A. Any of the following lab test results should trigger case investigation:
   A. RIBA positive lab results in all age groups
   B. Anti HCV screening test results with high signal-to-cut-off ratio
   C. HCV RNA positive lab results (Optional: Investigation of this result can be ignored if you don’t have time to do it)

B. Upon receiving these lab results, follow the investigation procedure outlined on page 2

C. Investigation time line: After receiving the lab results, the patient should be contacted within a two week period, but no later than two months

Note: A documented negative HCV antibody laboratory test result followed within 6 months by a positive test (as described in the laboratory criteria for diagnosis) result does not require an acute clinical presentation to meet the surveillance case definition of acute hepatitis C.
Hepatitis C Case Classification

**Note:** All relevant serological markers, nucleic acid amplification test (e.g., PCR) results and clinical information (yes or no answers) need to be completed in the NBS for all reportable lab results and case investigation needs to be closed once the investigation is complete.

*This is the terminology used in the new hepatitis C case definition. In NBS, this is described as “Hepatitis C Infection, Chronic or Resolved”.

**Signal-to-cut-off-ratio:** [http://www.cdc.gov/hepatitis/HCV/LabTesting.htm](http://www.cdc.gov/hepatitis/HCV/LabTesting.htm) or go to page 7

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**Hepatitis C Infection, Past or Present**
(Go to page 4 and 6 for details if you want to use NBS as your Chronic Hep C registry)

**Confirmed Acute Hep C Case**
(Go to the page 5)

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Only Anti HCV screening positive tests (No RIBA or HCV RNA test)

**Is it a high signal-to-cut-off-ratio?**

YES

NO / Unknown

Probable Hepatitis C Infection, Past or Present*
(Yes or no answers)

RIBA or HCV RNA test positive

Does the patient have an acute illness with a discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain)?

YES

IgM antibody to hepatitis C core antigen and IgM antibody to hepatitis C virus test result (if done)

Positive

NO

Does patient have jaundice or elevated ALT (> 400 IU/L)?

YES

NO

Hepatitis C Infection, Past or Present*
(Yes or no answers)

*This is the terminology used in the new hepatitis C case definition. In NBS, this is described as “Hepatitis C Infection, Chronic or Resolved”.
Chronic Hepatitis C Case Classification

Antibodies to hepatitis C virus (anti-HCV) screening-test-positive with low or unknown signal-to-cut-off ratio level in person >18 months of age and no RIBA of HCV RNA test

Does patient have jaundice or elevated ALT (above maximum normal)?

YES

Probable Hepatitis C Infection, Past or Present*

NO

Not a Case

HCV RNA positive test (for all age group) or RIBA positive test (if person >18 months of age) that does not meet the case definition for acute hepatitis C.

Confirmed Hepatitis C Infection, Past or Present*

Note: A documented negative HCV antibody laboratory test result followed within 6 months by a positive test result (as described in the laboratory criteria for diagnosis) does not require an acute clinical presentation to meet the surveillance case definition of acute hepatitis C.

*This is the terminology used in the new hepatitis C case definition. In NBS, this is described as “Hepatitis C Infection, Chronic or Resolved”.
Prevention Messages and Data Collection: Acute Hepatitis C Cases

Prevention for Acute Hepatitis C

Provide information that at-risk contacts* need to talk to their healthcare provider regarding testing and case management (if tested positive).

Provide prevention information: use condoms, do not share personal items (e.g., razors, toothbrushes, needles, syringes), use barrier precautions, stop drug use or use clean needles and syringes, do not share paraphernalia, and avoid alcohol.

Advise patient to follow up with their healthcare provider for necessary follow-up and case management.

Advise patients to follow up with their healthcare provider to get vaccinated for hepatitis A and hepatitis B if not previously vaccinated.

Complete risk factor information in NBS.

Indicate in NBS if prevention information was provided by typing ‘PAG’ (prevention advice given) in the comment section.

*At risk contacts: contacts with blood exposure (e.g., needle sharing, glucometer and/or lancet sharing) or men having sex with men (MSM).
Prevention for Chronic Hepatitis C

Indicate in NBS that the patient does not have symptoms or is not jaundiced.

Provide prevention information: use condoms, do not share personal items (e.g., razors, toothbrushes, needles, syringes), use barrier precautions, stop drug use or use clean needles and syringes, do not share paraphernalia, and avoid alcohol.

Advise patients to follow up with their healthcare provider to get vaccinated for hepatitis A and hepatitis B if not previously vaccinated.

Complete risk factor information in NBS.

Indicate in NBS if prevention information was provided by typing ‘PAG’ (prevention advice given) in the comment section.

