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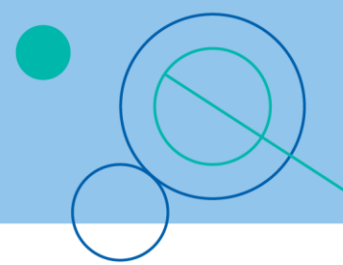
# Beyond the C Project Guide

Beyond the C – Hepatitis C Elimination in Your Practice



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# Acknowledgments

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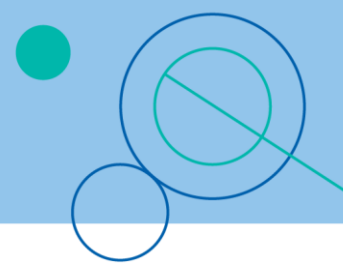


[www.trainitmedical.com.au](http://www.trainitmedical.com.au)

**The Beyond the C Project has been developed by:** the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) ABN 48 264 545 457 | CFN 17788

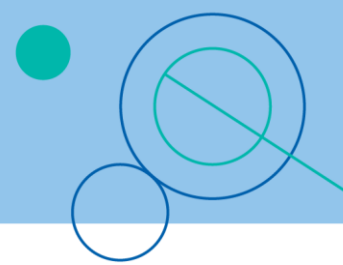
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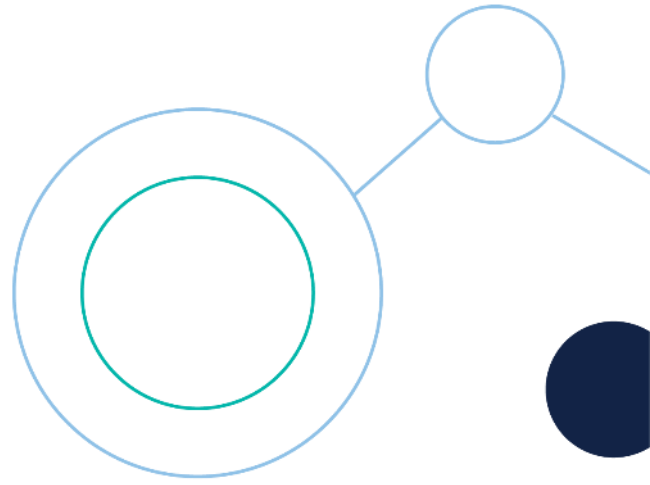
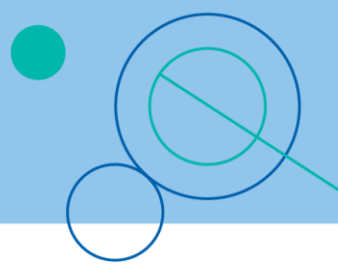
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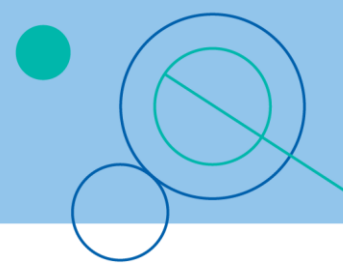


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# Beyond the C Project Guide

Beyond the C – Hepatitis C Elimination in Your Practice





## Purpose of this Guide

This guide serves as the central document that links to all resources within this project.

It is organised into the 4 Stages of the Project, i.e.:

1. Teamwork
2. Data
3. Clinical Audit
4. Testing & Treating

It is not intended to be a step-by-step guide – rather, each section includes links to access further information and instructions relevant to the current topic.

## Project Overview

### Project Aim

The project aims to increase the number of patients recalled, tested, treated and linked to appropriate care for hepatitis C virus (HCV), within a primary care setting.

### Project Goals

1. To assess the effectiveness of an ASHM General Practice clinical support model in increasing the number of people with a hepatitis C diagnosis being fully tested and treated with Direct Acting Antivirals (DAAs).
2. To equip eligible health practitioners with the necessary skills and resources to conduct hepatitis C case finding and clinical auditing within their own practice to improve the identification of patients for treatment and monitoring.
3. Effectively identifying patients for recall.

### Project Information

- A project that will help your practice to identify patients who may have hepatitis C virus (HCV) and test and treat them.
- Assistance will be provided by a specialist nurse with extensive experience in the identification and management of hepatitis C.
- Case identification will be via an audit of your practice software and pathology results to identify people who may have or be at risk of hepatitis C.
- Assistance will be provided with data extraction, audit and patient recall processes as required.
- Where needed, guidance can be provided regarding appropriate investigation and clinical review, as well as commencing and monitoring on appropriate treatment, and follow-up testing.

# Beyond the C Project Guide

## Beyond the C – Hepatitis C Elimination in Your Practice

### Project Timeline

The Project Timeline below shows each of the phases of the project with an indication of the expected timing of each phase. As a guide, the project cycle is expected to be completed within a six-month period. This will however be dependent on the number of staff and available time to dedicate to the project.



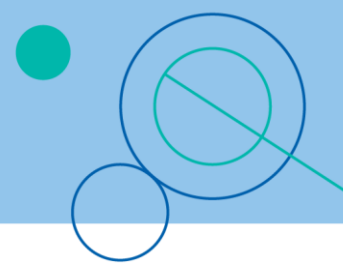
### Introduction

As a participant of Beyond the C – Hepatitis C Elimination in your practice, you will be contributing to the elimination of hepatitis C in Australia.

By participating in this project, you will be:

- Saving lives
- Reducing onward transmission of hepatitis C
- Improving quality of life for marginalised populations
- Creating a new culture in affected groups—to expect testing, care and cure free from stigma and discrimination
- Providing an opportunity to address other clinical priorities and needs
- Helping to eliminate hepatitis C in Australia and meet global elimination targets.

