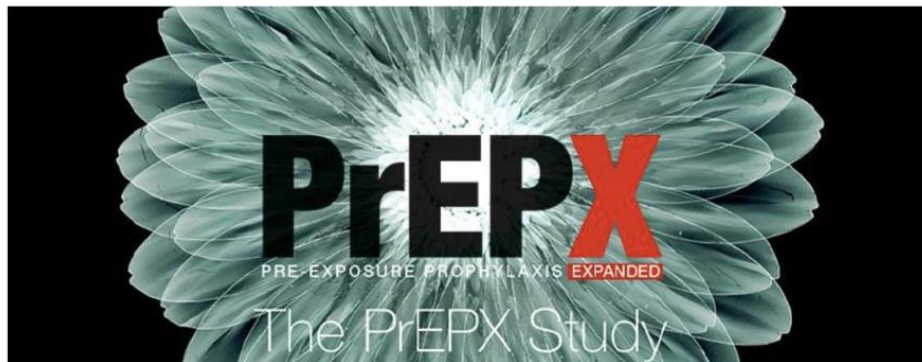


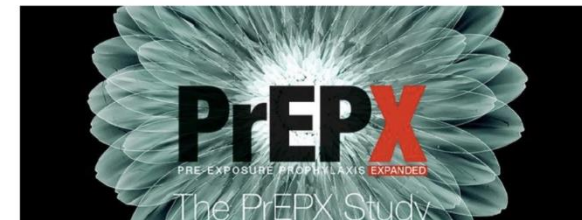
Hepatitis C in PrEPX

Cornelisse VJ, Wright EJ, Traeger M, Murphy D,
Stoove M, Hellard M, Sacks-Davis R,
Asselin J, Fairley CK, Sasadeusz J



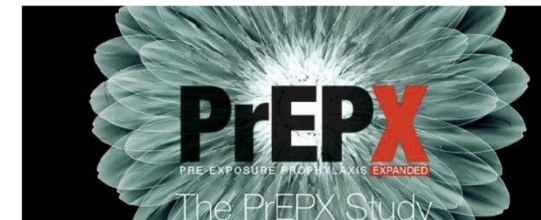
Background

- PrEPX was an Australian HIV pre-exposure prophylaxis (PrEP) intervention study conducted between 2016 and 2018.
- Observational data suggests that HCV may be sexually transmitted among PrEP users, but the incidence rate of such transmission has not been well quantified.
- We aimed to describe hepatitis C (HCV) incident cases among PrEPX participants, and explore likely modes of HCV transmission.



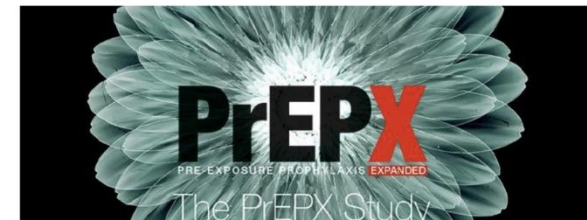
Methods

- Study period: 26th July 2016 to 1st April 2018
- HCV incident cases were identified using laboratory data from the Australian Collaboration for Coordinated Enhanced Sentinel Surveillance (ACCESS) collected at each clinic visit.
- For identified incident HCV cases we reviewed ACCESS survey data, laboratory data, medical records, and conducted interviews to explore the likely mode of HCV transmission.



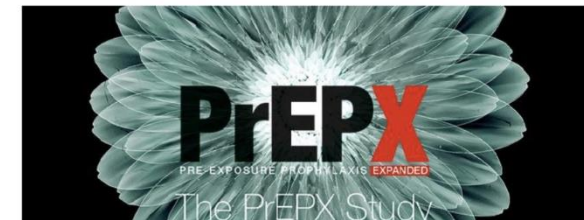
Baseline HCV prevalence in PrEPX

- 3,464 PrEPX participants enrolled at ACCESS sites
- 3,201 had a definitive HCV test at enrolment (258 did not test)
- 7 HCV RNA positive (baseline prevalence 0.22%)



