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Results of a Cervical Cancer Screening Intervention among HIV-Positive Women in Semi-Urban South Africa

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Introduction

- The National Department of Health recommends that all HIV-infected women in South Africa undergo annual cervical cancer screening.
- To date, less than 20% of HIV-positive women attending HIV treatment centers in South Africa have had at least one session of cervical cancer screening.



Atlases of cervical conditions posted in the HIV clinic at Tshepong Hospital, North West Province, South Africa

Background

- Cervical cancer is the most common cancer among South African women.
- In HIV-infected women, the annual incidence of HPV-associated cervical intraepithelial neoplasia (CIN), the precursor to cancer, is 4–5 times greater than in the general population.*
- The 2008 adult prevalence of HIV in South Africa was 18.1%. In a recent study, only 18.6% of women attending HIV clinics in Cape Town had had at least one Pap smear.
- Cervical cancer screening in HIV-positive women in South Africa falls short of what the national policy recommends.
- There is a need to pilot alternative approaches to and interventions for cervical cancer screening in HIV-positive women in order to improve the quality of care.

*Ellerbrock TV, Chiasson MA, Bush TJ, et al. Incidence of cervical squamous intraepithelial neoplasia in HIV-positive women. *Int J STD AIDS*, 2006; 17:579–594.

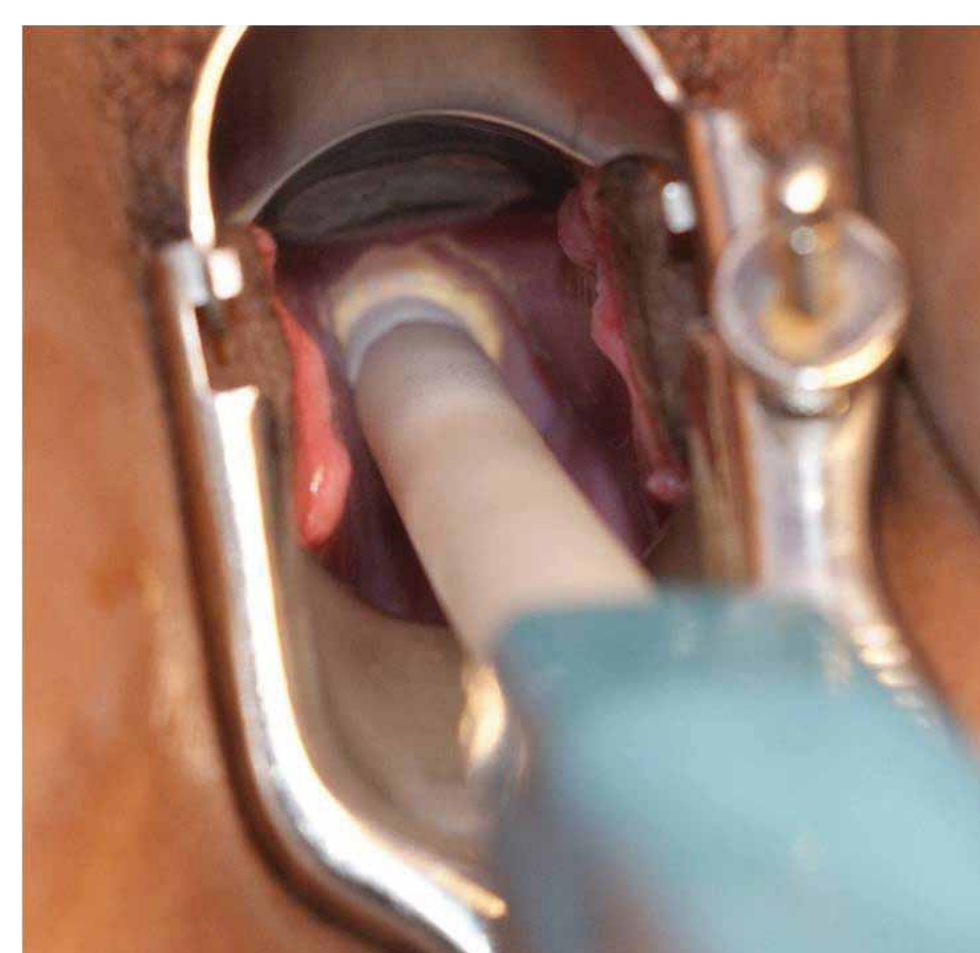
What Are VIA and Cryotherapy?

- Visual inspection with acetic acid (VIA) is a method of screening for cervical cancer in which the health provider paints the cervix with acetic acid and visualizes any changes consistent with CIN.
- It is a validated method that is inexpensive to apply and is therefore very useful in low-resource settings, such as in most parts of South Africa.
- Cryotherapy is a method of treating cervical precancer through freezing the cervix.
- These methods do not require electricity and can be performed at the primary health care setting, making them relevant for semi-urban areas.

VIA and Cryotherapy



Simple tray requirements for VIA as demonstrated during training



Cryotherapy in progress

Methods

- This was a six-month observational study of cervical cancer screening before and after an intervention at Tshepong Hospital, a semi-urban hospital in North West Province, South Africa.
- The hospital's dedicated HIV clinic sees approximately 15,434 HIV patients each year, of whom 8,388 are women.
- The intervention included training of professional nurses on VIA and cryotherapy, mentoring of the nurses in the techniques using direct observation, and ongoing supportive supervision.

Intervention Model

- Intervention model at Tshepong Hospital on cervical cancer screening and management in HIV-infected women using VIA and cryotherapy methods



- Two nurses were trained on VIA and cryotherapy.
- One training session, 12 mentoring sessions and 12 supervisory visits were conducted.

Results

- At baseline, no HIV-positive women had been screened for cervical cancer, and Pap smear was the only method available.
- At 6 months, 349 women had been screened, 341 (98%) of them through VIA and eight using Pap smear. Three women (0.9%) were diagnosed with CIN using VIA.
- Two nurses were trained on VIA.
- One training session, 12 mentoring sessions and 12 supervisory visits were conducted.

Data Element	At Baseline	At 6 Months
Number of HIV-infected women screened for cervical cancer using VIA	0	341
Number of HIV-infected women screened for cervical cancer using Pap smear	0	8
Number of women diagnosed with CIN	0	3

Challenges

- As this intervention was new in the province, there was initially poor buy-in from the health managers and health providers.
- There is generally a shortage of space in the facility and this resulted in some missed opportunities, as rooms would be used for other procedures, e.g., emergencies.

Conclusion

- The intervention of training, ongoing mentoring and supportive supervision significantly scaled up the screening and management of HIV-infected women.



Client undergoing cryotherapy

- Application of a simple method of screening such as VIA made a huge difference in service outputs.
- The approach of this intervention (training, mentoring and supportive supervision) should be explored by operational research in other public health areas to increase service delivery.