Laboratory testing of mpox and STIs in Victoria during 2022-2024

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Background:
Clade IIb mpox virus has recently emerged worldwide as an important sexually transmitted infection (STI) of public health significance, with major outbreaks in 2022 and 2024. In Victoria, mpox may be approaching endemicity within the men who have sex with men (MSM) population. In this study, we describe the trends in mpox and other STI testing referred to a reference laboratory over a three-year period, determine co-infection rates and estimate potentially missed diagnoses.

Methods:
Data from Jan 2022 to Dec 2024 comprising testing for mpox, syphilis, herpes simplex viruses (HSV), *Chlamydia trachomatis* and *Neisseria gonorrhoeae* were analysed. Categorisation by age group, specimen site and referral source were applied to allow descriptive analyses. A subset analysis was performed on specimens referred for comprehensive testing of mpox, syphilis and HSV in 2024 to assess alternative diagnoses and coinfection rates.

Results:
Mpox requests were highest during 2024 with 11.7% (640/5492) testing positive, compared with 6.4% (155/2439) in 2022 and 0.5% (11/2360) in 2023. Testing of other STIs remained consistent with stable positivity rates across the study period. In 2024, the highest mpox positivity rate was in 40-49 year olds (17.1%, 145/849); analysis by site showed high levels of detection in extra-genital sites such as face (16.0%, 25/156) and torso (15.3%, 19/124). Subset analysis of samples referred for comprehensive testing observed alternative diagnoses in 24.5% (960/3917) of cases and detected co-infection in 6.5% (25/382) of those positive for mpox. Co-infection was highest in anorectal specimens at 13.7% (22/161) of mpox positive and 1.3% (22/1675) overall, with HSV1/2 (90.9%, (20/22) most commonly detected.

Conclusion:
The rising mpox detection revealed in our data may reflect an endemic spread in Victoria. Alternative diagnoses were high and co-infection at the anorectal site was significant. As public health measures bring mpox under control, understanding of the evolving dynamics of transmissions together with other STIs is important in informing strategies to optimise detection, such as multiplexed STI testing which includes mpox.

Disclosure of Interest Statement:

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