

# Mentoring for hard to reach people with hepatitis C

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Key words:

Hepatitis C, Mentoring, Primary Health Care, Appointments and Schedules

The authors have no conflicts of interest to declare

## **Abstract**

Background: The prevalence of hepatitis C in Scotland is estimated at 0.8%. In Dundee, a city in Eastern Scotland, there is a hepatitis C positive population with a history of past or current injecting drug use, who do not attend appointments to become cured. Aim: Target this population and offer mentoring to see impact this has. Methods: People were recruited by general practitioners working from a single 'Deep End' general practice. All people recruited had a significant history of substance misuse and were known to have had hepatitis C for an average of seven years. The intervention was to offer them individual person centred mentoring aiming to cure hepatitis C, with an aim to increase attendance rates at clinics and improve their well-being. Results: 6 months after referral to the mentoring service 75% of the eight patients referred had been cured of hepatitis C. Of the eight people referred, four engaged with the mentor. There was no statistically significant change in either attendance rates to healthcare appointments or improvements to well-being. Conclusion: the mentoring process shows signs of promise to assist people in achieving cure of hepatitis C, however this did not cause a significant effect on attendance rates.

## **Background**

In Scotland the estimated prevalence of hepatitis C is 0.8% (SIGN, 2013). It has been previously found that achieving high levels of patient attendance at hepatitis clinics can be a challenge, with historic non-attendance figures as high as 70% in hospital clinics. (Cousins et al., 2011) People who inject drugs (PWID) have a higher chance of not attending the first clinic appointment (McDonald et al., 2014) and barriers to treatment initiation can be due to ongoing injecting drug use, alcohol abuse and a chaotic lifestyle (Bruggmann, 2012) It has previously been shown that beneath apparently simple explanations for non-attendance, such as clients' chaotic lifestyle resulting in them forgetting or not being bothered to attend, there were far more complex and varied underlying reasons. (Poll et al., 2017) In an attempt to overcome this Dundee has pioneered hepatitis outreach clinics, situated within the community and has trialled the use of community pharmacies to deliver care. (Radley et al., 2018)

Despite efforts from both primary and secondary care there are some patients who fail to attend appointments and as a consequence do not get treated for hepatitis C that they are known to have. It is known that failing to attend appointments (not just relating to hepatitis C) is associated with increased all-cause mortality compared with those who missed no appointments. (McQueenie et al., 2019) This study sought to target this hard to reach group of people and proactively contact them from primary care and offer referral to a mentoring service. The social care based mentoring service aimed to promote attendance at clinics and provide holistic input to help other aspects of their life. It was anticipated that the mentor could prompt these patients into successful behaviour change. This is in keeping with the Scottish Government's aim to reduce health inequalities and published health and wellbeing outcomes (Scottish Government, 2017)

## **Aim**

Assess the impact of providing mentoring to a specific target group of people known to primary care as having a diagnosis of hepatitis C with a current or past history of injecting drug use, and who have a history of not attending healthcare appointments.

### Primary Outcome

- Was the referred person cured of hepatitis C 6 months after referral to mentor

### Secondary Outcomes

- Impact on attendance rate before and after referral
- What is the impact on well-being outcomes
- Time spent by mentor

## **Methods**

People were recruited from a single 'Deep End' general practice in Dundee Scotland by general practitioners. (University of Glasgow, n.d.)

These people were identified both from a list provided by the hepatitis clinic of people who were known to have hepatitis C but didn't attend clinic appointments and opportunistically by general practitioners when encountering people who had hepatitis and were not attending appointments. A lead GP wrote letters, attached reminders to prescriptions and phoned patients to encourage them to have up dated hepatitis C bloods taken and also offer the mentoring service.

If the person was agreeable for mentoring input (provided by social work service) a referral was sent via email to the mentoring team. Mentors made every effort to attempt to get these people engaged with them. This cohort was known to be hard to reach so proactive efforts to contact them, including repeated home visits were performed to attempt to engage them. All of the people recruited had a significant history of substance misuse or continued to be actively using substances. A person centred

approach was implemented by the mentor who made numerous efforts to contact them. A tailored individualised approach to follow up calls and visits was adopted.

Data was extracted from primary care records. Secondary care attendance data was provided via Local Intelligence Support Team (ISD Scotland, n.d.) and social work data was extracted retrospectively at the end of the study. Detailed retrospective review of social care case notes occurred jointly with a GP and an ISMS team manager and agreement was made about how the situation has changed (if at all) six months after being referred for mentoring. At the end of the study the mentor deemed whether or not the person referred to them engaged with them or not.

