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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Plain English summary

ESAs for treating cancer treatment-induced anaemia

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Plain English summary

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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