Background Gay and bisexual men (GBM) increasingly use HIV pre-exposure prophylaxis (PrEP) to prevent HIV infection. Eligibility for PrEP in Australia is based on behavioral criteria including methamphetamine use or condomless sex. It is unclear what proportions of GBM initiating PrEP meet these criteria over time.

Methods The Flux prospective cohort study enrolled Australian GBM between 2014 and 2018, following them every six months. We report PrEP use and behavioral eligibility for PrEP over time. Sexually transmissible infections data were not collected.

Results Among 1518 non HIV-positive men who were not using PrEP at baseline, mean age was 37.2 years (SD 13.13). Incident PrEP use increased from 2.8% at visit 2 to 11.9% at visit 6 (p-trend<0.001); eligibility for PrEP increased from 24.5% at baseline to 34.1% at visit 5 but fell to 20.4% at visit 6. Among all PrEP non-users, over one third were eligible for PrEP at some time during follow-up: 22.9% were eligible at visit 2; this proportion remained stable over subsequent visits (21.5% at visit 5) but fell to 9.6% at visit 6. Less than 1% of PrEP users subsequently ceased use. Among continuing PrEP users, the proportion of non-eligible men remained steady at about 25% over time. Similar proportions (about 10%) became eligible as ceased being eligible between visits.

Conclusion Although PrEP use or non-use was largely consistent with behavioral criteria for eligibility for its use, a substantial minority of GBM did not appear to use PrEP according to eligibility guidelines. About one-quarter of men who used PrEP were not eligible at the time while a similar proportion of PrEP non-users were eligible for its use, suggesting some underestimation of HIV risk. Greater efforts are needed to address these discrepancies between PrEP eligibility and its use, as engagement in risk behaviors changes over time.

Disclosure No significant relationships.

Background British guidelines recommend both event-based dosing (EBD) and daily dosing of combined tenofovir/emtricitabine (TDF/FTC) for HIV pre-exposure prophylaxis (PrEP) for men who have sex with men (MSM). Access to PrEP in the UK is either through a clinical study with limited capacity or by purchasing online. Dosing schedules are usually self-selected, often without access to professional advice or evidenced-based information. Non-daily dosing is popular as it is believed to be less toxic and more affordable than daily dosing.

Methods We describe three cases of HIV acquisition despite use of PrEP.

Results All were MSM and had a negative antigen/antibody HIV tests at 3 months of use. Case 1 switched to EBD after one month of daily PrEP. After several months he switched back to daily PrEP and had a positive HIV-1 antibody test six weeks later. Case 2 switched to EBD after 5 months of daily PrEP due to lower frequency of sex. He reported excellent adherence. He had a positive HIV-1 antibody test 4 months later. Case 3 was taking EBD PrEP for a total of 9 months. He had a positive HIV-1 antibody 5 months after his last negative HIV test. This was two months after his last episode of condomless sex. He reported occasional late dosing and some use of recreational drugs.

Conclusion It is likely that all three cases became infected while taking event-based PrEP. Two cases switched between daily and EBD due to lower self-perceived risk of HIV or frequency of sex. It is not clear if this may have affected PrEP efficacy. Evidence for effective EBD is strongly dependent on adherence and timing of doses. It is therefore vital that PrEP provision includes objective HIV risk assessment, adherence support and evidence-based dosing information to optimise efficacy.

Disclosure No significant relationships.