

## CLINICAL DECISIONS

## Management of Incidental Hepatitis C Virus Infection — Polling Results

Marissa B. Wilck, M.D., Mary Beth Hamel, M.D., and Lindsey R. Baden, M.D.

In late April, we presented a case of a healthy black woman incidentally found to be infected with hepatitis C virus (HCV) in Clinical Decisions,<sup>1</sup> an interactive feature designed to assess how readers would manage a clinical problem for which there may be more than one appropriate approach to treatment. Our patient was a 25-year-old investment banker who had a positive result on an HCV antibody test when attempting to donate blood for the first time. She was in good health with no other known medical illnesses. She was seronegative for human immunodeficiency virus.

A total of 3216 votes were cast that could be attributed to a continent or region (Fig. 1; also see the interactive map). Of the three treatment options proposed, the most popular — with 1400 votes (44% of the 3216 votes cast) — was the option to perform a liver biopsy and to base further treatment on the findings of the biopsy. The second most popular option, expectant management with periodic assessment of liver function, received 1086 votes (34% of the total), and the option to commence HCV therapy with peginterferon and ribavirin received 708 votes (22% of the total).

The 3216 voters were from 115 different countries and identified themselves as physicians (72%), medical students or physicians in training (16%), other health professionals (8%), or other (4%). The majority of the votes were from the United States (45%), followed by Italy (5%), the United Kingdom (4%), and Brazil (3%).

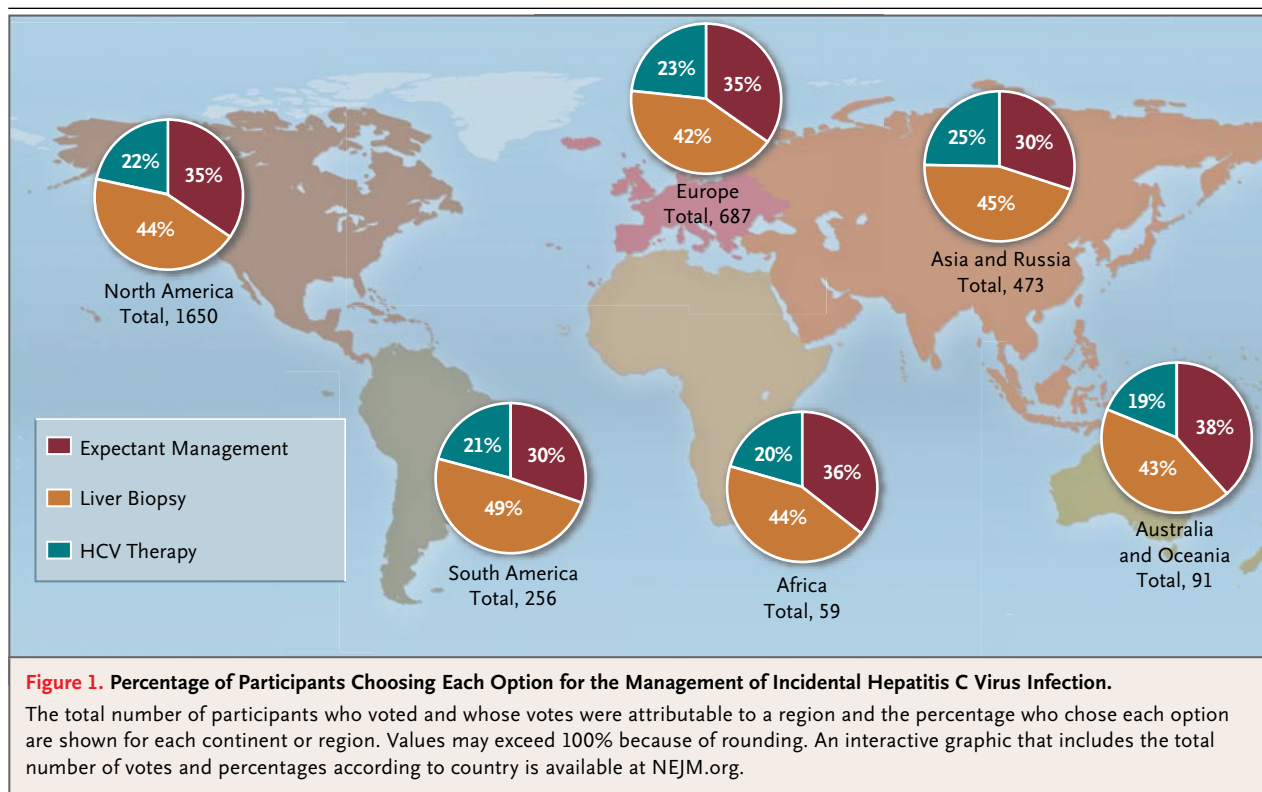
In addition to the votes, we received 201 comments from readers, of which 94% were posted at NEJM.org (after being reviewed for appropriateness). Some readers voiced the opinion that the patient should be presented with all three options and information regarding the risks and potential benefits for each and that the decision should then be based on the patient's wishes.

However, the majority of the readers did go on to indicate which option they would choose. Many noted that some of the patient's laboratory values that appeared to be within the normal range (e.g., aspartate aminotransferase of 30 U per liter and platelet count of 175,000 per cubic milliliter) are most likely not normal for this woman and could indicate underlying liver disease. We also received a number of comments reflecting the struggle physicians and others have had with this disease and its treatment.

The majority of respondents who favored a liver biopsy to help guide further management highlighted the concern that liver-function tests do not serve as an accurate marker for liver damage<sup>2</sup> and that liver biopsy remains the standard test for staging liver disease. It was generally felt that that the liver biopsy would allow for the most informed management decision, justifying either the possible side effects of therapy or the delay of treatment until improved therapy became available, such as that described by McHutchison et al.<sup>3</sup> and Hézode et al.<sup>4</sup>

The respondents favoring expectant management highlighted the patient's poor prognostic indicators for treatment success, such as infection with HCV genotype 1 and black race,<sup>5,6</sup> and expressed concern that the side effects of therapy outweighed the low expected success rate of therapy. An overriding theme in support of this option was the hope that new and more potent therapies would soon be available. Some suggested augmentation of the expectant management with noninvasive techniques to assess the degree of liver disease.

Conversely, others considered the patient's current good health to be a reason to choose the third option of immediate HCV therapy with peginterferon and ribavirin, arguing that she was in a position to tolerate the probable side effects of therapy and that the disease should be treated



before it considerably damages her health. A number of readers voiced the concern of ongoing, possibly irreversible liver damage that could already be present and that could worsen while therapy is delayed. Some were concerned about the possibility that the patient would be lost to follow-up and that she might return for treatment only when she noticed clinically significant health effects — at which time much of the liver damage would be irreversible.

The votes and comments reflect the complexities related to the management of HCV infection and the difficulty of balancing commonly encountered treatment-limiting side effects and suboptimal response rates with the potential complications of untreated chronic infection.

From Brigham and Women's Hospital, Boston (M.B.W.).

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