Finally...real utility scores for hepatitis C patients!

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ARTICLE

Chong CAKY, Gulamhussein A, Heathcote EJ, et al. Health-state utilities and quality of life in hepatitis C patients. Am J Gastroenterol 2003;98:630-8.

ARTICLE SUMMARY

Chong and colleagues (1) used gold-standard methods to assess health-state utilities in 193 outpatients at various stages of liver disease due to chronic hepatitis C (HCV) infection. They showed worsening of health-state utility scores with progression of disease from mild to moderate chronic hepatitis, to compensated cirrhosis, to decompensated cirrhosis and to hepatocellular carcinoma. They also confirmed improvement in health-state utility scores after liver transplantation and with sustained virological response (SVR) to treatment of HCV infection. Patients with HCV infection had lower health-state utility scores than the general Canadian population ($P<0.001$) and significantly poorer quality of life compared with population norms in the United States ($P<0.005$).

COMMENTARY

With an estimated prevalence of 240,000 cases, HCV infection has emerged as a major public health problem in Canada (2). The burden of chronic HCV infection on our health care system is expected to rise significantly in the future (3). The extent to which HCV infection impairs health-related quality of life (QOL) has been recently reviewed (4). Although many studies have explored how HCV affects QOL, little work has been done with patient-derived health-state utilities (5). After all, gold-standard methods, such as time trade-off and standard gamble, are time-consuming and often difficult to perform in the routine clinical setting.

A utility is a global QOL score between 0 (death) and 1 (full health), represented along a single axis. This type of QOL score is essential for analyses that compare costs of treatments, appraise societal burden of illness and help guide resource allocation. Due to the lack of patient-elicited utilities for HCV infection, analyses have employed clinical opinion and expert panels. This has been recognized as a weakness of HCV-related decision models. The paper by Chong and colleagues (1) will definitely fill this void.

The authors summarize, in a tabular format, all the scores derived by clinical opinion and expert panels for states of health in HCV. Contrary to conventional opinion, no differences were noted in the mean standard gamble utilities between mild to moderate chronic HCV infection and compensated cirrhosis, with utility scores of 0.79 and 0.80, respectively. The scores fell to 0.60 for decompensated cirrhosis and significantly improved to 0.86 for SVR to antiviral therapy. Patient-elicited utilities were lower than previous expert estimates in both chronic infection and sustained virological responders but higher than expected for decompensated cirrhosis and hepatocellular carcinoma. The impact of these utility scores on cost effectiveness analyses would be to decrease the margin of benefit.

Interestingly, large differences in liver pathology did not translate into significant differences in health-state utilities. Patients with SVR had QOL scores that were comparable with population norms. This study confirmed the decreased QOL in patients with active hepatitis C infection.

Limitations of this study were acknowledged by the authors and should guide future research. The subjects were drawn from a tertiary care hospital, and each was evaluated at a single point in time. Utility scores should ideally be derived from larger longitudinal studies while patients move from one health state to the other, including before and after effective antiviral therapy. In addition, interpretation of standard gamble results may be unreliable, because patients in other studies have frequently reported difficulties with this type of questioning (5).

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The major weakness of this study involved the derivation of utility scores for the two advanced categories: decompensated cirrhosis (which were based on only nine patients) and hepatocellular carcinoma (from only seven patients with HCV and eight patients without HCV). Indeed, the decompensated cirrhosis category includes patients with ascites, bacterial peritonitis, hepatic encephalopathy, hepatorenal syndrome and variceal hemorrhage, each of which is associated with its own health-state utility score.

In spite of its shortcomings, this study underscores the importance of patient-derived opinion. There is no substitute for direct patient enquiry. Although professional judgment may serve as proxy, patients' reports will remain the gold standard for cost-effectiveness analyses involving HCV infection. Chong and colleagues made every effort to describe the sociodemographic characteristics of their study population, as well as their comorbidities, because they affect QOL (1).

When all is said and done, this article will be the basis for the reassessment of all previously conducted cost effectiveness studies of HCV therapy, especially here in Canada.

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