

Box S1: An overview of 21 key barriers and facilitators defined by pathway step (see figure 2), with illustrative exemplar data extracts. Barriers and facilitators are ordered by prominence within the data, with the most significant for each step positioned at the top.

DBST (Dried Blood Spot Testing); GP (General Practitioner); HCV (Hepatitis C Virus); PCP (Primary Care Provider); PLHCV (Person living with HCV); SVR (Sustained Virological Response)

Pathway step	Key barriers and facilitators	Illustrative data extracts
1 Patient attends (remote) consultation with PCP	Existing therapeutic relationships with PCPs can be a barrier for PLHCV attendance.	<i>"If people have a good relationship with their GP, which isn't always the case, ...then that's a, kind of, trusting relationship and some of the reluctance to take the medication is about lack of trust"</i> (GP) <i>"...a lot of patients have a good relationship with their GPs and they might feel more comfortable speaking to them; and also listening to them in terms of getting started on treatment as opposed to seeing someone new in a specialist service may be off-putting for them. I mean that's why our hospital clinics the DNA rate is fairly high"</i> (HCV Specialist)
	Reduced social stigma in general practice enables attendance.	<i>"...one big advantage of general practice...is that if you're sitting in the waiting room in a general practice, you could be there for anything. But if you're sitting in the local drug clinic, in the waiting room, then everyone knows why you're there, if you're sitting in the Infectious Diseases Unit, clearly, you've got some infectious disease...there's an anonymity in the general practice waiting room that isn't there in the specialist waiting room"</i> (GP)
	Reducing the number of appointments needed for HCV treatment encourages attendance.	<i>"I think you'd get more people more willing to go on the treatment, you know...if it was just a case of going to your doctors, the doctor wrote you up for the treatment. You know, like if he was writing you up for any other treatment. You're given your prescription, you take that prescription to the chemist, you know, and then you could get served that or they give you it home with you...it would be a lot easier."</i> (PLHCV)
3 PCP initiates HCV conversation	Not routinely asking about HCV can be a barrier to starting conversations.	<i>"...we might not always be aware of what...whether, of the risk. And if they've come in about something completely different and they are not talking about their drug use or any other particular risks that they might have, I think there is potentially a bit of an issue with...not necessarily routinely asking"</i> (GP) <i>"a lot of people feel uncomfortable asking somebody, have you ever injected drugs? If you have got a middle aged, middle class man coming to see you, there is often an assumption, you know, why would I ask this person this. Whereas actually it should be a blanket kind of question for everybody..."</i> (HCV Specialist)
	Approaching the topic positively can encourage conversations about HCV.	<i>"I really try and stress the positive sides of that and that it's really good that we know about this now because we can do something about it and treatment is, you know, almost always successful and with no side-effects. And also try and highlight the possible beneficial effects on their health and wellbeing afterwards...So you know, it's really a very positive spin."</i> (GP)

3a

Instilling confidence in dried blood spot results can enable its use.

"...if they come back as being positive on a dry blood spot test, you can get PCR positivity on that for hepatitis C. So it's not the ideal but there are pathways that we can use where we don't get any other blood test." (HCV Specialist)
"...so there is a treatment option that they could use even if we don't have any information, any bloods, if we just had the dry blood spot tests..." (HCV Specialist)

& 4b

PCP utilises DBST and/or venepuncture

The minimal training required for dried blood spot testing encourages its use.

"...you don't really need training on these things, you just need someone to show you..." (GP)
"Everybody should be doing it, it's a dry blood, spot-testing that requires no venesection skills. And probably a five-year-old child would be able to perform it..." (HCV Specialist)

Utilising available expertise enables venepuncture by PCPs.

"...obviously there's going to be people where it's really, really difficult to take blood, but, you know, a lot of nurses are really good at taking bloods, a lot of healthcare assistants are really good at taking blood...we had a lot of patients with very difficult veins and someone, or, you know, usually managed to get the blood eventually." (GP)

4

PCP performs risk assessment for HCV treatment initiation

PCPs belief in their abilities limits or enables evaluation of hepatic decompensation risk.

"I think that any GP who's willing to engage with this, is going to be, or should be skilled enough to be able to recognise [decompensation], and determine who should or shouldn't be appropriate" (GP)

"I think erm, err, err, liver disease, despite being incredibly common, remains one of the conditions where lots of people feel de-skilled." (GP)

5a

PCP makes referral to identified third sector partner

Lack of an established relationship with third sector partners limits PCPs ability to make referrals.

"Yeah, so I mean, well, in...in the X practice quite a bit with charities like the X... but we're not, like it's not as if we have like a close relationship, it's just that people will come in..." (GP)

"We would have to go out and let the GPs know who we are, for a start, we'd need to go 'round all the surgeries in the areas that we work, in the hope that they would work with us and refer to us...we would just, that, we would really have to try and build some sort of partnership." (Third sector worker)

Poor understanding of third sector remit limits PCPs ability to make timely referrals.

"...people we've had referred nearing the end of their treatment and the support then is very limited because we are contracted to work six months after. So, if somebody's coming to you at the very end of the treatment because they're having problems you would...you then have to build the relationship, look at what the problems are, see them through, and then you're withdrawing your support so quickly that people become very upset by that." (Third sector worker)

<p>6</p> <p>PCP obtains consent for referral for liver assessment and initiates treatment</p>	<p>PLHCV faith in PCP abilities limits or enables HCV treatment initiation.</p> <hr/> <p>A clear protocolised pathway enables HCV treatment initiation by PCPs.</p> <hr/> <p>Complex drug supply chains limit PCPs ability to initiate HCV treatment.</p>	<p><i>"I don't think they're 100 per cent clued up on exactly, you know, unless they're actually specialists in the field, you know what I mean?" (PLHCV)</i></p> <p><i>"I think as long as he's trained up and he knows what he's doing then I don't see any reason, like, the differences between a doctor giving me it and a hospital consultant?" (PLHCV)</i></p> <hr/> <p><i>"...assessing patients for treatment and delivering the treatment is very protocolised, so as long as you've got something very clear, I don't foresee it being difficult for GPs to do... If you've got a very protocolised treatment pathway, I think that would be easy enough to follow..." (HCV Specialist)</i></p> <hr/> <p><i>"...the ideal would be the GP, just like you're prescribing a course of penicillin, could prescribe a course of the appropriate Hep C treatment and give the patient a prescription they could fill out in the pharmacy that day. But that is not going to happen in the current set-up." (HCV Specialist)</i></p>
<p>6a</p> <p>PCP refers to specialist team</p>	<p>Lack of clear point of contact in HCV specialist team for informal queries limits PCPs ability to make referrals.</p>	<p><i>"I think sometimes it can be quite hard to contact consultants or...it can be quite hard to contact consultants because you don't know whether they're going to see that as part of their role and they might think why are you phoning me?" (GP)</i></p>
<p>6c</p> <p>HCV nurse arranges appointment for holistic needs assessment</p>	<p>Understanding the importance of holistic needs assessment as part of HCV treatment motivates the HCV nurse to arrange an appointment with PLHCV.</p>	<p><i>"An element of the success of hepatitis C treatment, or part of the treatment, has been maybe not just the treatment of the physical disease, but the support, or additional psycho-social care, and links that the specialist nurses have provided until now" (HCV Specialist)</i></p> <p><i>"If you're not addressing the person's real problem, if you're not addressing the underlying problems why somebody was infected in the first place then what are you doing really?" (HCV Specialist)</i></p>
<p>8</p> <p>Patient attends appointment</p>	<p>Supportive relationships between PLHCV and HCV nurses enables attendance at appointments.</p>	<p><i>"I found the nurses really helpful, really honest, tell them anything and you know, it's no' gonna go anywhere else..." (Third sector worker)</i></p> <p><i>"...she was just 'real'. She just sat down and spoke to me like a normal person, rather than, rather than speaking down to me...." (PLHCV)</i></p>

