

Feasibility and Cost Savings in VTC Follow-up of Patients Treated with Combination Ribavirin with Interferon alfacon-I for Chronic Hepatitis C

Inku Hwang, Barry L. Cannon, Kent C. Holtzmuller, Ronald K. Poropatich
Walter Reed Army Medical Center, Washington, D.C. 20307-5001

E-mail: inku.hwang@na.amedd.army.mil

ABSTRACT

Background: Although VTC is often used for conferencing, and other telemedicine applications, it is not commonly used to follow patients on clinical research protocols taking investigational drugs. This project will use a common, inexpensive, off the shelf, VTC equipment along with the internet based database to following patients with hepatitis C taking investigational antiviral medications.

Methods: As part of a multicenter, prospective, randomized clinical trial, 240 adult patients (military health care beneficiaries over age of 18 years) throughout the NARMC region with chronic hepatitis C and who have not received previous antiviral treatment will be treated with either ribavirin and interferon alfa-I vs. ribavirin and interferon alfa-2b at Walter Reed AMC hepatology clinic. The scheduled course of follow up includes evaluation by a hepatologist at Walter Reed AMC along with a symptoms check list at 1, 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, and 48 weeks. They will also be seen for follow up at weeks 12 and 24 post treatment. These follow up evaluations will be performed at chosen sites using a low cost, desk top, video-teleconferencing (VTC) equipment with the symptoms check list being filled out via web-enabled data base. This will then be compared with results from sites that were followed using standard methods. We hope to determine the feasibility, patient satisfaction as well as cost savings of such a system.

Results: Both active duty personnel and retirees are infected with hepatitis C, and approximately 80% of these patients will develop chronic liver disease with progression to cirrhosis and hepatocellular carcinoma. It is therefore imperative that an adequate treatment be found. Preliminary data indicates that interferon alfacon-I plus ribavirin may be an effective combination in decreasing the viral load of hepatitis C. Follow up of these patients, however, would involve much added cost to the military health care system as the treatment involves frequent follow ups of patients at distant sites. Using VTC and web enabled database to perform follow ups would both help to lower cost in treating these patients, increase patient satisfaction and compliance in the protocol as well as aid in finding a therapeutic solution to a debilitating disease.

Conclusions: Using now commonly used, inexpensive desktop VTC equipment and web enabled databases, we should be able to remotely monitor therapeutic efficacy and side effects of patients treated for chronic hepatitis C. By eliminating unnecessary travel with associated costs, we propose a less expensive solution that is well received by the patients for the military health care system.