Underpinning this project are the foundations of [Team Based Care](#), [Person Centred Care](#), [Quality Data](#) and [Cultural Competency](#) and the project assumes an understanding of these concepts in relation to primary care.



### Addressing Stigma and Discrimination

Discrimination and stigma associated with hepatitis C can have a significant impact on health outcomes, relationships and employment prospects and can lead to social isolation and poor mental health. Fear of stigma and discrimination and of being judged can prevent people from attending health services to discuss their risk of hepatitis C, requesting a hepatitis C test, and taking up and continuing care.

The close connection between hepatitis C and injecting drug use, and disapproval of injecting drug use and fear of the contagion, drives much of the hepatitis C related stigma. The stigma and discrimination experienced by people living with hepatitis C can also be influenced by individual characteristics including sexual orientation, gender identity, cultural background, migrant or refugee status, disability, people with HIV and being a sex worker

Everyone working with people at risk of, or living with, hepatitis C requires an understanding of the impact of stigma and discrimination on access to healthcare services. Education in healthcare settings is considered an integral part of training programs for staff of all specialist, primary healthcare and community-based service providers<sup>1</sup>.

## STAGE 1:

### Teamwork: Team Development and Role Allocation

Month 1-2

The first phase of the project is to establish the project team and roles of staff participating in the project.

#### Project Roles

**It will be necessary to allocate the following roles:**

1. Project Champion
2. Data Searcher
3. Clinical Auditor
4. Clinician

We suggest that more than 2 staff are involved in the project to increase sharing of ideas, responsibilities, and engagement. However, it is possible that one person will cover more than one role.

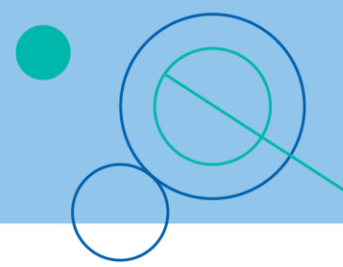
#### Your Team – Roles and responsibilities

It will be important to identify interests and strengths of your practice team to aid in allocating roles. All staff will need an awareness of the project; however, allocating roles to an invested 'project team' will help to ensure they remain interested and motivated, and it will increase your chances of success.

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<sup>1</sup> Fifth National Hepatitis C Strategy 2018-2022





### Project Champion

Identifying a **project champion** to lead this project will be vital for its success.

Ideally, this person should have an interest in hepatitis C and should volunteer to lead the project. They will be responsible for overseeing the project timeline and key deliverables are met and for managing and motivating the project team.

The project champion will be responsible for:

- Determining the learning needs of each project team member
- Project reporting and data submission
- Ensuring all key deliverables are met according to the project timeline.

### Data Searcher

The **data searcher's** primary role will be to search patient records using clinical software or data analysis tools. They will require an understanding of how to record and code data and conduct data searches. 'Coding' in relation to clinical software means selecting from lists available within the software rather than free texting.

The data searcher will have responsibility for hepatitis C case finding and submitting deidentified data to ASHM.

They will need to be able to:

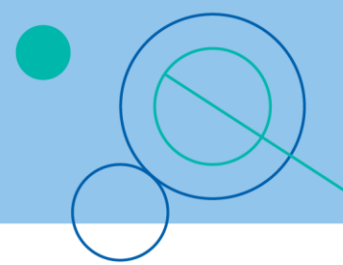
- Use data analysis tools and clinical software to search for patients using specific search criteria
- Apply filters to customise database searching
- Develop an audit list and register of patients with hepatitis C or at risk of hepatitis C.

### Clinical Auditor

The **clinical auditor** will need a working knowledge of hepatitis C and a good understanding of your clinical software system. Ideally, they will understand how to review a patient record to identify the patient status and to identify those suitable for testing and treatment. They will also be responsible for recalling patients for follow-up.

They will need to be able to:

- Use the audit tool in conjunction with clinical software to complete a manual audit of each patient record
- Use clinical coding to update patient records as cases are confirmed
- Use a recall system to manage patient follow up including setup, adding recalls, generating recall messages and managing patient responses
- Update the audit record with outcomes of patient follow-up.



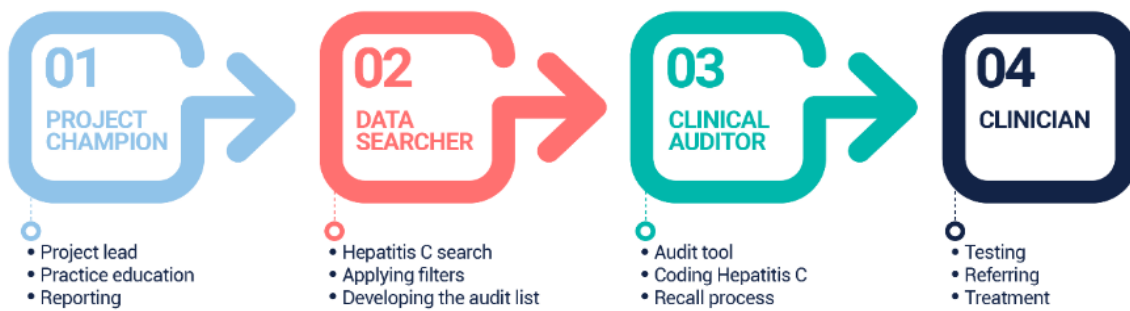
### Clinician

The **clinician/s** involved in the project should have a knowledge of hepatitis C and, in particular, knowledge of current testing and treatment regimes. They will have responsibility for overseeing the testing and treatment aspects of the project to ensure clinical guidelines are followed and all patients are treated with dignity and respect. They will also be updating recalls in clinical software system.

