A Pharmacy Service Model to Improve Access to Hepatitis C Treatment.

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Background

Hepatitis C virus (HCV) is an easily cured liver infection, transmitted through blood-to-blood contact. The virus is slow acting, and symptoms may not appear for many years. It can cause long-term health problems if left untreated, particularly for the liver resulting in cirrhosis. With appropriate treatment, HCV is curable, and therapies are now available that are highly effective and well tolerated.

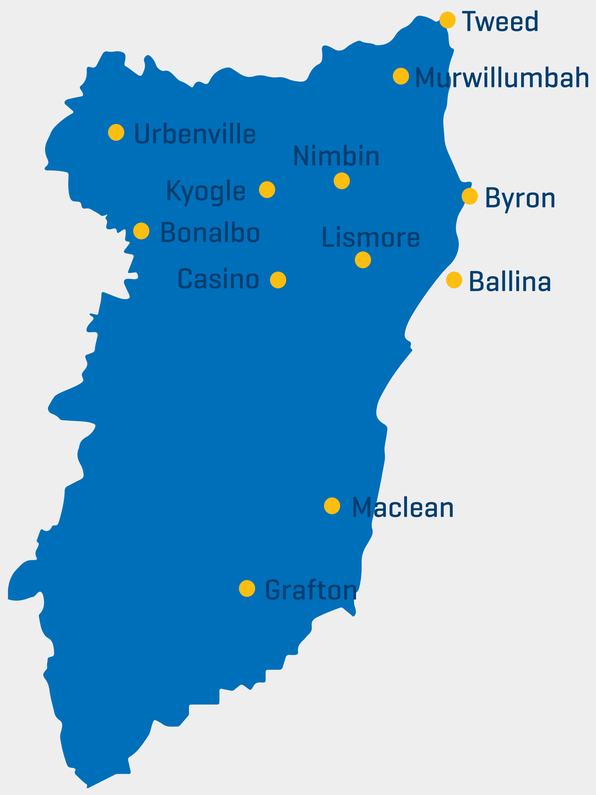
Patient access and compliance to HCV treatment may be hindered by community pharmacy's unfamiliarity with the S100 community access program, high cost of stock and turnaround times. Furthermore, the New South Wales (NSW) hepatitis C strategy aims to improve health outcomes of those living with HCV infection by increasing the number of people accessing treatment and improving access to treatment options.

Objective

Implement a new pharmacy service model to improve access and as a result increase compliance with HCV treatment.

Action

A NSW private hospital pharmacy liaised with the local Hepatitis Clinic to introduce a delivery service of medications to patients for the Northern NSW health district. This model involves giving patients choice of local pick up from the pharmacy, delivery to surrounding public hospitals and more recently delivery to the specialist nursing team treating homeless patients.



Evaluation Results

From 1st July 2019 to 30th June 2023, 187 patients commenced treatment utilising the pharmacy service model. Of those, 163 (87.2%) patients successfully completed their course, 5 (2.7%) are currently receiving treatment and 19 (10.1%) patients did not finish their course with the private hospital pharmacy (Figure 1).

Of the 19 patients who did not complete their course 4 (21%) was due to an unprecedented natural disaster, 6 (31.6%) was due to patients travelling and 9 (47.4%) reasons unknown.

Figure 1 -Status of Hepatitis C treatment course for all patients (n=187) utilising the new treatment model.

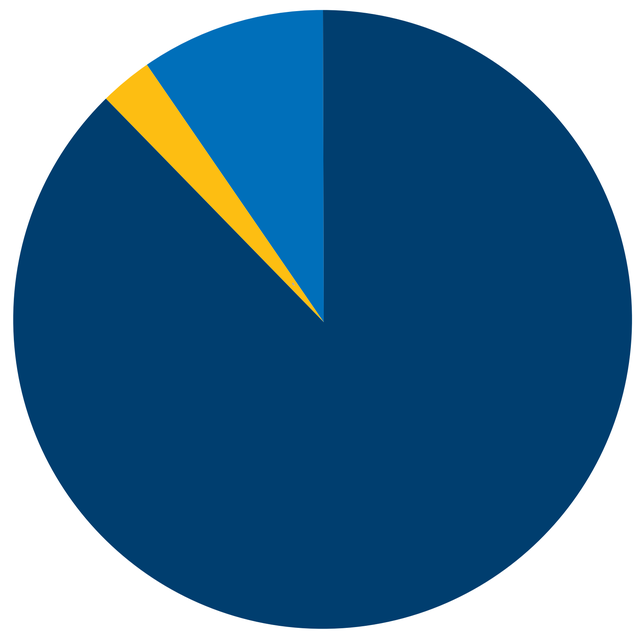


Figure 2 - Time from prescribing to dispensing of Hepatitis C treatment course for all patients (n=187) utilising the new service model

