

Knowledge and use of oral event-driven pre-exposure prophylaxis (ED-PrEP) among PrEP-experienced gay and bisexual men in New South Wales

Vaccher S¹, Chan C¹, Fraser D¹, Holt M², Zablotska-Manos IB^{3,4}, Prestage GP¹, Grulich AE¹, Bavinton BR¹

¹ The Kirby Institute, UNSW Sydney, NSW

² The Centre for Social Research in Health, UNSW Sydney, NSW

³ Western Sydney Sexual Health Centre, NSW

⁴ Sydney Medical School – Westmead, University of Sydney, NSW

Background:

Event-driven PrEP (ED-PrEP) is recognised as an effective alternative to daily dosing but there has not been widespread community education about ED-PrEP in Australia. We assessed ED-PrEP knowledge and use in a cohort of PrEP-experienced gay and bisexual men (GBM).

Methods:

Between August 2018-February 2020, previous *EPIC-NSW* participants were invited to complete three surveys, six months apart. ED-PrEP knowledge was assessed through three multiple-choice questions. Adherence was defined as the proportion of days or sexual events covered by daily or ED-PrEP, respectively. Knowledge associations were examined with multivariate logistic regression; comparisons between daily- and ED-PrEP-users were assessed using multivariate generalised linear models. We report adjusted odds ratios (aOR) and 95% confidence intervals (CI).

Results:

ED-PrEP knowledge was assessed among 1,503 respondents. Two-thirds (68.4%) were aware of ED-PrEP. Knowledge was higher among ED-PrEP users than non-users (44% vs 11%, $p < 0.001$), but there was no difference in willingness to use ED-PrEP (43% vs 42%, $p = 0.640$). Better ED-PrEP knowledge was associated with greater social engagement with other gay men (aOR=1.2, 95%CI=1.1-1.3), belief in ED-PrEP efficacy (aOR=1.5, 95%CI=1.2-2.0), university education (aOR=1.7, 95%CI 1.2-2.2), being Australian-born (aOR=1.5, 95%CI=1.2-2.1) and younger age (aOR=0.98, 95%CI 0.97-0.99). Of the 1,197 participants who completed all three surveys, 5.4% reported ED-PrEP use, which increased over time. Mean regimen-specific adherence over the previous six months was higher in daily-users (95%, SD=9.8%) than ED-PrEP-users (71%, SD=36.4). Compared to daily-users, ED-PrEP-users were older (aOR=1.03, 95%CI=1.02-1.05), had ≤ 5 sexual partners in the previous 6 months (aOR=1.61, 95%CI=1.06-2.47), and had lower regimen-specific adherence (aOR=1.03, 95%CI=1.02-1.03).

Conclusion:

Despite most respondents being aware of ED-PrEP, knowledge of dosing requirements was poor. ED-PrEP use remained uncommon among this cohort of PrEP-experienced GBM. More socially connected GBM had higher ED-PrEP knowledge, but use was more associated with fewer sexual partners. Enhanced community education about ED-PrEP is critical.

Disclosure of Interest Statement:

The Kirby Institute and Centre for Social Research in Health are funded by the Australian Government Department of Health. The *PrEP in NSW Transition Study* was supported by funds from the NSW Ministry of Health. No pharmaceutical grants were received for this study.