Introduction

Although cervical cancer disproportionately affects women living with HIV, achieving high cervical cancer screening rates for this population continues to be a challenge.

Multiple studies have demonstrated that factors such as age, race, CD4 count, and viral load are correlated with the lack of adherence to testing among HIV positive women. In addition, newer studies have shown that factors such as substance use disorder, depression, and marital status also have an impact on cervical cancer screening rates.

In our urban HIV clinic caring for approximately 700 women, the baseline annual screening rate was 68% in 2017, short of our screening targets. This was despite the availability of on-demand cervical cancer testing as well as on-site colposcopy. The goal of this retrospective chart review was to identify factors associated with screening rates in order to inform quality improvement efforts.

Methods

Over the time period of January 1, 2015 and June 30, 2017, we conducted a retrospective chart review of 185 randomly-selected women with HIV. We collected data on demographic and clinical factors, as well as annual cervical cancer screening and colposcopy (when indicated) adherence according to the guidelines provided by the Department of Health and Human Services for that time period. Associations between clinical and demographic factors and patterns of cervical cancer screening were analyzed using chi square and logistic regression.

Results

The baseline demographics and clinical characteristics of the 185 randomly selected women in the study are summarized in Table 1. During the 2-year review period, 164 (89%) completed at least one cervical cancer screening test: 68 (37%) patients completed 2, and 96 (52%) completed at least 1. Twenty-one (11%) did not have a test performed. Fifty-three of 232 (23%) tests were abnormal; the most common abnormal result was ASCUS with positive high risk HPV (16/53, 30%). When follow-up colposcopy was indicated, 18/40 (45%) women completed colposcopy within 6 months. The lowest rates of colposcopy follow up were observed among patients with a diagnosis of ASCUS cannot rule out HSIL and cervical cancer in situ (0/3).

Our analysis of predictors of cervical cancer screening adherence in the bivariate model showed that adherence to cervical cancer screening was associated with history of abnormal pap test, 4 or more HIV-related primary care visits during the review period, and current ART use. Non-adherence to cervical cancer screening was associated with current heroin use and lack of insurance.

In the multivariate model, factors significantly associated with adherence to screening guidelines included history of an abnormal pap test (P<0.05) and more than 4 HIV-related primary care visits per year (P<0.01). Lack of adherence was significantly associated with current heroin use (P<0.01).

In this retrospective chart review, we evaluated 185 out of approximately 700 female patients receiving care at our clinic. The retrospective nature of the study limits our ability to represent other barriers to healthcare not analyzed in our study.

Although the findings in our multivariate analysis are statistical significant (P<0.05), the large confidence intervals may affect whether these values are precise estimates of our patient population. For future studies, a larger sample would allow for results that are more representative of our patient population.

Conclusions

• In this urban HIV clinic cohort, a high proportion of women completed at least one cervical cancer screening test over a 2-year period, a promising result in the setting of a recent change in guidelines recommending less frequent testing.

• A lower proportion completed colposcopy within 6 months when indicated; including 4 patients with high-grade lesions.

• The strongest predictor of low adherence to the screening guidelines was heroin use disorder, while the strongest predictor of completing at least one screening test was a high level of engagement in HIV primary care, highlighting the importance of offering treatment for concurrent substance use disorder and of interventions that increase retention and engagement for our clinic population.

• The next phase of this project will include patient surveys to determine quality improvement strategies that may further enhance acceptability and access to screening, as well as a review of anal dysplasia screening.

References


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