

PREVALENCE AND FACTORS ASSOCIATED WITH HOSPITALISATION FOR DRUG-RELATED CAUSES AMONG PEOPLE WHO INJECT DRUGS: THE ETHOS ENGAGE STUDY

<u>Alice Wheeler</u>¹, Heather Valerio¹, Evan B Cunningham¹, Joshua A Barocas², Marianne Martinello¹, Gail Matthews¹, Samantha Colledge³, Maryam Alavi¹, Janaki Amin⁴, Adrian Dunlop^{5,6}, Carla Gorton⁷, Jeremy Hayllar⁸, Charles Henderson⁹, Jo Holden¹⁰, Thao Lam¹¹, Phillipa Marks¹, Andrew Milat¹², Phillip Read^{1,13}, David Reid¹⁴, David Silk¹, Carla Treloar¹⁵, Louisa Degenhardt³, Gregory J Dore¹, and Jason Grebely¹, on behalf of the ETHOS Engage Study Group

¹The Kirby Institute, UNSW Sydney, Sydney, NSW, Australia, ²Section of Infectious Diseases, Department of Medicine, Boston Medical Center, Boston, MA, USA, ³National Drug and Alcohol Research Centre, UNSW Sydney, Sydney, NSW, Australia, ⁴Macquarie University, Sydney, NSW, Australia, ⁵Hepatitis NSW, NSW, Australia, ⁶Drug and Alcohol Clinical Services, Hunter New England Local Health District, Newcastle, NSW, Australia, ⁷Cairns Sexual Health Service, Cairns, QLD, Australia, ⁸Alcohol and Drug Service, Metro North Mental Health, Metro North Hospital and Health Service, Brisbane, QLD, Australia, ⁹NSW Users and AIDS Association, NSW, Australia, ¹⁰Population Health Strategy and Performance, NSW Health, NSW, Australia, ¹¹Drug Health, Western Sydney Local Health District, Sydney, NSW, Australia, ¹²Centre for Epidemiology and Evidence, NSW Health, NSW, Australia, ¹⁴Drug and Alcohol Service, Illawarra Shoalhaven Local Health District, Wollongong, NSW, Australia, ¹⁵Centre for Social Research in Health, UNSW Sydney, Sydney, NSW, Australia



Funding/Disclosures

Funding Source: The Enhancing Treatment of Hepatitis C in Opioid Substitution Settings (ETHOS): Engage study is funded by a National Health & Medical Research Council Partnership Project grant, including funding from New South Wales Health, Cepheid, Merck/MSD.

Personal disclosures: None



Acknowledgements

All **participants** who have contributed their time and data to our study, and:

NUAA	<u>Hepatit</u>
Sara Adey	Lisa Car
Rodd Hinton	Carol Ho
Melanie Joyce Alain Jenart Cheryl Woods Hope Everingham	<u>Harm R</u> Lyn Mur _l Joel lliffe
Louisa Jansen	Youth L
Lucy Pepolim	Kathy Cl

tis South Australia

rter olly

Reduction Western Australia

phy е

Link Cairns

lark





Acknowledgements, continued

All **participants** who have contributed their time and data to our study, and:

Kirby Institute

Jason Grebely **Gregory Dore** David Silk Maryam Alavi Heather Valerio Anna Conway Pip Marks Indika Jayasinghe Maria Martinez Shane Tillakerante Gerard Estivill Mercade Beth Catlett Samira Hosseini Hooshyar Olivia Dawson **Stephanie Obeid** Andrey Verich Valerie Gleeson Hannah Reid Jodi Van Dyk Amanda Erratt Alison Marshall

PSC Jason Grebely **Gregory Dore** David Silk Nicky Bath Carla Treloar **Charles Henderson** Adrian Dunlop Andrew Milat Phillip Read Janaki Amin Jo Holden Carolyn Murray Emma Day Nikitah Habraken Kyle Leadbeatter **Clarke Scott**

Site Pls Nadine Ezard David Reid Carla Gorton Michael Edwards Jeremey Hayllar Prasun Datta Thao Lam Alexandra Wade Sally Spruce Victoria Cock Krista Zohrab Mark Cornwell Michael Christmass Craig Connelly Angela Cooper Mark Montebello

Site Coordinators

Julie Dyer

Elke Press

Sue Shin

Sivu Qian

Connie Graf

Cate Curran

Robert Cherry Wanda Brabender Kelly Somes Shikha Arawal Nargis Abram **Rick Turner** Nadine Horasak Stuart Larter Rhondda Lewis Fiona Goodberg Jennifer Luksza Astrid Carthew **Daniel Morris** Michelle Hall Susan Hazelwood Kathy Donahue Kathy Griffiths Charlotte Ismay Jason Dalla Lana Belinda McClurg **Cherie Mincham** Kalie Barlow Adele Hampson Anita Hoskins Kate Salisbury Julie Markham Danielle Brown Amber Lautier Jacky Talmet Sandy Dunn Amanda Mitchell Carina Burns Andrew McKinnon Ravina Raidu Kylie Stolzenhein **Fionnualh Smyth**

