

Hepatitis C treatment is cost-effective for the US prison population

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Treating all U.S. prisoners who have hepatitis C with the standard therapy of pegylated-interferon and ribavirin would be cost-effective, says a new study in the November issue of *Hepatology*, a journal published by John Wiley & Sons on behalf of the American Association for the Study of Liver Diseases (AASLD).

U.S. prisons incarcerate more than 2 million inmates each year, and between 12 and 31 percent of them are infected with chronic hepatitis C (HCV), mostly related to high rates of intravenous drug use. The current standard treatment for HCV has been shown to be cost-effective in the general population and the Federal Bureau of Prisons recommends HCV treatment for those who meet the AASLD's criteria for treatment, as long as therapy is likely to be completed. However, each state adopts its own set of treatment guidelines, and many prisoners do not ultimately get treated.

Proponents for treatment argue that we have an ethical duty to provide prisoners with the best medical practices available, and treating HCV could reduce new infections as well as future medical expenses from advanced liver disease. Opponents point out that treatment is expensive and must be paid for by taxpayers, while many non-imprisoned HCV patients who don't have health insurance are denied access to this care.

Researchers, led by Sammy Saab of the David Geffen School of Medicine at UCLA, sought to determine if HCV treatment would be cost-effective in the male prison population (men make up over 87

percent of U.S. prisoners). They examined published literature for relevant studies and constructed a decision analysis model employing Markov simulation, using the generally accepted cost-effectiveness threshold of \$50,000 per quality-adjusted life years.

"Our model found that treatment was cost-saving for prisoners of all age ranges and genotypes when liver biopsy was not a prerequisite to starting antiviral therapy," they report. "In other words, treatment resulted in both decreased costs and improved quality of life." Treatment was also cost-saving in most situations that included a pre-treatment liver biopsy.

The authors had not expected treatment to be cost-effective, because of the high re-infection rates and non-liver mortality rates in the prison population. However, they write, "our results demonstrate that pegylated-interferon and ribavirin is cost-saving in the prison population, both in strategies with and without biopsy. Incorporating a pre-treatment liver biopsy may be the most cost-effective approach, however, as one could potentially exclude certain patients with no fibrosis from therapy."

"If the decision to treat is based on pharmacoeconomic measures," the authors conclude, "the results of our analysis suggest that treatment is cost-saving and should not be withheld in U.S. prisoners with hepatitis C."

Since the efficacy of treatment would be diminished by relapse to injection drug use and re-infection, treatment should be coupled with educational and substance abuse programs, they suggest. And because mental illness is widespread in the prison population, and can often be exacerbated by treatment, careful mental health screening and follow-up would be required.

Source: Wiley

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