for needs assessment	The perceived benefits of holistic needs assessment by PLHCV may limit or enhance attendance.	<i>"I think that a lot of people don't actually realise, err, how much they're impacted by hepatitis C either, err, y'know...the tendency is to be 'but I feel ok, that's fine, y'know, I'll just leave it" (Third sector worker)</i>
<p>9</p> <p>Patient attends HCV nurse for SVR bloods and full liver assessment</p>	PLHCVs perception of the benefits of SVR bloods and full liver assessment may limit engagement.	<p><i>"a lot of people drop out before the test of cure (...) they kind of disengage from the clinic. Because I think they can't see the value in going to a clinic if all they're going to do is get a blood test." (GP)</i></p> <p><i>"people don't really understand that the liver can be damaged, but still functioning properly, y'know a lot of people will say 'I'll wait until my eyes are yellow', or something along these lines..." (Third sector worker)</i></p>
	PLHCV worries about liver damage limit engagement with full liver assessment.	<i>"...if you've got a period of time; I think if I was left with a period of time and some of the situations that people are coming up against, they're going to build it up in their own head and they're going to be worried about getting their liver scanned and stuff like that." (PLHCV)</i>
	Social stigma limits attendance by PLHCV at appointments for full liver assessment	<i>"...there was times when I was worried about banging into like other people, other addicts, and whatever, and I didn't want them to know that I was on treatment, and, as I say, I really kept my cards close to my chest. You know, I didn't want anybody knowing my business, you know." (PLHCV)</i>

Box S2: Summary of theory-informed recommendations to embed primary care-initiated HCV treatment into practice by pathway step (see figure 2). For methodological detail see supplementary box 4. DBST (Dried Blood Spot Testing); GP (General Practitioner); HCV (Hepatitis C Virus); MCN (Managed Care Network); PCP (Primary Care Provider); PLHCV (Person living with HCV); SVR (Sustained Virological Response).

Pathway Step	Overview of Recommendations	Suggested Interventions
1	<p>Trusting therapeutic relationships are integral to pathway success. Enable and foster their development through peer support, prioritising continuity of carer, and identifying where relationships have irrevocably broken down.</p> <p>Capitalise on existing PCP/patient relationships, and restructure clinics to nurture reduced social stigma for PLHCV in primary care.</p> <p>Focus targeted mass and social media messages in a range of relevant settings to PLHCV to educate them on fast, safe and effective HCV treatment through their GP surgery.</p>	Foster existing GP clusters to nurture peer support and share best practice in relation to building therapeutic relationships.
		Identify where relationships are irrevocably broken down, and offer service users the choice to see a different practitioner.
		Where possible, prioritise continuity of carer for PLHCV.
		Offer HCV care and treatment initiation within routine clinics, rather than identifiable 'HCV clinics.'
		Employ Community Link Workers to promote treatment pathway verbally as part of their role.
		Agree a locally defined approach to publicise primary care-initiated HCV treatment among key populations. This may include engagement with criminal justice, housing services, and other healthcare professionals embedded in the community.
3	<p>Enable routinisation of HCV conversations through prompts within IT systems, establishing habit by repetition. Foster GP clusters to encourage informal sharing of best practice.</p> <p>Enable peer-to-peer informal learning through established and existing networks.</p>	Share best practice and experience of approaching HCV conversations informally within PCP networks and GP clusters.
		Embed HCV risk assessment within local routine consultation pro forma and IT systems.
		Add prompts to <u>existing</u> PCP IT systems to encourage the normalisation of HCV conversations within consultations.
		Establish and promote local PCP networking events, to share experience and expertise, encouraging informal peer learning.

<p>3a & 4b</p>	<p>Educate PCPs to persuade them of the capabilities, rigour and pragmatic advantages of DBS testing.</p> <p>Where necessary, formal and/or informal DBS training should be organised for PCPs and other surgery staff, utilising local expertise where possible.</p> <p>Educate PCPs to utilise all available expertise within the surgery, including that of the patient themselves.</p>	<p>Development of educational materials detailing the capabilities of DBST, using published evidence to emphasise sensitivity and specificity.</p> <p>Include reassurance from local specialists within educational resources to foster confidence in DBST advantages.</p> <p>Arrange in-house DBST training sessions at GP surgeries where necessary, using existing local expertise.</p> <p>Utilise existing online demonstrations of DBS testing to train PCPs.</p> <p>Utilise expertise within the surgery, identifying individuals with particular skill in venepuncture (fit the person to the job) who are willing to act as go-to practitioners.</p> <p>Train PCPs to seek instruction on venepuncture from their patients, drawing on expertise and knowledge of their own anatomy.</p>
<p>4</p>	<p>Co-development of a robust HCV treatment protocol should place existing skills and knowledge within a clear framework, enabling PCPs to consistently assess decompensation risk. The protocol should include plans for audit and review.</p>	<p>The co-development of a robust HCV treatment protocol between specialist services and primary care, agreeing local criteria for decompensation risk assessment.</p> <p>Planned audits to highlight good practice, sharing results with all stakeholders emphasising pathway successes.</p> <p>Identification of where and how a local protocol is best stored and accessed by PCPs and specialists, ideally integrating into existing IT systems.</p>
<p>5a</p>	<p>Interventions aimed at encouraging, building and fostering productive professional relationships between PCPs and identified third sector partners are recommended. Once established, the mechanics of referral should be coproduced within the context of available resources and confines of data protection.</p> <p>Third-sector led interventions to educate PCPs on optimising referrals are recommended. Such</p>	<p>Appoint Community Link Workers focused on establishing stronger ties between GP surgeries and identified third sector partners.</p> <p>Use local HCV Managed Care Networks (MCNs) to facilitate communication between GP surgeries and third sector partners.</p> <p>GP surgeries and/or clusters invite third sector agencies to meet staff and introduce their services, putting a recognisable face to the organisations.</p> <p>Local liaison arrangements between GP surgeries and third sector agencies are specified, agreeing nominated individuals.</p> <p>PCPs retain contact advice for key third sector agencies within their consulting rooms and integrated into existing IT systems.</p> <p>Local solutions for rapid/virtual/paper-lite referrals from PCPs to third sector partners during working hours are coproduced.</p>

	<p>interventions should persuade PCPs of the value of referral, and utilise existing and new opportunities for effective inter-agency working.</p> <p>Feedback and updates on individual referrals are provided from third sector to GP surgeries.</p> <p>Where possible and feasible, current third sector links with GP surgeries should be utilised and expanded to offer support for PLHCV, capitalising on existing professional relationships.</p> <p>Third sector agencies audit referral timings and provide feedback to GP surgeries in locally agreed formats.</p>
<p>6</p> <p>Coordinated advertising and one-to-one interventions that educate and persuade PLHCV of the competence and capability of PCPs in relation to HCV treatment are required.</p> <p>The co-development of a clear and robust HCV treatment protocol should standardise practice and enable PCPs to initiate HCV treatment within the local context. The protocol should be accompanied with plans for audit and review, and by training and education to foster pathway understanding.</p> <p>Develop and nurture political will among key stakeholders to restructure DAA supply chains, enabling the prescribing and initiation of HCV treatment on the same day.</p>	<p>Devise local advertising campaigns to highlight NHS support for primary care-initiated HCV treatment.</p> <p>Engage local peer support groups to promote and encourage primary care-initiated HCV treatment, using personal testimonies where possible.</p> <p>The co-development of a robust HCV treatment protocol with local stakeholders, based on the proposed pathway and cognizant of regional characteristics.</p> <p>The co-development of innovative and accessible programmes of education in collaboration with local specialist teams, to increase HCV specialist confidence in primary care-initiated therapy.</p> <p>Planned audits to highlight good practice, sharing results with all stakeholders emphasising pathway successes.</p> <p>Identification of where and how a local protocol is best stored and accessed, ideally integrating into existing IT systems.</p> <p>Engaging key stakeholders in problem solving forums to explore simplified DAA ordering and reimbursement procedures for community pharmacies.</p> <p>Developing local solutions to allow key pharmacies to maintain a stock of DAAs allowing same-day treatment initiation.</p>
<p>6a</p> <p>Clear and robust communication channels between PCPs and HCV specialist services should be established, to allow rapid resolution of queries.</p>	<p>Identification of a nominated contact (or contacts) within the HCV specialist team, who act as first responder(s) to PCP queries.</p> <p>Utilisation of a mobile phone 'hotline' and/or email address, carried/manned by the nominated contact.</p> <p>The addition of an aide-memoire to consulting rooms and existing IT systems detailing procedure for informal queries.</p>

