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Hepatitis C Virus Clinical Tool Bundle

User Guide

EMPOWERING PROVIDERS | CONNECTING PATIENTS

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Introduction

There are almost 250,000 Canadians that are infected with chronic Hepatitis C Virus (HCV) – but nearly half don't even know it.^{1,2} HCV is a major contributing factor to hepatocellular carcinoma (HCC), the main subtype of liver cancer. Because the disease is often asymptomatic, many patients with HCV remain undiagnosed and the consequences of this are serious. For example, 60-70% of those with HCV will develop chronic liver disease and up to 20% will develop cirrhosis. Ultimately 1-5% will die from liver cancer or cirrhosis.³

The HCV Clinical Tool Bundle is a tool set to help screen, diagnose and refer HCV patients. By enrolling in and enabling the HCV Clinical Tool Bundle, you will have access to:

1. **Search queries** to screen your patient database for critical HCV risk factors like liver disease, prior HCV-RNA test, age based populations and injection drug use.
2. **HCV Best Practice Workflows** that guide you through how to screen, diagnose and refer patients.
3. **Active tasks** to alert you to any follow-up HCV testing needed for patients.
4. **Configured forms and order sets** for every step of the workflow that are pre-populated to save you time.
5. **Reports** displaying aggregated data on how you and your peers are using the HCV Clinical Tool Bundle across Canada, allowing you to view the progress of this national initiative.

The content for the HCV Clinical Tool Bundle was validated by two of Canada's leading experts in HCV management: Dr. Alnoor Ramji, MD, FRCP and Dr. Hemant Shah, MD, MScCH, HPTE. Dr. Ramji is a Clinical Associate Professor of Medicine, Gastroenterology and Hepatology at the University of British Columbia and Dr. Shah is the Clinic Director at Francis Family Liver Clinic, and Staff Hepatologist at the University Health Network.

HCV Enrollment

1. From the Accuro Start Menu, select Tools and 'Quality Improvement Initiatives' (or simply press ALT and type Quality Improvement in the Search field).
2. The Accuro Registry window opens.
3. Beside the heading 'Hepatitis C Virus Clinical Tool Bundle' click the 'Open' button to view additional information about the HCV Clinical Tool Bundle.
4. In order to enroll and receive the pre-configured HCV tools in the EMR, scroll to the bottom of the page and click the box 'I agree to the Terms and Conditions' and then press the button 'Yes I would like to opt-in'.
5. After opting in, a green pop-up appears in the upper right-hand corner confirming the enrollment and a green checkmark is visible beside **Hepatitis C Virus Clinical Tool Bundle** indicating the Accuro database has opted in.

NOTE: You can opt out at any time by deselecting the check box and all downloaded content remains in the EMR.

6. To begin using the tools in the HCV Clinical Tool Bundle right away, log out of Accuro and completely close the window, then log back in.

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NOTE: If logged into Accuro through Citrix, log out of Accuro AND Citrix, close all open Accuro/Citrix windows, then log back in.

Verification of Enrollment in Accuro

There are 7 new forms, 2 queries and 1 screening tool (flags patients either at risk of HCV or with a previous diagnosis of HCV/signs of liver disease) now available to assist in screening and diagnosing HCV. Check the EMR and Query Builder to verify these forms and queries have downloaded as expected.

Forms

The newly downloaded forms are found in the electronic drawer of the EMR in the Encounter Notes tab.

1. Open the EMR.
2. Select the Encounter Notes tab.
3. Click on the dropdown at the top of the Encounter Notes screen to open the electronic drawer.
4. Type "HCV" into the template search, and the following forms are now available from the "Standard Forms" category:

HCV 1) Best Practice Checklist

HCV 2) Risk Assessment Form

HCV 3) Anti-HCV Lab Requisition

HCV 4) RNA Set

HCV 5) Liver Ultrasound Order Set

HCV 6) Patient Referral Form

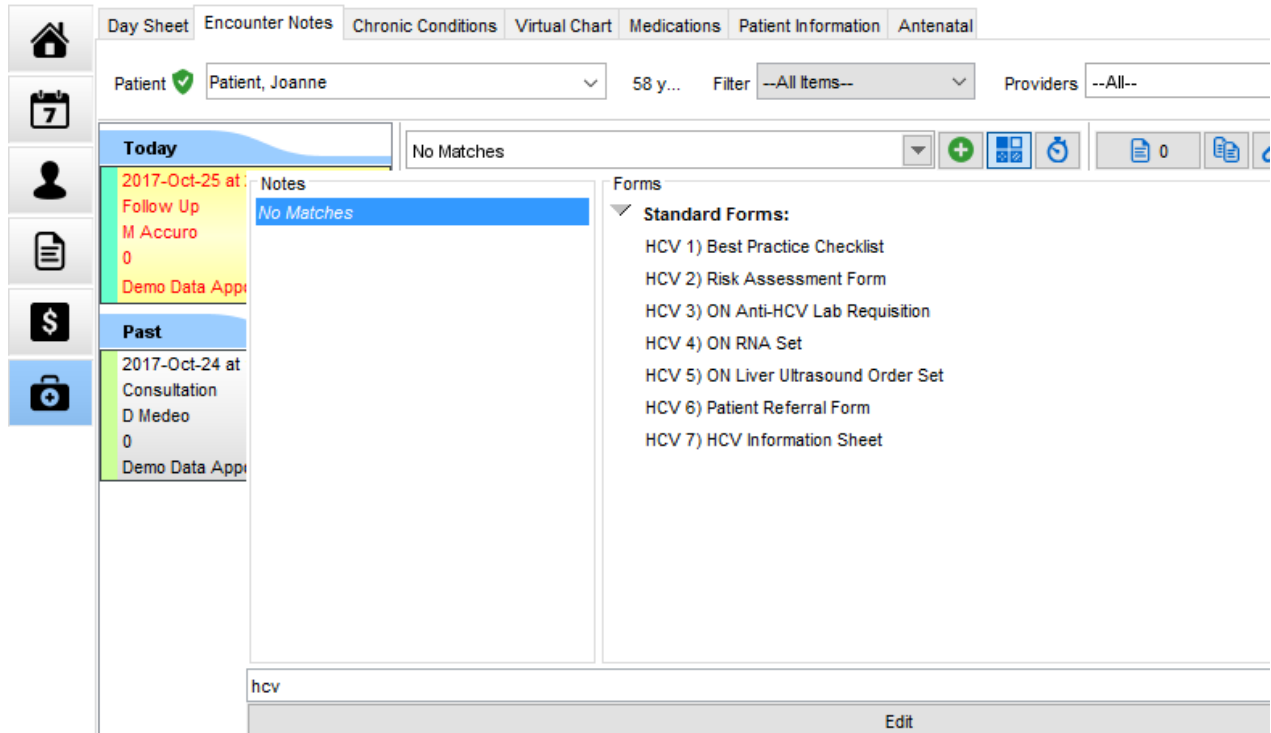
HCV 7) Patient Info Sheet

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Patient: Patient, Joanne 1959-May-26 (58 Yr female) 1234 567 899AB (416) 555-5555



The screenshot shows the Accuro EMR interface for a patient named Joanne. The top navigation bar includes tabs for Day Sheet, Encounter Notes, Chronic Conditions, Virtual Chart, Medications, Patient Information, and Antenatal. Below the navigation bar, the patient's name and age (58 y...) are displayed. The main content area is divided into three sections: Today, Past, and Forms. The Today section shows a list of notes with a 'No Matches' message. The Past section shows a list of consultations. The Forms section lists several standard forms related to HCV, including Best Practice Checklist, Risk Assessment Form, and various lab requisition and referral forms. A search bar at the bottom of the forms section contains the text 'hcv' and an 'Edit' button.

NOTE: In Ontario, the Anti-HCV Lab Requisition Form and HCV RNA Set forms have additional pages that may be useful.

The lab requisition forms and ultrasound forms that are included are for the most common regions in each province. In some circumstances, these forms may not be the most commonly used forms in your area. To download forms that best fit your practice, search the Form Repository for “HCV” and download alternate versions of the Anti-HCV Lab Requisition, RNA Set and Liver Ultrasound Order Set. More information about downloading alternate versions of the HCV Clinical Tool Bundle forms can be found in [Appendix D](#).