Elizabeth Laing Martin Clark Justin Dorigo Louise Carman Brent Fergusson Bonny Puszka Gai Duncan **Fiona Baker** Jayde Walsh Leeann Walsh



Background/Aims

Background: Heath harms of injecting drug use can necessitate medical intervention in hospital settings. Skin and soft tissue infections (SSTIs) disproportionally affect people who inject drugs (PWID) and are among the main reasons for inpatient hospitalisation among this group.

Aims:

Evaluate the prevalence and factors associated with **hospitalisation** for: (1) Skin and soft tissue infections (abscess and/or cellulitis) (2) Drug-only causes



Methods



ETHOS Engage- observational cohort study

Location: OAT clinics, drug and alcohol treatment, NSP sites Campaign days: Wave 1, May 2018 – September 2019 (25 sites) Wave 2, November 2019 – June 2021 (21 sites)

Inclusion criteria:

 \boxdot 18 years of age or older;

☑ Written informed consent;

☑ History of injecting drug use;

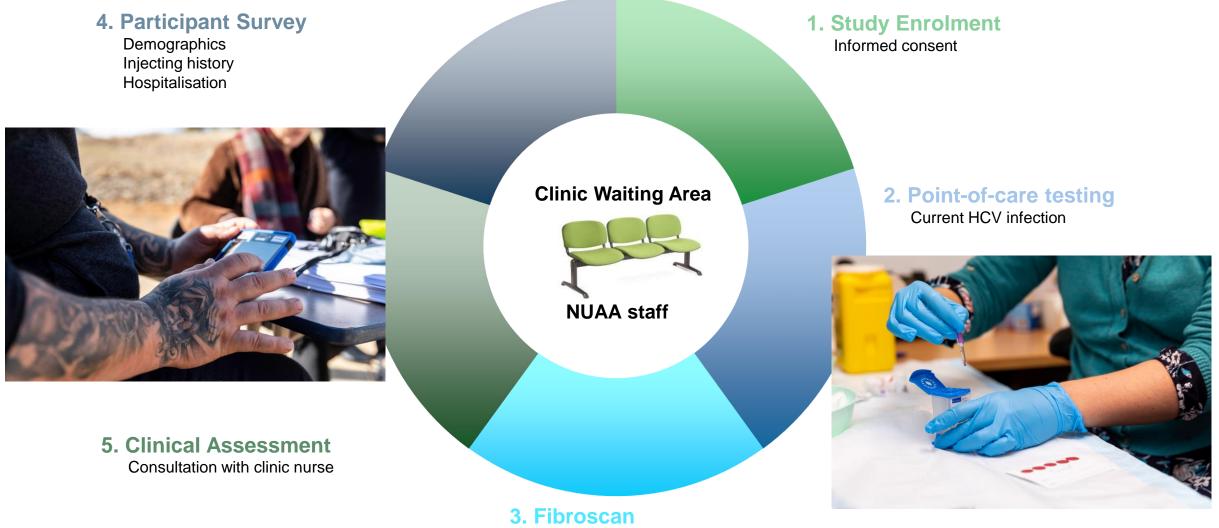
☑ Recent injecting drug use (previous 6 months) OR currently receiving OAT

Exclusion criteria:

