PREVALENCE AND PREDICTORS OF HIGH-RISK ANAL HUMAN PAPILLOMAVIRUS (HPV) TYPES IN AUSTRALIAN HOMOSEXUAL MEN

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Introduction: HPV causes around 90% of anal cancer, and a single type, HPV16, causes 90% of HPV-positive cases. Homosexual men are at greatly increased risk of anal cancer. We describe prevalence and predictors of anal canal detection of any HPV, high-risk (Hr) HPV and HPV16 in a cohort of Australian homosexual men.

Methods: The Study for the Prevention of Anal Cancer is a 3-year community-recruited prospective study of homosexual men aged ≥ 35 years. At each visit, participants complete behavioural and demographic questionnaires, undergo anal canal examination and high resolution anoscopy. An anal swab is obtained for cytology and HPV genotyping using Roche Linear Array.

Results: By April 2012, 218 participants (median age 49 years; 31.1% HIV positive) had attended a baseline visit. The vast majority of men (85.2%) had one or more HPV genotypes detected. HPV16 was detected in 26.3% of participants. The detection of any HPV was significantly associated with younger age (p=0.041), more lifetime insertive anal intercourse with male partners (p=0.036) and a history of ever smoking (p=0.032). Hr-HPV detection was significantly associated with younger age (p=0.008), more lifetime male sexual partners (p=0.025), more receptive anal behaviours in the last 6 months, including intercourse (p=0.007); rimming (p=0.001); fingering (p=0.022) and use of sex toys (p=0.029). HPV16 detection was associated only with a history of anal warts (p=0.014) and anal gonorrhoea (p=0.024). There was no significant difference in prevalence of any HPV, Hr-HPV or HPV16 detection by HIV status, age of first anal intercourse, preference for the receptive position in anal intercourse or history of other STIs.

Conclusion: HPV was extremely common in this cohort of homosexual men, regardless of HIV status and anal sex position preference. However, as receptive anal sexual practices were important predictors of Hr-HPV detection, recent sexual activity appeared to be linked to infection with Hr-HPV types.

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Disclosure of Interest Statement:

AEG has received honoraria and research funding from CSL Biotherapies, honoraria and travel funding from Merck, and sits on the Australian advisory board for the Gardasil HPV vaccine. CKF has received honoraria, travel funding and research funding from CSL and Merck, sits on the Australian advisory board for the Gardasil HPV vaccine, and owns shares in CSL Biotherapies. SMG have received advisory board fees and grant support from CSL and GlaxoSmithKline, and lecture fees from Merck, GlaxoSmithKline and Sanofi Pasteur; in addition, has received funding through her institution to conduct HPV vaccine studies for MSD and GlaxoSmithKline and is a member of the Merck Global Advisory Board as well as the Merck Scientific Advisory Committee for HPV. RJH has received support from CSL Biotherapies and MSD. All other authors declare that they have no conflicts of interest.