THE CLINICAL EFFECTIVENESS OF NURSE-LED AND PEER PARTNERSHIP OUTREACH MODELS OF HEPATITIS C CARE: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Models of hepatitis C care that integrate nurses and peers and models of care implemented in outreach settings can increase accessibility, acceptability, and cost-effectiveness of services and are increasingly being implemented in combination. However, the clinical effectiveness of these models is unknown. We aimed to assess the clinical effectiveness of nurse-led and peer partnership outreach models of hepatitis C care.

Methods: We conducted a systematic review and meta-analysis of research reporting on clinical outcomes from outreach hepatitis C services that were nurse-led or peer-partnership models of care. We searched MEDLINE, EMBASE, CINAHL and EMCARE in July 2025 for studies reporting clinical effectiveness of hepatitis C services. Studies were included if they reported hepatitis C testing and treatment in an outreach (non-clinical) setting and where a nurse and/or peer were substantially involved in service delivery. We describe the features of implementation models used to encourage retention in care and report rates of treatment initiation and sustained virological response. Pooled estimates were calculated using random-effects meta-analysis.

Results: Of 1,836 studies identified, 12 studies were included. Five models of care were street-based, three at needle and syringe services, three at housing services and one at a supervised consumption service. Five studies reported findings from services that were nurse-led, four were peer-partnership, and three were nurse and peer partnership models of care. Most models included patient support to encourage retention in care, including appointment assistance and financial reimbursement. Using intention-to-treat data, the pooled estimate for treatment initiation was 79% (95%CI 71-88%) and for sustained virological response was 52% (95%CI 42-61%) (intention-to-treat; per-protocol SVR ranged from 89-100%).

Conclusion: Despite including only a small number of studies, our review indicates that nurse-led and peer-partnership outreach models of hepatitis C care are effective and can be supplemented with supportive strategies to maximise retention in care.

Disclosure of Interest

AJT has received consulting fees from Gilead, Abbvie, Roche Diagnostics, Assembly Biosciences, speaker fees from Gilead Sciences, Roche Diagnostics and investigator-initiated grants to institution from Gilead Sciences. JAH has received investigator-initiated funding from Gilead Sciences, speaker fees from AbbVie and consultancy fees from CSL Behring. BR has received professional development support from Gilead Sciences and AbbVie and speaker fees from Gilead Sciences. AC has received professional development support from Gilead Sciences and AbbVie. MH has received investigator-initiated research grant support from Gilead Sciences and AbbVie. MS has received investigator-initiated research grants from Abbvie and Gilead and consultancy from Gilead. RW has received investigator-initiated funding from Gilead Sciences. All other authors have no conflicts to declare.

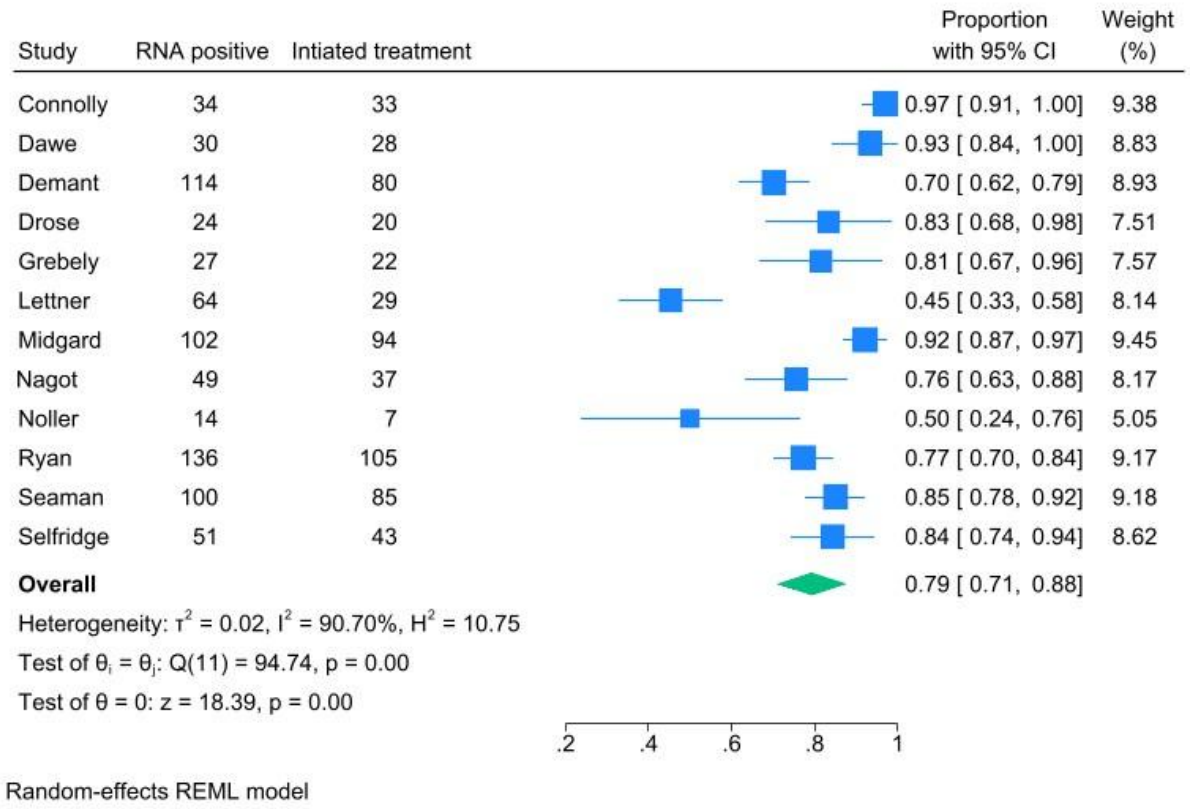

Figure 1. Meta-analysis of proportion of RNA positive individuals initiated on treatment by study, (n=12).