Statistical analysis was performed by MedCalc Software, Comparison of proportions (“Comparison of proportions calculator,” 2019). No financial incentive was provided to patients to engage with the mentor. A proposal for this project was reviewed by the East of Scotland Research Ethics Service in November 2016 and did not require formal Ethics Committee review.

**Results Table 1:**

	Number referred	Number engaged with mentor	6 month Hepatitis C cure rate %, (n)	Time (hours) spent by mentor for each patient who engaged *	Time (hours) spent by mentor each individual for those who didn't engage*	Cure Rate engage, (n)	Cure Rate non engaged, (n)	Average duration of Hepatitis C, months (range)
	8	4	75% (8)	28	13	75% (4)	75% (4)	85 (2-275)
	Before mentoring, (n)	After mentoring, (n)	Difference	95% CI	Chi-Squared	P value	Data Source and data duration (months)	
Rate of attendance at clinics 6 months	63 %, (30)	62 %, (29)	1%	-22.5% to +24.4%,	0.006	0.937	Primary Care (6 before and 6 after)	
Rate of Attendance for GP / Nurse / ANP / Welfare Rights / Phlebotomy / Radiology	79 %, (33)	60%, (25)	19%	-4.42% to +40.9%,	2.441	0.118	Primary Care (6 before and 6 after)	
Rate of Self Discharge from A+E / Hospital admission	50%, (4)	50%, (4)	0%	-49.5% to +49.5%,	0.000	1.0	Primary Care (6 before and 6 after)	
Rate of Attendance at secondary care clinics	58%, (69)	70%, (10)	12%	-20.3% to +34.5%	0.515	0.473	Secondary Care, LIST (18 before and 9 after)	
	Mentors Overall Perception	Clients Overall Perception	Family & Friends	Physical Health	Finances	Mental Wellbeing	Education / Employment and training	Substance Misuse
<b>Mentors Perception</b> 1 = much worse, 3 = same, 5 = much better	4.0	3.8	3.3	2.8	3.3	3.5	3.0	3.3

\* We estimated it takes 10 minutes for a phone call, 90 minutes (including travel time there and back) for a home visit and 150 minutes when supporting the individual attend appointments / agencies.

## **Results**

The average age of patients recruited was 40 years old. All were extremely complex and were either PWID currently or had a significant history of injecting, some of whom had a history of hepatitis C re-infection. Over the previous two years clinics the patients were invited to attend multiple outpatient clinics. These included psychiatry, substance misuse, gastroenterology, orthopaedic, general medicine, ophthalmology, plastics, urology, neurology, neurosurgery, respiratory, general surgery and vascular surgery - it was not solely the hepatitis C clinics that they struggled to attend.

As shown in Table 1 there was a 75% cure rate six months after referral. There was no significant impact detected upon patient attendance rate. The mentoring process was time consuming with on average over 20 hours spent per patient referred.

## **Conclusions**

People referred for mentoring had a high cure rate 6 months after referral of hepatitis C, although it is hard to ascertain whether this association was directly caused by the mentoring process, or if the initial recruitment via general practice prompted the people to obtain treatment. Some who didn't engage with the mentor went on to attend community clinics (this behaviour may have been prompted by attempts to engage with the mentor) and one person who didn't engage with the mentor spontaneously eradicated hepatitis C.

The complexity of the patients targeted is not a surprising finding, given it is known there is a reduced attendance rates for people with hepatitis C who use drugs (McDonald et al., 2014) and in addition the significant known co-morbidities that these people with hepatitis C have. (Golden et al., 2005)

Knowledge about the potentially devastating effects of hepatitis C is low amongst people who use drugs, and lower in those with achieving lower levels of formal education and enhancing their knowledge can be useful to encourage people to engage with treatment. (Treloar et al., 2012) This study may have caused wider benefit than the measures presented accurate information was subsequently disseminated by people who had a mentor to other people with hepatitis C. In addition

another benefit was that mentoring staff up-skilled their abilities to encourage people to attend for treatment of hepatitis C and are continuing to utilise this with other patients.

It is important for policy makers to note that, when taking into account the lack of changes in attendance rates and lack of overall improvement in the people who participated in this study's well-being that solely being assigned a mentor is not the sole solution to this hard to reach group of people. Pragmatically it does seem a useful thing and it would be beneficial to assess a similar model in a larger study to determine if this intervention would benefit this hard to reach group of patients.

### **Funding**

The authors would like to thank the Healthcare Improvement Scotland iHub for funding the evaluation of this study.

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