Queries

The Queries are found in the Query Builder:

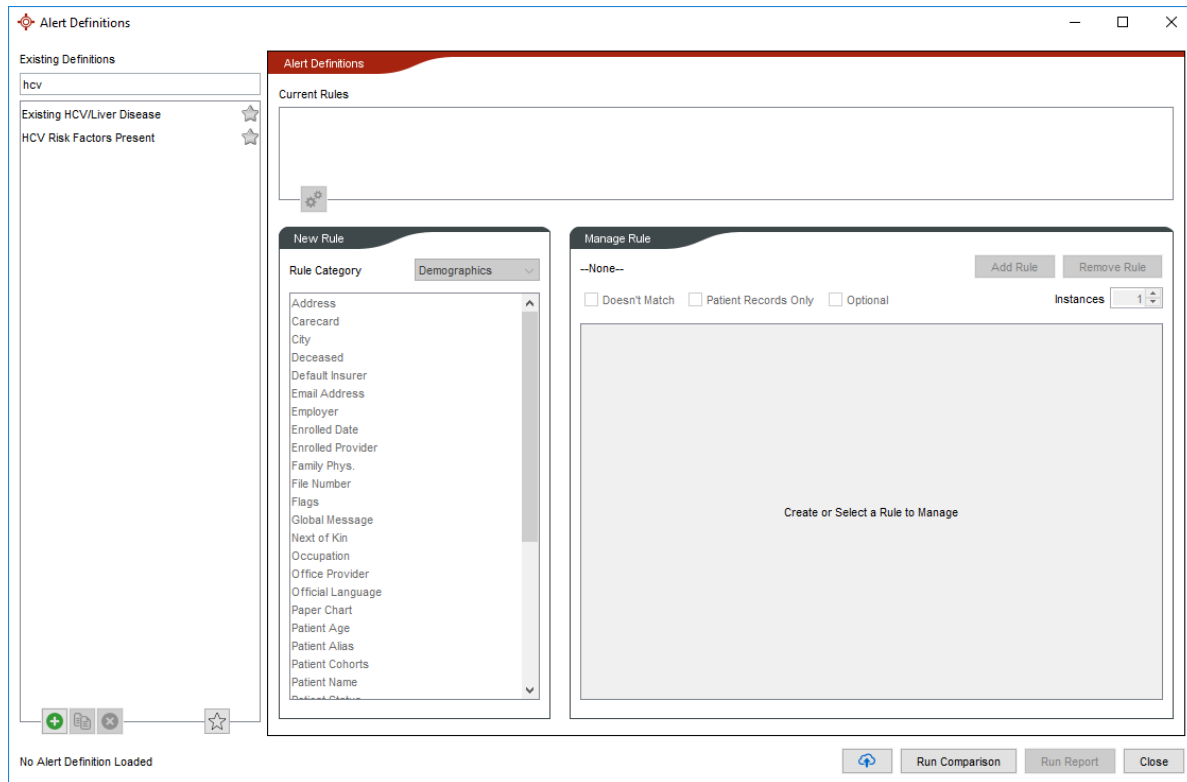
1. From the Accuro Start menu in the bottom left hand corner of the screen, select Reports then ‘Query Builder (Alerts)’ (or simply press ALT and type Query in the Search field).
2. Type “HCV” into the definitions filter, and the following queries are visible:

Existing HCV/Liver Disease

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HCV Risk Factors Present



Accuro Configuration

Some areas of the EMR may need additional configuration for the screening tool and forms to work as expected. Not everyone uses the EMR in the same way, thus the following are the recommended configuration steps to assist with standardized data entry. This assists in providing more accurate results.

Office Provider Assignment

The Office Provider field is used to accurately assign HCV screening flags to patients that are part of the currently logged in provider's practice. If the Office Provider field is not used consistently when recording patient demographic data, the Office Provider Assignment tool should be run before moving onto to the [HCV Screening Tool](#).

The Office Provider field is located on the patient demographics screen.

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Last Name	Patient	Health #	Search Only	
First Name	Joanne	Identifier	Search Only	
Middle Name		Birthdate	MM/DD/YYYY	
Title:	Mrs.	Suffix:		Patient Status: Active
			Office Provider:	Accuro, Mary

To run the Office Provider Assignment tool:

1. From the Accuro Start menu in the bottom left hand corner of the screen, select Tools then 'Office Provider Assignment' (or simply press ALT and type Office in the Search field).

NOTE: If Office Provider Assignment is not an option, user permissions may need to be modified.

2. Choose the provider to be assigned as the Office Provider from the dropdown at the top of the screen.
3. 6 Rules are available to be selected. Depending on how Accuro has been used determines which rules should be checked.

For example, if the Family Physician Field is used to record which practice the patient is part of, Rules 1 and 2 can be checked.

Alternatively, if the Office Provider can be assigned based on scheduled appointments, rules 3 and 4 can be checked if the selected provider is the most commonly seen by the patient, OR, rules 5 and 6 can be checked if the selected provider is the last provider an appointment was booked with for the patient.

Once the rules are determined, click 'Search' to get a list of patients that match the criteria.

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Patient Office Provider Assignment

Provider: Medeo, Don

Rule #1: Selected provider is family physician and patient has no office provider.
 Rule #2: Selected provider is family physician and patient has different office provider.
 Rule #3: Selected provider is most commonly seen and patient has no office provider.
 Rule #4: Selected provider is most commonly seen and patient has different office provider.
 Rule #5: Selected provider is last seen and patient has no office provider.
 Rule #6: Selected provider is last seen and patient has different office provider.

Search

Assign	Last Name	First Name	ULI	Birthdate	Office Provider
<input checked="" type="checkbox"/>	Database	Robert	6273845950GH	1975-Apr-06	
<input checked="" type="checkbox"/>	One-Click	Susan	999999999999	1932-Nov-12	
<input checked="" type="checkbox"/>	Patient	Joanne	1234567899AB	1959-May-26	
<input checked="" type="checkbox"/>	Workflows	Helen	9807543786	1966-May-08	

Print Assign

- By default, all patients have the 'Assign' box checked. Any patients that should not have their office provider assigned can be unchecked.
- Now, select the 'Assign' button to fill in the Office Provider field on all selected patients.
- A pop up appears asking to confirm the assignment, click 'Yes' to continue.

HCV Screening Tool

A tool is available that screens all patients in the Accuro database and places one of two flags on their chart indicating if the HCV workflow should be initiated. The tool runs in the background of Accuro while you work and provides a confirmation of how many patients in each category have a flag applied.

This screening tool was created to encompass as many workflows as possible for recording data in the EMR, however there may be some patients that do not get flagged even though they may meet some of the requirements. Because of this, it is imperative to still use your clinical judgement when it comes to screening patients for HCV with the tools provided.

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The flags are:

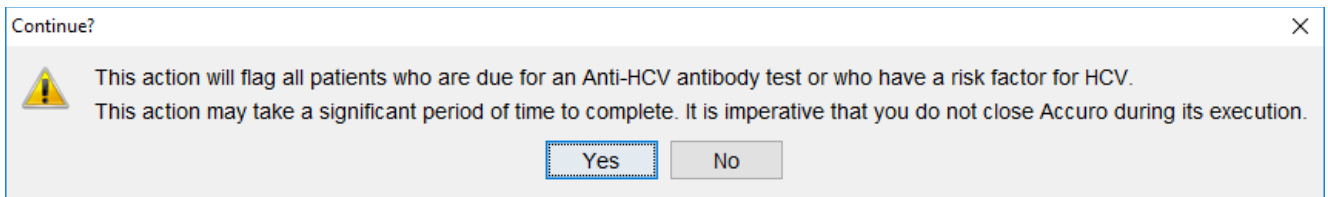
Existing HCV / Liver Disease. Bring patient in for anti-HCV antibody testing within 3 months – This flag appears on patients that have been previously diagnosed with HCV or have signs of liver disease. Accuro is looking for patients with a lab value of “HCV”, “Hepatitis” or similar – as well as patients with specific lab values that indicate signs of liver disease.

HCV Risk Factors Present. Screen patient using HCV Risk Assessment Form – This flag appears on patients that are either between the ages of 41 and 71, have lifestyle medical history recorded in their chart that indicate signs of drug use, blood transfusions, tattoos, etc. or patients that have comorbidities often associated with HCV, such as viral infections, STDs, etc.

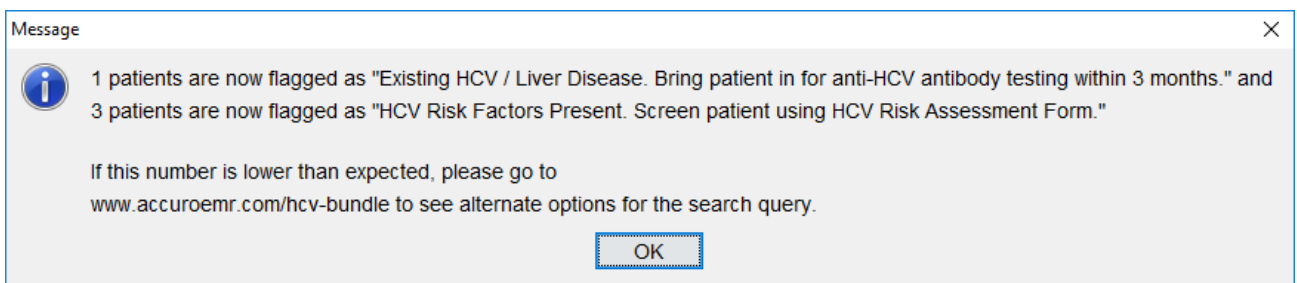
For more information about the exact criteria used to assign each flag to a patient, please see [Appendix E](#).

