

Implementing anal cancer screening in gay and bisexual men who have sex with men starting from a community-based setting

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Background

- Community-based Centers play a pivotal role in the screening for sexually transmitted infections (STIs), particularly, but not only, in the context of HIV pre-exposure prophylaxis (PrEP)
- "Sex Check" is a protocol following gay and bisexual men who have sex with men at high risk of STIs, taking place at Checkpoint Plus Roma. This program includes screening for anal high-risk HPV (HR-HPV) infection
- Although frequently self-limiting, this infection can in some cases lead to cancer. Screening to prevent HPV related anal cancer through the diagnosis of anal precancers is suggested in men who have sex with men not living with HIV (MSM-NLH) >45 years
- Not many data are available regarding prevalence of anal precancers in younger MSM-NLH

Methods

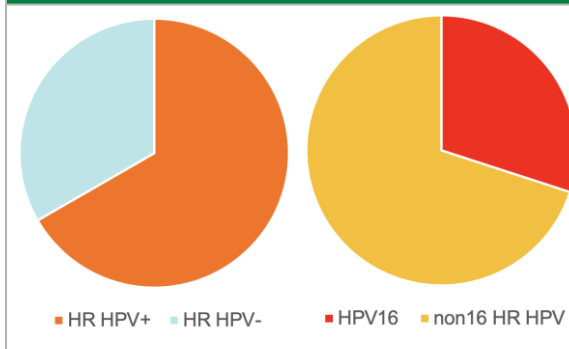
- 100 MSM referring to Checkpoint Plus Roma during the year 2023 underwent:
 - rapid blood test screening for HIV and Syphilis
 - oral and anal swab for *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG)
 - anal swab for HR-HPV, with HPV 16 identification
- Information regarding previous STIs, vaccinations and sexual habits were also collected
- Individuals with diagnosis of anal HR-HPV infection were referred to a dedicated ambulatory for screening of anal precancerous lesions
- High resolution anoscopy (HRA) was performed if:
 - Anal cytology showed LSIL or worse
 - Anal cytology showing ASCUS or worse in HPV16+ participants
- Individuals with negative or ASCUS cytology and non-HPV16 HR-HPV were referred to yearly follow-up with anal cytology

Results

STUDY POPULATION

- 10 participants were excluded due to known or newly diagnosed HIV infection
- Median age of the population was 37 years
- A previous diagnosis of STI was reported by 38% of the population
- During screening, 28% of participants received a diagnosis of current Syphilis, CT or NG infection
- Anal HR-HPV infection was diagnosed in 66.6% of the population
- HPV 16 was found in 30% of anal HR-HPV infection

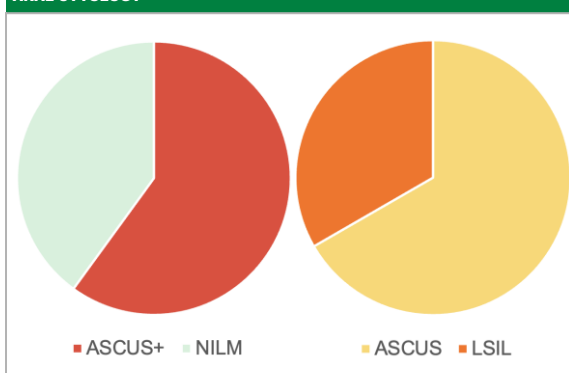
ANAL HPV DISTRIBUTION AMONG THE STUDY POPULATION



ANAL CYTOLOGY

- 53% (32) of HR-HPV positive participants complied with the recommendation of completing anal precancer screening in a hospital setting
- Cytology reports were not yet available for 2 individuals at the time of abstract submission
- 40% (12) of participants showed a negative anal cytology (NILM)
- 60% (18) showed abnormal anal cytology:
 - ASCUS: 67% (12)
 - LSIL: 33% (6)

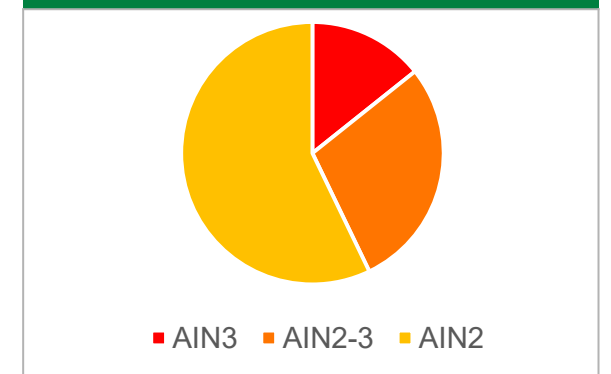
ANAL CYTOLOGY



HISTOLOGY

- To date, 9 participants underwent HRA
- High grade squamous intraepithelial lesions (HSIL) have been diagnosed in 7 individuals:
 - AIN3: 1
 - AIN2-3: 2
 - AIN2: 4

ANAL HIGH GRADE DYSPLASIA



RISK FACTORS FOR ANAL HSIL

- Risk factors for anal dysplasia of any grade were:
 - HR HPV infection (OR 3.2)
 - HPV16 (OR 6.0)
 - Previous or current STI (OR 5.6)
- Risk factors for high grade dysplasia were:
 - HR HPV infection (OR 1.3)

Risk Factors for anal dysplasia of any grade

HR HPV	OR 3.2
HPV16	OR 6.0

PREVIOUS OR CURRENT STI	OR 5.6
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Risk Factors for high grade anal dysplasia

HR HPV	OR 1.3
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Conclusions

- Prevalence of anal HR-HPV infection is high among HIV- MSM
- Screening for anal precancer could be important in HIV- MSM <45 years, particularly if anal HR-HPV or HPV16 infection is known or suspected and in individuals with other STIs
- Strategies to improve uptake of hospital referral are needed

References

- International Anal Neoplasia Society's consensus guidelines for anal cancer screening. *Int J Cancer*. 2024 May 15;154(10):1694-1702. doi: 10.1002/ijc.34850. Epub 2024 Jan 31.
- Anal dysplasia in adolescent and young adult men who have sex with men: a single-center retrospective and descriptive study (2010-2020) *Front Pediatr*. 2023 Jun 14;11:1175476. doi:10.3389/fped.2023.1175476. eCollection 2023
- Anal cancer screening results from 18-to-34-year-old men who have sex with men living with HIV. *Int J Cancer*. 2024 Jan 1;154(1):21-27. doi: 10.1002/ijc.34734. Epub 2023 Sep 20.