*At risk contacts: contacts with blood exposure (e.g., needle sharing, glucometer and/or lancet sharing) or men having sex with men (MSM).
## Signal to Cut off Ratios of Commercially Available Assays for HCV Antibody Screening tests

<table>
<thead>
<tr>
<th>Type of Test</th>
<th>Screening Test Kit Name</th>
<th>Manufacturer</th>
<th>Assay Format</th>
<th>Signal-to-Cut-Off Ratio*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti HCV antibody test (screening test)</td>
<td>Ortho HCV Version 3.0 ELISA test system</td>
<td>Ortho</td>
<td>EIA (Enzyme Immunoassay)</td>
<td>( \geq 3.8 )</td>
</tr>
<tr>
<td>Anti HCV antibody test (screening test)</td>
<td>Abott HCV EIA 2.0</td>
<td>Abbot</td>
<td>EIA (Enzyme Immunoassay)</td>
<td>( \geq 3.8 )</td>
</tr>
<tr>
<td>Anti HCV antibody test (screening test)</td>
<td>VITROS anti HCV</td>
<td>Ortho</td>
<td>CIA (Chemiluminescent Immunoassay)</td>
<td>( \geq 8.0 )</td>
</tr>
<tr>
<td>Anti HCV antibody test (screening test)</td>
<td>AxSYM anti HCV</td>
<td>Abbot</td>
<td>MEIA (Micro particle Immunoassay)</td>
<td>( \geq 10.0 )</td>
</tr>
<tr>
<td>Anti HCV antibody test (screening test)</td>
<td>Architect anti HCV</td>
<td>Abbot</td>
<td>CMIA (Chemiluminescent Micro particle Immunoassay)</td>
<td>( \geq 5.0 )</td>
</tr>
<tr>
<td>Anti HCV antibody test (screening test)</td>
<td>Advia Centaur HCV</td>
<td>Bayer</td>
<td>CIA (Chemiluminescent Immunoassay)</td>
<td>( \geq 11.0 )</td>
</tr>
</tbody>
</table>

* predictive of a true positive \( \geq 95\% \) of the time

Follow-Up Prevention Messages for Hepatitis C Positive Patients

If case patient is available:

“This is [insert your name] calling from [insert your agency]. I would like to speak with [insert name of patient] about a recent illness [he/she] has had. Is [insert name of patient] available?”

“Hold on a moment.”

“Hello?”

“This is [insert your name] calling from [insert your agency]. Is this [insert name of patient]?”

“Yes.”

“I am calling to talk to you about a recent visit to your healthcare provider. Do you have about 10 minutes for me to go over some important information?”

- If no, schedule a time to call back. –

- If yes, continue below. –

“During a recent visit with your healthcare provider at [insert name of clinic or doctor’s office] you had a blood sample taken for testing. One of the blood tests done indicates that you are positive for hepatitis C. Have you have been told before that you have hepatitis C?”

- Regardless of answer, continue below. –

“Hepatitis is an inflammation of the liver. The hepatitis C virus is one of causes of this inflammation. When inflamed, it becomes increasingly difficult for the liver to perform its job.”
Follow-Up Prevention Messages for Hepatitis C Positive Patients

“A person may have hepatitis C and not have any symptoms. It is possible to spread hepatitis C to others in the absence of symptoms. If symptoms are present, they may include:

- Yellow skin or eyes – also known as jaundice
- Loss of appetite
- Feeling tired
- Muscle, joint or stomach pain
- Nausea, vomiting or diarrhea

A person becomes infected with hepatitis C when they are exposed to or come in contact with blood from someone who is already infected with hepatitis C. This exposure can happen:

- During sexual intercourse, especially among men having sex with men
- By sharing personal items, like razors or toothbrushes
- By sharing needles, syringes, or other drug paraphernalia
- By sharing diabetic lancets and glucometers

There are a number of things that you can do to prevent hepatitis C from spreading to others:

- Using condoms appropriately during sexual intercourse; avoid rough sex
- Don’t share personal items, like razors or toothbrushes
- Don’t inject drugs; if one chooses to continue, don’t share needles, syringes, or other drug paraphernalia
- Don’t share diabetic lancets and glucometers”
Follow-Up Prevention Messages for Hepatitis C Positive Patients

“Anyone who might have come in contact with your blood in some way (such as sharing of personal items or sharing a needles, syringes and other drug paraphernalia, men having sex with men), are at risk for getting hepatitis C. Encourage those persons to take the preventive measures mentioned.

