

# Histological outcomes following LLETZ for hrHPV with moderate dyskaryosis - Treatment and Follow Up

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## Background

Cervical intraepithelial neoplasia is known as a precancerous state and describes a spectrum of dysplastic cells seen in histology<sup>(1)</sup>. Women aged 25 to 64 in the United Kingdom (UK) are called in to screen for high-risk human papilloma virus (hrHPV) aiming to prevent cervical cancer<sup>(2)</sup>. The screening programme classifies cervical cytology using the British Society of 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<sup>(3)</sup>. Although treatment has traditionally been recommended, conservative management of CIN2 is now accepted in selected cases such as for those who have not completed their family<sup>(4)</sup>.

## Aims

We aimed to assess the burden of high- and low-grade disease in histological samples from large loop excision of transformation zone (LLETZ) performed for moderate dyskaryosis.

## Methods

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.

## Results

Diagnosis	n	%
Cervical cancer	1	0.5
CGIN	1	0.5
CIN3	29	21
CIN2	61	43
CIN1	36	26
No CIN	13	9

Figure 1: table which demonstrates histological outcomes  
CIN = cervical intraepithelial neoplasia, CGIN = cervical glandular intra-epithelial neoplasia

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 noCIN in 9% (n=13). Figure 1.

Where known, patients with CIN2+ were more likely to have high-grade colposcopic findings compared with those with CIN1 or less (p=0.00142). Figure 2.

	High Grade		Low grade	
	n	%	n	%
CIN 2 +	56	61	36	39
CIN 1 and less	16	33	33	67

Figure 2: table to demonstrate colposcopy findings in CIN 1 versus CIN 2+

Smoking history, HPV vaccination status and prior abnormal cervical cytology were similar between groups.

## Discussion

In our cohort, a moderate dyskaryosis smear result is more likely to reflect as high grade in colposcopy and CIN2 was the commonest histological diagnosis.

In the UK, when CIN 2 confirmed, providing the current criteria are met: the lesion not covering more than 2 quadrants of the cervix, the histology has been reviewed in multidisciplinary team meeting, the patient agrees to regular 6 monthly follow-ups, conservative management is deemed appropriate<sup>(5)</sup>. This is also appropriate for patients with CIN1 or less. Further larger studies are required to establish whether factors such as smoking status or previous HPV vaccination status impact the proportion of CIN2 regression rates. This may further contribute to preference for conservative management of CIN2.

## Conclusions

Whilst our findings demonstrate a wide spectrum of cervical pathology, CIN2 remains the most common histological outcome supporting current practice.

## References

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