

## Acute Hepatitis C - Case Definition and Control Measures (2020) –

### Clinical Criteria

One or more of the following:

- Jaundice **OR**
- Peak elevated total bilirubin levels > 3.0 mg/dL **OR**
- Peak elevated serum alanine aminotransferase (ALT) level >200 IU/mL during the period of acute illness **OR**

### **AND**

- The absence of a more likely diagnosis (i.e., acute or advanced liver disease due to other causes such as alcohol exposure, other viral hepatitis, hemochromatosis, pre-existing chronic HCV infection, etc.)

Test Conversion

- A negative HCV antibody, HCV antigen or RNA test results followed with 12 months by documented positive results on *any* of these tests

### Case Definition

Probable

- A case that meets clinical criteria and has a positive anti-HCV antibody test, but has no reports of a positive HCV NAT (for HCV RNA)

### **AND**

- Does not have test conversion within 12 months or has no report of test conversion

Confirmed

- A case that meets clinical criteria and has a positive HCV NAT or HCV antigen

### **OR**

- Has had test conversion within 12 months.

### First Actions:

Confirm the diagnosis

- Review the laboratory results
- Search the individual's identifying information in MIDIS to ascertain if it is a new or old case.
  - If this is an old case, attach the Hepatitis C lab to the old investigation.
- Contact the provider
  - Review the clinical presentation (Jaundice, total bilirubin levels, liver enzymes
  - Had the patient been tested before with negative results
  - Identify any risk factors (i.e., injecting drug use)

- Determine if this is an acute or chronic case. Use CCDM or CDC case definition for assistance.
- If this is a new case, start an investigation in MIDIS.

### **Control Measures for Acute HCV:**

- Contact and interview the patient to determine source, risk factors, and transmission settings.
- Ask about possible exposures 2 weeks to 6 months prior to onset of symptoms. Exposure information should include:
  - Contact with a person with confirmed or suspected HCV infection
  - Intravenous drug use
  - Receipt of donated blood, blood products, and organs
  - Occupational or other needle stick injuries in a health care setting
  - Birth to an HCV infected mother
  - Other parenteral exposures within 6 months of symptom onset (e.g., medical or dental exposures, receive tattoo or piercing, etc.)
  - High-risk sexual contact (e.g., multiple partners, history of STDs, etc.)
- Education and counseling
- Identify, contact, and interview patient contacts

### **Education and Counseling:**

- Education to prevent new infections
  - Patients should be informed about the low but present risk for transmission with sex partners.
  - Sharing personal items that might have blood on them, such as toothbrushes or razors, can pose a risk to others.
  - Cuts and sores on the skin should be covered to keep from spreading infectious blood or secretions.
  - Donating blood, organs, tissue, or semen can spread HCV to others.
- Education to protect the liver
  - Avoid alcohol and illicit drugs
  - Consult care provider regarding medications, even OTC (especially Tylenol)
- Opportunity and referral for treatment
- Vaccination for Hepatitis A and B, if no history of vaccination
- There are no restrictions for work for individuals infected with Hepatitis C

# Chronic Hepatitis C - Case Definition and Control Measures (2020)

## Case Definition

### Probable

- A case that does not meet clinical criteria or has no report of clinical criteria; **AND**
- Does not have test conversion within 12 months or has no report of test conversion; **AND**
- Has a positive anti-HCV antibody test, but no report of a positive HCV NAT

### Confirmed

- A case that does not meet clinical criteria (no symptoms of acute infection) or has no report of clinical criteria; **AND**
- Does not have test conversion within 12 months or has no report of test conversion; **AND**
- Has a positive HCV NAT

## First Actions:

### Confirm the diagnosis

- Review the laboratory results
- Search the individual's identifying information in MIDIS to ascertain if it is a new or old case.
  - If this is an old case, attach the Hepatitis C lab to the old investigation.
- Contact the provider
  - Review the clinical presentation (Jaundice, total bilirubin levels, liver enzymes
  - Had the patient been tested before with negative results
  - Identify any risk factors (i.e., injecting drug use)
- Determine if this is an acute or chronic case. Use CCDM or CDC case definition for assistance.
- If this is a new case, start an investigation in MIDIS.