There are a number of things you can do to take care of yourself:

• Avoid drinking alcohol and IV drug use
• Do not share personal items, diabetes equipment or tattooing equipment
• Eat healthy, get plenty of rest, and exercise
• See your healthcare provider for further care
• Get vaccinated for hepatitis A and hepatitis B if not already done

Do you have access to the internet at home, or can you get to a library that has internet access? The Health Department has a website with many resources regarding hepatitis C. The website can be found at:

http://health.state.tn.us/Ceds/Adult_Viral_Hepatitis/Adult_Viral_Hepatitis.shtml
Follow-Up Prevention Messages for Hepatitis C Positive Patients

“You can also Google ‘adult viral hepatitis, Tennessee’. The top option should be the State’s website called ‘Adult Viral Hepatitis – the Tennessee Department of Health’. Start by looking at the following sections:

• Patient Education – Hepatitis C
• Tennessee Specific Resources
• Hepatitis Treatment and Financial Resources
• Support Groups
• Tattooing and Piercing
• Injection Drug use

If you find that you have additional questions after reviewing the website, please call 615-741-7247 and ask for the Adult Viral Hepatitis Prevention Coordinator.”
Follow-Up Prevention Messages for Hepatitis C Positive Patients

If case patient is not available:

“This is [insert your name] calling from [insert your agency]. I would like to speak with [insert name of patient] about a recent illness [he/she] has had.”

“[Insert name of patient] is not available right now.”

“Could you ask [insert name of patient] to call me at [insert your phone #]?”

NOTE:
Per the folks in FoodNet, they usually call people once in the AM and once in the PM on each of 4 days. If they are still unable to reach the case patient, they send information in the form of a letter.
This Patient is Diagnosed With:

- Acute Hepatitis C
- Chronic Hepatitis C

Provide the Following Prevention Messages:

- Provide patient with population specific CDC hepatitis B fact sheet
- Instruct patient
  - That hepatitis C is spread through contact with blood from someone who is already infected with hepatitis C
  - That it is possible to spread hepatitis C even though they don’t have symptoms
  - To use protective barriers (e.g., condoms) during sexual intercourse
  - To not share personal items (e.g., razors or toothbrushes)
  - Strongly discourage home-made tattoos; if chooses to get tattoos, encourage going to a tattoo parlor
- If drinks alcohol
  - Strongly encourage patient to stop the use of alcohol
  - Refer patient to appropriate care if receptive to treatment
- If an IV drug user
  - Strongly encourage patient to stop the use of IV drugs
  - Refer patient to appropriate care if receptive to treatment
  - Chooses to continue, instruct patient to not share needles, syringes or other drug paraphernalia
- If diabetic: instruct patient to not share lancets, glucose meters or insulin pens

Offer the Following Vaccination Messages:

- Strongly encourage patient to get vaccinated for hepatitis A and hepatitis B (if not previously vaccinated)

Vaccines can be obtained from the patient’s healthcare provider

Offer the Following Follow-Up Care:

- Instruct patient to encourage contacts to follow up with their healthcare provider about getting tested for hepatitis C and any follow-up care needed based on results
- Instructed to go to the State Health Department’s Adult Viral Hepatitis website by Googling “adult viral hepatitis Tennessee” and select the 1st option (“Adult Viral Hepatitis – the Department of Health”)
- Encouraged to contact the Adult Viral Hepatitis Prevention Coordinator at 615-741-7247 with any further questions
I Have Been Diagnosed With:
- Acute Hepatitis C
- Chronic Hepatitis C

Did I Receive the Following Prevention Messages:
- Population specific CDC hepatitis C fact sheet
- Instructed
  - That hepatitis C is spread through contact with blood from someone who is already infected with hepatitis C
  - That it is possible to spread hepatitis C even though I don’t have symptoms
  - To use protective barriers (e.g., condoms) during sexual intercourse
  - To not share personal items (e.g., razors or toothbrushes)
  - Strongly discouraged home-made tattoos; if I choose to get tattoos, I am encouraged to go to a tattoo parlor
  - If I drink alcohol
    - Strongly encouraged to stop the use of alcohol
    - Referred to appropriate care if receptive to treatment
  - If I am an IV drug user
    - Strongly encouraged to stop the use of IV drugs
    - Referred to appropriate care if receptive to treatment
    - Choosing to continue, instructed to not share needles, syringes or other paraphernalia
  - If diabetic: instructed to not share lancets, glucose meters or insulin pens

Was I Offered the Following Vaccination Messages:
- Strongly encouraged to get vaccinated for hepatitis A and hepatitis B (if not previously vaccinated)
- Vaccines can be obtained from the my healthcare provider

Was I Offered the Following Follow-Up Care:
- Instructed to encourage contacts to follow up with their healthcare provider about getting tested for hepatitis C and any follow-up care needed based on results
- Instructed to go to the State Health Department’s Adult Viral Hepatitis website by Googling “adult viral hepatitis Tennessee” and select the 1st option (“Adult Viral Hepatitis – the Department of Health”)
- Encouraged to contact the Adult Viral Hepatitis Prevention Coordinator at 615-741-7247 with any further questions