They will need to be able to:

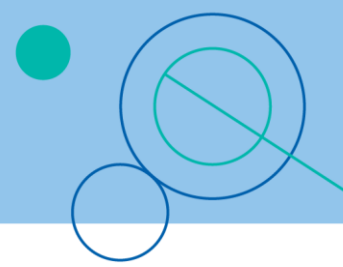
- Requesting tests as relevant for each patient
- Determining and monitoring treatment regimes
- Updating patient clinical record.

### Project Roles



List of team members and allocated roles:

Project Role	Team Member
Project Champion	
Data Searcher	
Clinical Auditor	
Clinician	



### Requirements for success of this project

- Protected time for the team that is regularly scheduled into work calendars. It is suggested that at least 1-2 hours per week is allocated to each project team member
- Regular team meetings
- Agreed task allocation
- Establish a document repository for storage of project documentation.

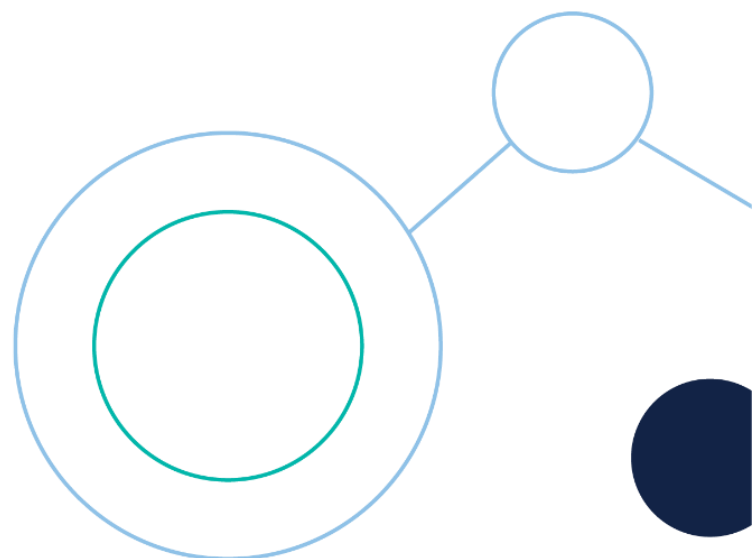
### Leadership and Teamwork

Engaged leadership is essential for a successful, continually improving practice.

A team approach is essential for an effective, high-performing practice and sustainable business. High-performing practices are those that engage in continual quality improvements, use high-quality data to identify risks and priorities, and include patients at the centre of their care.

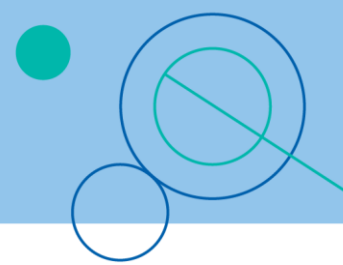
Adopting a patient-centred approach will ensure the practice is able to adapt the plan and care approach for each patient in relation to their specific health needs, circumstances, and preferences. A patient-centred approach is widely recognised as leading to better self-management, patient empowerment and health outcomes.<sup>2</sup>

Adapting approaches for patients also includes identifying patients from culturally, ethnically, and linguistically diverse backgrounds or Aboriginal and Torres Strait Islander status. Ensuring 'ethnicity' is entered into practice software can aid in the identification of patient needs (e.g., language barriers and the need for interpreter support) and help ensure the provision of culturally sensitive and safe practice.



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<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5867327/>



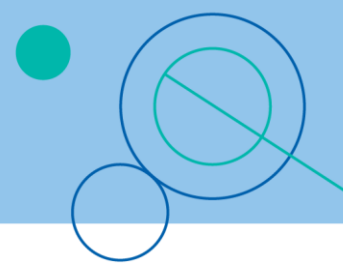
### Self-Assessment Checklist

Assess your own and your team’s competence and identify learning needs with the checklist below and resource reference tool:

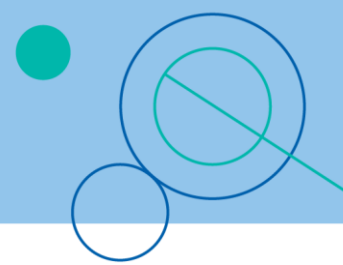
Assess your current competence and identify learning needs	<input checked="" type="checkbox"/>	Where do I go to learn more?
<b>TEAMWORK</b>		
Do I have an established practice team for a focused approach to improving hepatitis C in my practice?		Refer to Section 1 Teamwork: Team Development and Role Allocation in this Beyond the C Project Guide for more information.
Is there a designated hepatitis C project champion?		Refer to Section 1 Teamwork: Team Development and Role Allocation in this Beyond the C Project Guide for more information.
Do I have a thorough understanding of hepatitis C?		<a href="https://ashm.org.au/training/">https://ashm.org.au/training/</a> <a href="https://ashm.org.au/hcv/">https://ashm.org.au/hcv/</a>
Do I understand the impacts of hepatitis C on patients and their communities?		<a href="https://www.hepatitisaustralia.com/">https://www.hepatitisaustralia.com/</a>
Does the practice team have a thorough understanding of hepatitis C?		<a href="https://ashm.org.au/training/">https://ashm.org.au/training/</a> <a href="https://ashm.org.au/hcv/">https://ashm.org.au/hcv/</a>
Does the practice team understand the impacts of hepatitis C on patients and their communities?		<a href="https://www.hepatitisaustralia.com/">https://www.hepatitisaustralia.com/</a>
Do I understand ‘Quality Improvement’?		<a href="https://www.ihl.org/education/IHIOpenSchool/resources/Pages/AudioandVideo/Whiteboard5.aspx">https://www.ihl.org/education/IHIOpenSchool/resources/Pages/AudioandVideo/Whiteboard5.aspx</a>
Could I begin a Quality Improvement or PDSA cycle related to hepatitis C?		Refer to Stage 3: Clinical Audit and Quality Improvement Cycle in this Beyond the C Practice Guide for more information.
<b>DATA</b>		
Does my practice currently ask and record Aboriginal and/or Torres Strait Islander status for all patients?		<a href="https://www.racgp.org.au/FSDEDEV/media/documents/Faculties/ATSI/identification-of-Aboriginal-and-Torres-Strait-Islander-people-in-Australian-general-practice.pdf">https://www.racgp.org.au/FSDEDEV/media/documents/Faculties/ATSI/identification-of-Aboriginal-and-Torres-Strait-Islander-people-in-Australian-general-practice.pdf</a>