<p>6c</p>	<p>Utilise inter- and intra-agency formal and informal networking opportunities to emphasise the intersectional nature of living with HCV. Accentuate activities that model and demonstrate the value of person-centred care, harm reduction and other community-based services to the lives of PLHCV.</p>	<p>Utilise HCV MCNs to create multi-agency HCV gatherings within local health boards to recognise where care coalesces. Integrate the establishment of inter- and intra-agency relationships into HCV nurse role descriptions.</p> <p>Encourage sharing best practice within established HCV nurse networks, with case studies of successful care that moves beyond virus removal.</p> <p>Engage HCV nurses in the development and/or continuous review of local holistic needs assessment pro forma.</p> <p>Develop or use established competency frameworks for holistic needs assessments and harm reduction brief interventions.</p>
<p>8</p>	<p>Enable opportunities for those with existing supportive relationships to encourage and help attendance with the HCV nurse, allowing that connection to be made.</p> <p>Educate and persuade patients about the potential benefits of holistic needs assessment to other areas of their lives. Maximise opportunities for discussions from multiple sources, and where possible localise the message with real-world case studies and examples.</p>	<p>Employ existing support networks (third sector/peer workers/community link workers/care managers) to emphasise the value of holistic nurse assessment.</p> <p>Provide patient with details about the HCV nurse at treatment initiation appointment, including physical and online contact details, and provide a profile/photo to encourage engagement.</p> <p>Provide verbal information about the potential benefits of holistic needs assessment to the patient as early as possible in the pathway, ideally on first appointment.</p> <p>Engage community link workers, peer support workers and third sector to identify and discuss local examples of people experiencing collateral benefits while undertaking HCV treatment.</p> <p>Encourage PCPs, peer workers, third sector support and community link workers to maximise opportunities to reinforce messages about potential collateral benefits of HCV treatment verbally.</p>
<p>9</p>	<p>Full liver assessment is a vital component of the pathway, and attendance should be supported and encouraged primarily through verbal education and persuasion.</p> <p>Educate, persuade and support PLHCV to recognise knowledge of their liver's health as important and advantageous.</p>	<p>PCP and HCV nurse explicitly detail the importance of full liver assessment during earlier appointments in the pathway, and explain/demonstrate what will be involved.</p> <p>Utilise third sector, community link workers and peer support workers to emphasise the benefits of knowing their liver's health and whether the treatment has worked.</p> <p>Develop information materials emphasising the importance of assessing liver condition, given following verbal discussion of same.</p> <p>Third sector workers, peer support workers, community link workers and HCV nurses proactively engage in positive discussions around the benefits of knowing the liver's condition. Avoid 'scare tactics' that may compound existing fears.</p>

Interventions that reduce social stigma should include consideration of when and where appointments are located.

Consider patient preference when locating this appointment. Offer outreach within GP surgery, or within secondary care outpatient clinics.

Offer SVR and liver assessment within routine clinics, rather than identifiable 'HCV clinics.'

Box S3: Identification of key barriers and facilitators by pathway step, with Theoretical Domains Framework mapping and alignment to Behaviour Change Wheel intervention functions and behaviour change techniques¹⁷. Recommendations shown here are pre-stakeholder appraisal.

STEP 1: PATIENT ATTENDS (REMOTE) CONSULTATION WITH PCP						
KEY: High Priority; Medium Priority; Low Priority						
Barriers (<i>Patient finds it hard to...</i>)	Facilitators (<i>Patient finds it easy to...</i>)	Indicative quotes from transcripts	TDF	Intervention Function	BCTs	Recommendations
Patient finds it hard to attend consultation with PCP because they do not have a good relationship	Patient finds it easy to attend consultation with PCP because they have a solid therapeutic relationship	<p>“If people have a good relationship with their GP which isn’t always the case...then that’s a, kind of, trusting relationship and some of the reluctance to take the medication is about lack of trust, and there’s lots of myths around because of the old treatments” (GP)</p> <p>“I think people would prefer to see whoever they’ve got the therapeutic relationship with. Yeah. Whoever they know and trust” (HCV Specialist)</p> <p>“...a lot of patients have a good relationship with their GPs and they might feel more comfortable speaking to them; and also listening to them in terms of getting started on treatment as opposed to seeing someone new in a specialist service may be off-putting for them. I mean that’s why our hospital clinics the DNA rate is fairly high” (HCV Specialist)</p> <p>“You’re already attending that service, you’re very likely to be quite well-known to that service because you’re very likely to have other comorbidities, you’re likely to have a relationship with the staff there. The PCP will understand what your needs are immediately, it won’t be a case of having to find out what they are, so that relationship is already established” (HCV Specialist)</p>	<p>Social Influences</p> <p>Social/Professional role and identity</p> <p>Reinforcement</p>	<p>Enablement</p> <p>Environmental restructuring</p> <p>Modelling</p> <p>Training</p>	<p>3.3 Social support (emotional)</p> <p>3.2 Social support (practical)</p> <p>12.2 Restructuring the social environment</p> <p>6.1 Demonstration of the behaviour</p> <p>8.1 Behavioural practice/rehearsal</p>	<p>Overview: Trusting therapeutic relationships are integral to pathway success. Training and support to enable the development and maintenance of service user relationships with PCPs should include prioritising continuity of carer, and identifying where relationships have irrevocably broken down.</p> <p>Interventions may include:</p> <p>Develop, or utilise existing training PCPs, focused on key skills to enable the development of trusting therapeutic relationships. [6.1; 8.1]</p> <p>Foster and/or employ GP and wider primary care networks to nurture peer support and share best practice in relation to relationship building. [3.2; 3.3]</p> <p>Identify where relationships are irrevocably broken down, and offer service users the choice to see a different practitioner. [12.2]</p> <p>Where possible, prioritise continuity of carer for people living with HCV. [12.2]</p>
	Patient finds it easy to physically attend PCPs because there is less social stigma	<p>“...they can go to the GP practice and they could just be going for a chest infection or anything. So the stigma is a lot reduced, so they’re much more likely to access services at the practice. So, for that reason, it’s much more feasible and much more accessible and I think you’re going to reach patients that you won’t reach at the hospital. We had loads of patients who were referred to the hospital and they just never went. And they had multiple letters inviting them for appointments and they never went” (GP)</p>	<p>Social influences (patient)</p> <p>Environmental context and resources</p>	<p>Enablement</p> <p>Environmental restructuring</p>	<p>3.1 Social support</p> <p>12.1 Restructuring the physical environment</p>	<p>Overview: Multi-level interventions that nurture a reduction in social stigma should be introduced within GP surgeries and their online presence, including consideration of structural, environmental and individual drivers.</p> <p>Interventions may include:</p>

