

# Audit Review: Adherence to the National Recommendation of annual cervical screening for women living with HIV, 2015–2018 at Queen Elizabeth Hospital Birmingham

Authors: Satwant Kaur, Mary White and Dr Kaveh Manavi

University Hospitals Birmingham Foundation Trust

## Background

As women living with HIV (WLHIV) are experiencing longer life expectancy due to increased availability of combined antiretroviral therapy (cART), many remain at high risk of infection with human papillomavirus (HPV), acquiring genital warts, and progressing to cervical and other genital cancers (1). This is the same in both the African sub-continent and in Europe.

An increased prevalence of HPV infection has been reported in HIV positive pregnant women compared to HIV negative pregnant women (2).

These women, especially those with lower CD4 cell counts, have a higher prevalence of anal and cervical HPV cancers (2).

The national guidelines recommend that WLHIV older than 25 years should be offered a cervical screen annually.

Cervical screening testing is mainly carried out by the GP Services in the UK.

## Study aim

To investigate the rates of annual cervical screening tests of WLHIV (diagnosed with HIV pre 2015) attending the centre at Queen Elizabeth Hospital Birmingham (QEHB).

## Method

We identified WLHIV between the ages of 25 and 65 years from our Department's database. We recorded women's most recent HIV viral load (VL) and CD4 counts.

Dates and results of the cervical screens for each woman between 2015 and 2018 were searched on the national database (Open Exeter) held on the National Health Application and Infrastructure Services systems.

We recorded the dates and results (including HPV and cytology status) of the cervical screen of each woman and their follow up plan where applicable.

## Results

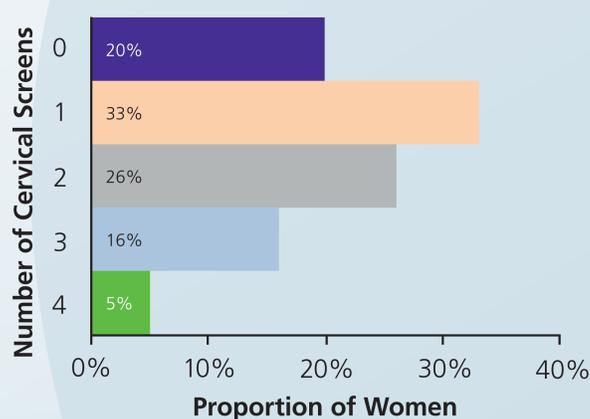
A total of 452 women were identified, with a median age of 44 (IQR: 38, 50) years, and 77.2% being of African ethnicity.

Table 1 – Patient Demographics

	Median (IQR) or N (%)
Age (Years)	44 (38-50)
Ethnicity	
African	349 (77.2%)
White	50 (11.1%)
Other Black	33 (7.3%)
Asian	14 (3.1%)
Mixed	6 (1.3%)
Most Recent CD4 count (cells/mm <sup>3</sup> ) Median (IQR)	687 (497-896)
CD4 count > 500 cells/mm <sup>3</sup>	338 (74.8%)
Most Recent Plasma VL<50 copies/ml	414/446 (92.8%)

Only 23 women (5%) had cervical screens during each of the four years of the audit period. 90 women (20%) had no cervical screens during the four year period.

Graph 1. The distribution of cervical screen testing of WLHIV according to annual intervals



At the time of the audit, 261 women (57.7%) were overdue a cervical screen, by a median of 27 months (range: 1, 240).

Of the 693 cervical screens performed, 37 (5.3%) identified 'High Grade Dyskaryosis? Invasive Squamous Cell Carcinoma', and 41 (5.9%) were HPV (16/18)+.

Table 2 – Results of Screening

Year	Number of Women Screened	High Grade Dyskaryosis? Invasive Squamous Cell Carcinoma	HPV (16/18)+
2015	171	12 (7.0%)	16 (9.4%)
2016	193	10 (5.2%)	10 (5.2%)
2017	185	6 (3.2%)	7 (3.8%)
2018	144	9 (6.3%)	8 (5.6%)
Total	693	37 (5.3%)	41 (5.9%)

60 cervical screens (8.7%) resulted in a recommendation for a colposcopy referral, and 138 (19.9%) recommended a further test at a lesser interval than routine.

Table 3 – Results of Screening

Year	Number of Women Screened	Recommendation Further Test at Interval Less than Routine	Recommendation Referral to Colposcopy
2015	171	32 (18.7%)	20 (11.7%)
2016	193	33 (17.1%)	16 (8.3%)
2017	185	47 (25.4%)	10 (5.4%)
2018	144	26 (18.1%)	14 (9.7%)
Total	693	138 (19.9%)	60 (8.7%)

## Discussion

Significant numbers of WLHIV (20%) in our centre have not had a cervical screen during a four year interval.

Only a small number of WLHIV (5%) underwent an annual screen as per the national UK guidelines.

A significant proportion of screened women (8.7%) required further investigation by colposcopy.

Our audit suggests that the recall process for cervical screening may require a significant improvement for all women (irrespective of their HIV status) in our city.

Following this audit we introduced a new reminder process for the GPs whereby a generic letter is re-issued to GPs to those women who have not had their annual cervical screen.

We will audit the results of this initiative in the near future.

## References

- Kelly H, Faust H, Chikandiwa A, Ngou J. Human papillomavirus Serology Among Women Living with HIV: Type-specific seroprevalence, seroconversion, and risk of Cervical Reinfection: JID 2018:218 (15 September)
- Carriero C, fascilla F, Cramarossa P, Lepera A, Bettocchi S, Vimercati A. Colpocytological abnormalities in HIV infected and uninfected pregnant women: prevalence, persistence and progression: Journal of Obstetrics and Gynaecology: 38:4, 526-531, DOI:10.1080/01443615.2017.1373082