# Beyond the C Project Guide

## Beyond the C – Hepatitis C Elimination in Your Practice



DATA		
Does my practice currently ask and record information relating to ethnicity?		<a href="https://www.aihw.gov.au/reports/indigenous-australians/national-guidelines-collecting-health-data-sets/summary">https://www.aihw.gov.au/reports/indigenous-australians/national-guidelines-collecting-health-data-sets/summary</a>
Can I generate a list of patients with hepatitis C?		Refer to Stage 3: Clinical Audit and Quality Improvement Cycle in this Beyond the C Project Guide for more information.
Can I identify patients at risk of hepatitis C?		Refer to Stage 3: Clinical Audit and Quality Improvement Cycle in this Beyond the C Project Guide for more information.
CLINICAL AUDIT		
Do I know how to measure clinical improvement over time in relation to hepatitis C?		Refer to Stage 3: Clinical Audit and Quality Improvement Cycle in this Beyond the C Project Guide for more information.
TESTING, TREATMENT AND CARE		
Do I understand hepatitis C testing?		<a href="https://ashm.org.au/training_cat/clinical-foundations-of-hepatitis-c/">https://ashm.org.au/training_cat/clinical-foundations-of-hepatitis-c/</a> <a href="https://ashm.org.au/training/">https://ashm.org.au/training/</a>
Can I access hepatitis C referral pathways for our patients?		<a href="https://reach-c.ashm.org.au/">https://reach-c.ashm.org.au/</a>
Do I understand optimal treatment for hepatitis C?		<a href="#">Curing Hepatitis C in Primary Care - eLearning</a> <a href="https://ashm.org.au/training/">https://ashm.org.au/training/</a>



## STAGE 2:

### Data: Data Searching and Extraction

Months 2-4

To find patients suitable for hepatitis C testing and treatment, it is necessary to search the clinical database for 'at risk' and confirmed cases of hepatitis C. This process is referred to as 'data searching and extraction' and will allow you to build a register or list of suitable patients for follow-up.

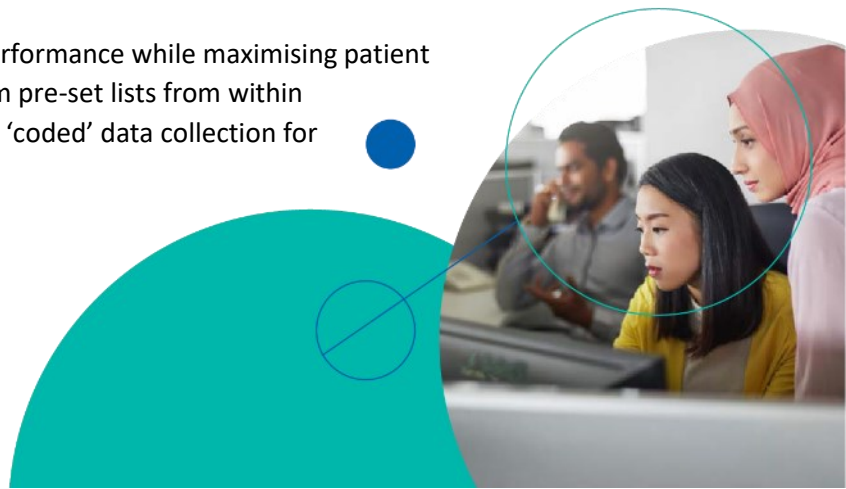
#### Data Quality

High-quality data optimises practice and business performance while maximising patient health outcomes. Coded data refers to selecting from pre-set lists from within clinical software. RACGP standards specify minimum 'coded' data collection for general practice.



Links:

- [RACGP toolkit: Practice-level strategies to improve data quality](#)
- [RACGP Standards for general practices – 5<sup>th</sup> edition](#)



Minimum coded data collection requirement for general practice includes:

- Gender
- Age
- Aboriginal and/or Torres Strait Islander status
- Ethnicity (to help identify people from culturally and linguistically diverse backgrounds)
- Coded diagnoses where applicable

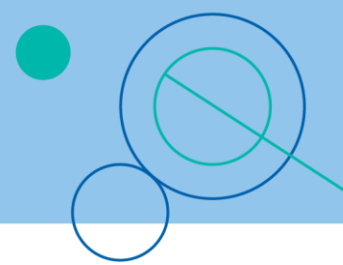
These data points are all also vital for successful identification of patients at risk of hepatitis C and their ongoing care and management.