 \boxtimes Women who are pregnant



Methods: ETHOS Engage Campaign days



Liver health assessment

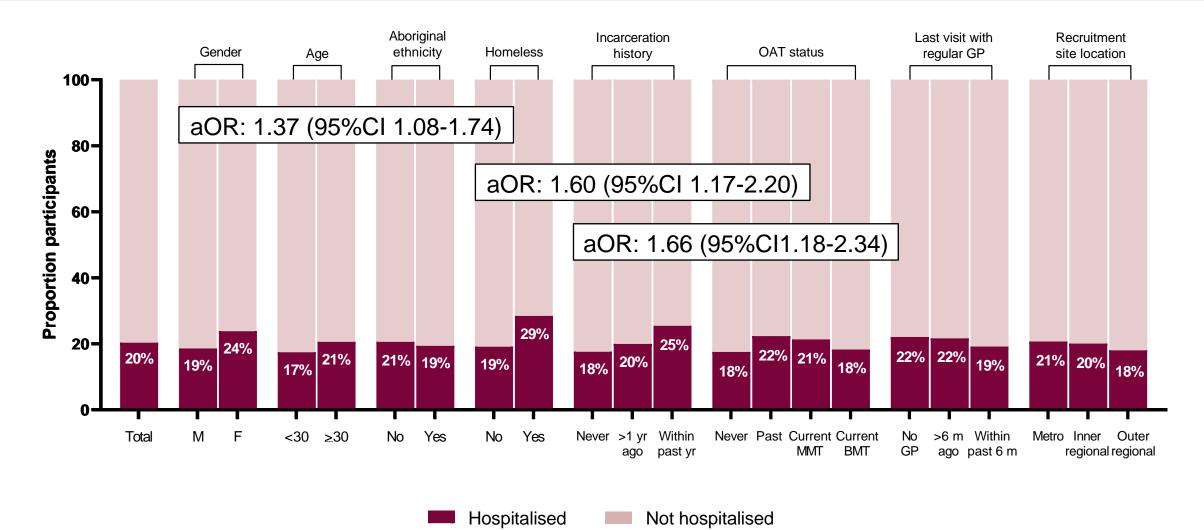


Results: participant characteristics

- 1,851 participants eligible for analysis
 - Wave 1: N=1,100; Wave 2: N=751
 - Mean age 43 (SD 0.2), 67% male, 23% Indigenous ethnicity
- 242 (13%) currently homeless
- 1,284 (69%) history of incarceration
 - 369 (20%) within past year
- 763 (42%) currently receiving opioid substitution therapy
- 1,308 (71%) regular GP
 - 1,068 (58%) visit within past 6 months



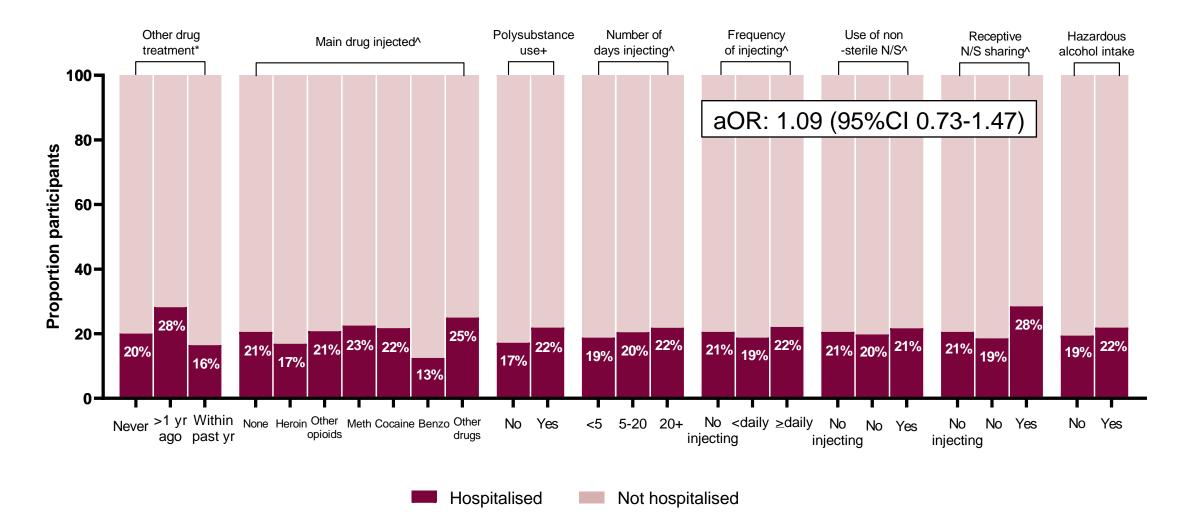
Results: SSTI hospitalisation and associated factors



Abbreviations: m: month; yr: year; MMT: methadone maintenance therapy; BMT: buprenorphine maintenance therapy; GP: general practitioner.



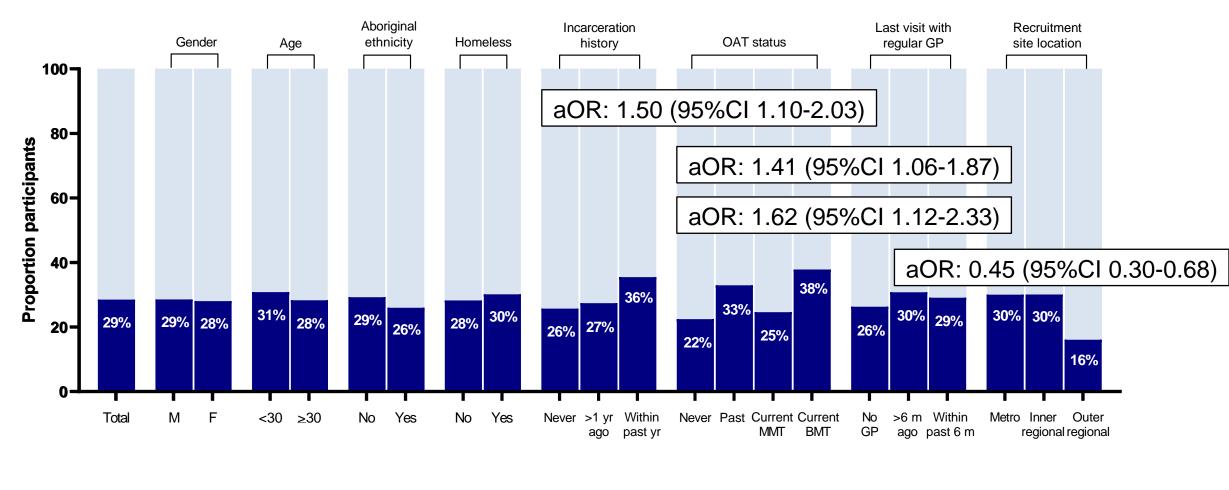
Results: SSTI hospitalisation and associated factors, ctd.



