

# CHANGING FROM CLINICIAN-COLLECTED TO SELF-COLLECTED THROAT SWABS FOR OROPHARYNGEAL GONORRHOEA AND CHLAMYDIA SCREENING AMONG MEN WHO HAVE SEX WITH MEN DURING THE COVID-19 PANADEMIC

## Authors:

Chow EPF<sup>1,2,3</sup>, Bradshaw CS<sup>1,2</sup>, Williamson DA<sup>4</sup>, Hall S<sup>1</sup>, Chen MY<sup>1,2</sup>, Phillips TR<sup>1,2</sup>, Fortune R<sup>1</sup>, Maddaford K<sup>1</sup>, Fairley CK<sup>1,2</sup>

<sup>1</sup> Melbourne Sexual Health Centre, Alfred Health, Melbourne, Victoria, Australia

<sup>2</sup> Central Clinical School, Monash University, Melbourne, Victoria, Australia

<sup>3</sup> Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Victoria, Australia

<sup>4</sup> Microbiological Diagnostic Unit Public Health Laboratory, Department of Microbiology and Immunology, The University of Melbourne at The Peter Doherty Institute for Infection and Immunity, Melbourne, Victoria, Australia

## Background:

The COVID-19 pandemic has led many clinics to move from clinician-collected to self-collected oropharyngeal swabs for the detection of sexually transmitted infections (STIs). Melbourne Sexual Health Centre (MSHC) changed from clinician-collected to self-collected oropharyngeal swabs for oropharyngeal gonorrhoea and chlamydia screening on March 16, 2020 to reduce healthcare worker risk during the COVID-19 pandemic. This study aimed to compare the proportion of valid and positive samples for *Neisseria gonorrhoea* and *Chlamydia trachomatis* among men who have sex with men (MSM) in two time periods; the clinician-collected period between January 20 and March 15, 2020; and the self-collected period between March 16 and May 8, 2020.

## Methods:

This was a cross-sectional study conducted at MSHC between January 20 and May 8, 2020. MSM attending MSHC and had an oropharyngeal swab taken during the study period were included in the analysis. The proportion of equivocal or invalid results was calculated for each infection. Binomial log-linear regression models were used to calculate the prevalence ratios (PR) for oropharyngeal *N. gonorrhoeae* and *C. trachomatis*, and adjusted for any characteristics that differed between the two periods.

## Results:

A total of 4097 oropharyngeal swabs were included. The proportion of oropharyngeal swabs with equivocal or invalid results for *N. gonorrhoeae* was higher in the self-collected period (1.6% [24/1497]) compared to the clinician-collected period (0.9% [23/2600]) ( $p=0.038$ ) but did not differ for the detection of *C. trachomatis*. The positivity of oropharyngeal *N. gonorrhoeae* (adjusted PR=1.09; 95% CI: 0.87-1.37;  $p=0.435$ ) and oropharyngeal *C. trachomatis* (adjusted PR=0.84; 95% CI: 0.51-1.39;  $p=0.504$ ) did not differ between the two periods.

## Conclusions:

Self-collected oropharyngeal swabs for detection of *N. gonorrhoeae* and *C. trachomatis* are comparable to clinician collected performance characteristics and importantly may be safer for health care workers during the COVID-19 pandemic.

**Disclosure of Interest Statement:**

E.P.F.C. and D.A.W. are supported by Australian National Health and Medical Research Council (NHMRC) Emerging Leadership Investigator grants (GNT1172873 and GNT1174555, respectively). C.K.F. and C.S.B. are supported by Australian NHMRC Leadership Investigator grants (GNT1172900 and GNT1173361). All other authors have no conflicts of interest to declare.