



# Barriers in the HCV treatment cascade after confirmed diagnosis



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## Abstract:

### Background

Hepatitis C (HCV) is the most common blood-borne viral infection in the United States with an estimated prevalence of 2.4 million people<sup>[1]</sup>. Oklahoma has an estimated 54,000 chronic cases of hepatitis C and has the highest exposure rate of all 50 states<sup>[2]</sup>. Even with increased screening and access to medications, gaps exist in the cascade of care for patients with hepatitis C with approximately 40% of diagnosed patients not having been prescribed antiviral treatment<sup>[3]</sup>. Treatment of hepatitis C has been associated with a reduction in liver failure, a reduction in hepatocellular carcinoma, and a reduction in all-cause mortality.

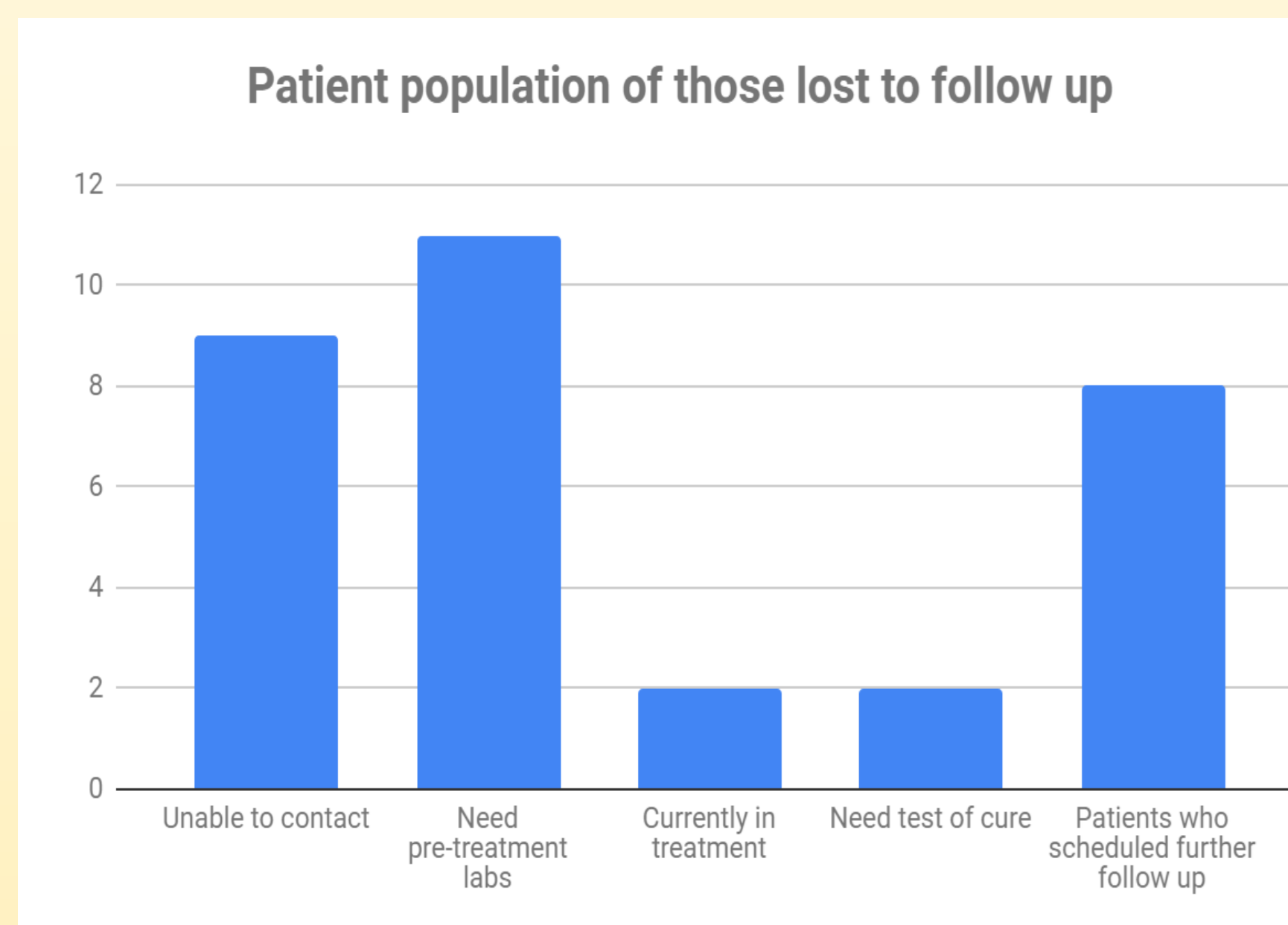
### Aim

With increased access to curative medications and better treatment options for hepatitis C, our goal is to determine the barriers to treatment for those who have been diagnosed with hepatitis C. By removing barriers to hepatitis C treatment, we can decrease the incidence and prevalence of this disease. Furthermore, by decreasing the disease burden of hepatitis C, we can decrease rates of liver disease, cirrhosis, hepatocellular carcinoma, and associated morbidity and mortality.

### Method

We conducted a retrospective review of lab data from the electronic health record for patients seen by the OSU Family Medicine department. Patients who had a detectable HCV viral load lab drawn between January 1, 2018 to March 31, 2019 was generated. From this list we identified those patients who were not actively being treated for HCV. Our intervention was contacting these patients to assess any barriers which may have delayed treatment, and evaluate how effective this phone call is in connecting patients with the proper resources to proceed to the next step in work up and treatment.