		<p>“...one big advantage of general practice...is that if you’re sitting in the waiting room in a general practice, you could be there for anything. Nobody has any...well sometimes we all do know that people are there for the drugs because of the way they behave, but really nobody knows why they’re there. But if you’re sitting in the local drug clinic, in the waiting room, then everyone knows why you’re there, if you’re sitting in the Infectious Diseases Unit at the X, you know, clearly, you’ve got some infectious disease...there’s an anonymity in the general practice waiting room that isn’t there in the specialist waiting room” (GP)</p> <p>“So we’re just trying to destigmatise it, routine care, just another thing we do, and for patients it’s very, very straightforward” (GP)</p>	Beliefs about consequences	<p>Training</p> <p>Modelling</p>	<p>12.2 Restructuring the social environment</p> <p>6.1 Demonstration of a behaviour</p>	<p>Identification of structural changes to facilitate stigma reduction, including drafting/utilising local anti-discrimination policies. [12.2]</p> <p>Training for all surgery staff using key strategies to reduce stigma in healthcare settings, including ‘provision of information’, ‘skills-building activities’ and ‘contact with the stigmatised group’ [3.1;6.1]</p> <p>Offer HCV care and treatment initiation within routine clinics, rather than identifiable ‘HCV clinics.’ [12.1]</p> <p>Place posters within waiting rooms and communal spaces reinforcing a message of zero tolerance towards stigmatising behaviours from other service users. [12.2]</p> <p>Reinforce messages of zero tolerance towards stigmatising behaviours in GP surgery virtual environments. [12.2]</p>
	<p>Patient finds it easy to attend PCP for HCV treatment because it involves fewer appointments</p>	<p>“...in their GP practice you don’t have the burden of the referral system and wait. No matter how quickly we do hospital, we deal with hospital referrals, there is still a chain of potential delay and it’s very frustrating for the patients. If they’re seen in GP practices and start treatment, you can cut out all those stages so it’s quick...” (HCV Specialist)</p> <p>“...the fact that the treatment is so much easier and we can put people onto treatment a lot quicker, we don’t have to do all the tests that we were doing previously. So if we know someone is newly diagnosed, if they are generally fit and well there is no past medical history or no contraindications to treatment, we can get them on treatment...” (HCV Specialist)</p> <p>“I think you’d get more people more willing to go on the treatment, you know...if it was just a case of going to your doctors, the doctor wrote you up for the treatment. You know, like if he was writing you up for any other treatment. You’re given your prescription, you take that prescription to the chemist, you know, and then you could get served that or they give you it home with you and you administer it yourself on a daily basis. You know, it would be a lot easier.” (PLHCV)</p>	<p>Environmental context and resources</p> <p>Intentions (SU)</p>	<p>Enablement</p> <p>Environmental restructuring</p> <p>Education</p>	<p>12.5 Adding objects to the environment</p> <p>7.1 Prompts and cues</p> <p>5.3 Information on social and environmental consequences</p> <p>5.1 Information on health consequences</p>	<p>Overview: Focus targeted mass and social media messages in a range of relevant settings to potential service users to educate them on fast, safe and effective HCV treatment through their GP surgery.</p> <p>Interventions may include:</p> <p>Employ peer support workers and Community Link Workers as part of local Primary Care Improvement Plans to promote treatment pathway as part of their role. [5.1;5.3; 7.1]</p> <p>Agree a locally defined approach to publicise primary care-initiated HCV treatment among key populations, emphasising speed of treatment initiation. [5.1;5.3;7,1]</p> <p>Engage third sector organisations in the promotion of primary care-initiated treatment through established physical and online presence. [7.1;12.5]</p>

						Advertise availability of HCV treatment both physically within the waiting rooms of GP surgeries, and virtually on any online presence. [7.1;12.5]
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STEP 3: PCP INITIATES HCV CONVERSATION

Barriers (<i>PCP finds it hard to...</i>)	Facilitators (<i>PCP finds it easy to...</i>)	Indicative quotes from transcripts	TDF	Intervention Function	BCTs	Recommendations
PCP finds it hard to discuss HCV because it's not routine practice	PCP finds it easy to discuss HCV because it's routine practice	<p>"I think most GPs should be able to talk to patients about it. There might...we might not always be aware of what...whether, of the risk. And if they've come in about something completely different and they are not talking about their drug use or any other particular risks that they might have, I think there is potentially a bit of an issue with...not necessarily routinely asking" (GP)</p> <p>"a lot of people feel uncomfortable asking somebody, have you ever injected drugs. If you have got a middle aged, middle class man coming to see you, there is often an assumption, you know, why would I ask this person this. Whereas actually is should be a blanket kind of question for everybody...I think it should just be a general, do you know what, we should screen everybody because we don't know, and you don't know." (HCV Specialist)</p> <p>"...never really sat down and...you know, with a normal GP and just sat down and discussed it. Not at any length anyway. It's as if they've just been ticking boxes with you. It's like right we've got this, we've got that. And they never would discuss...my doctor would really just discuss what you've gone with, what it is you're presenting with that day." (PLHCV)</p> <p>"In rural areas where there aren't specialist drug services...that's a run of the mill conversation that we would have with somebody about blood borne viruses...but in places where they don't have access to those types of services, a GP probably is the only person that's going to. So, I think that would be of paramount importance that GPs understand that they have an audience that don't have the luxury of having other services that maybe people in cities do have." (Third sector worker)</p>	<p>Skills</p> <p>Behavioural regulation</p> <p>Social/ professional role and identity</p>	<p>Training</p> <p>Enablement</p> <p>Modelling</p> <p>Education</p>	<p>6.1 Demonstration of the behaviour</p> <p>8.3 Habit formation</p> <p>3.1 Social support</p> <p>12.5 Adding objects to the environment</p> <p>7.1 Prompts and cues</p> <p>2.2 Feedback on behaviour</p>	<p>Overview: Train and educate PCPs to normalise HCV conversations within routine consultations. Such training should be reinforced by prompts within IT systems and/or consulting rooms, establishing habit by repeated practice.</p> <p>Interventions may include:</p> <p>Develop innovative training and educational resources which include examples and tips for normalising 'difficult' conversations, and draw on existing experience and expertise. [6.1]</p> <p>Share best practice and experience within GP and wider primary care networks, through both formal education and informal meetings. [3.1]</p> <p>Embed HCV risk assessment within local routine consultation pro forma and IT systems [8.3; 12.5]</p> <p>Add prompts to <u>existing</u> GP IT systems to encourage the normalisation of HCV conversations within consultations [7.1; 8.3]</p> <p>Audit and review IT data, establishing success of conversation initiation and identifying areas for improvement. [2.2]</p>
PCPs find it hard to initiate HCV conversation because they don't know how to approach it.	PCPs find it easy to initiate HCV conversation because they know what to say	<p>"I really try and stress the positive sides of that and that it's really good that we know about this now because we can do something about it and treatment is, you know, almost always successful and with no side-effects. And also try and highlight the possible beneficial effects on their health and wellbeing afterwards and that you might feel a lot better in yourself once you've gone through this. You may have more energy and higher levels of mental clarity and things like that. So you</p>	<p>Knowledge</p> <p>Skills</p>	<p>Training</p> <p>Education</p>	<p>6.1 Demonstration of a behaviour</p>	<p>Overview: Train and support PCPs in effective and established approaches to initiating conversations about HCV. Model best practice with examples and advice from local and national practitioners, published evidence, and informal peer learning.</p>

		<p>know, it's really a very positive spin...It's much better we know about this now than not." (GP)</p> <p>"I do think a lot of it is to do with the initial assessment, when you see people, asking the appropriate questions about, making things like have you ever taken drugs a normal question...you need to make it into it's normal, this is what we're doing, we're ruling things out, we are not potentially looking for this, there is no stigma attached, we are not labelling you. What we want to do is if you've got something we can get you onto treatment, this is what we can do..." (HCV Specialist)</p> <p>"I see that if you're a GP with an interest in that, that should be a very easy thing to do, initiating that conversation, because have you had risk factors, or are you positive? Yes. The treatment is just so easy now, and so straightforward that there shouldn't be any difficulty in initiating that." (HCV Specialist)</p> <p>"I think if they went to the GP and the GP sat down, had that long discussion with the person, told them all about the treatment and suggested maybe that they should give it a go... That was the first discussion I had with my GP when I joined the surgery in 2010. 'Cause as I say, I was just going into recovery then and I was quite honest and open with the GP. I think that was the best way to go at that point, was to be honest with the GP and tell him the situation, tell him I was using substances for a long period of time. And I was trying to change my lifestyle. And he was quite understanding." (PLHCV)</p>	<p>Beliefs about capabilities</p> <p>Optimism</p> <p>Intentions</p> <p>Social Influences</p>	<p>Modelling</p> <p>Persuasion</p> <p>Enablement</p>	<p>4.1 Instruction on how to perform a behaviour</p> <p>2.2 Feedback on the behaviour</p> <p>9.1 Credible source</p> <p>5.6 Information about emotional consequences</p> <p>3.1 Social support</p>	<p>Interventions may include:</p> <p>Gather hints and tips on conversation initiation from local and national practitioners, and published research. Feed these into training and educational materials available synchronously and asynchronously. [4.1; 5.6]</p> <p>Establish and promote local Primary Care Professional networking events, to share experience and expertise, encouraging informal peer learning. [3.1; 4.1; 5.6]</p> <p>Include a recorded demonstration of conversation initiation in PCP training materials related to the pathway. [6.1]</p> <p>Encourage PCPs to seek brief verbal feedback from service users on their approach to starting the HCV conversation at the end of consultations. [2.2; 9.1]</p>
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STEP 3a & 4b: PCP UTILISES DBST OR VENEPUNCTURE

