# Incidence of Anal High-grade Intraepithelial Lesions in Gay and Bisexual Men from the SPANC Study

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## Background & Methods

- **Risk of anal cancer substantially high in GBM, even higher in those living with HIV**
  - **Anal HSIL, the presumed cancer precursor similar to CIN2+ in cervical screening**
    - **Routinely treated in some HIV clinics overseas for cancer prevention**
  - **Solid understanding of natural history critical in developing anal cancer screening programs**
- **SPANC study—natural history study of anal HPV infection in GBM**
- **Three-year follow-up once enrolled with HPV testing, cyto/histo assessments at every study visit**
- **Mainly community-based (N=617)**
- **Incidence and risk factors for anal HSIL**
  - **Post baseline incident HSIL**
  - **Post clearance incident HSIL**

## Results

| | n | Person-years | Incidence (Per 100 PY) | HR | 95% CI | P value |
|---|---|---|---|---|---|---|
| Overall | 123 | 1093.7 | 11.2 | | | <0.001 |
| Post baseline | 88 | 846.2 | 10.4 | | | |
| Post clearance | 35 | 153.5 | 22.8 | | | |
| HPV 16 at current and most recent visit | | | | | | <0.001 |
| - - | 65 | 847.0 | 7.7 | 1 | --- | |
| - + | 10 | 34.0 | 29.4 | 3.77 | 1.93-7.34 | |
| + - | 7 | 53.3 | 13.1 | 1.76 | 0.82-3.92 | |
| + + | 36 | 114.9 | 31.3 | 4.08 | 2.71-6.15 | |
| Other HRHPV at current and most recent visit | | | | | | <0.001 |
| - - | 14 | 406.9 | 3.4 | 1 | --- | |
| -+/+- | 21 | 264.7 | 7.9 | 2.71 | 1.35-5.43 | |
| + + | 30 | 175.4 | 17.1 | 5.59 | 2.91-10.72 | |

## Conclusions

- **Anal HSIL is very dynamic in GBM**
  - **Incidence higher in those who recently cleared anal HSIL**
- **Incidence strongly associated with HPV16 infection**
  - **Incidence highest in those with persistent or incident HPV16 infection**
- **Screening programs should target persistent HSIL for intervention**
- **Repeated HPV testing could be used for anal cancer screening in high-risk populations**