While Aboriginal and Torres Strait Islander status is not an independent risk factor for hepatitis C, First Nations peoples are overrepresented in at-risk populations and have an elevated prevalence and incidence of hepatitis C (compared with non-Indigenous Australians). Aboriginal and Torres Strait Islander status is therefore an important consideration in hepatitis C screening and the offer of testing.

This is also relevant for other people of diverse cultural, ethnic and linguistic backgrounds. The [National Hepatitis C Testing Policy](#) (see Section 3.0) can help identify populations in which hepatitis C testing should be offered.

# Beyond the C Project Guide

## Beyond the C – Hepatitis C Elimination in Your Practice



In relation to hepatitis C, it is acknowledged that stigma and discrimination can affect optimal treatment. The highly sensitive nature of this condition may also have led to a historical reluctance to code a diagnosis. Therefore, identifying patients who may not have coded diagnosis and other relevant information on file should also be considered when searching for patients impacted by hepatitis C and undertaking clinical audits.

### Searching Clinical Data

Start with simple searches and progress at a pace that is right for you and your team. Suggested clinical data searches able to be conducted using existing clinical software and data extraction tools are:

1. Patients with hepatitis C diagnosis who have not been seen for a specified period of time.
2. Patients on hepatitis C medications with no coded diagnosis of hepatitis C.


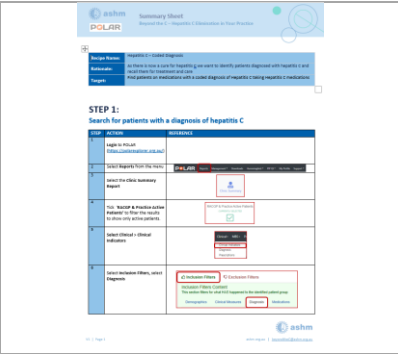
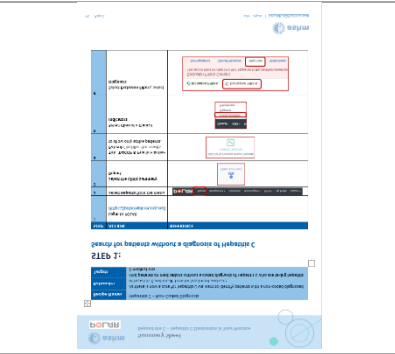
For participating practices with more experience in quality improvement and data extraction and analysis, additional clinical data monitoring that will require more manual investigation of data might include searches such as:

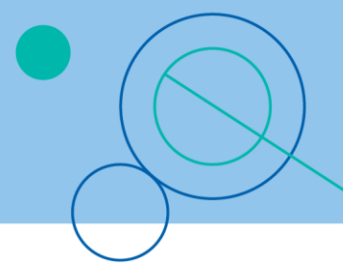
1. Patients with hepatitis C diagnosis who have had a positive antibody test but not confirmatory RNA testing, or who have had a positive RNA test but not treated, or whose current hepatitis C status is unknown.
2. Priority populations with a history of injecting drug use and/or incarceration.

### Searching for your patients at risk

The process for searching for patients will depend on which clinical software you use (e.g., Bp Premier, Medical Director) and which clinical audit tools and templates you use (e.g., Pen, Polar). The links below provide access to step-by-step guides with instructions for conducting data searches in the different tools.

 [Visit the website here to view the search step-by-step guides.](#)

		
<p><a href="#">PEN – Find patients with a coded diagnosis of hepatitis C</a></p>	<p><a href="#">POLAR – Find patients with a coded diagnosis of hepatitis C</a></p>	<p><a href="#">POLAR – Find patients on hepatitis C medications but no coded diagnosis of hepatitis C</a></p>



# STAGE 3:

## Clinical Audit and Quality Improvement Cycle

Months 1-3-6

A clinical audit takes the results of the data search and extraction and reviews each of the patient records one-by-one to determine the next best course of action for each patient based on the findings of the review. As each file is reviewed in detail, information is transcribed onto an audit document with any relevant notes. This helps to ensure the relevant action is taken for each patient based on their current health status.

Information from each audit sheet is then summed and used to establish a baseline measure of the current status of data in the practice. The data from the audit sheets is also combined and used as input to the data submission process. The audit process uses a combination of the practice’s clinical software, a clinical audit extraction tool and manual recording by clinicians.

ASHM has provided a Clinical Audit Tool template as an option for practices to use as part of the clinical auditing part of the project. Your practice may already have your own templates currently in use.

 [Download the clinical audit tool template](#)

### Your Clinical Audit

ASHM has also provided a Data Search spreadsheet that you can download and use to capture the results of your data search. This template is for your own use and records.

In addition, to meet the project reporting requirements, you will need to enter this information directly into the form provided on Beyond the C Project hub. You will need to enter this as part of the project for reporting at the commencement, mid-point and at the conclusion of the clinical auditing project cycle.

 [Download the data search spreadsheet](#)

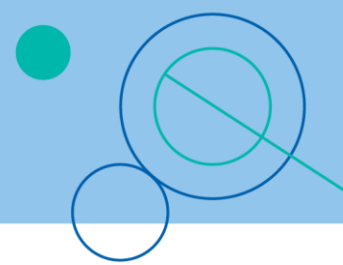
DATA IN THIS SECTION IS COLLECTED FOR RECALLED PATIENTS ONLY																
Data collector Timestamp	Date of data extraction Name	Total number of active patients (SWPE)	Search strategy/ red/purple used	Total number of patients with recorded diagnosis of Hep C	Total number of people identified for recall	Total number of people with ICV RNA recorded	Total number of people with ICV RNA recorded	Total number of clinical audits completed	Total number of clinical audits completed	Total number of people contacted or recalled	Number of people who were uncontactable for recall	Number of people who declined recall	Sex recorded at birth	Gender identity	Age	Total number of Aboriginal or Torres Strait Islander people identified?

