

Best Practice Reminder

Automatic Reflex Hepatitis C Virus (HCV) Antibody to RNA Reflex Testing

Hepatitis C Testing Is Important for Hawai'i and the U.S.

- **Hawai'i has higher rates of liver cancer** than most of United Statesⁱ, and the leading causes are viral hepatitis B and Cⁱⁱ. Across the U.S., new cases of hepatitis C are on the rise, increasing by more than 60% from 2015 to 2019.ⁱⁱⁱ
- **Almost half of people with hepatitis C are unaware of their infection.**^{iv} Timely and complete testing is the first step to accessing curative treatment. However, one in three people with a positive HCV-antibody test do not receive a confirmatory RNA test.^v All adults over age 18 are currently recommended to get tested at least once.ⁱⁱⁱ
- **Hepatitis C is curable for most people within 12 weeks.** A positive test for HCV RNA is needed to diagnose current HCV infection and initiate oral curative treatment. Without treatment, 15-20% of adults with chronic HCV infection will develop progressive liver fibrosis and cirrhosis which can lead to death.ⁱⁱⁱ

HCV Antibody Reflex Testing to RNA is Best Practice

- **HCV antibody (anti-HCV) test is insufficient to diagnose current HCV infection on its own.** A positive HCV antibody test requires follow-up confirmatory RNA test to determine if someone is currently infected with HCV, per [CDC guidelines](#).
- **Positive HCV antibody tests should be “reflexed” to HCV RNA test automatically from the same blood sample.** The American Association for the Study of Liver Diseases (AASLD) and Infectious Diseases Society of America [hepatitis C guidelines](#) recommend HCV antibody testing with reflex HCV RNA testing as a best practice.

HCV Antibody Reflex Testing to RNA Improves Outcomes

- **Reflex testing improves completion of confirmatory testing.** In a multi-city study, if the specimen was not obtained on the same day, only 25% of people followed up with RNA testing after a positive HCV-antibody test.^{vi} HCV reflex testing has been shown to significantly increase the percentage of ED patients who received RNA confirmatory testing.^{vii}
- **Reflex increases treatment initiation.** HCV reflex testing confirms current HCV infection in fewer visits.^{viii} When HCV antibody, RNA, and other pre-treatment labs were bundled, patients were more likely to start treatment and to start it more quickly.^{ix}

Practice Points

- For new patients, order anti-HCV with automatic reflex to HCV RNA test

CLH Test Code: [HCVABR \(0437\)](#)

DLS Test Code: [542R](#)

- For existing patients, ensure that HCV RNA tests are completed for all positive anti-HCV test results.

CLH Test Code: [HCVRNA \(8026\)](#)

DLS Test Code: [544Z](#)

Additional Resources

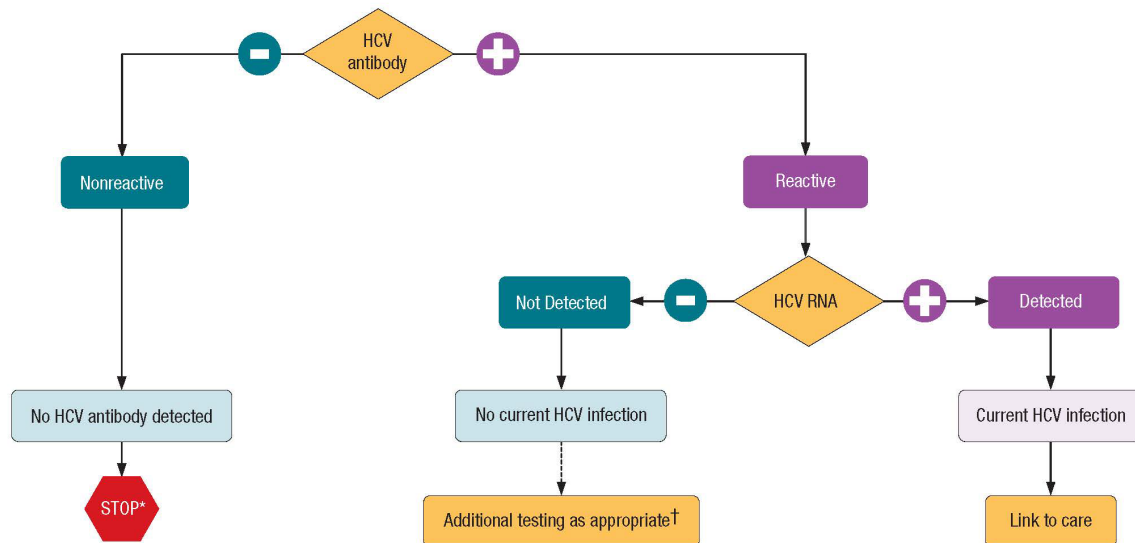
<https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm>

<https://www.cdc.gov/knowmorehepatitis/hcp/Screen-All-Patients-For-HepC.htm>

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 laboratories. *MMWR* 2013;62(18).

References

- ⁱ U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2020 submission data (1999-2018): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; www.cdc.gov/cancer/dataviz, released in June 2021. Accessed May 5, 2022.
- ⁱⁱ Wong L, Ogihara M, Ji J, Tsai N. Changing characteristics of hepatocellular cancer in Hawaii over time. *American Journal of Surgery*. 2015 July;210 (1):146-152.
- ⁱⁱⁱ Centers for Disease Control and Prevention (CDC). Screen All Patients for Hepatitis C. [cdc.gov](https://www.cdc.gov/knowmorehepatitis/hcp/Screen-All-Patients-For-HepC.htm). Reviewed June 14, 2021 . Accessed May 5, 2022. <https://www.cdc.gov/knowmorehepatitis/hcp/Screen-All-Patients-For-HepC.htm>
- ^{iv} Kim H, Yang JD, El-Serag HB, Kanwal F. Awareness of chronic viral hepatitis in the United States: An update from the National Health and Nutrition Examination Survey. *Journal of Viral Hepatitis*. 2019;26(5):596-602. <https://doi.org/10.1111/jvh.13060>
- ^v Spradling PR, Tong X, Rupp LB, Moorman AC, Lu M, Teshale EH, Gordon SC, Vijayadeva V, Boscarino JA, Schmidt MA, Holmberg SD. Trends in HCV RNA Testing Among HCV Antibody-Positive Persons in Care, 2003–2010. *Clinical Infectious Diseases*. 2014;59(7):976–981. <https://doi.org/10.1093/cid/ciu509>
- ^{vi} Blackburn NA, Patel RC, Zibbell JE. Improving Screening Methods for Hepatitis C Among People Who Inject Drugs: Findings from the HepTLC Initiative, 2012–2014. *Public Health Rep*. 2016;131 Suppl 2(Suppl 2):91–97. doi:10.1177/003335491613105214
- ^{vii} Manteuffel JJ, Lee MS, Bussa RM, et al. Hepatitis C Virus Reflex Testing Protocol in an Emergency Department. *West J Emerg Med*. 2022;23(2):108-114. Published 2022 Feb 28. doi:10.5811/westjem.2021.10.52468
- ^{viii} Mulligan K, Sullivan J, Yoon L, Chou J, Van Nuys K. Evaluating HCV screening, linkage to care, and treatment across insurers. *Am J Manag Care*. 2018;24(8):e257-e264. Published 2018 Aug 1.
- ^{ix} Seaman A, King CA, Kaser T, et al. A hepatitis C elimination model in healthcare for the homeless organization: A novel reflexive laboratory algorithm and equity assessment. *Int J Drug Policy*. 2021;96:103359. doi:10.1016/j.drugpo.2021.103359