## FACTORS PREDICTING INTENTION FOR ON-DEMAND HIV PRE-EXPOSURE PROPHYLAXIS (PrEP) DOSING AMONG GAY AND BISEXUAL MEN IN AUSTRALIA.

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### Background:

Many gay and bisexual men (GBM) in Australia have intermittently increased their sexual contacts following the easing of COVID-19 restrictions, but they may view daily PrEP use as unwarranted. Messaging about on-demand PrEP dosing may be an appropriate intervention at this time. Using cohort data, we investigate intention to use, and factors that predict on-demand PrEP dosing.

#### Methods:

Between May 2020 and December 2021, 880 non-HIV positive GBM in Australia responded to a monthly questionnaire on the impact the COVID-19 had on their PrEP use and sexual behaviours, including intention for future PrEP dosing. We used the Andersen-Gill extensions to the Cox proportional hazards model for multivariable survival data to predict factors influencing the intention to use on-demand PrEP.

#### **Results:**

The median age of the sample was 44.0 (range 21-84). Between July 2020 and December 2021, the preference for on-demand increased from 4.9% to 31.9% (tests for linear trend was significant at p=0.03).

In multivariable analysis, GBM were more likely to report an intention to use ondemand PrEP if: they engaged in condomless anal intercourse with non-relationship partners (CLAI-NR) (aOR:1.85; 95%CI:1.11-3.10), including without the use of PrEP (aOR:1.88; 95%CI:1.26-2.81); and scored higher on measures of HIV-related anxiety (aOR:1.09; 95%CI:1.04-1.14). However, men were less likely to report an intention to use on-demand PrEP if: they lived outside of NSW (aOR:0.16; 95%CI:0.47-0.92). Age (p=0.111), number of sexual partners (p=0.875), country of birth (p=0.557) did not predict intention for on-demand PrEP use.

## **Conclusion:**

GBM who engage in CLAI-NR are increasingly interested in on-demand PrEP use, particularly if they are anxious about HIV transmission, regardless of their age or country of birth. NSW men were more likely to want to use on-demand PrEP. On-demand messaging addresses a need for many at-risk GBM.

## **Disclosure of Interest Statement:**

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