As part of your clinical audit activities, you will need to issue recalls to patients who may be eligible for additional care and treatment. The links below provide step-by-step guides on how to issue and manage recalls in the Bp Premier and MedicalDirector tools.

 Download the step-by-step guides on recalls

- [Bp Premier – Issue patient reminders](#)
- [MD – Add, view and modify patient reminders](#)





### Quality Improvement Methodology

A Quality Improvement process, and Plan, Do, Study, Act (PDSA) cycle generally follows the steps:

1. Discuss QI Aim and Plan the activities with practice team
2. Conduct data search to build a register of patients
3. Conduct a clinical audit of the patient records
4. Record outcomes of clinical audit & discuss improvement ideas
5. Document proposed actions following clinical audit, including delegated responsibilities
6. Keep evidence of implementation
7. Review outcomes, document follow-up plans

If you are new to Quality Improvements (PDSA cycles), start with a recommended improvement that is easily measurable. For example, this might be a goal like “Increase the recording of Aboriginal and/or Torres Strait Islander status on patient records in clinical software”.

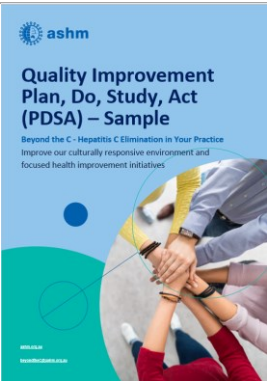

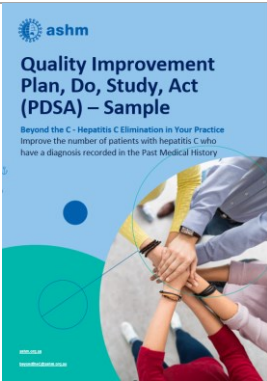
### Plan, Do, Study, Act (PDSA) Template & Guide

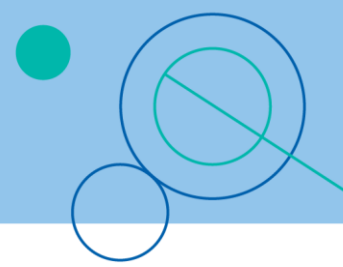
ASHM has provided a blank PDSA template along with a PDSA Template Guide. The guide provides detailed instructions on how to complete each stage of the project cycle. It’s a good idea to download and print this guide so you can refer to the guide as you move through each step.

 [Download the blank PDSA template](#) & [Download the PDSA Template Guide](#)

### Plan, Do, Study, Act (PDSA) Samples

 [Visit the website here to download the PDSA Samples](#)

 <p>ashm Quality Improvement Plan, Do, Study, Act (PDSA) – Sample Beyond the C - Hepatitis C Elimination in Your Practice Improve our culturally responsive environment and focused health improvement initiatives</p>	 <p>ashm Quality Improvement Plan, Do, Study, Act (PDSA) - Sample Beyond the C - Hepatitis C Elimination in Your Practice Improve understanding and management of Hepatitis C</p>	 <p>ashm Quality Improvement Plan, Do, Study, Act (PDSA) – Sample Beyond the C - Hepatitis C Elimination in Your Practice Improve the number of patients with hepatitis C who have a diagnosis recorded in the Past Medical History</p>
<a href="#">Adding Aboriginal &amp;/or Torres Strait Islander status</a>	<a href="#">Managing hepatitis C in the practice</a>	<a href="#">Improve the number of patients with hepatitis C who have a diagnosis recorded</a>



## STAGE 4:

### Testing, Treatment and Care

Months 4-12

This section will guide you how to test, treat, and provide ongoing care for hepatitis C within a primary care setting, and where required to link patients to specialist care.

The 6 phases in the [ASHM Decision Making in Hepatitis C Guide](#) are:

1. When to test
2. Test/s, Results and Actions
3. Pre-treatment assessment
4. Treatment
5. Monitoring
6. Follow-Up

For an overview of hepatitis C testing, treatment and care, and additional support in decision-making relating to hepatitis C patient care, refer to [www.hepcguidelines.org.au](http://www.hepcguidelines.org.au).

#### Referral Points

There are a variety of referral pathways available for further information regarding treating, testing and ongoing care including:

- National Hepatitis Infoline 1800 437 222
- Peer-based organisations
- Online remote consultation form – [reach-C.ashm.org.au](http://reach-C.ashm.org.au)

#### Treatment Care Planning

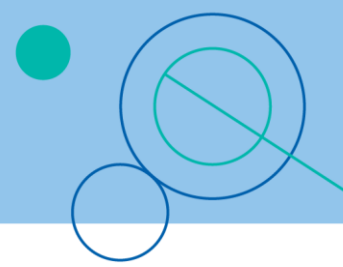
Patients undergoing treatment in primary care may benefit from a formal general management plan (GPMP). Specific templates have been created that can be imported into commonly used general practice clinical information systems and edited to suit patients and clinicians. See the 'Hepatitis C Treatment Care Plan' guide below to find out more, then download the Care Plan template to be imported into your system.

#### Hepatitis C Care Plan Guide:

- [Hepatitis C Care Plan Guide](#)

#### Instructions for importing templates into clinical information systems:

- [Bp Premier – How to import templates](#)
- [MedicalDirector Clinical – How to import templates](#)



### Hepatitis C Care Plan templates (for importing):

*Note: Templates should only be imported into your clinical software and should NOT be opened in another application, as this may corrupt the data fields contained within the file.*

- [Care Plan Template \(GPMP\) for importing into BP Premier](#)
- [Care Plan Template \(GPMP\) for MedicalDirector](#)

What happens after patients have been recalled for testing and treatment?

