The clinical effectiveness and cost-effectiveness of peginterferon alfa and ribavirin for the treatment of chronic hepatitis C in children and young people: a systematic review and economic evaluation

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Plain English summary

Chronic hepatitis C in children and young people

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The hepatitis C virus (HCV) in children and young people is most commonly passed down from a HCV-infected mother to her child in the weeks before and after childbirth. Spontaneous clearance of the virus may occur in young children, but once established chronic HCV tends to persist into adult life. The main goal of treatment is to clear the virus and achieve a sustained virological response (SVR), which is the key way to measure clearance of the virus. Successful treatment reduces the rate of liver disease progression and related complications. This project assessed peginterferon and ribavirin (RBV) combination therapy for treating children and young people aged 3–17 years. Using a systematic approach, we identified the most up-to-date evidence and we assessed this using recognised methods. The review evaluated whether or not treatment benefits patients, taking into account treatment costs and quality of life. We reviewed the available studies on peginterferon alfa-2a and peginterferon alfa-2b, each in combination with RBV. Seven studies were included in the review of clinical effectiveness. No studies were rated as having high-quality research designs and most had small numbers of participants. SVR rates ranged from 53% to 66% (peginterferon alfa-2a) and 29% to 75% (peginterferon alfa-2b). Rates of non-response and relapse were variable and adverse events were generally mild. In our economic model, peginterferon (alfa-2a or -2b) with RBV was more effective and had lower lifetime costs than a best supportive care (usual care) approach. Treatment of children and young people with peginterferon and RBV may therefore be an effective therapy. However, the quality of the available evidence means there are a number of uncertainties.
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This report

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