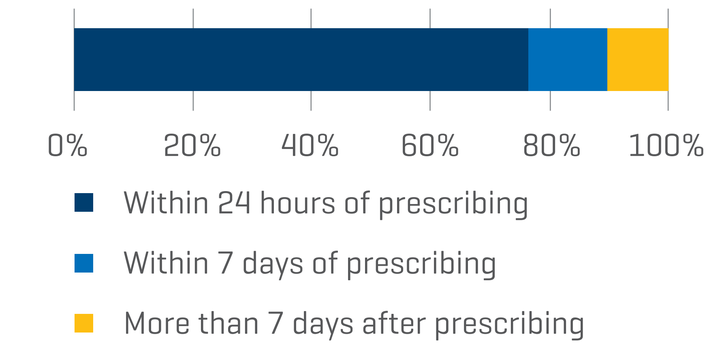
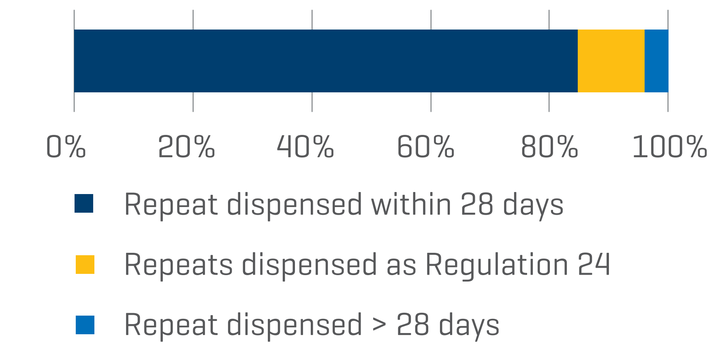


Figure 3 - Timing of repeat dispensing during Hepatitis C treatment for all patients (n=187) utilising new service model



Overall, 168 (89.8%) patients filled their script within 7 days of being prescribed medication to treat HCV (Figure 2) and repeat prescriptions were dispensed within the required 28 days for 85% of patients (Figure 3) ensuring compliance.

Completion rates were above 80% for all drug combination options and highest (92%) for the 8 week course (Table 1).

Table 1 – Percentage of Hepatitis C treatment course completions according to drug combination

Drug combination	Number of tablets daily	Duration of therapy	% course completion
First-line therapy options for treatment-naive adults			
glecaprevir + pibrentasvir 100+40 mg	3 tablets once daily	8 weeks	92
sofosbuvir + velpatasvir 400+100 mg	1 tablet daily	12 weeks	83
Treatment of adults not cured with first-line therapy due to virological failure			
sofosbuvir + velpatasvir + voxilaprevir 400+100+100 mg	1 tablet daily	12 weeks	82

Discussion

The introduction of the unique service model improved access to HCV treatment locally, leading to a high uptake and completion of the 8-12 week treatment course.

The data suggests the shortest treatment regimen of 8 weeks is well tolerated with a high completion rate of 92% even though the patient takes 3 tablets once a day as opposed to the other regimes where only one tablet daily is required. Of the 25 patients who contacted the pharmacy >24hrs but within 7 days it is unknown if they tried to source the medication from a community pharmacy before opting for unique service model and therefore warrants further investigation.

Other potential areas for future research may include local anecdotal evidence suggesting patients prefer the privacy of a private hospital service when compared to pick up in a community pharmacy, hence stigma and discrimination may still be barriers in accessing health services. As such stigma has been recognised as one of the four goals in the NSW Hepatitis C strategy.

Conclusion

The success of this unique service model has been extended to other highly specialised drug outpatient programs such as those used to treat Hepatitis B, HIV/AIDs and transplant patients.

This service model circumvents pre-existing barriers that community pharmacies experience, streamlines supply of HCV medication, gives patients greater choice and access closer to home.

Finally, this program initiative is helping to achieve the national goal to eliminate HCV as a public health threat by 2030 and supports the World Health organisation strategic goal of eliminating HCV by 2030.

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