Patients have been recalled, treated and may now be cured

Some recalled patients will have already been successfully treated and cured. Ideally, this data should be collected and recorded in the Clinical Audit Tool and reported in the Beyond the C project hub. It is important that we measure the outcome of our improvement activities and ultimately the success of the project.

Patients have been recalled and are still undergoing treatment

Some recalled patients with hepatitis C will be still undergoing treatment. It is important to emphasise the benefits of confirming a treatment outcome (i.e. SVR12 testing) post-treatment completion, and scheduling patient recall accordingly.

Patients have been lost to follow-up

Attempts have been made to contact patients on the practice hepatitis C register or 'at risk' of hepatitis C but there was no response or contact details were out-of-date/incorrect. These patients are considered lost to follow-up. Ideally, this information should be recorded in the Clinical Audit Tool and the Beyond the C project hub.


Follow-up

Use this [ASHM Decision Making in Hepatitis C Guide](#) to determine whether each patient requires follow-up. If necessary, add a recall to the patient record to ensure follow-up occurs. Follow-up may also involve referral to a specialist.

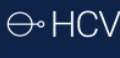
This 2-page resource provides a comprehensive overview of hepatitis C diagnosis, treatment, and follow up to assist GPs and primary care providers in the management of hepatitis C.

# Beyond the C Project Guide

## Beyond the C – Hepatitis C Elimination in Your Practice



### DECISION MAKING IN HEPATITIS C



#### 1 When To Test

**Clinical Indicators**

- Abnormal liver function tests (LFTs) (males, ALT  $\geq$  30 U/L; females, ALT  $\geq$  19 U/L)
- Jaundice

**Presence of Risk Factors**

- Injecting drug use (current/ever)
- Sharing of snorting equipment
- Born in high prevalence region\*
- Blood transfusions and blood products before 1990 in Australia
- Unsterile tattooing/body piercing
- Unsterile medical/dental procedures/blood transfusions in high prevalence countries
- Time in prison
- Needlestick injury
- Mother to child transmission
- Sexual transmission in men who have sex with men (MSM)
- Sexual transmission in those who are HIV positive
- People living with HIV or HBV infection

\*Africa, the Middle East (in particular Egypt), the Mediterranean, Eastern Europe, and South Asia

**Other**

- Initiating PrEP
- When someone requests a test

**When gaining informed consent before testing, discuss:**

- Reason for test
- Availability of curative treatment

#### 2 Test/s, Results and Actions

**Order HCV Antibody (Ab) + Reflex HCV RNA\* (qualitative)**

<p><b>HCV Ab negative</b></p> <p style="background-color: #28a745; color: white; padding: 5px; margin: 5px 0;"><b>Does NOT have HCV</b></p> <p style="background-color: #d4edda; padding: 5px; margin: 5px 0;"><b>NO action</b> However, if possible recent infection re-test (HCV Ab) or if ongoing risk factors repeat screening (HCV Ab) annually</p>	<p><b>HCV Ab positive</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p><b>HCV RNA negative</b></p> <p style="background-color: #17a2b8; color: white; padding: 5px; margin: 5px 0;"><b>Has CLEARED HCV</b></p> <p style="background-color: #d4edda; padding: 5px; margin: 5px 0;"><b>RE-TEST if:</b> Ongoing risk factors (repeat RNA test annually)</p> </td> <td style="width: 50%; padding: 5px;"> <p><b>HCV RNA positive</b></p> <p style="background-color: #dc3545; color: white; padding: 5px; margin: 5px 0;"><b>Has CHRONIC HCV</b> (including/or detectable HCV RNA in plasma or whole blood and the absence of clinical features of acute hepatitis)</p> <p style="background-color: #ffc107; padding: 5px; margin: 5px 0;"><b>Further ASSESSMENT and TREATMENT</b> (see next page)</p> </td> </tr> </table>	<p><b>HCV RNA negative</b></p> <p style="background-color: #17a2b8; color: white; padding: 5px; margin: 5px 0;"><b>Has CLEARED HCV</b></p> <p style="background-color: #d4edda; padding: 5px; margin: 5px 0;"><b>RE-TEST if:</b> Ongoing risk factors (repeat RNA test annually)</p>	<p><b>HCV RNA positive</b></p> <p style="background-color: #dc3545; color: white; padding: 5px; margin: 5px 0;"><b>Has CHRONIC HCV</b> (including/or detectable HCV RNA in plasma or whole blood and the absence of clinical features of acute hepatitis)</p> <p style="background-color: #ffc107; padding: 5px; margin: 5px 0;"><b>Further ASSESSMENT and TREATMENT</b> (see next page)</p>
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**When conveying a NEGATIVE result, discuss:**

- Modes of transmission and risk reduction


**When conveying a POSITIVE result, discuss:**

- Modes of transmission and risk reduction
- Availability of curative treatment
- Lifestyle factors e.g. alcohol minimisation, diet


- Availability of peer support services, information and support services
- Refer to Hepatitis Australia National Infoline 1800 437 222

\*If high level suspicion also consider requesting reflexive HCV RNA (ordering HCV Ab + HCV PCR if HCV Ab is positive) + LFTs

Page 1 details indications for testing and interpretation of hepatitis C serology to diagnose your patients of hepatitis C.