Abbreviations: yr: year; N/S: needle/syringe; *includes assessment, detox, counselling and/or rehabilitation from specialized drug treatment agency; ^in past month; +in past 6 months NB: main drug injected, number of days injecting, use of non-sterile N/S, and receptive N/S sharing excluded from adjusted analyses due to collinearity with injecting frequency



Results: drug-only hospitalisation and associated factors

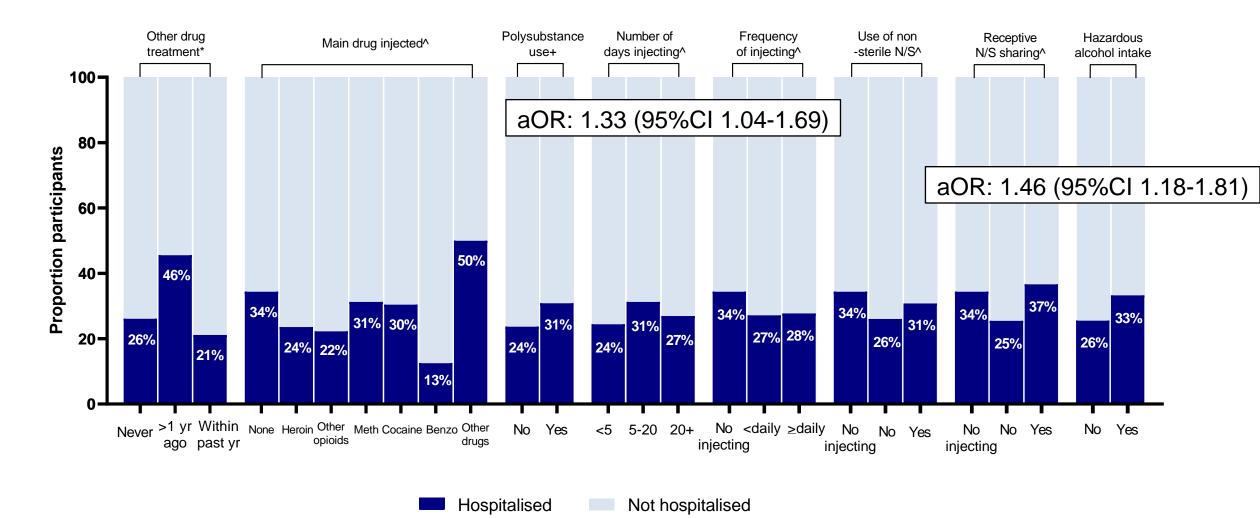


Hospitalised Not hospitalised

Abbreviations: m: month; yr: year; MMT: methadone maintenance therapy; BMT: buprenorphine maintenance therapy; GP: general practitioner.



Results: drug-only hospitalisation and associated factors, ctd.



Abbreviations: yr: year; N/S: needle/syringe; *includes assessment, detox, counselling and/or rehabilitation from specialized drug treatment agency; ^in past month; +in past 6 months NB: main drug injected, number of days injecting, use of non-sterile N/S, and receptive N/S sharing excluded from adjusted analyses due to collinearity with injecting frequency



Main points/Conclusions

- In this sample, 20% and 29% were hospitalised for SSTIs and drug-only causes
- Female gender and homelessness are associated with SSTI hospitalisation
- Past OAT, current receipt of buprenorphine, polysubstance use, hazardous alcohol intake, and regionality are associated with hospitalisation for drug-only causes
- Recent incarceration may be a more general risk factor for hospitalisation among PWID
- Need to enhance capacity of low-threshold services to screen for and treat SSTIs before escalation to severe infection (e.g., wound care clinics in NSPs)
 - Females and people experiencing homelessness are priority groups for intervention



Further information

Email: awheeler@kirby.unsw.edu.au