A 'ONE-STOP-SHOP' INTERVENTION INTEGRATING POINT-OF-CARE HCV RNA TESTING TO ENHANCE HEPATITIS C TESTING AND TREATMENT UPTAKE AMONG NEW RECEPTIONS TO PRISON: THE PIVOT STUDY

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Disclosure statement

No personal disclosures.

Importance of prisons in elimination

- Australia on track to achieve WHO 2030 targets
- Prisons key venues for HCV elimination

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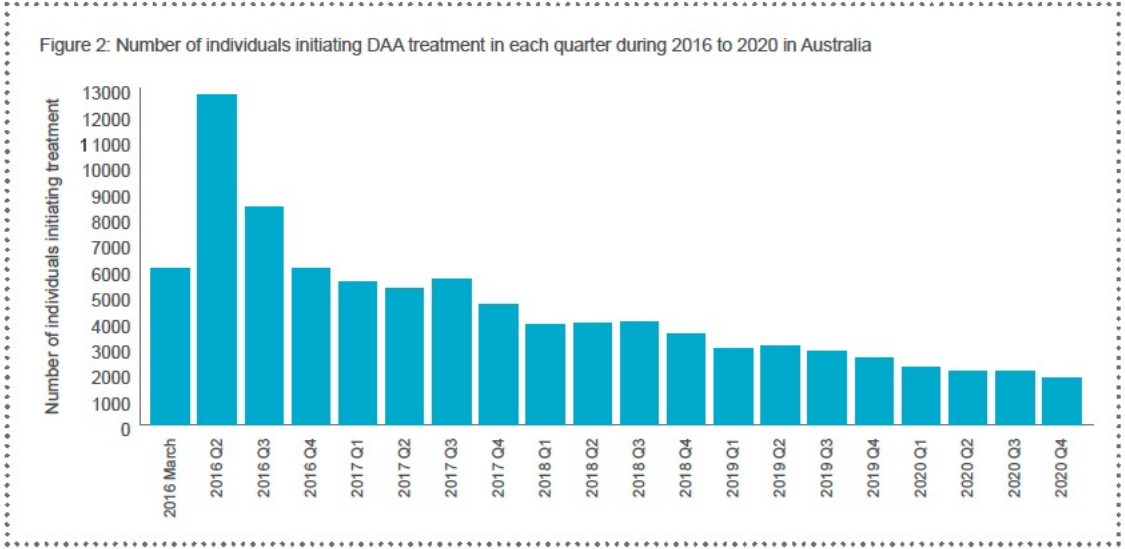

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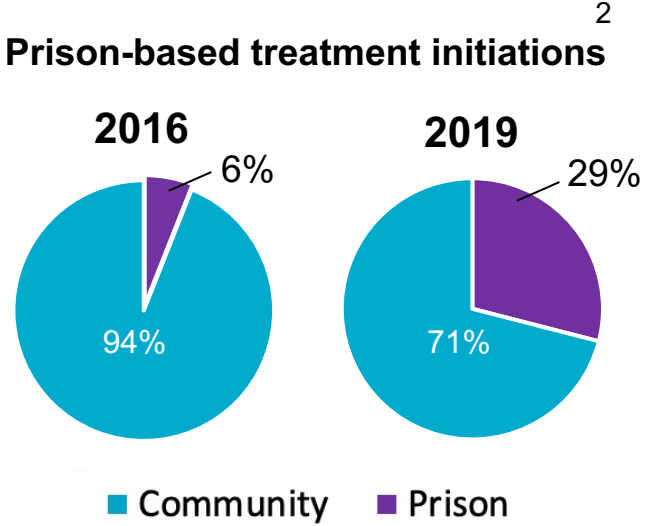
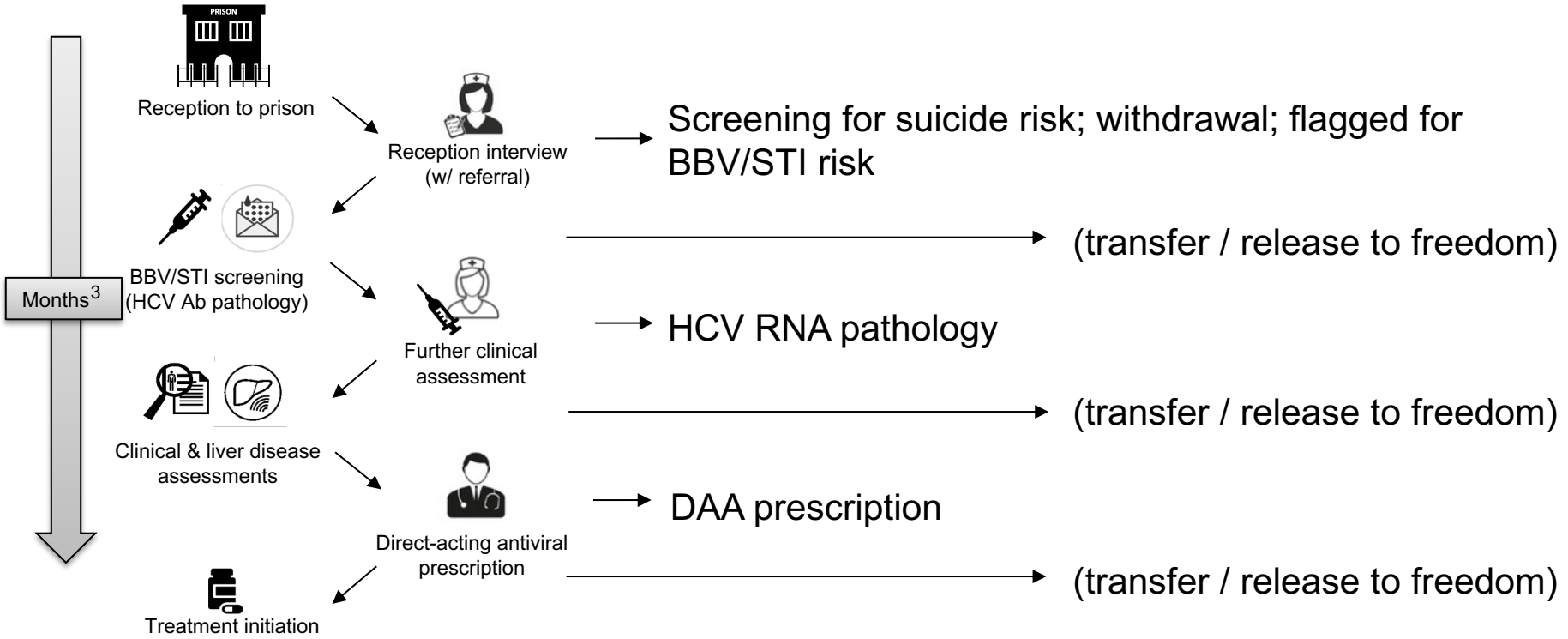


