chronic vulvitis with dense inflammatory infiltrate and plasma cell proliferation. Immunohistochemistry showed CD138 positivity in plasma cells, confirming Zoon’s vulvitis. After therapeutic failure with high-potency clobetasol, topical conjugated estrogen was prescribed, resulting in complete resolution of signs and symptoms, with sustained clinical improvement.
Zoon’s vulvitis is an uncommon and frequently underdiagnosed vulvar dermatosis. Histopathology with immunohistochemistry is essential for diagnosis. Topical estrogen may represent an effective alternative in postmenopausal patients with inadequate response to corticosteroid therapy.

EP_115 - Paget disease of the vulva: Case report and literature review

Vulvar and vaginal lesions

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Extramammary Paget disease (EMPD) is a rare intraepithelial cutaneous neoplasm that develops mainly in apocrine gland-bearing areas such as the axillary and anogenital regions. Paget disease of the Vulva (PDV) represents less than 10% of all Paget disease and particularly affects postmenopausal Caucasian women. In most instances, the prognosis is favorable but is associated with a high recurrence rate ranging from 12% to 61%, whether the surgical resection margins are clear or involved. Currently, the standard treatment for Paget disease is surgical excision. We present the case of a patient with Paget disease.

A 58-year-old woman who is a smoker, without gynecological follow-up, presented to the gynecological emergency department. She reports a non-itchy whitish vulvar lesion that has been present over the past three months. Clinically, the vulva is atrophic and the lesion is non-infiltrative and isolated. A biopsy confirmed the diagnosis of intraepithelial Paget disease. Surgical excision of the lesion is scheduled for the end of February 2026.

PDV has a heterogeneous clinical presentation, which can mimic pruritic and extensive eczema or a single hypo- or hyperpigmented lesion. In the presence of the slightest clinical doubt, a biopsy should be performed. It is the histological and particularly immunohistochemical analysis that will confirm the diagnosis. Even though surgery remains the gold standard, other less invasive alternatives are being evaluated (imiquimod, Silver Sulfadiazine, photodynamic therapy, laser therapy, radiotherapy or chemotherapy).

PDV is a complex disease requiring appropriate diagnosis, management, and follow-up.