A Swift Response Utilizing Point of Care Hepatitis C RNA testing in a multi-agency effort to address a potential Public Health Risk in a NSW Prison

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Acknowledgement of Country



I would like to acknowledge the traditional owners of the land that we meet on today

The traditional lands of the Gadigal People. I pay my respects to Elders past, present and emerging.

Disclosures



No Disclosures

Acknowledgements















Swift Response





HCV in Incarcerated Populations



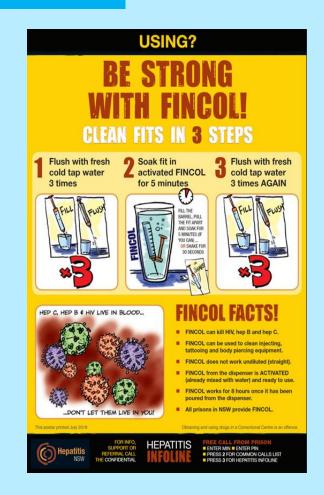
- More than 50% of people who inject drugs have been exposed to hepatitis C worldwide [1]
- Over 80,000 people are incarcerated in Australia prisons annually [2]
- 92% of the Australian population in custody are male [2]
- Ratio of Aboriginal people to non Aboriginal people in custody:
 - Males 15 Aboriginal : 2 Non aboriginal
 - Females 22 Aboriginal: 8 Non aboriginal [2]
- Incidence of hepatitis C infection in prisons in NSW:
 - 11.4 % for the overall population
 - 6.3 % for the continuously imprisoned population [2]





HCV in Incarcerated Populations

- Among the continuously imprisoned population sharing injecting equipment was independently associated with time to seroconversion [3]
- To date despite these statistics no Australian jurisdiction has implemented a prison-based Needle and Syringe program although it is available in the community



Junee Correctional Centre







Background



- September 2022 a small number of patients with acute symptoms of hepatitis presented and were subsequently confirmed as acute hepatitis C
- The health services team at GEO Australia reviewed patients at risk and commenced 23 people on HCV treatment
- GEO Australia in consultation with NSW Health and Justice Health and Forensic Mental Health Network (Justice Health NSW), decided a more comprehensive response was warranted

Justice Health and Forensic Mental Health Network

Partnership Plan Stakeholders and Roles



A public and private partnership approach between

- Justice Health NSW
- GEO Australia
- Flinders University
- University of NSW, the Kirby Institute



Health Promotion and Prevention

- Onsite visit
- Harm reduction prison specific promotion material was used
- Goal of health promotion is to reduce stigma and encourage patients to come forward for testing to normalize the experience
- Assessment of the availability of fincol and relevant education posters in the pods was conducted
- Introduction to NUAA and Hepatitis NSW was also provided for ongoing health promotion support

Testing Approach



- At risk patients were identified using:
 - Population Health waiting lists
 - Recent pathology results
 - Condition alerts:
 - Opioid dependent
 - Patients currently on opioid agonist therapy
 - Amphetamine type substance use
 - HCV positive
 - Pts identified as aboriginal
 - Advanced liver disease
 - Known cirrhotic
- All other patients were given the opportunity to test for HCV



Testing Approach



- Testing occurred in individual pods and the cartridges were labelled and sent to the onsite testing facility.
- A small data set was completed on each patient in order to provide information on this outbreak.



Laboratory



- The onsite testing facility was coordinated by a Flinders University Research Officer and a member of Justice Health NSW
- 5 Cepheid POCT machines were used each with the ability to test 4 tests per machine
- Results were printed off as they were completed, and entered into a data base



Patient Assessments



- Work up for treatment occurred generally the day after the point of care test
- Week 1: Justice Health NSW Hepatitis Nurse Practitioner conducted Nurse Led Model of Care (NLMC) assessments and scripted treatment
- Week 2: Justice Health NSW CNC conducted NLMC assessments
- Week 2 Scripts were written off site by the Justice Health NSW Clinical Director of Population Health
- Patients with comorbidities or HCV retreatments were also scripted by the Clinical Director

Data



Comparison of Aboriginal/Non Aboriginal HCV Rates

- 195 people tested identified as Aboriginal
- 10% (22/195) had a detectable HCV viral load
- 376 people tested identified as non Aboriginal
- 6% (24/376) had a detectable HCV viral load

Intravenous Drug Use in Custody

 93% (41/44) people who tested positive for HCV reported IVDU at some point in time while in custody. This varied from recent use to years ago

HCV Retreatments

38% (17/44) people reported to have had previous HCV treatment

Results



- Between 11th 21st October 2022 (2 weeks)
 - 833 people were in the correctional centre
 - 604 people received point of care testing
 - 95% of those tested received a valid test result
 - 44 of 571 (8%) had a detectable HCV RNA result
- Scripting commenced 14th October 2022 and completed 7th November 2022
- 40 scripts were written





Outcomes

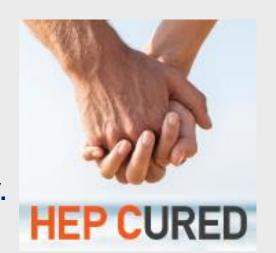
- No significant outbreak was identified
- 8% of the population tested had a detectable HCV RNA and all patients were linked to care
- 7-8% HCV RNA positivity rate is consistent with other NSW prisons

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Summary



- With a high prevalence of HCV in prisons it is only sensible that people are tested, treated and harm reduction strategies are factored in.
- Early case detection and treatment in prisons will certainly assist in reducing the burden of disease in the community and in future health care costs.
- This project is inline with the prevention action areas for custodial settings outlined in the NSW Hepatitis C strategy 2022-2025 [5]
- Point of care testing is one of many tools which can assist in identifying people in prisons with HCV quickly and accurately.



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