

## A COST-EFFECTIVENESS ANALYSIS OF AN INTERVENTION TO INCREASE LINKAGE TO CARE OF HCV-INFECTED PATIENTS ON OPIOID SUBSTITUTION THERAPY (HEPLINK IRELAND)

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**Background:** In Ireland, HCV antibody (Ab+) prevalence among people on opioid substitution therapy (OST) is high (62-81%), but only 3% are HCV-treated. The HepLink intervention (04/2016-07/2017) aimed to increase numbers of HCV Ab+ patients linked to secondary care. We evaluated the cost-effectiveness of HepLink compared to the current standard-of-care of antibody testing and referral by primary care practitioners.

**Method:** A Markov model of HCV disease progression and treatment of the HepLink cohort (135 patients). Pre-HepLink data suggested 6% of known chronically infected patients are treated per year at baseline. Follow-up HepLink data was used to parameterize the intervention arm. The nurse saw 102 patients, 77 (76%) were known Ab+ and 57 were either unknown or positive chronic status. Of these, 43 (75%) were fibroscanned and 10 (18%) started treatment during the intervention. Primary intervention cost data and costs for HCV treatment were collected from interviews. Health benefits were measured in quality adjusted life years (QALYs). The cost-effectiveness was estimated over a 50-year time-horizon for full (€39,729 per course) and 25% of the full list price for HCV treatment with a 5% discount rate by calculating the incremental cost-effectiveness ratio (ICER) and comparing it to Ireland's willingness-to-pay (WTP) threshold (€30,000 per QALY).

**Results:** Direct costs of the intervention were €186,249, with €213,450 extra in HCV treatments. Benefits included €117,740 saved in HCV-related healthcare and 15 QALYs saved. HepLink is cost-effective with a mean ICER of €17,227 per QALY at full drug costs, reducing to €8,306 per QALY at 25% of these drug costs (90% and 99% chance below WTP threshold, respectively). Uncertainty in the background treatment rate accounts for nearly all the variation in incremental costs and QALYs (90% and 83%, respectively).

**Conclusion:** The HepLink intervention is cost-effective compared to the standard-of-care pathway, especially as treatment costs reduce.

**Disclosure of Interest:** none