Barriers (PCP finds it hard to...)	Facilitators (PCP finds it easy to...)	Indicative quotes from transcripts	TDF	Intervention Function	BCTs	Recommendations
PCP finds it hard to utilise DBST because they don't feel it's fit for purpose.	PCP finds it easy to utilise DBST because they think it's fit for purpose.	<p>"...you shouldn't wait for the sort of perfect pathways, you shouldn't think, well, because they're cirrhotic they should have the ultrasound first, they should have all these things first and then we'll do hep C treatment. They're kind of being quite pragmatic (...) so there is a treatment option that they could use even if we don't have any information, any bloods, if we just had the dry blood spot tests..." (HCV Specialist)</p> <p>"...so if they come back as being positive on a dry blood spot test, you can get PCR positivity on that for hepatitis C. So it's not the ideal but there are pathways that we can use where we don't get any other blood test." (HCV Specialist)</p> <p>"...you can do dry blood spot tests and you can get a PCR and antigen and if you just want to do the basics that's fine...dry blood spot test you can do it. I mean we have used that in a number of people who have a needle phobia..." (HCV Specialist)</p>	<p>Beliefs about consequences</p> <p>Knowledge</p>	<p>Education</p> <p>Modelling</p> <p>Persuasion</p>	<p>5.1 Information about health consequences</p> <p>5.3 Information about social and environmental consequences</p> <p>6.1 Demonstration of a behaviour</p> <p>6.3 Information about other's approval</p> <p>9.1 Credible source</p>	<p>Overview: Educate PCPs to persuade them of the capabilities, rigour and pragmatic advantages of DBS testing</p> <p>Interventions may include:</p> <p>Development of educational materials detailing the capabilities of DBST, using published evidence to emphasise sensitivity and specificity [5.1; 5.3]</p> <p>Include reassurance from 'expert colleagues' within educational resources to foster confidence in DBST advantages. [6.3; 9.1]</p> <p>Provide brief case studies/testimonies of DBST leading to successful HCV treatment, drawn from recognisable practice. [6.1; 9.1]</p>

	PCP finds it easy to utilise DBST because the training is minimal	<p>“Everybody should be doing it, it’s a dry blood, spot-testing that requires no venesection skills. And probably a five-year-old child would be able to perform it with a bit of training.” (HCV Specialist)</p> <p>“...you don’t really need training on these things, you just need someone to show you...Yeah, you do need someone to show you but, you know, probably just once. (GP)</p> <p>“...our bloodborne virus nurses have done some outreach work with colleagues, not just in health, but also in third sector organisations to allow them to do the finger prick testing, or have set up sessions to offer that, and just the training for individuals to do it.” (GP)</p>	Skills	Training	<p>6.1 Demonstration of the behaviour</p> <p>4.1 Instruction on how to perform a behaviour</p>	<p>Overview: Where necessary, formal and/or informal DBS training should be organised for PCPs and other surgery staff, utilising local expertise where possible.</p> <p>Interventions may include:</p> <p>Arrange formal and/or informal in-house DBST training sessions at primary care surgeries where necessary. [6.1]</p> <p>Train PCPs to perform DBS testing through recorded demonstration included in an online educational package. [4.1]</p> <p>Invite local third sector organisations who use DBS testing into GP surgeries to share best practice and build rapport [6.1]</p>
PCP finds it hard to utilise venepuncture because they believe they lack the skills.	PCP finds it easy to utilise venepuncture because they believe they have, or can access, the skills.	<p>“Well, you’re a doctor. You should be able to take blood, do you know what I mean? I see it as a non-issue, yes. I mean you’re a trained medical professional, come on, you should be able to get blood off anybody.” (GP)</p> <p>“...there are some folk you come across, and you cannot, no matter how hard you try, you can’t get blood from them, for a venous sample. Again, I think I can think of one person who falls into that category in my experience, and I did have to send them into the hospital to get their blood done, which was very frustrating.” (GP)</p> <p>“...obviously there’s going to be people where it’s really, really difficult to take blood, but, you know, a lot of nurses are really good at taking bloods, a lot of healthcare assistants are really good at taking blood...we had a lot of patients with very difficult veins and someone, or, you know, usually managed to get the blood eventually.” (GP)</p>	<p>Beliefs about capabilities</p> <p>Environmental context and resources</p> <p>Skills</p>	<p>Education</p> <p>Persuasion</p> <p>Modelling</p> <p>Enablement</p> <p>Training</p>	<p>5.1 Information about health consequences</p> <p>2.2 Feedback on behaviour</p> <p>9.1 Credible source</p> <p>6.1 Demonstration of a behaviour</p> <p>3.2 Social support (practical)</p> <p>4.1 Instruction on how to perform a behaviour</p>	<p>Overview: Educate PCPs in challenging venepuncture, and train to utilise all available expertise within the surgery, including that of the patient themselves.</p> <p>Interventions may include:</p> <p>Develop educational materials focused on ‘challenging’ venepuncture, including testimonials from patients emphasising their experience. [5.1; 2.2; 9.1]</p> <p>Utilise expertise within the surgery, identifying individuals with particular skill in venepuncture (fit the person to the job) who are willing to act as go-to practitioners. [3.2; 4.1]</p> <p>Train PCPs to seek instruction on how to perform venepuncture from their patients, drawing on expertise and knowledge of their own anatomy. [2.2; 9.1; 6.1; 4.1]</p>

STEP 4: PCP EVALUATES HEPATIC DECOMPENSATION RISK BASED ON LOCALLY AGREED CRITERIA

Barriers (PCP finds it hard to...)	Facilitators (PCP finds it easy to...)	Indicative quotes from transcripts and evidence from associated literature	TDF	Intervention Function	BCTs	Recommendations
PCP finds it hard to evaluate decompensation risk because they lack the skills.	PCP finds it easy to evaluate decompensation risk because they have the skills.	<p>"I think that any GP who's willing to engage with this, is going to be, or should be skilled enough to be able to recognise that, and determine who should or shouldn't be appropriate" (GP)</p> <p>"I think erm, err, err, liver disease, despite being incredibly common, remains one of the conditions where lots of people feel de-skilled." (GP)</p> <p>"you're gonna know, you're pretty much gonna know if someone's...I mean, they're, they're pretty unwell, people are pretty unwell, they've got a history of being unwell, in and out of hospitals, so..." (GP)</p> <p>"As GPs we're good at just eye-balling folk and intuitively giving them a frailty score" (GP)</p> <p>"clearly if you're seeing a young err, a young person, early twenties, then again their risk of having advanced liver disease is err, err, lower than someone older" (GP).</p>	<p>Knowledge</p> <p>Skills</p> <p>Beliefs about capabilities</p>	<p>Education</p> <p>Training</p> <p>Persuasion</p> <p>Enablement</p>	<p>2.7 Feedback on the outcomes of behaviour</p> <p>2.3 Self-monitoring of behaviour</p> <p>4.1 Instruction on how to perform a behaviour</p> <p>15.1 Verbal persuasion about capability</p> <p>12.5 Adding objects to the environment</p>	<p>Overview: The co-development of a robust HCV treatment protocol is recommended to place existing skills and knowledge within a clear framework, and enable PCPs to consistently assess decompensation risk. The protocol should be accompanied with plans for audit and review.</p> <p>Interventions may include:</p> <p>The co-development of a robust HCV treatment protocol between specialist services and primary care, agreeing local criteria for decompensation risk assessment (2.3;4.1;12.5)</p> <p>Planned audits to highlight good practice, sharing results with all stakeholders emphasising pathway successes (2.3;2.7)</p> <p>Identification of where and how a local protocol is best stored and accessed by PCPs and specialists, ideally integrating into existing IT systems [12.5].</p>