NOTE: This tool when run, only places the flag on current patients. If you would like the flag to be placed on any new patients in the future, the tool MUST be run again to update the flag on all existing patients. The flag is not applied twice to existing patients, but only applied to any new patient that did not have the flag previously.

1. From the Accuro Start menu in the bottom left hand corner of the screen, select Tools then ‘Run HCV Queries’ (or simply press ALT and type HCV in the Search field).
2. A pop up appears advising that the tool will run in the background while you work normally in Accuro. Click ‘Yes’ to continue.



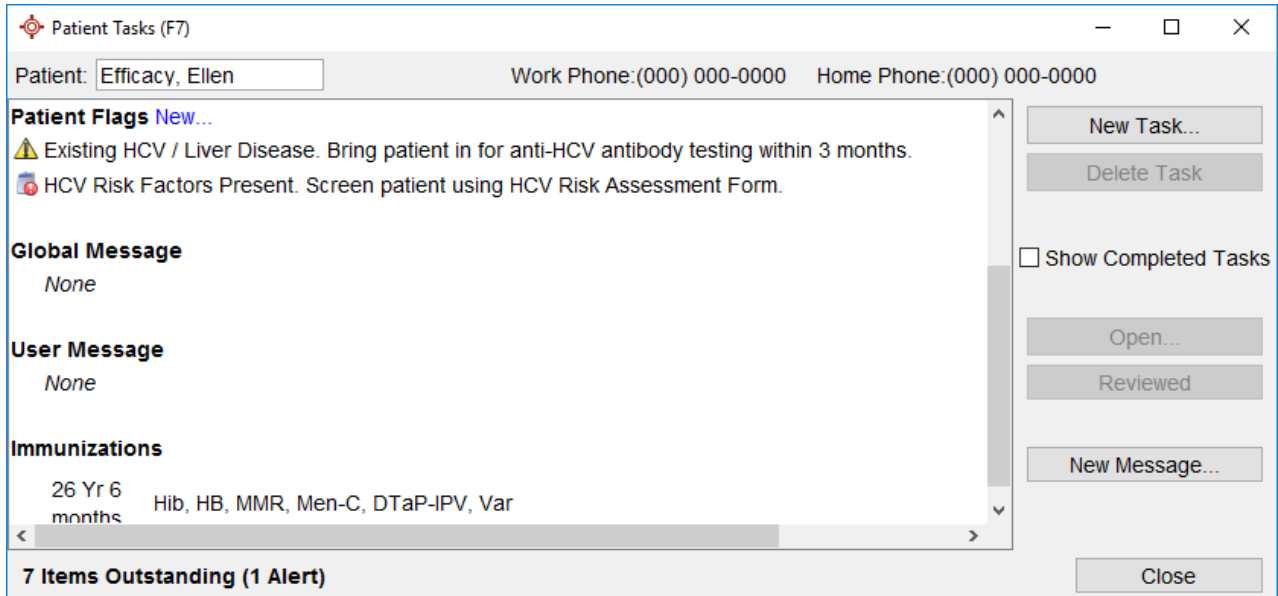
3. Once the screening tool is finished running, another pop up appears advising it is complete, and provides a summary of how many patients in your database had the flag applied.



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4. Now, on any patient that had one of the flags applied, this is visible in the demographics status bar, as well as in the “Patient Tasks” window when pressing F7.



The flag acts as a reminder to the physician to perform a quick HCV Risk Assessment to identify if the patient is at risk of HCV.

This reminder implies that the user should proceed with the recommended HCV workflow by opening the HCV Best Practice Checklist and/or the HCV Risk Assessment Form.

Manage Task Types

For the patients that have a prior confirmation of Hepatitis C or are showing signs of liver disease, a task may be created as a reminder for follow up. Before creating the tasks, a specific task type can be added to the list so that it can be quickly selected. To add a task type:

1. Open a new task by tapping ALT to open the Accuro Start menu and typing ‘task’. Click ‘New Task’ to open the new task window.
2. Under the Task heading, click on the dropdown and scroll down to “--Manage--”.

NOTE: If the manage option is not present, permissions may need to be modified.

3. In the 'Edit Task Reasons' window, click on the add button.
4. Enter the name for the Task Type. It is recommended to call it” HCV - Bring patient in for Anti HCV antibody testing”.

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For more information on creating tasks, see [Appendix B](#).

Referral Form Lab Components

The referral form '**HCV 6) Patient Referral Form**', is a summary of information for the patient that is diagnosed with HCV. The information is packaged this way to ease the referral process to a specialist.

The form is designed to pull lab values directly into it so that results from the Anti-HCV Test or RNA Set do not need to be attached separately. Because lab results can differ per province, and even per database, the form needs to be edited to reflect and pull the lab results that exist in your EMR.

Alternatively, required labs can always be attached to the referral form, thus avoiding any configuration to be completed.

To configure the lab components on the referral form:

1. Open the Form Editor from the Accuro Start Menu, under Tools select 'Form Editor' (or simply press ALT and type Form in the Search field).

NOTE: If Form Editor is not an option, user permissions may need to be modified.

2. Under the Standard Forms Category, find the form **HCV 6) Patient Referral Form**.
3. Double click to open the form.
4. On the first page scroll down to the labs table.
5. Under the results column, right click on the first blank box (across from name ex. Hepatitis A).
6. From the menu options, choose 'Edit'.

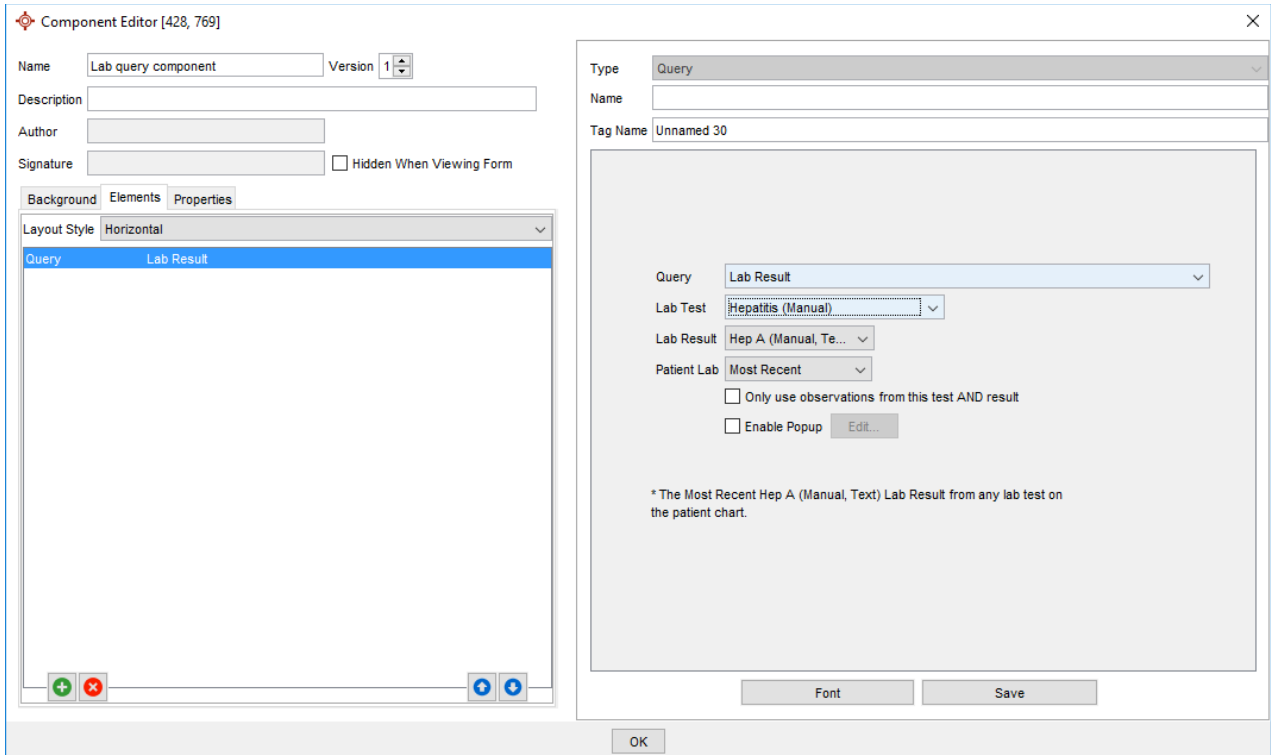
1. LIVER	RESULTS	DATE
Immune Status/Previous Exposure		
<i>Hepatitis A</i>		
<i>Hepatitis B</i>		
ALT		
AST		
GGT		
Alkaline Phosphatase		
Bilirubin		
Albumin		
INR		

Edit
 Hidden When Viewing
 Remove
 Bring Forward
 Send Back

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7. Under “Lab Test”, click on the dropdown and select the lab test under which the result may appear.
8. Under “Lab Result”, select the corresponding lab result.
9. Under “Patient Lab” ensure ‘Most Recent’ is chosen.
10. Click on ‘Save’, then ‘OK’.