## Control Measures for Chronic HCV:

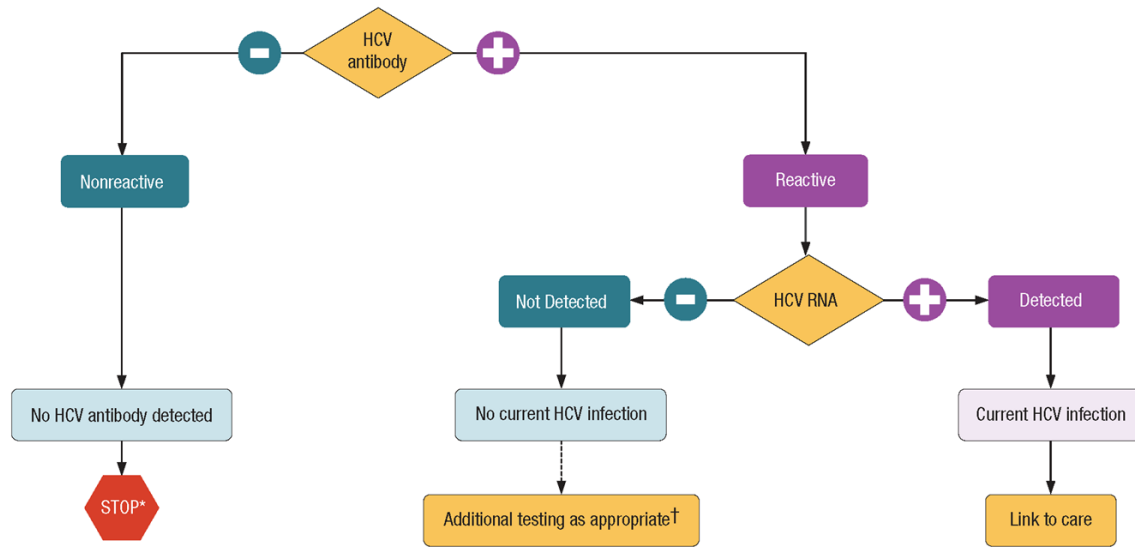
- May contact and interview the patient to determine source, risk factors, and transmission settings. May also work through the provider to accomplish this step.
- Control measures
  - Ask about possible exposures outlined for acute hepatitis C (above) beyond the 2 weeks to 6 months' timeframe. For example, patients should be asked if they ever had a parenteral exposure, rather than restricting it to within the 6-month window.
- Education and counseling (see above)

# Evaluation HCV lab results in MIDIS – CDC Testing algorithm

## Recommended Testing Sequence for Identifying Current Hepatitis C Virus (HCV) Infection



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention



\* For persons who might have been exposed to HCV within the past 6 months, testing for HCV RNA or follow-up testing for HCV antibody is recommended. For persons who are immunocompromised, testing for HCV RNA can be considered.

† To differentiate past, resolved HCV infection from biologic false positivity for HCV antibody, testing with another HCV antibody assay can be considered. Repeat HCV RNA testing if the person tested is suspected to have had HCV exposure within the past 6 months or has clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

Source: CDC. Testing for HCV infection: An update of guidance for clinicians and laboratorians. *MMWR* 2013;62(18).

## Acute HCV - Probable acute HCV

### Probable acute HCV

MIDIS case status = "probable"

#### Test Results

Hepatitis C virus Ab [Presence] in Serum or Plasma by Immunoassay:

REACTIVE

Reference Range: (Nonreactive) - (Final)



- The patient meets the clinical criteria
- No report of an RNA test
- No test conversion within 12 months

## Acute HCV - Confirmed acute HCV

### Confirmed acute HCV

MIDIS case status = "confirmed"

#### Test Results

Hepatitis C virus RNA [Units/volume] (viral load) in Serum or Plasma by Probe and target amplification method: 729000 IU/mL

Reference Range: (UNDETECTED) - (Final)