STEP 5a: PCP MAKES REFERRAL TO IDENTIFIED THIRD SECTOR PARTNER

Barriers (GP finds it hard because...)	Facilitators (GP finds it easy because...)	Indicative quotes from transcripts	TDF	Intervention Function	BCTs	Recommendations
PCP finds it hard to make referral to identified third sector partner because there is no established relationship	PCP finds it easy to make referral to identified third sector partner because there is an established relationship	<p>"Oh, I think we're widely known but I don't think people automatically think of us. It's one or two particular GP practices that will refer all the time." (Third sector worker)</p> <p>"Yeah, so I mean, well, in...in the X practice quite a bit with charities like the XXX who provide, who do a lot of support for homeless patients. They're...like, but we're not...like it's not as if we have like a close relationship, it's just that people will come in..." (GP)</p> <p>"I think there are other difficulties that come with them and a lot of the issues are social issues rather than medical issues. And maybe that's stress for some GPs because maybe they feel out of their depth, they don't have someone they can refer them on to or don't have local services that can pick up the kind of social issues." (GP)</p>	<p>Environmental context and resources</p> <p>Social Influences</p> <p>Reinforcement</p>	<p>Environmental restructuring</p> <p>Enablement</p> <p>Modelling</p> <p>Training</p>	<p>7.1 Prompts/cues</p> <p>12.2 Restructure the social environment</p> <p>12.1 Restructuring the physical environment</p>	<p>Overview: Interventions aimed at encouraging, building and fostering productive professional relationships between PCPs and identified third sector partners are recommended. Once established, solutions to the mechanics of referral should be coproduced within the context of available resources.</p> <p>Interventions may include:</p> <p>Consider the appointment of Community Link Workers employed by IJBs as part of local Primary Care Improvement Plans,</p>

		<p>"I: Do you get referrals from GPs? R1: Very, very rarely. Tends to be probably a lot of the partnership agencies that are aware of us that we do work with or we have worked with in the past, know about us through other, you know, maybe through other workers out in the community, but from GPs I think we've had...can probably count on one hand the whole time that I've ever been here the amount of GPs..." (Third sector worker)</p> <p>"We would probably initially have to go out and let the GPs know who we are, for a start, we'd need to go round all the surgeries in the areas that we work, in the hope that they would work with us and refer to us, so that would be a lot of work...yeah, we would just...that...we would really have to try and build some sort of partnership." (Third sector worker)</p>	<p>Knowledge</p> <p>Professional /social role and identity</p>	<p>Education</p>	<p>4.1 Instruction on how to perform a behaviour</p> <p>2.2 Feedback on the behaviour</p>	<p>focused on establishing stronger ties between GP surgeries and identified third sector partners. [12.2]</p> <p>Use local HCV Managed Care Networks (MCNs) to facilitate connections between GP surgeries and third sector partners. [12.2]</p> <p>GP surgeries invite key third sector agencies to meet staff and introduce their services. [12.2]</p> <p>Local liaison arrangements between GP surgeries and third sector agencies are specified, agreeing nominated individuals. [4.1; 12.2]</p> <p>PCPs retain information leaflets/contact advice for key third sector agencies within their consulting rooms and integrated into existing IT systems. [4.1; 7.1; 12.1]</p> <p>Local solutions for rapid/virtual/paper-lite referrals from PCPs to third sector partners during working hours are coproduced. [4.1; 12.2]</p> <p>Feedback and updates on individual referrals are provided from third sector to GP surgeries. [2.2]</p>
<p>PCP finds it hard to make timely referrals to third sector partners because they don't understand their remit and importance.</p>	<p>PCP finds it easy to make timely referrals to identified third sector partners as they understand the benefits to the patient.</p>	<p>"I think our professional role should begin before treatment. There are a lot of people we've had referred nearing the end of their treatment and the support then is very limited because we are contracted to work six months after. So, if somebody's coming to you at the very end of the treatment because they're having problems you would...you then have to build the relationship, look at what the problems are, see them through, and then you're withdrawing your support so quickly that people become very upset by that." (Third sector worker)</p> <p>"...and I think it would be good to have somebody on the 'phone [during treatment] and say look, I'm struggling today, and I'm not only struggling physically, I'm struggling mentally. And I think it would be good to have that person on the other side of the 'phone. Just to spend a bit of time and talk it out with you. You might not use them but just the thought of knowing that you've got them there." (PLHCV)</p>	<p>Professional/social role and identity</p> <p>Knowledge</p> <p>Beliefs about consequences</p>	<p>Education</p> <p>Persuasion</p>	<p>5.3 Information about social and environmental consequences</p> <p>2.2 Feedback on behaviour</p> <p>2.7 Feedback on outcomes of behaviour</p>	<p>Overview: Third-sector led interventions to educate PCPs on optimising referrals are recommended. Such interventions should persuade PCPs of the value of referral, and utilise existing and new opportunities for effective inter-agency working.</p> <p>Interventions may include:</p> <p>Appoint Community Link Workers employed by IJBs/health board/third sector as part of local Primary Care Improvement Plans, focused on</p>

		<p>"...You know, it's all fair and well professionals and that sitting down with you and trying to sympathise with you but they can't empathise with you because it's not their experience." (PLHCV)</p>	Social influences	Environmental restructuring	<p>3.2 Social support (practical)</p> <p>12.2 Restructure the social environment</p>	<p>establishing stronger ties between PCPs and identified third sector partners. [3.2;12.2]</p> <p>Where possible and feasible, existing third sector links with GP surgeries should be utilised and expanded to offer support for PLWHCV. [3.2;12.2]</p> <p>Third sector agencies liaise with GP surgeries to meet staff and introduce their services. [3.2]</p> <p>Third sector agencies audit referral timings and provide feedback to GP surgeries in locally agreed formats. [2.2;2.7;5.3]</p> <p>Third sector agencies supply brief case studies for inclusion in an educational resource for PCPs, highlighting the benefits and challenges of early and late referrals. [2.2;2.7;5.3]</p>
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STEP 6: PCP NEGOTIATES TREATMENT START DATE WITH PATIENT AND PRESCRIBES DAAS

Barriers (<i>Actor finds it hard to...</i>)	Facilitators (<i>Actor finds it easy to...</i>)	Indicative quotes from the data	TDF	Intervention Function	BCTs	Recommendations
PCPs finds it hard to initiate treatment because PWID question their abilities.	PCPs finds it easy to initiate treatment because PWID have confidence in their abilities	<p>"You know, obviously they'll know how it affects people and stuff but I don't think they're 100 per cent clued up on exactly...you know, unless they're actually specialists in the field, you know what I mean? 'Cause a lot of the time it's all, we'll refer you [here] and you'll speak to a doctor there, and go back and forward for tests..." (PLHCV)</p> <p>"I think that the GPs are overrun with colds and 'flus and stuff like that, that, that they've just not got the time or the ability to do it" (PLHCV)</p> <p>"I think as long as he's trained up and he knows what he's doing then I don't see any reason, like, the differences between a doctor giving me it and a hospital consultant?" (PLHCV)</p>	<p>Beliefs about capabilities (GP)</p> <p>Beliefs about consequences (SU)</p> <p>Social/professional role and identity</p>	<p>Education</p> <p>Persuasion</p>	<p>4.2 Information about antecedents</p> <p>6.3 Information about others' approval</p> <p>9.1 Credible source</p>	<p>Overview: Coordinated advertising and one-to-one interventions that educate and persuade PWID of the competence and capability of PCPs in relation to HCV prescribing are required.</p> <p>Interventions may include:</p> <p>Devise local advertising campaigns (within surgeries and wider) to highlight NHS support for primary care-initiated HCV treatment. Use other conditions (e.g. diabetes) to emphasise the move to primary care is not unusual. [4.2; 6.3]</p> <p>Engage local peer support groups to promote and encourage primary care-initiated HCV treatment, using personal testimonies where possible. [6.3;9.1]</p>

