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Persistence of monkeypox virus at oral and rectal sites

In 2022, a global outbreak of monkeypox virus occurred, predominantly affecting men who have sex with men (MSM).¹ We aimed to ascertain the infectiousness of mpox (previously monkeypox) from oral and anal sites over time, relative to the clinical clearance of mucocutaneous mpox lesions elsewhere. This prospective cohort study recruited MSM with suspected mpox, and those reporting contact with mpox at Melbourne Sexual Health Centre, Melbourne, VIC, Australia, from June 23 to Oct 26, 2022. These men self-collected oral and anal swabs, as well as urine for monkeypox virus PCR and viral culture at first presentation (day 0), with repeat testing being done weekly, when reviewed for clinical clearance, until lesion resolution. Characteristics of the 19 men and monkeypox virus PCR, culture, and serology results are shown in the appendix (p 3).

14 (74%) of the 19 men had initial oral PCR detection, with six (43%) of the 14 still positive by oral PCR and viral culture (median 14.5, IQR 10.5–17.0 days) at or after resolution of mpox lesions at other sites. Of the 14 men, one (7%) had oral mpox

lesions at the initial visit. 16 (84%) of the 19 men had initial anal PCR detection with nine (56%) of the 16 still positive by anal PCR (median 11, IQR 9–16 days) and six (38%) of 16 by anal culture (10.5, 9.0–15.5 days) at or after resolution of mpox lesions elsewhere. Of these 16, nine (56%) had anal mpox lesions. Four (25%) men had initial urine PCR detection with two still positive by urine PCR and none by culture at or after resolution of all mpox lesions. Among the 16 men who underwent serology, eight (50%) had monkeypox virus antibodies detected, including four (25%) with positive serology while culture positive, and two (13%) negative for serology on day 15. The timeline of pathology results, clinical symptoms, and lesion resolution is shown in the appendix (pp 4–5).

Australia had fewer mpox cases than the UK, Europe, and North America, resulting in our study having a comparatively smaller sample size. Detection of monkeypox virus by culture suggests the viability of the virus and potential infectiousness.² Our data indicate that a proportion of men who had resolution of mpox lesions and who would be cleared by public health authorities and advised their monkeypox virus infection is no longer contagious, might still be infectious from oral and anal sites. These data suggest that men who have

clinically recovered from mpox should be advised to abstain from physical and sexual contact involving these sites for a longer period of time. Further longitudinal studies using viral cultures are needed to define this period.

We declare no competing interests. JMT and CKL are joint first authors. DAW and MYC are joint senior authors.

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- 1 Thornhill JP, Barkati S, Walmsley S, et al. Monkeypox virus infection in humans across 16 Countries—April–June 2022. *N Engl J Med* 2022; **387**: 679–91.
- 2 Palich R, Burrell S, Monsel G, et al. Viral loads in clinical samples of men with monkeypox virus infection: a French case series. *Lancet Infect Dis* 2022; published online Sept 29. [https://doi.org/10.1016/S1473-3099\(22\)00586-2](https://doi.org/10.1016/S1473-3099(22)00586-2).



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See Online for appendix