Critical issues in the treatment of hepatitis C virus infection in methadone maintenance patients

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CRD summary
This review assessed medical care for hepatitis C virus infected methadone maintenance patients, concluding that there was support for antiviral therapy in methadone maintenance patients with hepatitis C virus infection. However, given the lack of reporting of the review process and the paucity of good quality studies, the results should be treated with caution.

Authors' objectives
To assess medical care for hepatitis C virus (HCV) infected methadone maintenance patients.

Searching
PubMed, PsycINFO and SocINDEX were searched from 1990; search terms were reported. The search was restricted to English-language studies.

Study selection
Prospective studies of either antiviral therapy for hepatitis C virus or liver transplantation in methadone maintenance patients were eligible for inclusion. The included studies assessed interferon, ribavirin and peginterferon at different doses and frequencies; buprenorphine-maintained patients were also included. The primary outcome was sustained virological response defined as negative HCV-RNA 24 weeks after the end of treatment.

The authors stated neither how the papers were selected for review nor how many authors performed the selection.

Assessment of study quality
The authors assessed study quality in terms of similarity of comparison groups at baseline, use of intention-to-treat analysis and description of withdrawals and dropouts. The authors did not state how many reviewers performed the validity assessment.

Data extraction
Data on the proportions of patients with sustained virological response, completing antiviral therapy and required changes in methadone dose were extracted.

The authors stated neither how the data were extracted for review nor how many reviewers performed the data extraction.

Methods of synthesis
Studies were combined in a narrative synthesis with study differences evident from the tabulated data.

Results of the review
Six studies were included in the treatment of hepatitis C virus infection (n=206 on methadone and n=162 in the contrast group). Five studies included inclusion and exclusion criteria and one partially so. Five of the studies used an intention-to-treat analysis. Four studies reported withdrawals and dropouts adequately, one partially and one had no drop outs.

The rates of sustained virological response in maintenance patients ranged from 28 per cent to 94 per cent. Completion rates ranged from 50 per cent to 100 per cent. There was no significant difference in the rates of sustained virological response or psychiatric side-effects in methadone maintenance patients compared with contrast groups. A brief narrative of liver transplantation results was presented.
Authors' conclusions
The findings supported the effectiveness of antiviral therapy in methadone maintenance patients with hepatitis C virus infection.

CRD commentary
The review addressed a clear question, undertook a search of three databases for studies and presented brief inclusion criteria. The literature search was restricted to publications in English and it was unclear whether there was a specific search for unpublished studies, therefore, some studies may have been missed. It was unclear how many of the authors were involved in study selection and data extraction. The included studies comprised small sample sizes and were generally of poor quality. A narrative synthesis was appropriate given the clinical heterogeneity between studies. In light of the shortcomings over the reporting of the review process and the paucity of good quality studies, the findings should be treated with caution.

Implications of the review for practice and research
Practice: The authors stated that the results were most applicable to developed countries.

Research: The authors stated that further research should involve prospective studies with the study of methadone patients as their specific aim. Such studies should have prolonged follow-up that compared patients with and without sustained virological response as well as reporting on the numbers of patients who were evaluated, were eligible for treatment and who entered the study. Studies were needed in less developed countries where methadone maintenance was being introduced for the treatment of addiction.

Funding
One author is supported by NIH-NIDA K05-DA00049, NIH-NIDA P60-DA05130, NIH-NIHM R01-MH79880 and the New York State OASAS.

Bibliographic details

PubMedID
18422827

DOI
10.1111/j.1360-0443.2008.02188.x

Indexing Status
Subject indexing assigned by NLM

MeSH
Analgesics, Opioid /therapeutic use; Antiviral Agents /economics; Delivery of Health Care, Integrated /standards; HIV Infections /therapy; Hepatitis C, Chronic /epidemiology /therapy; Humans; Liver Cirrhosis /economics; Liver Transplantation /economics; Methadone /therapeutic use; Substance Abuse, Intravenous /rehabilitation; Treatment Outcome

AccessionNumber
12008104958

Date bibliographic record published
23/12/2008

Date abstract record published
01/07/2009
Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.