						Develop patient information materials emphasising the roles of PCPs and specialists within the pathway utilising testimonies from service users [6.3;9.1]
PCPs finds it hard to initiate treatment when there is no agreed protocolised pathway	PCPs finds it easy to initiate treatment when there is a clear and agreed protocolised pathway	<p>"...I think a clear pathway, so a clear pathway of referral outlining what needs to be, what's expected of anyone really, not just GPs but anyone who is assessing someone for Hepatitis C, so that we're doing that properly. And then an appropriate referral pathway. I think that's probably the key thing." (HCV Specialist)</p> <p>"...it could just be one primary care provider, whether that's nurse or GP if the appropriate pathways were written in I think, and training and all the rest of it" (HCV Specialist)</p> <p>"So if the GPs are going to take up this, a number of issues. One is the protocol that will be used, how do you define positive, how long should they be positive, are you going to standardise the drug regime so that basically one size fits all...?" (HCV Specialist)</p> <p>"...assessing patients for treatment and delivering the treatment is very protocolised, so as long as you've got something very clear, I don't foresee it being difficult for GPs to do... If you've got a very protocolised treatment pathway, I think that would be easy enough to follow..." (HCV Specialist)</p>	<p>Knowledge</p> <p>Beliefs about capabilities</p> <p>Skills (GP)</p>	<p>Education</p> <p>Persuasion</p> <p>Enablement</p> <p>Training (GP)</p>	<p>2.7 Feedback on the outcomes of the behaviour</p> <p>2.3 Self-monitoring of behaviour</p> <p>15.1 Verbal persuasion about capability</p> <p>12.5 Adding objects to the environment</p> <p>1.4 Action planning</p> <p>4.1 Instruction on how to perform a behaviour</p>	<p>Overview: The co-development of a clear and robust HCV treatment protocol is recommended, to standardise practice and enable PCPs to initiate HCV treatment within the local context. The protocol should be accompanied with plans for audit and review, and by training and education to foster understanding of the treatment pathway.</p> <p>Interventions may include:</p> <p>The co-development of a robust HCV treatment protocol with all local stakeholders, based on the proposed pathway and cognizant of regional characteristics. [1.4;2.3;4.1;12.5]</p> <p>The co-development of innovative and accessible programmes of education in collaboration with local specialist teams, to increase HCV specialist confidence in primary care-initiated therapy. [4.1;15.1]</p> <p>Planned audits to highlight good practice, sharing results with all stakeholders emphasising pathway successes. [2.3;2.7]</p> <p>Identification of where and how a local protocol is best stored and accessed by PCPs and specialists, ideally integrating into existing IT systems. [12.5]</p>
PCPs finds it hard to initiate treatment because complex drug supply chains mean prescriptions cannot be filled on the same day.		<p>"...we have to send a notification to the community pharmacy development team and then they make an advance payment to the pharmacies (...) for the list price of the drugs in advance. And then obviously we write the prescriptions and post them out...at the moment it works quite streamlined that we know when prescriptions are written that they've been posted out, and when pharmacies phone us because we're a central hub here we're on top of things" (HCV Specialist)</p> <p>"A GP could plug into hospital-based pharmacy and use existing pathways, but the ideal would be the GP, just like you're prescribing a course of penicillin, could prescribe a course of the appropriate</p>	<p>Environmental context and resources</p>	<p>Environmental restructuring</p> <p>Enablement</p>	<p>12.1 Restructuring the physical environment</p> <p>1.2 Problem solving</p>	<p>Overview: Develop and nurture political will among key stakeholders to restructure DAA supply chains, enabling the prescribing and initiation of HCV treatment on the same day. Interim local coordination and management of existing drug should be encouraged.</p> <p>Interventions may include:</p> <p>Engaging key stakeholders in problem solving forums to explore simplified DAA ordering and</p>

		<p>Hep C treatment and give the patient a prescription they could fill out in the pharmacy that day. But that is not going to happen in the current set-up.” (HCV Specialist)</p> <p>“We’ve now got a problem, that if I have got a patient starting his treatment on 1 November, I really shouldn’t submit his prescription until 1 November, but obviously I’m going to have to buy the product in October, pay for it with the pharmacy at the end of November, so to some extent there is a cash-flow issue there.” (HCV Specialist)</p> <p>“If patient A doesn’t turn up for whatever reason, then I have found that the pharmacy team...would actually help me get rid of the product i.e. they would say, well this guy is not coming up to your pharmacy, we know you’ve got this expensive product in, however, a pharmacy the other side of [names city] is getting a product, a patient on the same product so can you do a swap?” (HCV Specialist)</p>				<p>reimbursement procedures for community pharmacies. [1.2]</p> <p>Developing local solutions to allow key pharmacies located close to GP practices to maintain a stock of HCV DAAs allowing same-day treatment initiation. [1.2;12.1]</p>
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STEP 6a: PCP MAKES REFERRAL TO HCV SPECIALIST TEAM

Barriers (GP finds it hard because...)	Facilitators (GP finds it easy because...)	Indicative quotes from transcripts	TDF	Intervention Function	BCTs	Recommendations
PCP finds it hard to make referral to HCV specialists because there is no nominated point of contact for informal queries	PCP finds it easy to make referral to HCV specialists because informal queries can be addressed through established points of contact	<p>“I think sometimes it can be quite hard to contact consultants or...it can be quite hard to contact consultants because you don’t know whether they’re going to see that as part of their role and they might think why are you phoning me?” (GP)</p> <p>“... it just needs to be recognised that this is something that GPs might contact you about. Specialist nurses are excellent; like I always find them really, really helpful. And a lot of consultants I find really helpful as well but it just depends. And I think that’s all you’d need. And you knew that they were going to get back to you reasonably quickly and maybe you had a couple, you could either phone them or have their e-mail address and that would be fine” (GP)</p> <p>“...they’ll need someone on the phone that they can phone up when they want to run a query about someone.” (GP)</p>	<p>Environmental context and resources</p> <p>Professional/social role and identity</p> <p>Social influences</p>	<p>Environmental restructuring</p> <p>Education</p> <p>Enablement</p>	<p>12.2 Restructure the social environment</p> <p>7.1 Prompts/cues</p> <p>3.2 Social support (practical)</p>	<p>Overview: Clear and robust communication channels between PCPs and HCV specialist services should be established, to allow rapid resolution of queries. Where possible, nominated individuals and/or communication methods should be specified.</p> <p>Interventions may include:</p> <p>Coproduced agreement of reasonable timeframes for query resolution. [12.2]</p> <p>Identification of a nominated contact (or contacts) within the HCV specialist team, who act as first responder(s) to all PCP queries. [3.2; 12.2]</p> <p>Utilisation of a mobile phone ‘hotline’ or email address, carried/manned by the nominated contact and dedicated to primary care queries alone. [3.2; 12.2]</p>

The addition of an aide-memoire to consulting rooms and existing IT systems detailing procedure for informal queries. [7.1]