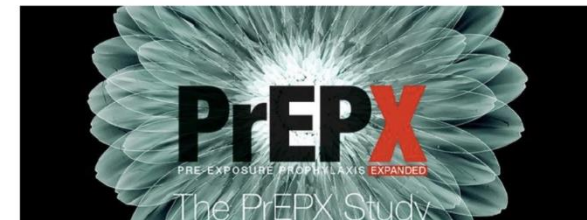
HCV Incidence in PrEPX

- 3,464 PrEPX participants enrolled at ACCESS sites
- 3,178 had a negative HCV test at baseline
- 2,058 had at least one follow-up HCV test during the study period
- 2,111 person-years of follow-up (median follow-up period of 1.03 years)
- 8 incident HCV cases
- HCV incidence rate of 0.38 cases per 100PY (95% CI 0.19 to 0.76)



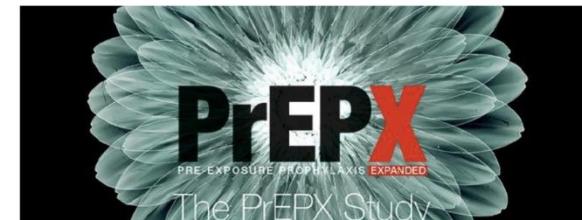
Incident HCV - Case 1

- Tested HCV positive 16 months after starting PrEP.
- Never injected drugs
- Regularly used drugs during sex (smoked CMA and MJ)
- Group sex at sex-on-premises venues
- Recently started being fisted, and noted to have some anal trauma prior to being diagnosed with HCV.
- **Likely sexual transmission**



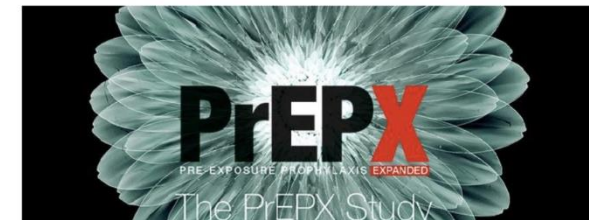
Incident HCV - Case 2

- Tested positive HCV 6 months after starting PrEP.
- Had never injected drugs.
- Regularly used drugs during sex (smoked CMA and MJ, GHB, MDMA)
- Had group sex at sex-on-premises venues
- Had an anal trauma event around the time of acquiring HCV
- **Likely sexual transmission**



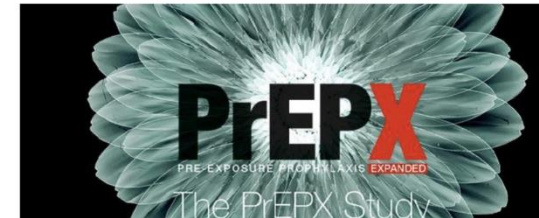
Incident HCV - Case 3

- Tested positive for HCV five months after starting PrEP.
- Had never injected drugs
- Regularly used drugs during sex (GHB and smoked CMA)
- Occasionally had group sex.
- Diagnosed with HIV and anal gonorrhoea at same time as HCV.
- Could not be contacted for interview
- **Likely sexual transmission**



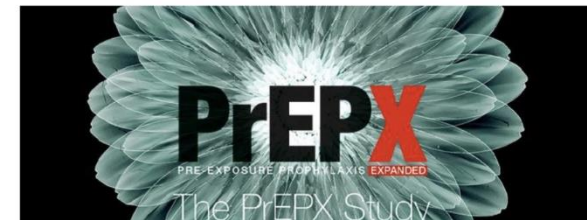
Incident HCV - Case 4

- Tested positive for HCV 15 months after starting PrEP.
- Regularly injected CMA during sex, though was always very careful about using new equipment.
- Also used GHB, ketamine and cocaine during sex.
- Around the time of acquiring HCV, he also had anal chlamydia, anal gonorrhoea and his initial episode of anal HSV2 (confirmed on swab).
- Anal HSV diagnosis occurred a few days before attending a group sex event at a sex-on-premises venue, where he had receptive anal sex with several men.
- Possible IDU transmission, but likely sexual transmission.



