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Management of Chronic Hepatitis C

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Preface

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We welcome written comments on this evidence report. They may be sent to: Director, Center for Practice and Technology Assessment, Agency for Healthcare Research and Quality, 6010 Executive Blvd., Suite 300, Rockville, MD 20852.

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Structured Abstract

Objectives Hepatitis C is the most common blood-borne infection in the United States and can lead to serious complications including cirrhosis and hepatocellular carcinoma (HCC). The objectives of this report are to summarize evidence on the following questions in the management of chronic hepatitis C: How well do results of liver biopsy predict outcomes of treatment for chronic hepatitis C? How well do biochemical blood tests and serologic measures of fibrosis predict the findings of liver biopsy in chronic hepatitis C? What is the efficacy and safety of current treatment options for chronic hepatitis C in treatment-naive patients and in selected subgroups? What are the long-term outcomes of current treatment options for chronic hepatitis C? What is the efficacy of using screening tests for HCC to improve outcomes in chronic hepatitis C? What are the sensitivity and specificity of tests used to screen for HCC in chronic hepatitis C?

Search strategy Eight electronic databases were searched for the period between January 1996 to March 2002. Additional articles were identified by searching for references in pertinent articles and current relevant journals and by querying technical experts.

Selection criteria Articles were eligible for review if they reported original human data from a study that was designed to address a key question and that used virologic, histologic, pathologic, or clinical outcome measures. Each question had additional eligibility criteria.

Data collection and analysis Paired reviewers assessed the quality of each eligible study and abstracted data. Data were assembled in evidence tables to facilitate synthesis.

Main results For the six questions investigated, the results are as follows: 1) studies were relatively consistent in suggesting that advanced fibrosis or cirrhosis on initial liver biopsy may be an independent predictor of a slightly decreased likelihood of having a sustained virological response to treatment; 2) studies were relatively consistent in showing that serum liver enzymes have modest value in predicting fibrosis on biopsy; the extracellular matrix tests, hyaluronic acid and laminin, may have value in predicting fibrosis, and panels of tests may have the greatest value in predicting fibrosis or cirrhosis; 3) studies of treatment-naive patients with chronic hepatitis C showed greater efficacy of pegylated (peg) interferon plus ribavirin when compared to standard interferon plus ribavirin or peginterferon alone, greater efficacy of peginterferon when compared to standard interferon, and no significant increase in efficacy with standard interferon plus amantadine when compared to interferon monotherapy; for nonresponders and relapsers, standard interferon plus ribavarin was more efficacious than interferon alone; little evidence existed on treatment efficacy in HIV-infected patients, renal patients, hemophiliacs, or intravenous drug users; 4) studies were mildly consistent in suggesting that interferon-based therapies decrease the risk of HCC and cirrhosis in complete responders; 5) one study suggested that HCC was detected earlier and was more often resectable in patients who had quarterly screening with serum alpha-fetoprotein (AFP) and ultrasound than in those who had usual care; 6) studies were relatively consistent in suggesting that a serum AFP greater than 10 ng/mL has a

sensitivity of 75 to 80 percent and a specificity of about 95 percent in screening for HCC, and a serum AFP greater than 400 ng/mL has a specificity of nearly 100 percent for detection of HCC.

Conclusions The evidence suggests that liver biopsy may have some usefulness in predicting the efficacy of treatment in patients with chronic hepatitis C, and that biochemical blood tests and serologic tests have modest value in predicting the results of liver biopsy. The most efficacious treatment for chronic hepatitis C is peginterferon plus ribavirin; however few studies have examined treatment efficacy in injection drug users and those co-infected with HIV. Screening for HCC with AFP and ultrasound may improve outcomes, but studies are needed to identify the optimal screening strategy.

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