Hajarizadeh Kirby Institute 2021; PTER Kirby & Burnet Institutes 2020

Australian prison setting

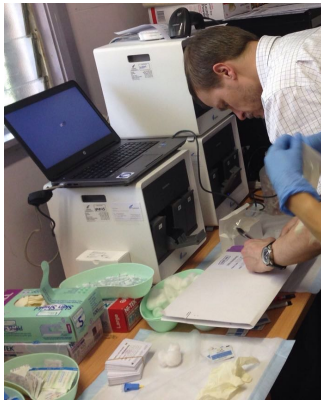
- ~110 adult correctional centres
- Unique physical structure, overcrowding
- Highly transient (frequent movements), predominantly short stay
- High rates of drug-related incarceration; high rates of injecting drug use
- High chronic HCV prevalence (10-15%)
- Limited nursing capacity, competing priorities
- Reception centres (prison entrance)
- High throughput approx. 20 per week - 20 per day

Care cascade



Finger-stick testing for HCV RNA detection

60 mins



Xpert® HCV VL fingerstick assay

- High sensitivity & specificity (100% & 100% respectively);[4] comparable with traditional laboratory tests
- Quantifiable HCV RNA result in 60 mins
- Potential standalone assay (no prior Ab testing)
- Single-visit diagnosis; one step closer to single-visit test and treat
- Efficiency dependent on prevalence in setting

Study objectives

Primary objective: to evaluate a 'one-stop-shop' intervention integrating point-of-care HCV RNA testing, fibroscan, clinical assessment, and fast-tracked DAA prescription, on treatment uptake among people recently incarcerated

Primary endpoint: treatment initiation at 12 weeks from enrolment

Secondary objectives:

1. To compare the proportion of people tested for HCV prior to and following the intervention
2. To compare the time taken from enrolment to treatment initiation

Participant eligibility

Location: reception prison on the Mid North Coast NSW

Participant eligibility

Inclusion criteria:

