

### Non-invasive preoperative imaging

Pata G, Casella C, Magri GC, Lucchini S, Panarotto MB, Crea N et al. Financial and clinical implications of low-energy CT combined with 99m Technetium-sestamibi SPECT for primary hyperparathyroidism. <i>Annals of Surgical Oncology</i> . 2011; 18(9):2555-63				
Study	Population & interventions	Costs	Health outcomes	Cost effectiveness
<p><b>Economic analysis:</b> CC</p> <p><b>Study design:</b> Within-cohort study analysis.</p> <p><b>Approach to analysis:</b> Analysis of individual level data for resource use (primarily diagnostic test costs and operating times associated with SPECT or SPECT/CT localisation). Unit costs applied.</p> <p><b>Perspective:</b> Italian direct healthcare and medical costs.</p> <p><b>Follow-up:</b> 6 months</p> <p><b>Treatment effect duration:</b> n/a</p> <p><b>Discounting:</b> Costs: n/a; Outcomes: n/a</p>	<p><b>Population:</b> People diagnosed with PHPT who underwent parathyroidectomy</p> <p><b>Cohort settings:</b> N=55 Start age: 56 Male: 12</p> <p><b>Intervention 1:</b> SPECT followed by unilateral neck exploration on side suggested by imaging</p> <p><b>Intervention 2:</b> SPECT/CT followed by unilateral neck exploration on side suggested by imaging</p>	<p><b>Total costs (mean per patient):</b> Intervention 1: NR Intervention 2: NR Incremental (2-1):cost saving of £91 (95% CI: £44 - £138; p=NR)</p> <p><b>Currency &amp; cost year:</b> 2009 Euros (presented here as 2009 UK pounds<sup>(a)</sup>)</p> <p><b>Cost components incorporated:</b> equipment costs (including maintenance and depreciation), diagnostic costs (SPECT and SPECT/CT), surgical costs (calculated by duration of operation, using salary of 2 surgeons, an anaesthesiologist, 2 nurses and a nurse assistant; also includes cost of general anaesthesia), cost of postoperative care, cost of hospitalization.</p>	<p>None.</p>	<p><b>ICER (Intervention 2 versus Intervention 1):</b> n/a</p> <p><b>Analysis of uncertainty:</b> None undertaken.</p>

<b>Data sources</b>
<b>Health outcomes:</b> None. <b>Cost sources:</b> Brescia Civic Hospital, Italy (data from one hospital).
<b>Comments</b>
<b>Source of funding:</b> NR. <b>Limitations:</b> Italian resource use (2004-2009) and unit costs (2009) data may not reflect current NHS context. QALYs not used as outcome measure. Analysis is based on a cohort study. Within-study analysis and so does not reflect full body of evidence. No exploration of uncertainty. <b>Other:</b> None
<b>Overall applicability:</b> <sup>(b)</sup> Partially applicable <b>Overall quality:</b> <sup>(c)</sup> Potentially serious limitations

*Abbreviations: CC: comparative costing; ICER: incremental cost-effectiveness ratio; n/a: not applicable; NR: not reported; pa: probabilistic analysis;*

*(a) Converted using purchasing power parities<sup>354</sup> Directly applicable / Partially applicable / Not applicable*

*(b) Minor limitations / Potentially serious limitations / Very serious limitations*