11. This needs to be done for each of the lab components on page 1 and then going forward to page 2.
12. Once complete, you will want to place the form off construction by clicking on the Under Construction button



at the top left.

13. Click the Save button  to save the form and then close the Form Editor window.

The Patient Referral Form is now available for use in the Encounter notes.

NOTE: At times, there may be multiple lab results for the same test. To ensure the latest test result is always showing, lab results MUST be linked. For further information on lab linking, see [Appendix A](#).

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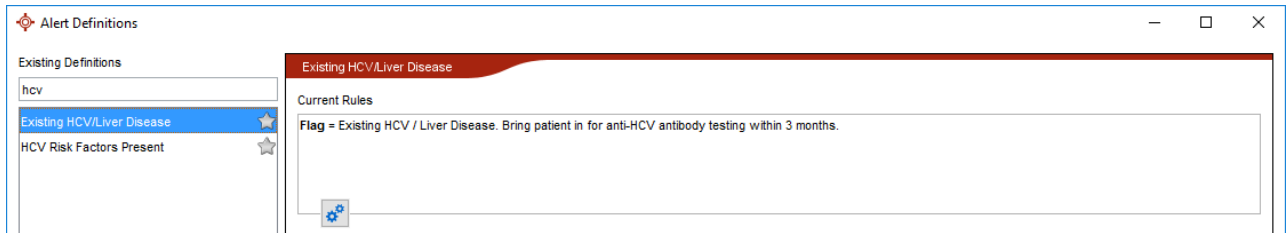
HCV Queries

Two queries were created to provide a list of the patients that were flagged when the HCV Screening Tool was run.

1. From the Accuro Start menu in the bottom left hand corner of the screen, select Reports then 'Query Builder (Alerts)' (or simply press ALT and type Query in the Search field).
2. Type "HCV" into the definitions filter, and the following queries are visible:

Existing HCV/Liver Disease HCV Risk Factors Present

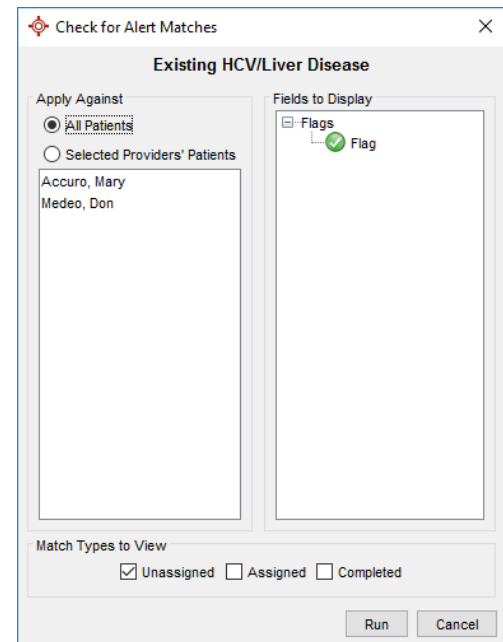
3. Select one of the queries to run the report, then click 'Run Report'. For this example, 'Existing HCV/Liver Disease' is selected.



4. In the "Check for Alert Matches" window, you can choose if you want results based on all patients in the database, or only for a selected provider's patients.

NOTE: If using 'Selected Providers' Patients' you MUST utilize the 'Office Provider' field in the patient demographics. If this field is not used consistently, then the results will not be accurate.

5. Click 'Run' to view the list of patients.



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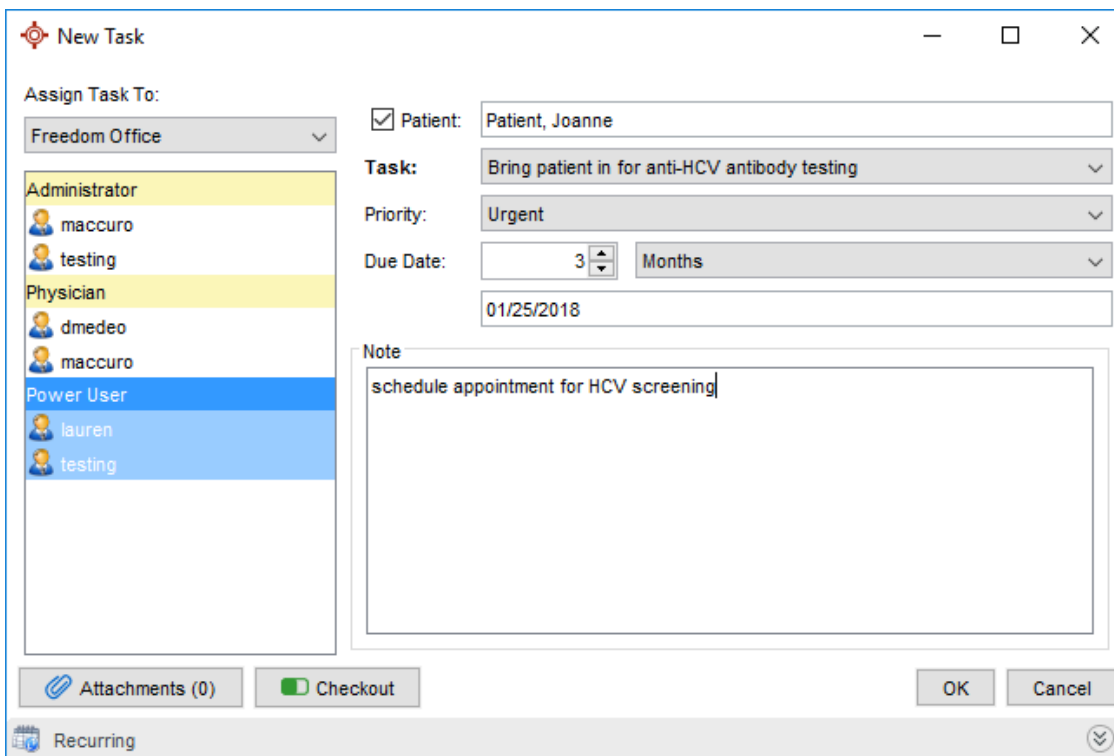
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Creating Tasks from a Query

From the patient list, actions can be applied (i.e. assigning tasks) so that these patients can be brought in for Anti-HCV Antibody testing. This should be done for any patients that show up on the report for 'Existing HCV/Liver Disease'.

After following the steps above to generate the list of patients:

1. Press 'CTRL + A' on your keyboard to select all patients in the list (alternatively, the CTRL key can be held down, and specific patients chosen if you do not want to select all).
2. Right click, and from the menu choose 'Create Task'.
3. The "New Task" window displays.
4. Select the user the task should be assigned to along the left. Click the name of the user, or the Role name to assign the tasks to all users within a specific role. More than one user or role can be selected by holding the CTRL key.
5. Choose the type of task in the dropdown list at the top of the window. If a task type was added in the [Accuro Configuration](#) section above, choose "HCV - Bring patient in for Anti HCV antibody testing".
6. If required, a Priority can be set.



7. For this example, it is not recommended to enter a due date. Although the patient should be brought in within the next 3 months, a due date means the task does not become visible until the selected due date. These tasks should be visible immediately, so that patients can be contacted to book an appointment within the next 3 months.

8. Enter additional notes in the text box to indicate what is being followed up on.
9. Press 'OK' to send the task to the selected users.
10. A prompt appears to print a list of the tasks created, click 'Yes' if a printed list is required.

HCV Workflow

The following is a workflow for assessing patients who should be screened for HCV risks. Patients can be identified as at risk for HCV based on the provider's judgement, by the flags visible on the patient's chart or by a task indicating that the patient should be screened.

The forms downloaded with the HCV Clinical Tool Bundle are opened and completed in order from 1 through 7 to move through the entire workflow. At any stage, based on results obtained, the workflow may stop and tasks can be created if deemed necessary to follow up on any additional testing at a later date.

Step 1 – Checklist and Risk Assessment

For all HCV items, the **HCV 1) Best Practice Checklist** is used to follow the Hepatologist recommended processes.

