

Comparing Dried Blood Spot & Point of Care testing cascade of care outcomes

Background

How do Dried Blood Spot (DBS) and Point of Care (POC) testing modalities compare in the follow up of hepatitis C virus (HCV) results?

Ensuring minimal loss to the cascade of care better guarantees positive outcomes for people from vulnerable populations. As part of a recent HCV health awareness campaign, Hepatitis NSW peers worked with clinical partners from Local Health Districts (LHDs) to engage with community members and prompt HCV testing.

Analysis

Testing activations were held across 21 locations and yielded close to 900 community/peer engagements, with almost half of those people referred to a nurse. Depending on LHD approach and capacity, HCV testing was either DBS or POC with the total number of tests conducted being 222 and 164 respectively. Following up six months after the campaign to determine HCV prevalence from the testing - plus the number of HCV treatments initiated, then completed, with a follow up of Sustained Viral Response (SVR) to determine if cure was achieved - provided a community-level snapshot of the cascade of care in action.

COMMUNITY TESTING CASCADE OF CARE

engaged by peer

People with lived experience of hep C and cure are well placed to build a bridge between community and clinicians... they help reduce stigma, allay concerns about testing and treatment, bust myths, and provide a relatable foundation to increase the likelihood of someone engaging with health systems. Hepatitis NSW peers are paid casuals who work in partnership with our clinical partners at community testing engagements.

see nurse

Peers can introduce a person to on-site nurses who will then assess health needs and the tests required. This hand-over can help allay any initial anxiety felt around engaging with medical staff in regards to blood tests and potential hep C diagnosis.

HCV test

In NSW community outreach settings, tests are usually Dried Blood Spot (DBS) or Point of Care (PoC). These tests help remove the concern people may have about vein access.

HCV RNA + result

A DBS result requires a week. A PoC result is available in one hour.

notified

A positive DBS notification is given by a nurse via phone. Additional bloods are currently required before HCV-RNA+ can be confirmed. For PoC results, while the person is likely still present or expected to return within an hour to get their result, this is not guaranteed. As is known, the notification stage is where people can be lost to follow up. Anecdotally, people might not respond to calls, texts or emails, their mobile may be lost or disconnected, among other reasons.

possible solution/s incentives, peer support

commence HCV Tx

Prescribing HCV Tx presents another point for loss to care. While community settings might host prescribing Specialist Nurses or GPs, where that option is not available people may not feel comfortable, or safe, approaching a public or private clinic about their treatment. possible solution/s incentives, work development orders, directory of treating GPs/clinics, peer support, app support

complete HCV Tx

Regardless of treatment regime (8-or-12-weeks), while many people do see their treatment through to the end, people with health, mental health, housing, financial, or additional support needs can be at risk of not completing treatment. possible solution/s incentives, work development orders, peer support, app support

HCV SVR test

While the need for this post-treatment test is impressed upon people at commencement, it is not always possible to follow up. possible solution/s incentives, work development orders, peer support, app support