### Results

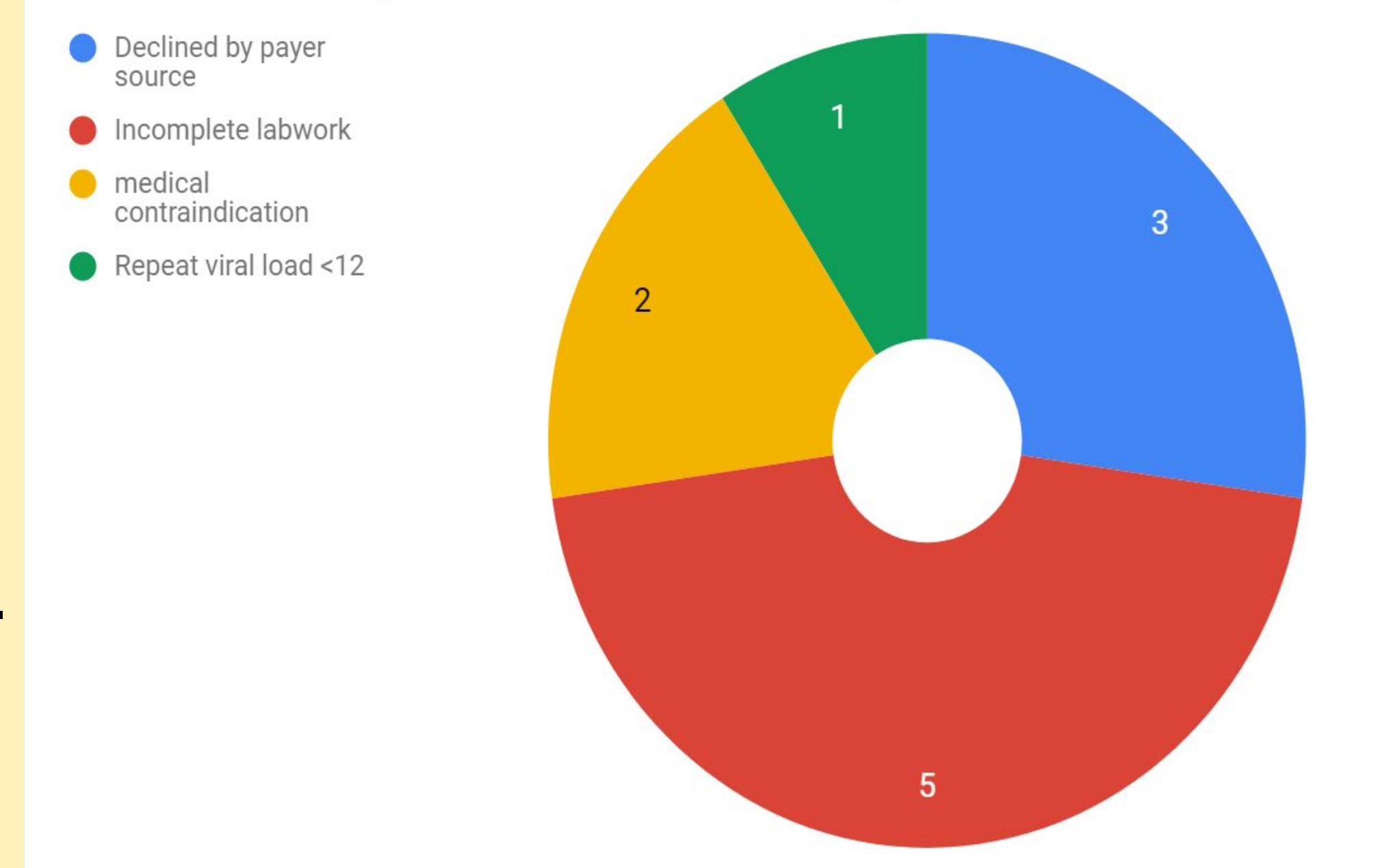


We attempted to call 24 patients who were identified as “lost to follow up” with an elevated hepatitis C viral load. We were unable to contact 9; We then instructed the remaining 15 patients to schedule an appointment for further workup and/or treatment. 8 out of the 15 patients were scheduled with an OSU Family Medicine provider for further followup.

The most common Barrier to individuals diagnosed with hepatitis C in our panel were identified as:

- 1) Patient inability to complete all lab work and imaging.
- 2) Specialist referral requirement by some insurance companies.
- 3) Current medical comorbidities at time of phone call.

