Axitinib, cabozantinib, everolimus, nivolumab, sunitinib and best supportive care in previously treated renal cell carcinoma: a systematic review and economic evaluation

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Declared competing interests of authors: The British Medical Journal (BMJ) Technology Assessment Group (TAG) and editorial team of the BMJ work independently of one another. The views and opinions expressed in this report are those of the BMJ-TAG. No competing interests were declared that affect the impartiality of this report.

Published January 2018
DOI: 10.3310/hta22060

Plain English summary

Treatment comparisons for previously treated renal cell carcinoma
Health Technology Assessment 2018; Vol. 22: No. 6
DOI: 10.3310/hta22060

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Plain English summary

Renal cell carcinoma (RCC) is the most common type of kidney cancer and more people are diagnosed each year in the UK. Several treatments have recently been developed for patients with RCC that is advanced or has spread to other parts of the body and who have previously had treatment but have worsened. Our review compared the treatments axitinib (Inlyta®, Pfizer Inc., NY, USA), cabozantinib (Cabometyx®, Ipsen, Slough, UK), everolimus (Afinitor®, Novartis, Basel, Switzerland), nivolumab (Opdivo®, Bristol-Myers Squibb, NY, USA), sunitinib (Sutent®, Pfizer, Inc., NY, USA) and best supportive care (BSC) to help NHS services choose the most effective option.

The review found that cabozantinib is probably the best treatment to delay tumour growth and prolong life, followed by nivolumab. All of the treatments delayed tumour growth compared with BSC; however, there are uncertainties, owing to the way in which studies have been conducted. All of the treatments cause serious side effects and so it is important that the possible benefits and harms are discussed fully with a cancer specialist before a patient starts treatment. Standard reporting of the most important outcomes for people with RCC, particularly the response to treatment and quality of life, would improve our knowledge of how these treatments compare with each other.

The publicly available prices for these drugs are very high and would require a significant improvement in survival and/or quality of life for them to be considered as cost-effective. The results show that only everolimus had a large enough improvement in survival in comparison with BSC to be cost-effective. However, all of the drugs have commercially confidential discounts for the NHS and so the results of this review are unlikely to be accurate.
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This report

The research reported in this issue of the journal was funded by the HTA programme as project number 16/58/01. The contractual start date was in May 2015. The draft report began editorial review in April 2017 and was accepted for publication in September 2017. 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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