**WHAT IS THE OPTIMAL HCV ELIMINATION STRATEGY AMONG PWID IN A MIDDLE-INCOME, HIGH BURDEN SETTING? A MODELING AND ECONOMIC ANALYSIS IN TIJUANA, MEXICO**

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**Background:** To date, studies of hepatitis C virus (HCV) elimination cost-effectiveness among people who inject drugs (PWID) are limited to high-income settings. Tijuana, Mexico, lies on the United States-Mexico border where HCV prevalence among PWID is 95%. The Mexican government committed to providing HCV treatment, but resources are limited and the optimal strategy to achieve World Health Organization (WHO) elimination goal of 80% reduction in incidence by 2030 remains unclear. We evaluated the cost-effectiveness of strategies that could achieve this goal.

**Methods:** We constructed a dynamic economic model of HCV transmission among current and former PWID, to determine levels of combination intervention (HCV treatment with/without scale-up of opiate substitution therapy [OST] and needle/syringe programs [NSP]) required to achieve the WHO elimination goal. Our model is parameterized to Tijuana-specific epidemiological and cost data (95% HCV seroprevalence among PWID, minimal harm reduction, $24,000/HCV treatment, $2,148/year OST, $248/year NSP). We evaluated costs (in 2018 $US Dollars) and health outcomes (in disability-adjusted life-years [DALYs]), discounted at 3%/year from a healthcare provider perspective over a 50-year time horizon. Strategies were ranked by cost and incremental cost-effectiveness ratios (ICERs), compared to two willingness-to-pay thresholds (WHO-recommended 3-times per capita gross domestic product [$26,709] and University of York upper-limit for Mexico [$10,780]).

**Results:** In Tijuana, treating 81/1,000 PWID annually achieves the WHO target, but fewer treatments are required if combined with harm reduction. Required treatments are halved (39/1000 PWID annually) if OST+NSP are scaled-up to 50% coverage. Combination strategies are less costly and provide more benefits. Treatment plus 50% OST+NSP produces an ICER of $13,202/DALY averted compared to no treatment; cost-effective under the WHO threshold but not University of York at current treatment costs.

**Conclusions:** The optimalHCV elimination strategy among PWID in Tijuana incorporates harm reduction scale-up combined with treatment. Lower drug prices will ensure elimination is cost-effective in high-burden, upper-middle income settings like Tijuana.

**Disclosure of Interest Statement:**

*Lara K Marquez has no conflicts of interest or financial interests to disclose.*