

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

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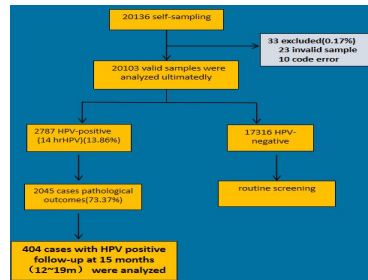
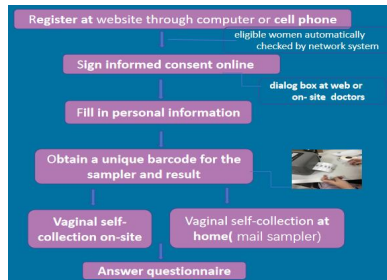
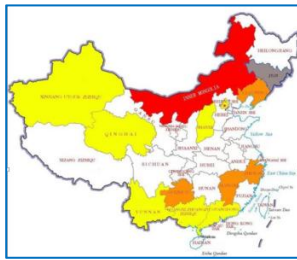
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Objective To investigate the clearance of HR-HPV in vaginal self-sampling and triage value of extended typing for cervical cancer screening.

Methods A prospective cross-sectional study. Based on internet, a total of 20 103 women aged 30-59 were recruited for vaginal self-sampling screening from Sep. 2018 to

Dec. 2020 across 13 provinces in China.

Results The mean age of participants was 44.31 ± 7.70 years old. Among screened women, 35.80% of women came from remote areas. 77.86% with never- or under-screened, and the majority of the participants came from low-income setting.



Informed ways:
WeChat, community networks, telephone, letter, notice, etc.

Local organizers:
grass-roots medical personnel, community staff, local women's association staff, etc.

Occupation:
farmer, migrant labor, herdswomen, factory worker, laid-off or re-employee, teacher, technician, civil servant, urban resident, etc.

Ethnic groups:
Han, Shui, Mongols, Hui, Uygur, Manchu, etc.

Table 1 14 Types of HR - HPV After 15 - Month Follow - up [n(%)]

| Item | Number of Cases | HR - HPV Positive | HR - HPV clearance | HR - HPV Type Shift |
|------------------|-----------------|-------------------|--------------------|---------------------|
| With HPV 16 | 78 | 31 (39.74) | 47 (60.26) | 15 (19.23) |
| HPV 16 Alone | 39 | 10 (25.64) | 29 (74.36) | 5 (12.82) |
| With HPV 18 | 28 | 12 (42.86) | 16 (57.14) | 4 (14.29) |
| HPV 18 Alone | 14 | 5 (35.72) | 9 (64.29) | 1 (7.15) |
| Other 12 HR-HPVs | | | | |
| HPV 31 | 29 | 16 (55.18) | 13 (44.83) | 5 (17.25) |
| HPV 33 | 24 | 6 (25.00) | 18 (75.00) | 3 (12.50) |
| HPV 35 | 12 | 4 (33.34) | 8 (66.67) | 0 (0) |
| HPV 39 | 24 | 9 (37.50) | 15 (62.50) | 3 (12.50) |
| HPV 45 | 11 | 8 (72.73) | 3 (27.28) | 6 (54.55) |
| HPV 51 | 30 | 15 (50.00) | 15 (50.00) | 8 (26.67) |
| HPV 52 | 59 | 36 (61.02) | 23 (38.99) | 12 (20.34) |
| HPV 56 | 17 | 7 (41.18) | 10 (58.83) | 4 (23.53) |
| HPV 58 | 59 | 32 (54.24) | 27 (45.76) | 9 (15.26) |
| HPV 59 | 20 | 12 (60.00) | 8 (40.00) | 4 (20.00) |
| HPV 66 | 35 | 13 (37.15) | 22 (62.86) | 5 (14.29) |
| HPV 68 | 26 | 12 (46.16) | 14 (53.85) | 5 (19.23) |

Table 2 Persistence and non-Detected/Clearance of HR-HPV After 15-Month Follow-up

| HPV type | Total | persistent HPV [n (%)] | cleared/non detected rate [n (%)] |
|-----------------|-------|------------------------|-----------------------------------|
| total HR-HPV | 404 | 184 (45.54) | 220 (54.46) |
| HPV16/18 | 106 | 43 (40.57) | 63 (59.44) |
| other 12 HR-HPV | 346 | 170 (49.13) | 176 (50.87) |

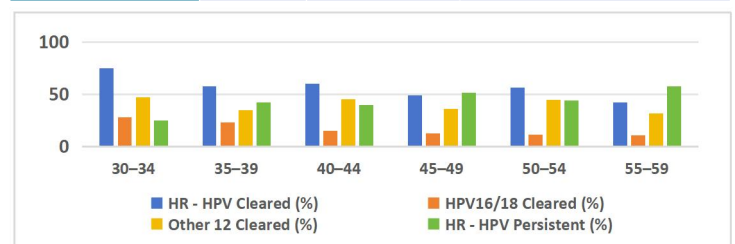


Figure 1 Distribution of HR-HPV Clearance at 15-Month Follow-up

Conclusions: The clearance rate of hr-HPV base-on vaginal self-sampling was higher than 50% at 15-month following-up, while persistent hr-HPV in elderly is significantly higher than that in young people, and no difference between single and multiple infection. The persistent hr-HPV rate of HPV45 was the highest, followed by HPV 52,59,31, of them HPV16,18 clearance exceeded 60%.

For HSIL+, if further extended HPV genotyping, apart from HPV 16/18, HPV 16/18/33 extended genotyping may serve as a suitable triage protocol.