- The patient meets the clinical criteria

## Chronic HCV - Probable and Confirmed HCV

### Probable HCV

MIDIS case status = “probable”

No longer use  
“suspect” as a case  
status

#### Test Results

Hepatitis C virus Ab Signal/Cutoff in Serum or Plasma by Immunoassay:  
24.00 1  
Reference Range: (<1.00) - (Final)

Hepatitis C virus Ab [Presence] in Serum or Plasma by Immunoassay:  
Reactive (qualifier value)  
Reference Range: (NON-REACTIVE) - (Final)

### Confirmed HCV

MIDIS case status = “confirmed”

#### Test Results

Hepatitis C virus RNA [Units/volume] (viral load) in Serum or Plasma by Probe and target  
amplification method: 729000 IU/ML  
Reference Range: (UNDETECTED) - (Final)

## Chronic HCV – Not a Case

### There is no active infection

MIDIS case status = “not a case”

Mark as reviewed. Do  
not need to start an  
investigation

#### Test Results

Hepatitis C virus Ab [Presence] in Serum or Plasma by Immunoassay:  
Anti HCV Reactive: The CDC recommends confirmatory testing - (Final)  
Hepatitis C virus Ab [Presence] in Serum or Plasma by Immunoassay:  
Reactive  
Reference Range: (Nonreactive) - (Final)

Hepatitis C virus RNA [Units/volume] (viral load) in Serum or Plasma by Probe and target  
amplification method:  
<15 NOT DETECTED - (Final)  
Reference Range: (NOT DETECTED) - (Final)

Hepatitis C virus RNA [log units/volume] (viral load) in Serum or Plasma by Probe and target  
amplification method:  
<1.18 NOT DETECTED - (Final)  
Reference Range: (NOT DETECTED) - (Final)

## Frequently Asked Questions

**Q:** Why do I see detectable RNA that is followed by RNA not detected?

**A:** For confirmed chronic cases, this indicates that the infection is resolved.

Date Collected	Test Results
08/22/2013	Hepatitis C virus (HCV), Quantitative by PCR: HCV RNA Viral Load - 6.7 Log iu/ml positive =4998290.00000 iu/ml
11/01/2018	Hepatitis C virus RNA [Units/volume] (viral load) in Serum or Plasma by Probe and target amplification method: 3370000.0000 IU/mL - (Final)
01/15/2019	Hepatitis C virus Ab Signal/Cutoff in Serum or Plasma by Immunoassay: >11.0 s/co ratio Reference Range: (0.0-0.9) - (Final)
01/15/2019	Hepatitis C virus genotype [Identifier] in Serum or Plasma by Probe and target amplification method: Hepatitis C virus subtype 1a
05/28/2019	Hepatitis C virus RNA [Units/volume] (viral load) in Serum or Plasma by Probe and target amplification method: Not detected

**Q:** Can there be a negative HCV antibody test result and detectable RNA?

**A:** This may happen if it is an acute case. Early in the disease, there may be too few antibodies to detect.

**Q:** The provider ordered an RNA test that came back undetected. There was no antibody test. Three months later, the next test was an antibody test that came back positive.

Is this a new infection?

**A:** It is not possible to tell if this is a new infection with these two test results. The provider would need to order a second confirmatory test.

## Frequently Asked Questions

- Start the investigation as soon as possible – generally the case status will be “*probable*” until get more information
- Don’t wait for RNA levels to come back to start an investigation
  - You may have to call the provider
- Click “Create Notifications” button as soon as you can (within 7 days)
- Some laboratory positives come from facilities or organizations where the patient is not receiving care for Hepatitis C
  - Ideal Option
  - Blood donation
  - Life insurance screenings

In these cases, contact the patient directly to implement control measures. Find out if they will seek follow up care for confirmation of chronic disease and/or treatment
- Don’t call out of state jurisdictions directly as per MT ARM 37.314. Contact [CDEpi](#) for such follow-up

## Questions?

Contact:

Helen McCaffrey  
444-4735 or [hmccaffrey@mt.gov](mailto:hmccaffrey@mt.gov)

CDEpi  
444-0273