INTERVENTIONS TO IMPROVE TESTING, LINKAGE TO CARE, AND TREATMENT UPTAKE FOR HEPATITIS C INFECTION IN PRISON: A SYSTEMATIC REVIEW

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Background: With high hepatitis C virus (HCV) prevalence in prisons globally (>15%), evidence-based interventions to overcome barriers to care in prison are critical. We aimed to identify and evaluate the efficacy of interventions to improve HCV care in prison.

Methods: We searched bibliographic databases (MEDLINE, Scopus, Web of Science, Cochrane Central Register of Controlled Trials, and PsycINFO) and conference abstracts for studies assessing interventions to improve HCV antibody testing, RNA testing, linkage to care, and treatment initiation until April 18, 2024. We included randomised and non-randomised studies assessing nonpharmaceutical interventions that included a comparator and in all languages.

Results: Of 20,645 records screened, we included 20 studies: 18 in prison (2 randomised and 16 non-randomised studies) and 2 post-release. Prison-based studies assessed interventions to improve HCV antibody testing (k=10), HCV RNA testing (k=5), and treatment initiation (k=8). No studies looked at linkage to care. Interventions improving antibody testing included dried blood spot (DBS) testing (k=3; OR 2.9, 95%CI 1.4-5.9), sequential point-of-care antibody and RNA testing (k=1; OR 13.0, 95%CI 10.3-16.4), and nurse-led care (k=1; OR 2.3, 95% CI 1.5-3.5). Interventions improving RNA testing included point-of care RNA testing (k=1; OR 4.1, 95% CI 3.4-4.8) and reflex RNA testing (k=1; OR 8.9, 95% CI 5.2-15.3). Point-of-care RNA testing (k=3; OR 9.6, 95% CI 3.4-27.3) increased testing/treatment resourcing (k=1; OR 516.5, 95% CI 228.1-1169.4), nurse-led care (k=1; OR 15.5, 95% CI 4.9-49.5), no-cost coverage of medications (k=1; OR 8.5, 95% CI 4.6-15.5), and DBS testing (k=1; OR 4.43, 95%CI 1.3-15.5) improved HCV treatment initiation.

Conclusion: Most effective interventions simplified HCV testing protocols and enhanced the efficiency of treatment in prison highlighting critical ways to improve HCV care in prison. Further high-quality research is needed to speed adoption of effective interventions and understand barriers to their implementation to eliminate HCV among incarcerated populations.

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