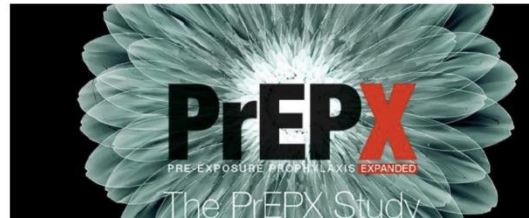
Incident HCV - Case 5

- Tested positive for HCV 10 months after starting PrEP.
- Regularly injected CMA during sex, and shared a needle with someone subsequently known to have HCV.
- Also used ketamine and GHB during sex.
- Likely IDU transmission



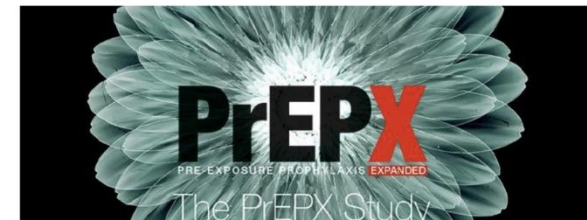
Incident HCV - Case 6

- Diagnosed with HCV 8 months after starting PrEP.
- Regularly injected anabolic steroids and CMA.
- Also used cocaine during sex.
- No other sexually transmitted infections diagnosed.
- Could not be contacted for interview.
- **Likely IDU transmission**



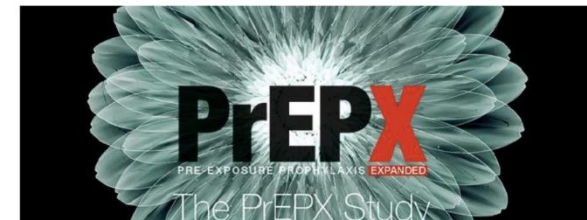
Incident HCV - Case 7

- Tested positive for HCV 6 months after starting PrEP.
- Had never injected drugs.
- Did not use drugs during sex (other than amyl nitrate).
- Had recently started having group sex at sex-on-premises venues, with some anal trauma.
- **Likely sexual transmission**



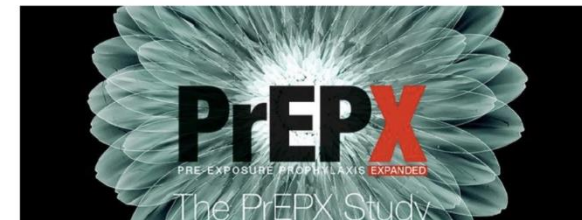
Incident HCV - Case 8

- Tested positive for HCV 15 months after starting PrEP.
- Regularly injected CMA during sex, and at one instance shared a needle with someone who was subsequently found to have HCV.
- Also used GHB and MJ during sex.
- Not diagnosed with any other STIs around time of HCV acquisition.
- **Likely IDU transmission**



Conclusions

- HCV incidence was uncommon in PrEPX (0.38 cases per 100PY), low by international comparisons.
- Of 8 incident cases, 3 likely IDU transmission, and 5 likely sexual transmission.
- Participants with sexually-transmitted HCV reported condomless receptive anal sex in the context of group sex at sex-on-premises venues, and reported associated anal trauma.



Discussion

- Health promotion opportunity (e.g. SOPV).
- Need for ongoing HCV testing among MSM who use PrEP.
- Low HCV incidence rate may be the result of the PBS-listing of DAAs prior to PrEPX.
- Need for phylogenetic analysis to further clarify whether these incident cases form a cluster, and how they fit into the broader HCV epidemic.



Acknowledgments

- All PrEPX participants, but especially those who participated in interviews for this study.
- The massive team of PrEPX co-investigators



MONASH
University



theAlfred