Outcome

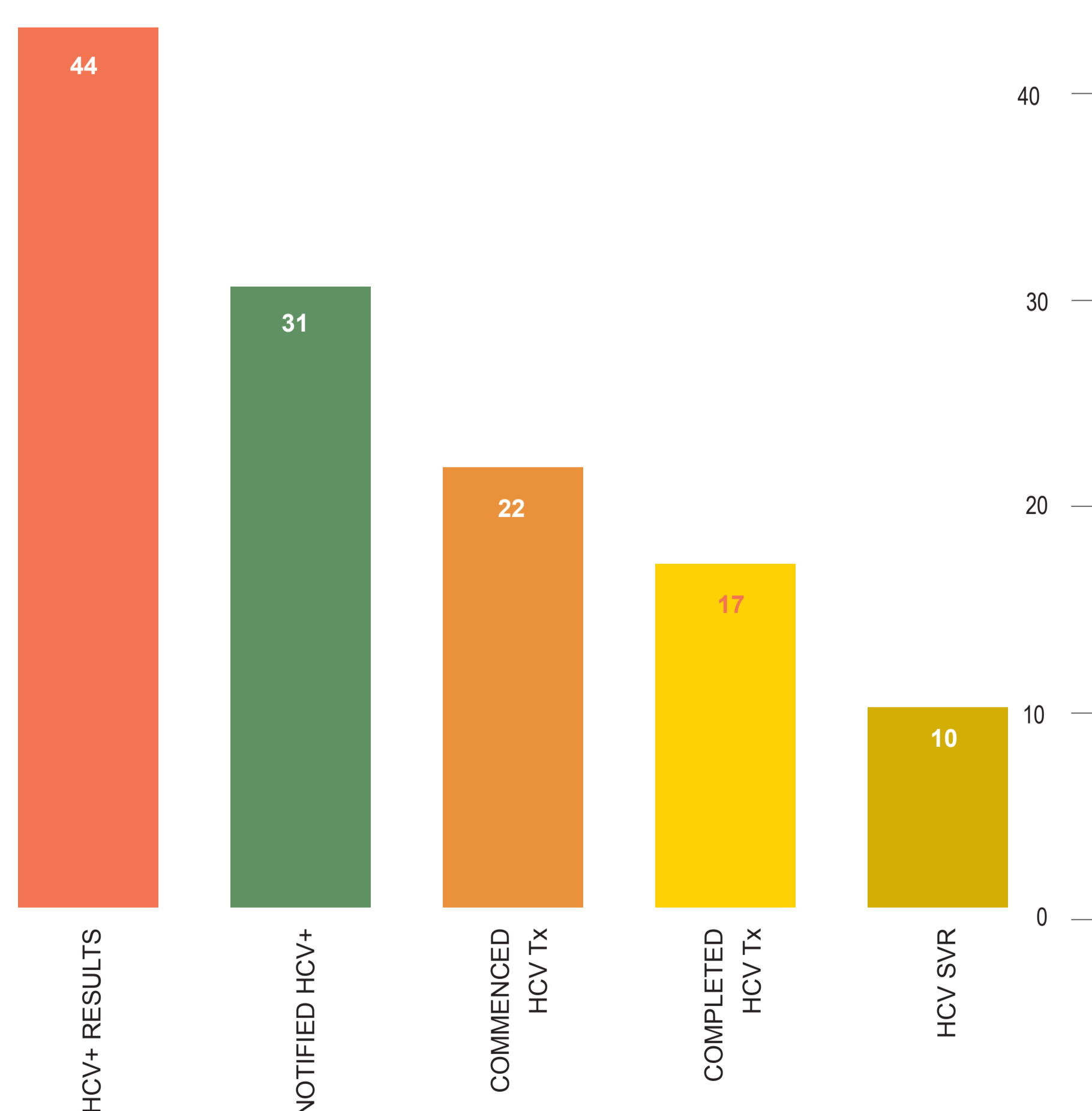
Following POC testing in one LHD, three HCV-RNA positive people were identified from 38 people tested. As a Nurse Practitioner was present, those three people were scripted for HCV direct acting antivirals (DAAs) on the day – representing a 7.9% prevalence and 100%

treatment initiation. In follow-up, three of those people had completed their treatment and obtained their SVR result. The table below compares the cascade of care data and outcomes obtainable from the campaign POC and DBS community testing activations.

Community Testing	# engaged peer	# saw a nurse	# HCV DBS	# HCV POC	# HCV vene	# HCV-RNA+ result	# patients notified	# commence HCV Tx	# complete HCV Tx	# HCV SVR
Activation 1	98	30	28	0	0	7	5	5	4	4
Activation 2	110	41	37	0	0	6	6	3	2	2
Activation 3	13	9	9	0	0	1	1	-	-	-
Activation 4	40	14	0	0	11	2	1	0	0	0
Activation 5	19	32	21	0	0	1	0	0	0	0
Activation 6	67	23	0	11	20	3	2	2	2	1
Activation 7	32	9	0	9	0	0	0	0	0	0
Activation 8	26	15	0	15	0	3	2	2	2	-
Activation 9	5	4	4	0	0	0	0	0	0	0
Activation 10	12	18	9	0	0	0	0	0	0	0
Activation 11	70	27	24	0	0	2	1	1	-	-
Activation 12	32	27	27	0	0	2	1	1	1	1
Activation 13	38	32	0	31	0	3	3	2	2	0
Activation 14	47	36	0	14	0	1	0	0	0	0
Activation 15	25	24	16	8	0	1	1	-	-	-
Activation 16	20	12	2	10	0	0	0	0	0	0
Activation 17	22	26	0	26	0	2	1	-	-	-
Activation 18	125	45	45	0	0	5	4	3	2	2
Activation 19	17	17	0	17	0	2	2	2	1	-
Activation 20	15	15	0	15	0	1	1	1	1	-
Activation 21	8	8	0	8	0	2	0	0	0	0
TOTALS	841	464	222	164	32	44	31	22	17	10

418

TABLE : DATA COLLECTED POST TESTING ACTIVATIONS ["-" MEANS "NO DATA AVAILABLE" = ZERO]



GRAPH : CASCADE OF CARE FROM 21 ACTIVATIONS

Conclusions

Regardless of testing modality, the outcomes demonstrate that care options and/or patient incentives and/or further peer engagement is essential for community members with positive HCV-RNA results to ensure there is no loss to follow-up to treatment and SVR.

In addition to proposed changes to Hepatitis NSW's Peer Partnership model to provide greater community support opportunities throughout the care cascade, there are already the following support solutions in place:

- directory of treating GPs
hep.org.au/local-service-directory
- app support - Hep Connect
hep.org.au/resources/hep-connect

Disclosure of Interest Statement

Hepatitis NSW recognises the considerable contribution that industry partners make to professional and research activities. We also recognise the need for transparency of disclosure of potential conflicts of interest by acknowledging these relationships in publications and presentations.