### Specific barriers to starting treatment



### Conclusions

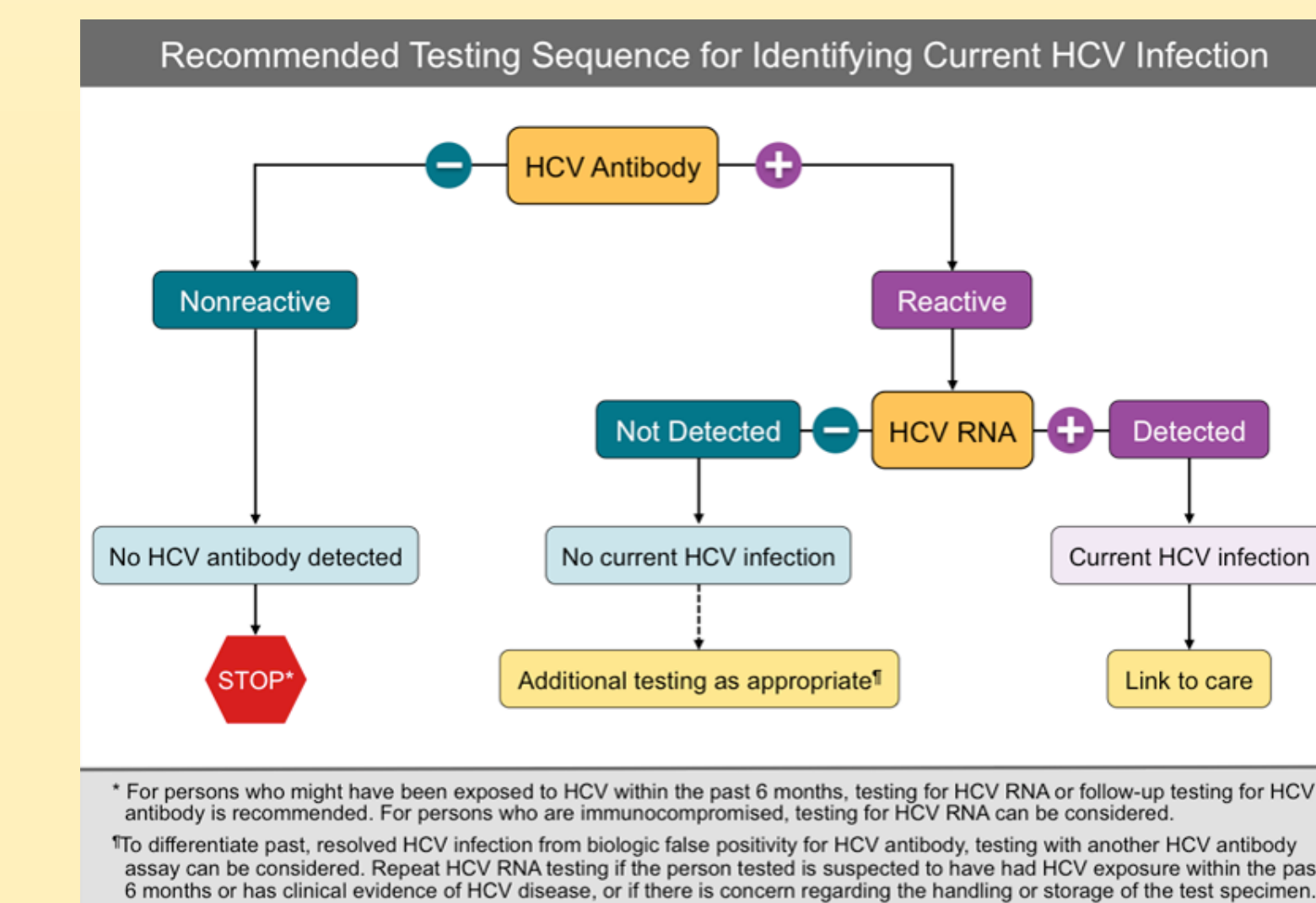
Our data revealed a major barrier to patients progressing through the hepatitis C treatment cascade is reliable communication between patient and medical team. Pre-treatment testing was another significant barrier due to the sequence of labs required for workup, and a lack of reflexive lab studies. Treatment being declined by insurance companies remains problematic, despite overwhelming evidence of treatment efficacy administered by primary care providers; many of these payer sources require the patient be seen by a specialist for HCV treatment. Considering how there has been a substantial increase in access and availability to hepatitis C treatment, allowing primary care physicians to administer treatment would greatly expand access for this patient population to be cured.

Our intervention resulted in 8 of the 24 patients scheduling further appointments for workup or treatment. This simple intervention led to a 33% follow up rate. Further interventions may include automatic reflex testing to shorten time from diagnosis to treatment.

### Current screening and management guidelines<sup>[4]</sup>

#### At risk for exposure<sup>[5]</sup>:

- born between 1945-1965
- high risk activity (IV/intranasal drug use, MSM)
- recipient of potentially contaminated blood products
