NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Proposed Health Technology Appraisal

Peginterferon alfa and ribavirin for the treatment of chronic hepatitis C in children and young people aged 3-17 years

Draft scope

Draft appraisal objective

To review the clinical and cost effectiveness of peginterferon alfa in combination with ribavirin within their licensed indications for the treatment chronic hepatitis C in children and young people aged 3 to 17 years[1].

Background

Hepatitis C is a disease of the liver caused by infection with the hepatitis C virus (HCV). The virus is primarily acquired through percutaneous exposure to contaminated blood. In the UK the two major routes of transmission of HCV have been sharing injecting equipment in intravenous drug misuse and transfusion of infected blood or blood products.

Estimates from the Health Protection Agency in 2011 indicate that 439 people between the ages of 15 and 24 years were newly diagnosed with HCV in England in 2010. This constituted 5.6% of new HCV diagnoses. This is a decrease from 2005, where 640 new diagnoses were reported in this age group. The Health Protection Agency estimate 0.40% of the HCV infected adult population would have chronic infection, and estimates for chronic infection in children and young people are not available. A 2006 Scottish Medicine Consortium report on peginterferon alfa-2b estimated an initial population of 110 HCV-infected children with 30 new diagnoses being reported annually. Progression to severe hepatitis or cirrhosis in childhood is rare (<5%) and the mean time to development of cirrhosis in people infected as infants is estimated at 28 years.

In children who are asymptomatic with mild or no liver disease, benefits of treatment need to be weighed against the risk of side effects. Children and young people who are HCV RNA positive with evidence of moderate or severe liver disease are considered for treatment with pegylated interferon and ribavirin. In both adults and young people virus genotype (different strains of HCV identified by virological testing) is a key predictor of the effectiveness of anti-viral treatment. People infected with genotypes 2 and 3 generally respond better to treatment than those with genotypes 1, 4, 5 and 6.

[1] The original remit for this appraisal is to appraise the clinical and cost effectiveness of interferon alfa (pegylated and non-pegylated) and ribavirin in their licensed indications for the treatment and management of chronic hepatitis C.

The technology

Peginterferon alfa-2a (Pegasys, Roche Products) in combination with ribavirin (Copegus, Roche Products) does not currently have a UK marketing authorisation for the treatment of chronic hepatitis C in people under 18 years of age. Peginterferon alfa-2a has been studied as a monotherapy and in combination with ribavirin in clinical trials in children aged 3 to 17 years with chronic hepatitis C.

Peginterferon alfa-2b (ViraferonPeg, Merck Sharp and Dohme) in combination with ribavirin has a UK marketing authorisation for the treatment of chronic hepatitis C in children and young people aged three years and older, not previously treated, who have chronic hepatitis C, without liver decompensation, and who are positive for HCV-RNA. The marketing authorisation does not permit monotherapy in this age group.

Intervention(s)	• Peginterferon alfa-2a monotherapy or in combination with ribavirin • Peginterferon alfa-2b in combination with ribavirin
Population(s)	Children and young people aged 3 to 17 years with chronic hepatitis C
Comparators	• The interventions will be compared with each other within their licensed indications • Supportive care, including treatment without any form of interferon therapy
Outcomes	The outcome measures to be considered include: • virological response to treatment • sustained virological response • biochemical response (e.g. ALT) • histological improvement (inflammation and fibrosis) • mortality • adverse effects of treatment • health-related quality of life.
Economic analysis	The reference case stipulates that the cost effectiveness of treatments should be expressed in

	terms of incremental cost per quality-adjusted life year. The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared. Costs will be considered from an NHS and Personal Social Services perspective.
Other considerations	Guidance will only be issued in accordance with the marketing authorisation. If evidence allows, subgroups of patients with different HCV genotype or baseline viral load, will be considered.
Related NICE recommendations	Related Technology Appraisals: Technology Appraisal No.200, September 2010, 'Peginterferon alfa and ribavirin for the treatment of chronic hepatitis C - part review of existing guidance No. 75 and 106'. Expected review date July 2013. Technology Appraisal No.75, January 2004, 'Interferon alfa and ribavirin for the treatment of chronic hepatitis C - part review of existing guidance no.14'. Technology Appraisal No. 106, August 2006, 'Peginterferon alfa and ribavirin for the treatment of mild hepatitis C (extension of technology appraisal guidance 75)'. Related Public Health Guidance: Public Health Guidance in Preparation, 'Hepatitis B and C – ways to promote and offer testing' Earliest anticipated date of publication Dec 2012

Questions for consultation

Have the most appropriate comparators for the treatment of chronic hepatitis C in young people between 3 and 17 years of age been included in the scope?

- Is the listed comparator routinely used in UK clinical practice?
- How should supportive care be defined?

Are the subgroups suggested in 'other considerations' appropriate for this age group? Are there any other subgroups of people in whom the technology is expected to be more clinically effective and cost effective or other groups that should be examined separately?

Please tell us how many children and young people between 3 and 17 years of age with a diagnosis of HCV would be chronic infections?

Are there any adverse effects associated with the interventions that are difficult to capture and/or measure in this population?

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the proposed remit and scope may need changing in order to meet these aims. In particular, please tell us if the proposed remit and scope:

- could exclude from full consideration any people protected by the equality legislation who fall within the patient population for which the treatments are/will be licensed;

- could lead to recommendations that have a different impact on people protected by the equality legislation than on the wider population, e.g. by making it more difficult in practice for a specific group to access the technology;

- could have any adverse impact on people with a particular disability or disabilities.

Please tell us what evidence should be obtained to enable the Committee to identify and consider such impacts.'

Do you consider the technology to be innovative in its potential to make a significant and substantial impact on health-related benefits and how it might improve the way that current need is met (is this a 'step-change' in the management of the condition)?

Do you consider that the use of the technology can result in any potential significant and substantial health-related benefits that are unlikely to be included in the QALY calculation?

Please identify the nature of the data which you understand to be available to enable the Appraisal Committee to take account of these benefits

NICE intends to appraise this technology through its Multiple Technology Appraisal (MTA) Process.