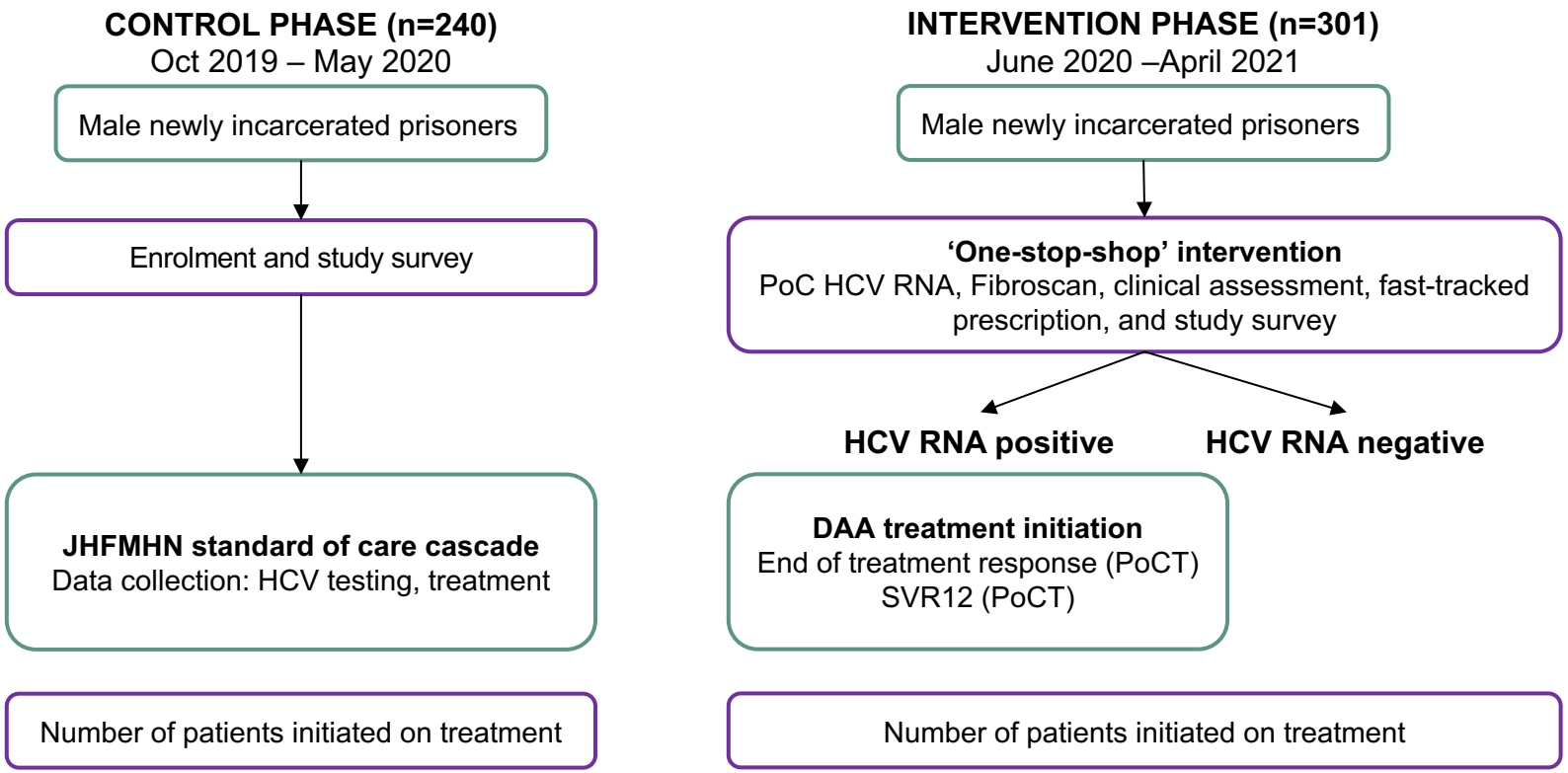
- ≥18 years old
- Newly incarcerated males (within previous 6 weeks);
- DAA treatment naïve.

Exclusion criteria for treatment initiation:

- HBV co-infection;
- Invalid fibroscan;
- Evidence of cirrhosis.

Mid North Coast Correctional Centre

Methods


CONTROL PHASE (n=240)
Oct 2019 – May 2020
Male newly incarcerated prisoners
Enrolment and study survey
JHFMHN standard of care cascade
Data collection: HCV testing, treatment
Number of patients initiated on treatment
INTERVENTION PHASE (n=301)
June 2020 –April 2021
Male newly incarcerated prisoners
'One-stop-shop' intervention
PoC HCV RNA, Fibroscan, clinical assessment, fast-tracked prescription, and study survey
HCV RNA positive
HCV RNA negative
DAA treatment initiation
End of treatment response (PoCT)
SVR12 (PoCT)
Number of patients initiated on treatment

‘One-stop-shop’ intervention

HCV RNA PoC + interview survey + clinical assessment + fibroscan

30-60 mins

Fast-tracked pan-genotypic DAA prescription

~same day

Fast-tracked treatment initiation

~few days

Results

Control: standard of care

Event	Number (%)
Enrolled	240
Ever injected (at risk)	116/240 (48%)
HCV Ab / RNA testing	43/240 (18%)
HCV RNA positive	19/43 (44%)
DAA treatment initiated	5/19 (26%)

90 days

'One-stop-shop' intervention

Event	Number (%)
Enrolled	301
Ever injected (at risk)	125/301 (42%)
HCV RNA PoC testing	298/301 (99%)
HCV RNA positive	30/298 (10%)
DAA treatment initiated	28/30 (93%)

p<0.001

6 days

p<0.001

p<0.001

Discussion

- Funding for a dedicated research nurse and correctional officer; dedicated clinic space
- Cost-effectiveness analysis
- Other prison-based PoC testing projects: NSW, SA, UK[5]
- Interest from prisons & exploring utility of PoC testing

Conclusions

- A ‘one-stop-shop’ intervention integrating PoC testing enhanced testing and treatment uptake
- Markedly reduced time & increased efficiencies for treatment initiation
- Overcome key barriers to treatment scale-up in the prison sector
- Scaling up PoC testing in prisons more broadly will be good for national elimination

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