- history of HIV, hepB, or other bloodborne illness
- past or current use of hemodialysis
- history of incarceration
- biochemical evidence of chronic liver disease
- extrahepatic manifestations associated with chronic hepatitis C (porphyria cutanea tarda, lichen plans, etc.)



#### Labs needed prior to treatment selection:

- viral load, genotype, CBC, CMP, liver US (with possible fibroscan/biopsy/ or more imaging), INR, HIV and HBV status

#### Treatment specific to genotype:

- routine monitoring based on antiviral agent

Medication	Genotype 1	Genotype 2	Genotype 3	Genotype 4	Genotype 5	Genotype 6
Harvoni®	X			X	X	X
Epcclusa®	X	X	X	X	X	X
Vosevi®	X	X	X	X	X	X
Mavyret®	X	X	X	X	X	X
Zepatier®	X			X		

#### Test of cure:

- performed 12 weeks after completion of treatment

### Acknowledgements

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4. American Association for the Study of Liver Disease and Infectious Diseases Society of America. HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C. Available at <https://www.hcvguidelines.org>
5. "Testing Recommendations for Hepatitis C Virus Infection | HCV | Division of Viral Hepatitis | CDC." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, [www.cdc.gov/hepatitis/hcv/guidelinesc.htm](http://www.cdc.gov/hepatitis/hcv/guidelinesc.htm).



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