A COSTING ANALYSIS OF A STATE-WIDE, NURSE-LED HEPATITIS C TREATMENT MODEL IN PRISON

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Background: Hepatitis C is highly prevalent among prisoners. The simplicity of direct-acting antiviral (DAA) treatment for hepatitis C makes it possible to use novel models of care to increase treatment uptake within prisons. We estimate the average non-drug cost of initiating a prisoner on treatment using real world data from the State-wide Hepatitis Program (SHP) in Victoria, Australia - a coordinated nurse-led model of care.

Methods: Data were considered from prisoners presenting to the SHP (following antibody-positive diagnosis) during the initial evaluation period, November 2015 to December 2016. All costs associated with the SHP were estimated, including staffing salaries, medical tests, pharmacy costs and overhead costs. DAA costs were excluded as in Australia an unlimited number of treatments are available with costs covered by a federal government risk-sharing agreement with pharmaceutical companies. The average non-drug cost of treatment initiation through the SHP was compared to equivalent costs from primary and hospital-based models of care in the community.

Results: The total non-drug cost accumulated by 803 prisoners engaged in the SHP was A$749,470 (uncertainty range: A$728,905-794,111). 659/803 were infected, 424/659 had sentences long enough to be eligible for treatment, and 416/424 were initiated on treatment, resulting in an average cost of A$1,802 (95% CI: A$1,799-1,841) per prisoner initiated. A protocol change allowing prisoners with short sentences to start treatment reduced the average cost to A$1,263 (95% CI: A$1,263-1,287) per prisoner initiating treatment – 11% and 56% cheaper than estimated equivalent costs in primary (A$1,647) and hospital-based (A$2,840) models of care in the community, respectively.

Conclusion: Delivering hepatitis C treatment in prison using a nurse-led model of care is cheaper than delivering treatment in the community. These findings provide an economic rationale for implementing coordinated prison-based hepatitis C treatment programs.

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