Missed Opportunities: A Retrospective Study of Hepatitis C Testing in Hospital Inpatients

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Background: Key to achieving hepatitis C elimination is increasing testing. This study aimed to assess the proportion of hospital inpatients at a regional hospital in Victoria, Australia at risk of or living with hepatitis C, who were tested, their diagnostic status and receipt of care to identify missed opportunities in the hospital setting.

Methods This retrospective study included adult hospital inpatients and emergency department (ED) attendees from November 2018 to 2021. Data were collected from: hospital admissions (ICD-10 coded separations), pathology, hospital pharmacy, and outpatients. Included separations had codes indicating intravenous drug use (IDU) or hepatitis C. We assessed progression through the testing cascade - hepatitis C antibody (HCV Ab) if at risk and RNA if HCV Ab positive and markers of hepatitis C care including treatment. Results were included if they were ordered or provided during the study period, and were catagorised as measured, historical or inferred. Logistic regression analysis for predictors of testing was undertaken.

Results: Of 79,923 adults admitted, 1345 (1.7%) had IDU coded and 628 (0.8%) had hepatitis C coded separations (N=1892). HCV status at end of study was: 1569 (82.9%) unknown, HCV Ab negative 101 (5.3%), RNA not detected 88 (4.7%), HCV Ab positive RNA unknown 70 (3.7%) and RNA detected 64 (3.4%). Episodes in mental health were associated with higher rates of antibody testing (OR 2.12, 95% CI 1.24-3.63); episodes in obstetrics and gynaecology with higher rates of RNA testing (OR 4.38, 95% CI 1.55-12.37). ED admissions were associated with increased odds of not providing hepatitis C care (OR 3.29, 95% CI 2.42-4.48).

Conclusion: This study revealed low rates of inpatient hepatitis C testing in people who inject drugs. A strategy that focuses on hepatitis C testing and linkage to care for people who inject drugs whilst inpatients may help our region achieve micro-elimination.