Lenvatinib plus pembrolizumab for untreated advanced renal cell carcinoma: a systematic review and cost-effectiveness analysis

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Plain language summary

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What was the problem?

Renal cell carcinoma is the most common type of kidney cancer. Several drug treatment options are available for NHS patients with advanced or metastatic disease, and the choice of treatment varies depending on a patient's risk of disease progression. A new drug combination, lenvatinib plus pembrolizumab, may soon become available to treat NHS patients. This review explored whether treatment with lenvatinib plus pembrolizumab offered value for money to the NHS.

What did we do?

We reviewed the effectiveness of treatment with lenvatinib plus pembrolizumab versus other NHS treatment options. We also estimated the costs and benefits of treatment with lenvatinib plus pembrolizumab versus current NHS treatments for patients with higher and lower risks of disease progression.

What did we find?

Compared with current NHS treatments, treatment with lenvatinib plus pembrolizumab may increase the time that people with a higher risk of disease progression (i.e. worsening disease) were alive. However, for patients with a lower risk of disease progression, the available evidence is limited and only shows that treatment with lenvatinib plus pembrolizumab may prolong the time that patients have a stable level of disease.

For all patients, compared to all current NHS treatments, treatment with lenvatinib plus pembrolizumab is very expensive.

What does this mean?

Compared with current NHS treatments for untreated renal cell carcinoma, using published prices (which do not include any discounts that are offered to the NHS), treatment with lenvatinib plus pembrolizumab may not provide good value for money to the NHS.

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This article

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