

O-03-05 Ratio of Anogenital Warts between Different Anatomical Sites among Homosexual and Heterosexual Individuals in Australia, 2002-2013: Implications for Susceptibility of Different Anatomical Sites to Genital Wart

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Background: There is little known in the transmissibility of human papillomavirus (HPV) between different sites in men who have sex with men (MSM) and heterosexual individuals. The aim of this study is to describe the ratio of anogenital wart between different anatomical sites in men and women in order to infer the required HPV vaccine coverage in men who have sex with men (MSM) through mathematical models in future studies.

Method: We conducted a retrospective analysis investigating all new patients attended the Melbourne Sexual Health Centre (MSHC) in Australia between 2002 and 2013. We described the prevalence and ratio of the first episode of anogenital warts among MSM and heterosexual males and females.

Results: The proportion of new MSM clients with anal and penile warts were 4.0% (362/8978) and 1.6% (141/8978), respectively; which gave the ratio of anal to penile warts as 1:2.6. About 13.7% (1656/12112) of heterosexual males had penile warts and 10.0% (1121/11166) of females had vulval warts, which yield a ratio of 1:0.7 from penile to vulval wart.

Conclusion: Transmission from penile-to-anal has a higher ratio than penile-to-vulval, suggesting anal epithelium may be more susceptible to HPV infection than the vulval epithelium in female, and these ratios are important in modelling the control of HPV in MSM.