### DECISION MAKING IN HEPATITIS C



#### 3 Pre-Treatment Assessment

**Baseline screening after positive HCV PCR**

- LFTs (including AST) and INR
- Full Blood Count
- Urea, electrolytes, creatinine

**Assess liver fibrosis: cirrhotic status**

- Signs of chronic liver disease (spider naevi, palmar erythema, jaundice, encephalopathy, hepatomegaly, splenomegaly, ascites, peripheral oedema)
- Non-invasive assessment of fibrosis:
  - Serum biomarkers such as APRI (<1.0 means cirrhosis unlikely). Calculator available [hepatitisc.uw.edu/page/clinical-calculators/apri](http://hepatitisc.uw.edu/page/clinical-calculators/apri)
  - Elastography assessment e.g. Fibroscan® (>12.5 kPa consistent with cirrhosis)

**Check for other causes of liver disease**

- Check for viral coinfection:
  - HIV Ab/Ag
  - Hepatitis A – check hep A IgG, vaccinate if negative
  - Hepatitis B – check HBsAg, anti-HBc and anti-HBc; vaccinate if all negative
- Heavy alcohol intake
- Fatty liver disease - check weight, BMI

**Check for other major co-morbidities**

- Renal impairment (eGFR < 50)

**Review previous HCV treatment**

- Choice/length of treatment may be influenced by prior HCV treatment experience/response

**Consider pregnancy and contraception**

- HCV treatment not recommended for use in pregnant or lactating women

For more information [www.hepguidelines.org.au](http://www.hepguidelines.org.au)  
\*SOF/VEL + Sofosbuvir/Velpatasvir, GLE/PIB + Glecaprevir/Pibrentasvir  
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#### 4 Treatment

Recommendation for treatment now includes all people with a risk factor for hepatitis C transmission who are found to have detectable HCV RNA in plasma or whole blood, regardless of the duration of infection.

**Is your patient likely to have cirrhosis?**  
(APRI  $\geq$  1.0 or Fibroscan® > 12.5 kPa)

Yes       No

Discuss with or refer to a specialist\*

**Has your patient received previous treatment for HCV?**

Yes       No

Discuss with or refer to a specialist\*

Treatment	Dosage	Duration if no cirrhosis present	Duration if compensated cirrhosis (Child Pugh A) present
SOF/VEL™ (Epclusa®)	400/100mg Once-daily (1 pill)	12 weeks	12 weeks
GLE/PIB™ (Maviret®)	100/40mg per pill Once-daily (3 pills)	8 weeks	8 weeks*

Check for drug-drug interactions at [hep-druginteractions.org](http://hep-druginteractions.org)

Call the PBS Authority Script Line (1800 020 613) for approval

**Consult with your local specialist or complete the online remote consultation form at [reach-c.ashm.org.au](http://reach-c.ashm.org.au) (turn-around time <24 hours).**

\* All patients with cirrhosis or prior HCV treatment experience should be reviewed by someone experienced in hepatitis C treatment. If cirrhosis is suspected (APRI  $\geq$  1.0 or elastography > 12.5 kPa), further evaluation is required before commencing treatment.

† A treatment duration of 12 weeks may be considered for patients with compensated cirrhosis at the discretion of the prescriber.

#### 5 Monitoring

**Monitoring while on treatment**

- Generally not required but approach should be individualised
- Side effects of HCV treatment are generally minimal
- Dose interruptions should be managed according to duration and DAA therapy completed (Refer to Hepatitis C Consensus Statement)

**4-12 weeks post treatment**

- Opportunistic testing: HCV RNA to confirm cure (sustained virological response SVR4 = cure)
- LFTs

**CONSULT WITH A SPECIALIST IF:**

**Pre-treatment**

- Prior treatment failure of HCV treatment
- Cirrhosis is present or likely – APRI  $\geq$  1 and elastography score not available, elastography >12.5kPa
- Concomitant with HIV or HBV
- Renal impairment (eGFR < 50)
- Complex drug interactions
- Complex co-morbidities

**During treatment**

- Major medication side effects

**Post-treatment**

- RNA positive 12 weeks post treatment
- Abnormal LFTs at SVR12

#### 6 Follow Up

**If your patient has no cirrhosis and normal LFT results** (males, ALT < 30 U/L; females, ALT < 19 U/L; ALT = alanine aminotransferase)

No clinical follow-up for HCV required

**If your patient has ongoing risk factors**

Annual HCV RNA test. If re-infected, offer re-treatment and harm reduction strategies

**If your patient has abnormal LFT results** (males, ALT  $\geq$  30 U/L; females, ALT  $\geq$  19 U/L)

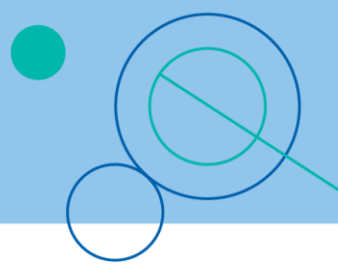
Evaluate for other causes of liver disease and refer to specialist for review

**If your patient has cirrhosis**

Refer to specialist. Patients with cirrhosis require long-term monitoring

- 6-monthly abdominal ultrasound (hepatocellular carcinoma screening)
- Consideration of screening for oesophageal varices
- Osteoporosis: 2-yearly DEXA scans and monitor serum vitamin D
- Assess risk of clinically significant portal hypertension (elastography, PLT)

Page 2 provides a guide to assessment and treatment of patients diagnosed with chronic hepatitis C. Indications for referral to a specialist are also listed.



Links to further policy Information

For current hepatitis C training, clinical guidance and resources refer to <https://ashm.org.au/hcv/>

- [National HCV Testing Policy](#)
- [Australian recommendations for the management of hepatitis C virus infection: a consensus statement \(2022\)](#)

