

Economic evidence tables for review question: How effective is radiotherapy, including both fractionated and unfractionated radiotherapy, for the management of spinal metastases, direct malignant infiltration of the spine or associated spinal cord compression?

Table 13: Economic evidence tables

Study country and type	Intervention and comparator	Study population, design and data sources	Costs and outcomes (descriptions and values)	Results	Comments
<p>Author and year: Turner 2018 Country: UK</p> <p>Type of economic analysis: Cost utility Source of funding: National Institute for Health Research Biomedical Research Centre</p>	<p>Intervention: Surgery and radiotherapy (RT) Comparator: Radiotherapy alone</p>	<p>Population characteristic: 130 consecutive patients who required surgery and RT for symptomatic spinal metastases from any cancer at a NHS spinal tertiary referral centre between 2009 and 2015</p> <p>Mean age: 60.6 years Male: 51.5% Paralysed: 30.4% The comparator group (RT alone) were modelled on the above cohort and values from Patchel (2005)</p> <p>Modelling approach: Prospectively collected costs</p>	<p>Mean cost per participant (SD) Intervention: £42,904 (£24,768) Comparator: £55,743 (£43,646) Difference: -£12,839 (SD £37,896)</p> <p>Mean outcome per participant (SD): Intervention: 0.64 QALYs (0.41) Comparator: 0.32 QALYs (0.45)</p>	<p>ICERs: Surgery and RT dominant less costly but more effective Sensitivity analysis: Surgery and RT remained less costly and more effective when costs from the 2008 NICE guideline manual were used instead of reimbursement costs and under different QALY assumptions for the hypothetical group (linear decline of QoL until death, QOL maintained at pre-operative levels)</p> <p>No probabilistic sensitivity analyses were undertaken.</p>	<p>Perspective: UK NHS & PSS Currency: Pounds sterling (£) Cost year: 2016 Time horizon: Lifetime Discounting: 3.5% per annum both costs and QALYs Applicability: Directly Applicable Limitations: Potentially serious limitations Other comments: Groups not randomised. Patients recruited post 2008 where CG75 recommended surgery and radiotherapy for eligible people. RT arm was based on</p>

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		<p>and quality of life from consecutive patients. Hypothetical comparator adjusting results based on one trial.</p> <p>Source of baseline data: Collected prospectively from people in the study</p> <p>Source of effectiveness data: Hypothetical comparator cohort adjusted using Patchell 2015.</p> <p>Quality of life using the EQ-5D questionnaire at pre and post-operatively and at 3,6 and 12 months and every 12 months until death and scored using the UK population value set.</p> <p>Source of cost data: Tariff reimbursement extracted from</p>			<p>modelling using values from Patchell 2005</p>

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		hospital data-base			