

HIGH PREVALENCE OF ANAL HIGH-RISK HUMAN PAPILLOMAVIRUS INFECTIONS AMONG 20-26 YEAR OLD UNVACCINATED MEN WHO HAVE SEX WITH MEN PRESENTING FOR A TARGETED VACCINATION PROGRAMME

Chow EPF^{1,2}, Danielewski JA^{3,4}, Murray GL^{3,4}, Fehler G¹, Chen MY^{1,2}, Bradshaw CS^{1,2}, Garland SM^{3,4,5}, Fairley CK^{1,2}

¹Melbourne Sexual Health Centre, Alfred Health, Melbourne, VIC, Australia

²Central Clinical School, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne, VIC, Australia

³Murdoch Children's Research Institute, Parkville, VIC, Australia

⁴Department of Microbiology and Infectious Diseases, The Royal Women's Hospital, Parkville, VIC, Australia

⁵Department of Obstetrics Gynaecology, University of Melbourne, Parkville, VIC, Australia

Background:

The Victorian Government launched a free quadrivalent human papillomavirus (4vHPV) vaccination programme targeting men who have sex with men (MSM) aged <27 in mid-2017. This study examined the proportion of anal HPV infections among unvaccinated MSM who were not covered by the national universal school-based programme.

Methods:

496 unvaccinated MSM aged 20-26 years attending Melbourne Sexual Health Centre for the free 4vHPV vaccine were recruited in 2017. Anal swabs were taken as part of routine screening for gonorrhoea and chlamydia, and tested for HPV at their first vaccine dose using the Anyplex II HPV28 assay (Seegene) which simultaneously detects 19 high-risk and 9 low-risk HPV genotypes.

Results:

The proportion of MSM with detected anal any HPV genotypes was 75.2% (95% CI: 71.2-78.9%) (Table 1). More than half had at least one high-risk HPV genotype (64.5%; 60.1-68.7%) and any nonavalent (9vHPV) vaccine-preventable genotypes (53.4%; 48.9-57.9%); 43.1% (38.7-47.6%) had at least one 4vHPV vaccine-preventable genotype (6/11/16/18), but none had all four genotypes. Men reporting condomless anal sex in the last 12 months had higher odds of having at least one 9vHPV vaccine-preventable genotypes (OR: 1.6; [1.0-2.5]). There was no association between 9vHPV vaccine-preventable genotypes positivity and demographic and sexual behaviours.

Conclusions:

Almost half of these young men had at least one 4vHPV vaccine-preventable genotype. 26% of men had HPV 16 or 18 detected which are the common anal

cancer associated genotypes. These men will receive an individual health benefit from vaccination, but the existing high HPV prevalence will limit herd protection from this targeted MSM programme.

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