Evaluating performance of rapid point of care antibody testing for hepatitis C

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Remaining on track towards hepatitis C elimination will require ongoing efforts to engage key populations

Hepatitis C testing rates have been declining in Australia.

People who inject drugs have elevated risk of hepatitis C and are therefore a priority population for elimination.

People who inject drugs experience unique barriers to hepatitis C screening, compounded by lengthy laboratory testing times.

Rapid point-of-care testing could improve uptake in people who inject drugs by addressing these barriers.

We assessed the utility of shortening the OraQuick® rapid antibody test read time from 20 minutes to five-minutes

We used data from 273 participants from the QuickStart Study[1], a trial assessing models of care to improve uptake in people who inject drugs.

All participants had OraQuick® rapid antibody test results read at five and 20 minutes, and confirmatory RNA tests.

We assessed concordance between the OraQuick® rapid antibody test results and the RNA test results.

[1] Doyle J, Heath K et al. *BMJ Open 2024;14:e083502*

Our results highlight need for balance between reducing unnecessary reflexive RNA testing and ensuring accurate viremia detection

In our cohort, reducing the reading time from 20 minutes to five minutes would **decrease reflexive RNA testing by 11% overall** at the cost of **missing 3% of people with active infection**.

Therefore, a reduced read time could have cost benefits for large screening programs, but these should be balanced with diagnostic accuracy costs.

The utility of a testing approach for populations with complex health needs may extend beyond predictive accuracy by overcoming healthcare barriers.

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