

GREATER THAN TENFOLD INCREASE IN PHARYNGEAL CHLAMYDIA TRACHOMATIS (CT) AMONG GAY AND BISEXUAL MEN (GBM) ATTENDING AUSTRALIAN SEXUAL HEALTH CLINICS 2010-2016

Templeton DJ^{1,2,3}, Comminos NB¹, Rutherford A^{4,5}, Goddard SL^{1,2}, Guy R², Donovan B^{2,6}, Varma R^{2,6}, Callander D²; on behalf of the ACCESS collaboration.

¹RPA Sexual Health, Sydney Local Health District, Camperdown NSW, Australia, ²The Kirby Institute, UNSW Sydney, Kensington NSW, Australia, ³Central Clinical School, The University of Sydney, Sydney NSW, Australia, ⁴Ilwarrara Sexual Health Service, Port Kembla NSW, Australia, ⁵School of Public Health and Community Medicine, UNSW Sydney, Australia, ⁶Sydney Sexual Health Centre, Sydney NSW, Australia

Background: An increase in CT notifications has been observed in NSW, with an increasing proportion being pharyngeal CT (PCT). Our aim was to investigate temporal trends and associated behavioural factors of PCT compared to anogenital CT among GBM.

Methods: Data were extracted for 2010-2016 from 26 NSW sexual health clinics. Positivity was defined as the proportion of testing occasions where CT was detected. Logistic regression analyses were employed to analyse temporal trends and risk factors for CT positivity.

Results: 23,423 GBM were tested on 84,385 occasions during the 7-year study period. Positivity of genital testing was 8.8% (95%CI: 8.5-9.0), increasing by 17% over the study period (8.1 to 9.5%, $p < 0.001$). Positivity of anorectal testing was 7.2% (95%CI: 7.0-7.4), increasing by 23% during the study period (6.0%-7.4%, $p < 0.001$). Positivity of pharyngeal testing was 2.2% (95%CI: 2.1-2.3), increasing by over 1200% from 0.3% in 2010 to 3.7% in 2016 ($p < 0.001$). In 2016, PCT was associated with injecting drug use ($p = 0.014$) and higher numbers of sexual partners ($p < 0.001$), after adjusting for men who reported symptoms or were known CT contacts. These factors were the same as those associated with anogenital CT infections.

Conclusions: This is the largest study ever conducted investigating temporal trends in PCT. By far the greatest increase in CT positivity among GBM occurred in the pharynx. Given that most untreated PCT persists on average for 2 years and is readily transmitted to anogenital sites, regular CT screening of the pharynx could play an important role in reducing CT transmission among GBM.