1. The Best Practice Guidelines are saved as a form and found in the EMR > Encounter Notes and can be opened by clicking on the dropdown to open the electronic drawer, and selecting **HCV 1) Best Practice Checklist**. This is the first step in the HCV assessment workflow for any patient.

Use this checklist to guide you step-by-step through the best practices for HCV management.

The Best Practice Checklist is used for guidance, as well as an actual checklist to ensure all steps are completed. Beside each step, a checkbox can be marked to keep track of each item that is completed and which item is next to be followed up on. For reference, information points are available on the checklist and indicated in blue on the form. Click on a blue information point to find out more information or to locate the tools for each step in the EMR.

Following the Best Practice Checklist:

2. Open the **HCV 2) Risk Assessment Form** from the EMR > Encounter Notes tab.
3. Read through each item checking any that are true. If any of the line items are selected, consider ordering an Anti-HCV Antibody Test.

Patients who have any risk factors below are at risk for HCV.
 If you select at least 1 risk factor below, it is recommended you order an HCV Antibody Test.

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Step 2 – Anti-HCV Lab Requisition

4. To find the Anti-HCV Lab Requisition Form, in the Encounter Notes of the EMR, open the electronic drawer to see all forms. In the list, locate **HCV 3) Anti-HCV Lab Req** and open it for the selected patient.
5. The Anti-HCV Lab Requisition Form is pre-filled with the most important items. If any additional tests need to be added or if certain tests should be excluded, check/uncheck the relevant item(s) and add/erase any comments on the form.

NOTE: In Ontario, the Anti-HCV Lab Requisition Form and HCV RNA Set forms have additional pages that may be useful.

6. Once complete, print/fax the requisition.

Recommended workflow when Anti-HCV results come back:

- *Negative:* No further action is required. If the patient is immunocompromised, consider ordering an HCV RNA test. If there is an ongoing risk (i.e. Hemodialysis), a task should be created to check the patient for anti-HCV antibodies again in one year. See [Appendix B](#) for information on creating tasks.
- *Positive:* It is recommended to submit an **HCV 4) RNA Set Requisition** form. Move to Step 3 below to continue with the workflow.

Step 3 – RNA Set Lab Requisition

7. To find the RNA Set, in the Encounter Notes of the EMR, open the electronic drawer to see all forms. In the list, locate **HCV 4) RNA Set Requisition** and open it for the selected patient.
8. The RNA Set form is pre-filled with the most important items. If any additional tests need to be added or if certain tests should be excluded, check/uncheck the relevant item(s) and add/erase any comments on the form.

NOTE: In Ontario, the Anti-HCV Lab Requisition Form and HCV RNA Set forms have additional pages that may be useful.

9. Once complete, print/fax the requisition.

Once the RNA Set requisition results return:

- *Negative:* It is suggested to repeat the HCV RNA test in six months. A task should be set up as a reminder. See [Appendix B](#) for more information on creating tasks.
- *Positive:* Consider ordering a Liver Ultrasound and referring the patient to a Hepatologist. Move to Step 4 below to continue with the workflow.

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Step 4 – Liver Ultrasound

10. To find the Liver Ultrasound Order set, in the Encounter Notes of the EMR, open the electronic drawer to see all forms. In the list, locate **HCV 5) Liver Ultrasound Order Set** and open it for the selected patient.
11. The Liver Ultrasound Order Set form is pre-filled with the most important items. If any additional tests need to be added or if certain tests should be excluded, check/uncheck the relevant item(s) and add/erase any comments on the form.
12. Once completed, print/fax the requisition.

Step 5 – Referral to Hepatologist and Patient Information

After ordering a liver ultrasound, it is recommended to refer the patient to a Hepatologist. The **HCV 6) Patient Referral Form** is available in the EMR to facilitate the referral process and ensure the necessary information from all steps of the HCV workflow are present on the referral. The form is pre-filled as much as possible and only needs some fields entered before it is sent.

13. Open the **HCV 6) Patient Referral form**, from the electronic drawer in the Encounter Notes.
14. Move through the form from top to bottom and fill in the following:
 - a. **Lab Results:**
 - i. Fill in the text fields for HCV Viral Load and HCV Genotype
 - ii. Add any additional Notes (if required)
 - iii. Type in any Comorbid Conditions
 - iv. Ensure lab results are present in the spreadsheet; if not, check the box 'Lab results attached'

NOTE: Don't forget to attach the results.

Lab Results

HCV Viral Load (HCV RNA PCR): HCV Genotype: Notes:

Comorbid Conditions:


Lab results attached? Yes No

1. LIVER	RESULTS	DATE
Immune Status/Previous Exposure		
Hepatitis A		
Hepatitis B		
ALT		
AST		
GGT		
Alkaline Phosphatase		
Bilirubin		
Albumin		
INR		

b. Abdominal Ultrasound:

Indicate if it was ordered, on what day if it was ordered and if the results are attached.

Abdominal Ultrasound?

Ordered? Yes No Ordered On: (DD/MM/YYYY)  Results attached? Yes No

c. Risk Factors:

Either check the box(es) next to the appropriate risk factors, or indicate the form **HCV 1) Risk Assessment** will be attached.

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Risk Factors: Risk assessment form attached? Yes No

<input type="checkbox"/> Born between 1945 and 1975	<input type="checkbox"/> Elevated liver enzymes
<input type="checkbox"/> History of injection drug use	<input type="checkbox"/> Signs or symptoms of liver disease
<input type="checkbox"/> Immigrant from at-risk country	<input type="checkbox"/> HBV infection
<input type="checkbox"/> Received blood transfusions, blood products or organ transplant pre-1992	<input type="checkbox"/> HIV positive
<input type="checkbox"/> High-risk sexual behaviour	<input type="checkbox"/> Receiving or has received hemodialysis
<input type="checkbox"/> Incarceration	<input type="checkbox"/> Known sharing of items with HCV-contaminated blood
<input type="checkbox"/> Previously tested for HCV	<input type="checkbox"/> History of intranasal or inhalational drug use
<input type="checkbox"/> Birth mother has HCV or has been treated for HCV	<input type="checkbox"/> Needle-stick injuries
	<input type="checkbox"/> Tattoos or body piercings

d. Alcohol Use/Medications/Allergies:

- i. Type into the text box for alcohol use (if required)
- ii. Medications and Allergies both populate from their respective Medical History Bands in the EMR

Alcohol Use (Drinks/Week):

2-3 drinks per week

Medications:

Active Medications
None Recorded

External Medications
None Recorded

Allergies:

Allergies
None Recorded

15. Once all fields on the Patient Referral Form are filled out, the form is sent to a specialist. Click the 'Fax' button to open the fax recipient's window.
16. Click on the paperclip button to add any attachments, such as:
 - Lab results (if values did not populate into the spreadsheet)
 - Liver Ultrasound (if results are available)
 - HCV Risk Assessment Form
 - Any other relevant clinical data
17. Press the add button to open the address book and search for a recipient.
18. Click into the Provider tab and select 'Manage Providers' to use the Advanced Search and search by specialty.

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Advanced Search

Specialty

Type

City

Province/State All

NOTE: Instructions to add providers to the address book can be found in [Appendix C](#).

19. Press the 'Send' button to send the referral to the chosen specialist.

Recipients

Attachments

- 2017-Oct-25: HCV 6) Patient Referral ...
- 2017-Oct-25: HCV 2) Risk Assessmen...
- Physical History

Recipient	Address	eRx	Arrival Date	Arrival Time	Long Distance	Fax	Fax Number
Dr. Don Medeo		<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	(647) 555-1234

Coversheet Message

Accuro, Mary Include Coversheet Send Later Display Patient Footer

20. Press 'OK' to save the form to the patient's chart.

21. Before the patient leaves the office, the last step of the HCV workflow is to print a patient information sheet for the patient to take with them. From the electronic drawer in the Encounter Notes locate the form **HCV 7) Patient Info Sheet**.

22. Click the 'Print' button and press 'OK' to save the form to the patient's chart, indicating the information sheet has been provided.

Appendices

Some common functions in Accuro may be required in order to supplement the intended workflows for the HCV Clinical Tool Bundle. If you are unfamiliar with any of these functions, the following sections outline the steps required for lab linking, creating tasks, adding providers to the address book and downloading alternate forms.

Appendix A: Lab Linking

Labs coming into the EMR from different vendors can be denoted in different ways. This results in multiple entries of a single lab result. Accuro encourages lab linking to connect these results so that only a single value is visible in the EMR when looking at lab views, forms, letters, etc.

Linking should always be done by a user with a clinical background to ensure the proper results are linked together.

