# INTERVENTIONS TO ENHANCE TESTING AND TREATMENT UPTAKE FOR HEPATITIS C INFECTION: A SYSTEMATIC REVIEW AND META-ANALYSIS

**Presenting author:** Cunningham, EB[1]

**Senior author:** Grebely, J[1]

**Other authors (alphabetical):** Bajis S[1], Conway A[1], Degenhardt L, Dore G[1], French C[3], Fontaine G[4, 5], Hajarizadeh B[1], Hickman M[3], Marshall A[1, 6], Roche R[7], Arroyo BMV[1], Vickerman P[3], Ward J[8], Wheeler A[1]

**Affiliations**:

[1]The Kirby Institute, UNSW Sydney, Sydney, Australia
[2]National Drug and Alcohol Research Centre, UNSW Sydney
[3]Health Protection Research Unit, Population Health Sciences, University of Bristol
[4]Research Center, Montreal Heart Institute
[5]Faculty of Nursing, Université de Montréal
[6]The Centre for Social Research in Health, UNSW Sydney
[7]Public Health England
[8]Program for Viral Hepatitis Elimination, Task Force for Global Health, Centers for Disease Control and Prevention

**Background**: Hepatitis C virus (HCV) elimination efforts require evidence-based interventions to improve the HCV care cascade. We conducted a systematic review to assess the effect of interventions to enhance HCV testing, linkage to care, treatment uptake, treatment outcomes and post-treatment follow-up. This analysis focuses on interventions to enhance HCV testing and treatment uptake.

**Methods**: We searched bibliographic databases and conference abstracts for studies assessing interventions to improve stages of the HCV care cascade. To be included, studies needed to include a comparator. No restrictions on date or population were made. Meta-analysis was used to pool the effect of interventions on study outcomes.

**Results**: From 16,191 unique records assessed, 219 studies were included. Most studies (k=210) were conducted in 22 high-income countries with nine studies occurring in seven middle-income countries. The most common study populations included general population (k=66), birth cohort (k=39), people receiving opioid agonist therapy (OAT; k=15), people in prison (k=14) and people who inject drugs (k=13). Data from 94 studies revealed the interventions which improved HCV antibody testing uptake included medical chart reminders (n=24; pooled odds ratio [OR] 6.75; 95% confidence interval [CI] 4.32-10.56), provider education (n=11; OR 2.01; 95% CI 1.62-2.50), patient education (n=6; OR 4.18; 95% CI 1.25-13.96), dried blood spot testing (n=4; OR 4.26 95% CI 1.22-14.85), and point of care (POC) testing (n=4; OR 23.43; 95% CI 8.20-66.98). Data from 48 studies revealed interventions which improved HCV treatment uptake (Interferon-therapy: n=25, direct acting antiviral (DAA)-therapy: n=23) included patient navigation (n=4; OR 3.48; 95% CI 1.66-7.26), integrated care (n=4; OR 5.74; 95% CI 1.04-31.54), and psychological therapy (n=3; OR 2.20; 95% CI 1.47-3.28).

**Conclusions**: Several interventions were identified which improved HCV testing and treatment uptake. There remains limited data for several interventions, including POC testing for treatment uptake, particularly in low- and middle-income countries.