The effectiveness and cost-effectiveness of erythropoiesis-stimulating agents (epoetin and darbepoetin) for treating cancer treatment-induced anaemia (including review of technology appraisal no. 142): a systematic review and economic model

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Declared competing interests of authors: none

Published February 2016
DOI: 10.3310/hta20130

Plain English summary

ESAs for treating cancer treatment-induced anaemia
Health Technology Assessment 2016; Vol. 20: No. 13
DOI: 10.3310/hta20130

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Anaemia is a common side effect of cancer treatments and can lead to a reduction in quality of life. Erythropoiesis-stimulating agents (ESAs) are licensed for use in conjunction with red blood cell transfusions to improve cancer treatment-induced anaemia. To assess the effectiveness and cost-effectiveness of ESAs for the treatment of anaemia in cancer patients, a systematic review of clinical effectiveness and an economic evaluation were conducted. Twenty-three ESA studies with starting doses according to European labelling regulations were included in the review. Data suggest that there is clinical benefit from ESAs for anaemia-related outcomes and an improvement in health-related quality-of-life scores. The impact of ESAs on adverse events and survival remains highly uncertain. Base-case incremental cost-effectiveness ratios (ICERs) for ESA treatment compared with no ESA treatment ranged from £19,429 to £35,018 per quality-adjusted life-year gained, but sensitivity and scenario analyses demonstrate considerable uncertainty in these ICERs, including the possibility of overall health disadvantages. All ICERs were sensitive to survival and cost. ESAs could be cost-effective when used closer to licence, but there is considerable uncertainty, mainly because of unknown impacts on survival.
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This report

The research reported in this issue of the journal was commissioned and funded by the HTA programme on behalf of NICE as project number 12/42/01. The protocol was agreed in July 2013. The assessment report began editorial review in March 2014 and was accepted for publication in October 2014. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors’ report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health.

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