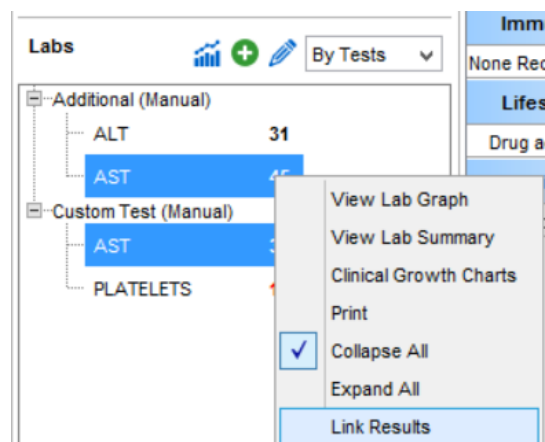
There are two ways to link results in Accuro.

Option 1 – In a patient chart

When in a patient chart, it may be obvious that there are 2 lab values with separate entries, even though they are the same result.

1. These results are visible in the EMR > Encounter Notes, under the “Labs” section at the bottom of the screen.
2. Hold the CTRL key and click on both values so that they are highlighted in blue.
3. Right Click and choose ‘Link Results’.
4. In the window that opens, select one of the results and click ‘Set Primary Result’.

NOTE: Choosing a primary result is only choosing the name that is displayed when the result is visible in the EMR. For example, if the results “HbA1C” and “Hemoglobin A1C” are linked, and “HbA1C” is chosen as primary, the heading for either result in the EMR is now always “HbA1C”.



6. Press ‘OK’ to save any changes.

Option 2 – From Configuration

At any time, lab results can be linked. A patient chart does not need to be open.

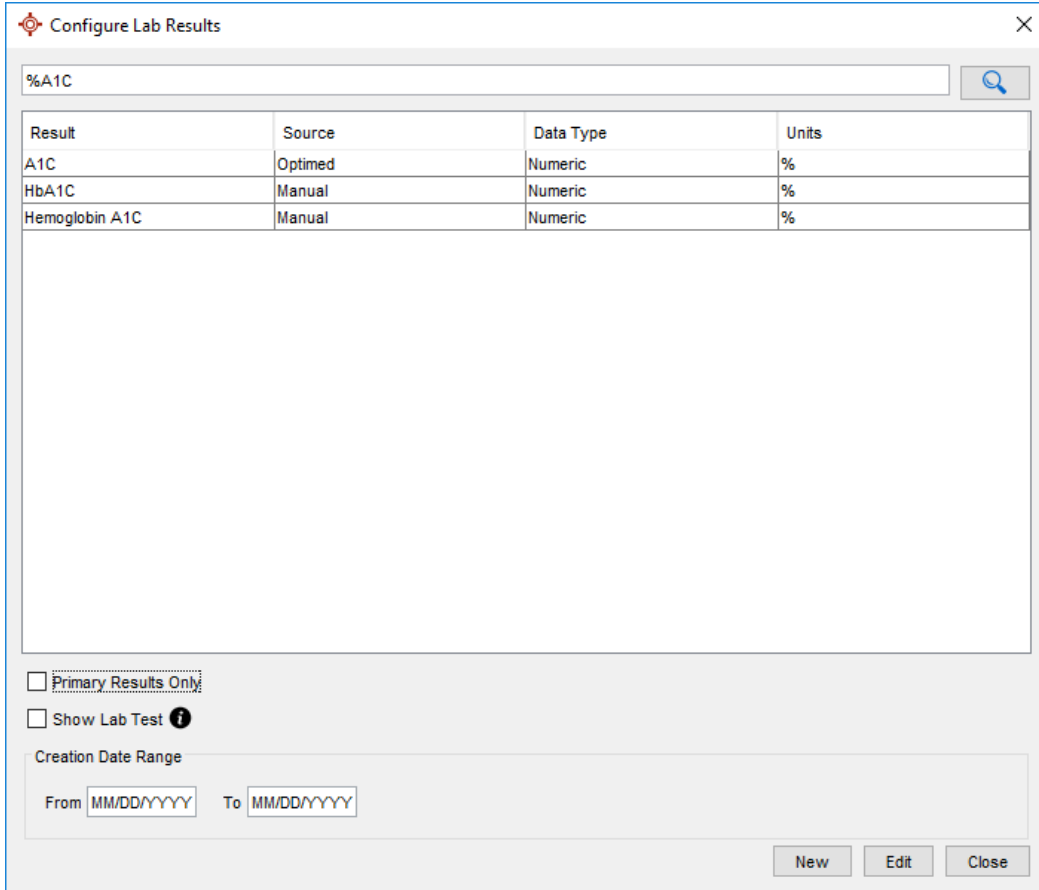
1. From the Accuro Start Menu, select Configuration and then choose ‘Configure Lab Results’.
2. Search for the name of a lab result that may have more than one entry in the EMR.

NOTE: The checkbox ‘Primary Results Only’ should be selected so that any lab results previously linked do not show in the search results. Only unlinked or primary lab results display. If more than one option appears, then the

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results need to be linked. If only one value appears, this may mean that all other versions of those lab results are linked already. Keep in mind that some lab results may be listed as abbreviations rather than their full name and all variations should be searched.



Configure Lab Results

%A1C

Result	Source	Data Type	Units
A1C	Optimed	Numeric	%
HbA1C	Manual	Numeric	%
Hemoglobin A1C	Manual	Numeric	%

Primary Results Only

Show Lab Test ⓘ

Creation Date Range

From MM/DD/YYYY To MM/DD/YYYY

New Edit Close

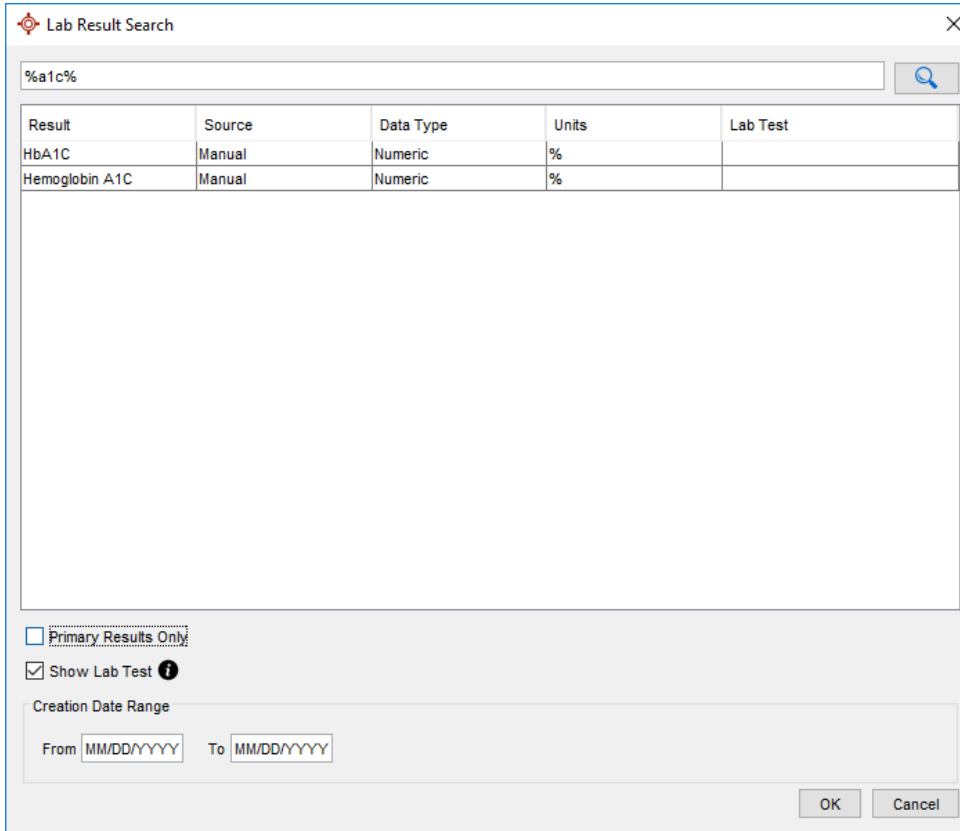
3. Select a lab result that should be linked and press 'Edit'.
4. In the Edit Result window, click on 'Linking...'
5. A list of any other lab results that are already linked to the selected result will display.
6. Click the add button to search for additional results to be linked.
7. Once another search window displays, search for the name of the result again.

TIP: Use the wildcard % before and after the text being searched. For example, if searching for A1C, %A1C% is typed so that any result that contains A1C is returned.

The search is not case sensitive.

