

COST-EFFECTIVENESS OF PHARMACY-LED VERSUS CONVENTIONALLY DELIVERED ANTIVIRAL TREATMENT FOR HEPATITIS C IN PATIENTS RECEIVING OPIOID SUBSTITUTION THERAPY: AN ECONOMIC EVALUATION ALONGSIDE A PRAGMATIC CLUSTER RANDOMISED TRIAL

Myring G^{1,2}, Hollingworth W^{1,2}, McLeod H^{1,2}, Beer L³, Lim A¹, Vickerman P¹, Hickman M¹, Dillon J⁴, Radley A⁴.

¹ Population Health Sciences, Bristol Medical School, University of Bristol, UK

² The National Institute for Health Research Applied Research Collaboration West (NIHR ARC West) at University Hospitals Bristol NHS Foundation Trust, Bristol, UK

³ Tayside Clinical Trials Unit, Tayside Medical Science Centre, University of Dundee, Dundee, UK

⁴ Hepatology & Gastroenterology, Clinical & Molecular Medicine, School of Medicine, University of Dundee, Dundee, UK

Background:

In the UK, almost 90% of hepatitis C virus (HCV) infections are found in people who inject drugs (PWID). To meet World Health Organization targets for eliminating HCV as a public health problem by 2030, it is necessary to find, test, and treat these patients. Evidence shows community screening is effective at increasing uptake of testing and treatment. In a cluster randomised controlled trial, 56 pharmacies were randomly allocated to either a new pharmacist-led test and treat pathway or a conventional care pathway for patients on opioid substitution therapy (OST).

Description of model of care/intervention:

In the conventional care pathway, patients are referred from the pharmacy after a HCV-positive dried blood spot test to a drug treatment centre for assessment by a specialist nurse and treatment prescription (e.g. Ledipasvir with Sofosbuvir). In the new pharmacist-led pathway, all testing, assessment, and treatment for HCV occurs solely within community pharmacies.

Effectiveness:

A higher rate of testing (17.9% vs 10.7%, $p = 0.059$), treatment and sustained virologic response 12 weeks after therapy was achieved (7.2% vs 3.2%, $p < 0.0001$) within the pharmacist-led pathway. At the NHS indicative price (£12,993 for 28 tablets), the new pathway was more expensive (mean cost per patient: £3,373 vs £1,698) than conventional care. The incremental cost per additional patient who achieved SVR12 was £38,361 (95% CI: £25,002, £52,170). Findings were sensitive to drug costs. A 30%/60%/90% discount on list price improved cost-effectiveness to £27,099/£15,837/£4,575 per SVR12 achieved.

Conclusion and next steps:

The pharmacist-led pathway is effective at increasing testing and treatment uptake in OST patients. Cost-effectiveness is highly dependent on drug prices. The intervention has the potential to be cost-effective at reducing the future burden of HCV-related morbidity and mortality and improving Quality Adjusted Life Years which we will test next.

Disclosure of Interest Statement:

During the study JD received grants from the Scottish Government Department of Health, Gilead, and Bristol-Myers Squibb; and AbbVie, MSD, Janssen, Roche, and Genedrive outside the study. During the study AR received grants from Gilead and Bristol-Myers Squibb and received grants from Roche and AbbVie outside the study.