STEP 6c: HCV NURSE ARRANGES (REMOTE) APPOINTMENT WITH PATIENT FOR HOLISTIC NEEDS ASSESSMENT

Barriers (<i>HCV nurse finds it hard to ...</i>)	Facilitators (<i>HCV nurse finds it easy to...</i>)	Indicative quotes from transcripts	TDF	Intervention Function	BCTs	Recommendations
HCV nurse finds it hard to arrange holistic needs assessment if they don't understand the importance to HCV treatment.	HCV nurse finds it easy to arrange holistic needs assessment as they understand this as a key component of HCV treatment.	<p>"I found that although it's Hep C treatment, it's much more than that; it's much wider than that... these were patients that often had a lot of health problems that were outstanding because they attend chaotically and they don't care for themselves. So it's a really good opportunity to tackle a lot of different things...it's a multi-factorial team process of offering them really holistic healthcare and is very much non-biomedical." (GP)</p> <p>"An element of the success of hepatitis C treatment, or part of the treatment, has been maybe not just the treatment of the physical disease, but the support, or additional psycho-social care, and links that the specialist nurses have provided until now" (HCV Specialist)</p> <p>"There's so many other complexities attached to this. Hepatitis C doesn't come on its own, there's so many other social issues and medical issues that have to be addressed for it to work, and for people to get through their treatment and not put themselves at risk at the other side." (Third sector worker)</p> <p>"If you're not addressing the person's real problem, if you're not addressing the underlying problems why somebody was infected in the first place then what are you doing really? (HCV Specialist)</p>	<p>Knowledge</p> <p>Social/Professional role and identity</p> <p>Beliefs about consequences</p>	<p>Education</p> <p>Modelling</p> <p>Persuasion</p>	<p>5.3 Information about social and environmental consequences</p> <p>5.1 Information about health consequences</p> <p>6.1 Demonstration of a behaviour</p> <p>13.1 Identification of self as role model</p>	<p>Overview: Utilise inter- and intra-agency educational and informal networking opportunities to emphasise the intersectional nature of living with HCV. Accentuate activities that model and demonstrate the value of person-centred care, harm reduction and other community-based services to the lives of people living with HCV.</p> <p>Interventions may include:</p> <p>Specify relevant courses with local higher education partners as pre-requisite qualifications for HCV nursing roles. Work with higher education partners to develop such courses if required. [5.1;5.3]</p> <p>Utilise local HCV MCNs to encourage and create multi-disciplinary and multi-agency hepatitis C gatherings within local health boards to recognise where care coalesces. [5.1;5.3]</p> <p>Integrate the establishment of inter- and intra-agency relationships and building a professional network to facilitate effective person-centred care into HCV nurse role descriptions. [13.1]</p> <p>Develop or use established competency frameworks for nurses undertaking holistic needs assessments and harm reduction brief interventions. [6.1]</p> <p>Encourage peer education and sharing of best practice within established HCV nurse networks. Include case studies of successful care that moves beyond removal of the virus. [6.1;13.1]</p> <p>Engage HCV nurses in the development and/or continuous review of local holistic needs assessment pro forma. [13.1]</p>

Encourage PCPs, peer workers, third sector support and community link workers to maximise opportunities to reinforce messages about potential collateral benefits of HCV treatment. (15.3; 9.1)

STEP 9: PATIENT ATTENDS (FACE-TO-FACE) APPOINTMENT FOR SVR BLOODS AND FULL LIVER ASSESSMENT

Barriers (<i>Patient finds it hard to...</i>)	Facilitators (<i>Patient finds it easy to...</i>)	Indicative quotes from transcripts	TDF	Intervention Function	BCTs	Recommendations
Patient finds it hard to attend appointment for SVR bloods and full liver assessment as they don't see the need.	Patient finds it easy to attend appointment for SVR bloods and full liver assessment as they know it's beneficial.	<p>"So a lot of people drop out before the test of cure (...) they kind of disengage from the clinic. Because I think they can't see the value in going to a clinic if all they're going to do is get a blood test." (GP)</p> <p>"They're not yet feeling what they might feel ten, 20 years down the line when their liver starts to become more severely impacted...sometimes our clients don't see that as important because all that is important for them in their lives at that moment in time is the obtaining and the using of drugs." (Third sector worker)</p> <p>"...if you don't identify them [pre-treatment] as having significant liver disease, and you cure their hepatitis C, and they don't complete the pathway, you might be sitting there with a cirrhotic patient that perceives themselves as having no risk, and not then getting [reviewed]" (HCV specialist)</p> <p>"I didnae know if I didnae get it treated that your liver could get really damaged, an' stuff like that" (PLHCV)</p> <p>"people don't really understand that the liver can be damaged, but still functioning properly, y'know a lot of people will say 'I'll wait until my eyes are yellow', or something along these lines...." (Third sector worker)</p>	Beliefs about consequences	<p>Education</p> <p>Persuasion</p> <p>Modelling</p>	<p>5.1 Information about health consequences</p> <p>9.1 Credible source</p> <p>6.1 Demonstration of a behaviour</p>	<p>Overview: Full liver assessment is a vital component of the pathway, and attendance should be supported and encouraged through education, persuasion and modelling.</p> <p>Interventions may include:</p> <p>Develop patient information materials emphasising the importance of assessing liver condition at the end of treatment in addition to assessing SVR. Include patient testimonials to increase trustworthiness. [5.1;9.1]</p> <p>Design patient information materials so they conflate determining treatment success with understanding liver health. [5.1]</p> <p>PCP and HCV nurse explicitly detail the advantages of fibrosis assessment during earlier appointments in the pathway, and explain/demonstrate what will be involved. [5.1; 6.1]</p> <p>Utilise third sector, community link workers and peer support workers to emphasise the benefits of knowing their liver's health and whether the treatment has worked. [5.1;9.1]</p>
Patient finds it hard to attend for full liver assessment because they're worried it might show liver damage.		<p>"...if you've got a period of time; I think if I was left with a period of time and some of the situations that people are coming up against, they're going to build it up in their own head and they're going to be worried about getting their liver scanned and stuff like that." (PLHCV)</p> <p>"...hospital appointments and all that worry and concern about what's going to happen if I go to the hospital, what's this liver test and all that kind of stuff." (PLHCV)</p>	Beliefs about consequences	<p>Education</p> <p>Persuasion</p>	<p>5.1 Information about health consequences</p> <p>2.7 Feedback on outcomes of behaviour</p> <p>13.2 Framing/reframing</p>	<p>Overview: Educate, persuade and support individuals living with HCV to recognise knowledge of their liver's health as favourable and advantageous. Avoid negative messages that may compound existing fears.</p> <p>Interventions may include:</p> <p>Develop patient information materials that emphasise the benefits of liver assessment, and</p>

		<p>"...we've had some chronic patients with quite significant fibrosis so at the moment we're dealing with somebody who presented with decompensated cirrhosis from hepatitis C because he hadn't wanted [to be] screened." (GP)</p>				<p>frame knowledge of liver health as advantageous. [5.1;2.7;13.2]</p> <p>Provide examples within these materials of cases where early liver assessment was beneficial. Avoid 'scare tactics' that may compound existing fears. [2.7;13.2]</p> <p>Third sector workers, peer support workers, community link workers and HCV nurses proactively engage in discussions around the benefits of knowing the liver's condition. [5.1]</p>
<p>Patient finds it hard to attend a face-to-face appointment for SVR and full liver assessment because they're worried about social stigma.</p>	<p>Patient finds it easy to attend a face-to-face appointment for SVR and full liver assessment because it's conducted in a non-stigmatising environment.</p>	<p>"...there was times when I was worried about banging into like other people, other addicts, and whatever, and I didn't want them to know that I was on treatment, and, as I say, I really kept my cards close to my chest. You know, I didn't want anybody knowing my business, you know." (PLHCV)</p> <p>"...you know, I never felt discriminated against, I never felt talked down to or anything like that because I was an addict and stuff like that. I've heard people saying that, but that's not my experience, do you know what I mean." (PLHCV)</p>	<p>Social influences</p> <p>Environmental context and resources</p>	<p>Enablement</p> <p>Environmental restructuring</p>	<p>12.5 Adding objects to the environment</p> <p>12.1 Restructuring the physical environment</p> <p>12.2 Restructuring the social environment</p>	<p>Overview: Multi-level interventions that reduce social stigma should include consideration of structural, environmental and individual drivers.</p> <p>Interventions may include:</p> <p>Consider patient preference when locating this appointment. Offer outreach within GP surgery, or within secondary care outpatient clinics. [12.1;12.2]</p> <p>Offer SVR and liver assessment within routine clinics, rather than identifiable 'HCV clinics.' [12.1]</p> <p>Place posters within waiting rooms and communal spaces reinforcing a message of zero tolerance towards stigmatising behaviours from other service users. [12.2;12.5]</p> <p>Reinforce messages of zero tolerance towards stigmatising behaviours in GP surgery and secondary care outpatient virtual environments. [12.2;12.5]</p>