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Lab Result Search

%a1c%

Result	Source	Data Type	Units	Lab Test
HbA1C	Manual	Numeric	%	
Hemoglobin A1C	Manual	Numeric	%	

Primary Results Only

Show Lab Test ⓘ

Creation Date Range

From MM/DD/YYYY To MM/DD/YYYY

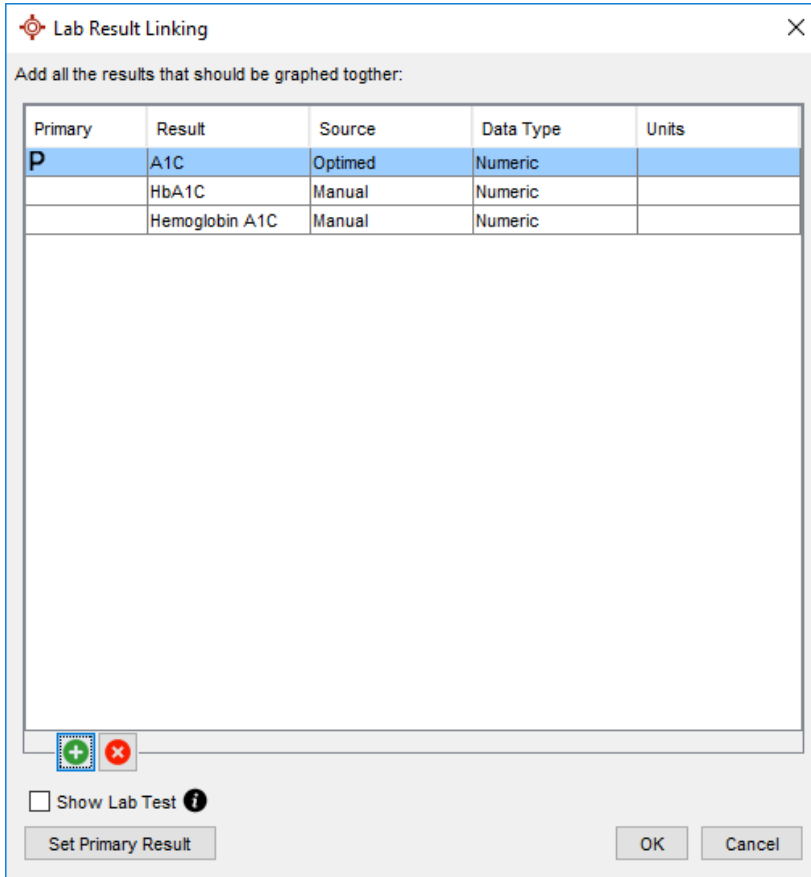
OK Cancel

Remember that abbreviations are not the only option and all variations of the lab result name should be tried.

8. Select the box 'Show Lab Test' at the bottom left of the window to ensure the result chosen is from the correct lab test (for example, a result from a blood test vs. the same result from a urine test).
9. Use the CTRL key to select more than one value.
10. Press 'OK' to link all selected values to the initially selected result.
11. Repeat steps 6 through 10 for all variations of the lab result name.
12. If required, choose the appropriate primary result by selecting the lab result name and clicking the button 'Set Primary Result'.

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Lab Result Linking

Add all the results that should be graphed together:

Primary	Result	Source	Data Type	Units
P	A1C	Optimed	Numeric	
	HbA1C	Manual	Numeric	
	Hemoglobin A1C	Manual	Numeric	

Show Lab Test ⓘ

13. Press 'OK' to save the linking.
14. And press 'OK' again to go back to the initial search field.
15. Now, these steps can be repeated beginning at **step 2** for any other lab result that needs to be linked.

Appendix B: Creating Tasks

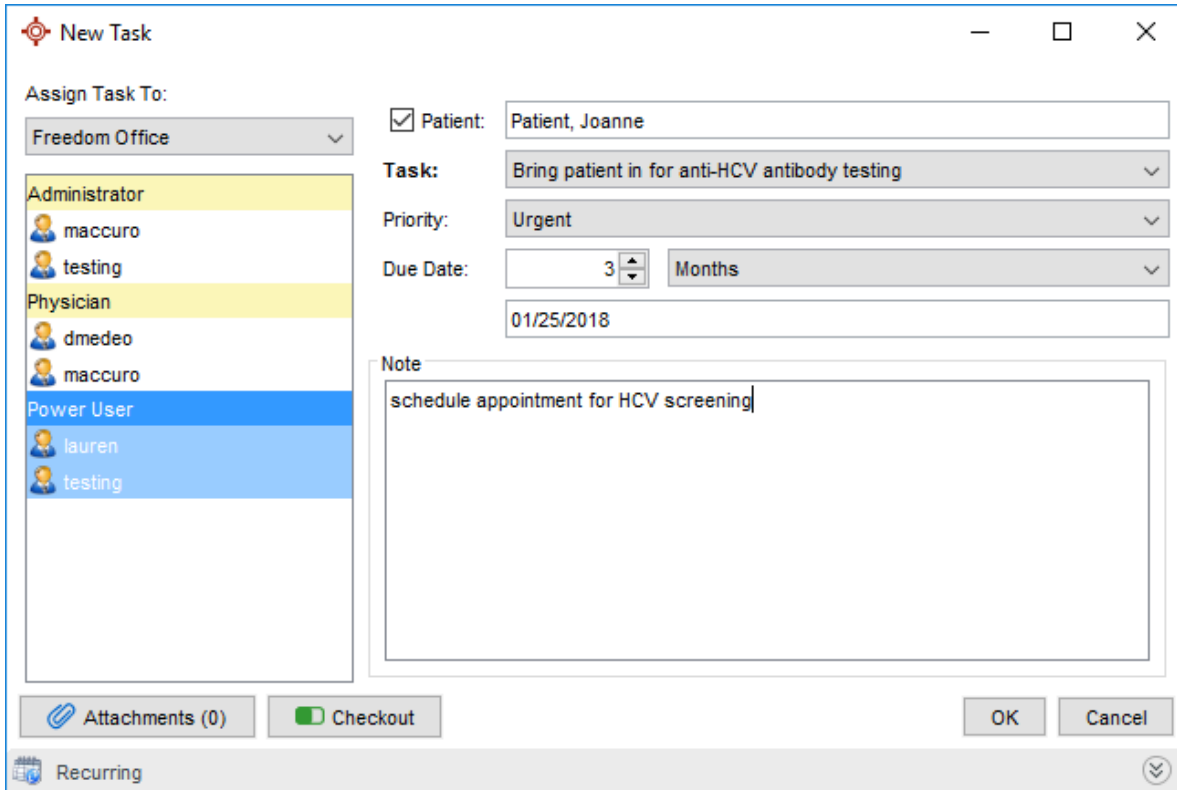
Tasks can be created from anywhere in Accuro, including the chart. Tasks are used as follow up reminders that only become visible on their due date.

1. Tap F7 on your keyboard to open the Patient Tasks window.
2. Click the 'New Task' button.
3. The user to which the task is assigned is selected along the left. Click the name of the user, or the Role name to assign the tasks to all users within a specific role. More than one user or role can be selected by holding the CTRL key.
4. Choose the type of task in the dropdown list at the top of the window.
5. If required, a Priority can be set.

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6. Enter a due date so that the task does not pop up as overdue until that date is reached.
7. Enter additional notes in the text box to indicate what is being followed up on.



8. Press 'OK' to send the task to the selected users.

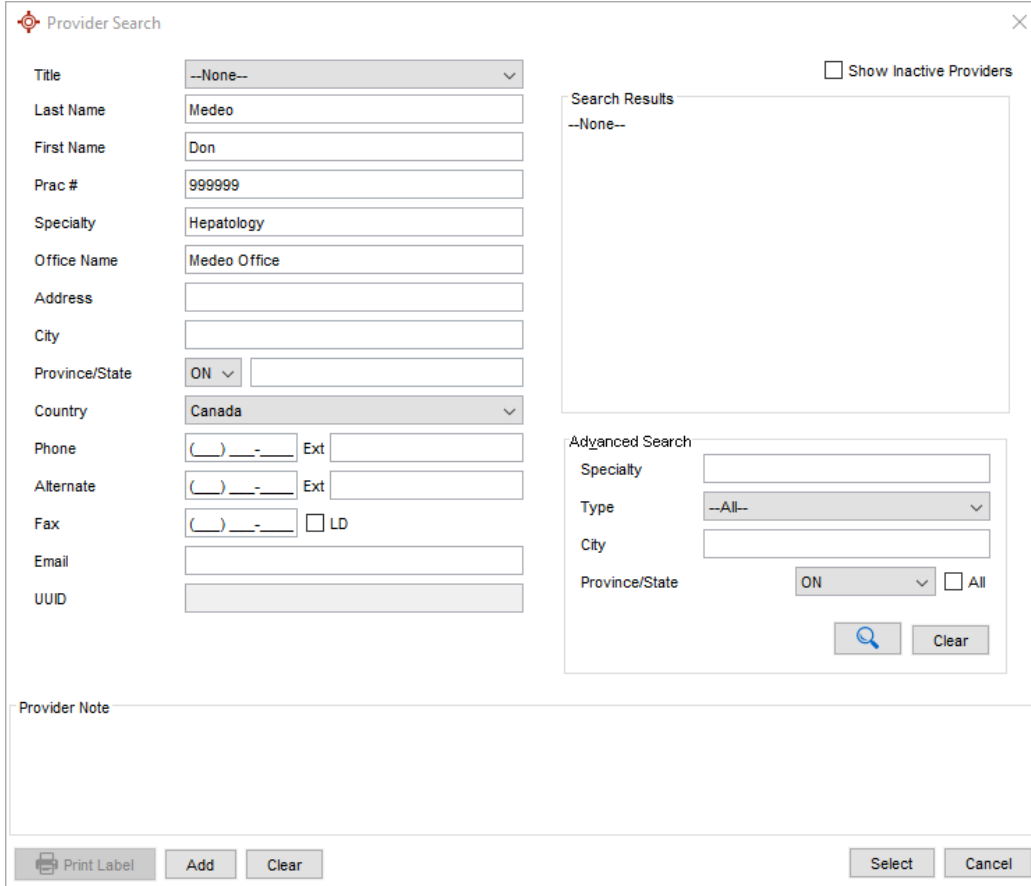
Appendix C: Adding Providers to Address Book

Specialists must be part of the Accuro address book in order for a referral to be sent. If the specialist is not already part of the address, it is easy to add one. For ease of searching for a specialist when making a referral, it is recommended that the specialty field be filled in when adding or updating an address book entry.

1. Open the Accuro Start Menu, under Tools click on 'Address Book' (Alternatively tap ALT and the F2 key on your keyboard).
2. Select the Provider tab once the Address Book opens.
3. Click on the 'Manage Providers' button.
4. Begin to enter the providers name, practitioner number, specialty and any other pertinent information.
 - a. Name and Practitioner are required fields
 - b. It is strongly recommended to add the Specialty to aid in searching for specialists when making a referral

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Provider Search

Show Inactive Providers

Title: --None--
 Last Name: Medeo
 First Name: Don
 Prac #: 999999
 Specialty: Hepatology
 Office Name: Medeo Office
 Address:
 City:
 Province/State: ON
 Country: Canada
 Phone: () - - - Ext:
 Alternate: () - - - Ext:
 Fax: () - - - LD
 Email:
 UUID:

Search Results: --None--

Advanced Search
 Specialty:
 Type: --All--
 City:
 Province/State: ON All

5. Select the 'Add' button when the information is completed.

Appendix D: Searching the Form Repository

Alternate versions of the requisition forms included in the HCV Clinical Tool Bundle may need to be downloaded.

1. From the Accuro Start Menu, under Tools select 'Form Editor'.
2. In the Form Editor window, open the 'Tools' menu in the upper left-hand corner.
3. Click on 'Publish/Download' to open the Form Repository.
4. In the Download Forms tab, use the search bar to search for "HCV".
5. From the results, select the form you wish to download.
6. Click 'Preview' to look at the form, and 'Download' to download the form into the EMR.

The forms are now available for use in the EMR in the respective steps of the HCV workflow.

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Appendix E: HCV Screening Tool Query Information

As part of the HCV Clinical Tool Bundle, pre-built queries are provided to assist with finding patients who are at risk of HCV. These queries are available in the form of a tool that screens all patients in the Accuro database in the background of Accuro while you work. Then, flags are automatically placed on the patients that match the query rules.

Because the tool runs in the background of Accuro, the information that the screening queries are searching for is not visible to the user in the EMR. The following section explains what data in the EMR is scanned to determine which flag should be applied to each patient.

These queries are designed to capture all possibilities across Canadian provinces, including specific diagnostic codes that are relevant to each province.


After running the screening tool, if you believe there are patients that should be flagged that were not, and there is any discrepancy between the data being recorded in your EMR and the details used in these queries, please notify QHR Support at 1-866-729-8889 and the query rules may be updated.

Hepatitis C (HCV)

For the remainder of this document, when it is indicated that “HCV” is being searched, all of the following keywords are being searched for, not just “HCV”:

HCV RNA	Hepatitis C Viral Load	HEPATITIS C RNA
Hep C RNA	HEP C AB	Hepatitis C virus antibody
Hepatitis C RNA	HEP C PCR	Hepatitis C virus Genotype
HCV RNA PCR	HEPATITIS C (ANTI-HCV)	Hepatitis C Virus Interpretation
HCV Viral Load	HEPATITIS C AB	Hepatitis C virus RNA

Flag 1: Existing HCV/Liver Disease

 Existing HCV / Liver Disease. Bring patient in for anti-HCV antibody testing within 3 months.

Flag is appended to patient if:

- Patient has a prior confirmation of HCV
- Patient is showing signs of liver disease

Patients with prior confirmation of HCV

Searches for all patients with a HCV lab result value of:

- Greater than 0
- Positive
- Reactive
- Detective

- Evidence

AND

Has NO HCV lab result in their chart from the last 10 years

AND

Patient does not have any of the HCV forms saved to their chart

Patients with signs of Liver Disease

Searches for all patients that have an AST or ALT value that is greater than or equal to 40

OR

Platelets or Platelet Count value that is less than 150

OR

Diagnostic code in the History of Problems Medical History Band that is associated with Cirrhosis, including:

573	5730	5731	5732	5733
5734	5735	5736	5737	5738
5739	K746	K7460	K7469	K74.6
K74.69	P7881			

That is active and not flagged as negative.

OR

Diagnostic code in the History of Problems Medical History Band that is associated with Liver Fibrosis, including:

571	5710	5711	5712
5713	5714	5715	5716
5717	5718	5719	K740
K74.0			

That is active and not flagged as negative.

AND

Has NO HCV lab result in their chart from the last 10 years


AND

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Patient does not have any of the HCV forms saved to their chart

Flag 2: HCV Risk Factors Present

 HCV Risk Factors Present. Screen patient using HCV Risk Assessment Form.

Flag is appended to patient if a risk factor is present based on one or more of the 3 following categories:

- Age
- Lifestyle Factors
- Co-Infections

Risk Factor: Age

Searches for all patients with a date of birth between 1945 and 1975

OR

Have a diagnosis in the History of Problems Medical History Band for: Hepatitis B, Hep B, HBV, B19 or 070

AND

Has NO HCV lab result in their chart from the last 10 years

AND

Patient does not have any of the HCV forms saved to their chart

Risk Factor: Lifestyle

Searches for all patients with one or more of the following lifestyle factors found in the Lifestyle Medical History Band:

Blood Transfusion	Inhalational Drug	Drug Addict	Tattoos
Transfusion	IV drug	Prostitution	Cocaine
Injection drug	IVDU	Incarceration	Needle-stick
Drug use	IDU	Prison	Hemodialysis

That is active and is not flagged as negative

AND

Has NO HCV lab result in their chart from the last year

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AND

Patient does not have any of the HCV forms saved to their chart

Risk Factor: Co-Infections

Searches all patients with one or more of the following diagnostic codes in the History of Problems Medical History Band:

STI/STD	SYPHILLIS	CHLAMYDIA	HIV	
0990	A539	A749	042	0449
0991	A53.9	A74.9	0420	7958
0992	097	079.8	0421	B20
0994	0970	0798	0422	B9735
0998	0971	07998	0429	O98711
0999	0979	079	043	O98712
0798		0790	0430	O98713
07988		0791	0431	O98719
0993		0792	0432	09872
B90		0793	0433	O9873
		0799	044	Z206
			0440	Z21

That is active and is not flagged as negative

AND

Has NO HCV lab result in their chart from the last year

OR

Diagnostic code in the History of Problems Medical History Band that is associated with Hepatitis B, including:

B19	070	0703
-----	-----	------

That is active and is not flagged as negative

AND

Has NO HCV lab result in their chart from the last 10 years

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Phone: 1.866.729.8889
Fax: 1.866.421.9332

Accuro@QHRtech.com
www.AccuroEMR.com

AND

Patient does not have any of the HCV forms saved to their chart

Support and Training

QHR Technologies can provide your clinic with support and user training. User training may be subject to a fee.

QHR Technologies Inc. Client Services
Phone: 866.729.8889
Email: accuro@QHRTech.com

References

1. Canadian Liver Foundation: Hepatitis C. http://www.liver.ca/liver-disease/types/viral_hepatitis/Hepatitis_C.aspx Accessed June 5, 2017.
2. Public Health Agency of Canada: Hepatitis C, Are You At Risk? <http://healthycanadians.gc.ca/publications/diseases-conditions-maladies-affections/poster-hepc-affiche/alt/poster-hepc-affiche-eng.pdf> Accessed June 5, 2017.
3. Centers for Disease Control and Prevention: Hepatitis C FAQs for the Public. <https://www.cdc.gov/hepatitis/hcv/cfaq.htm> Accessed June 5, 2017.

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