

Intra-operative techniques

Study	Badii B, Staderini F, Foppa C, Tofani L, Skalamera I, Fiorenza G et al. Cost-benefit analysis of the intraoperative parathyroid hormone assay in primary hyperparathyroidism. Head and Neck. 2017; 39(2):241-246			
Study details	Population & interventions	Costs	Health outcomes	Cost effectiveness
<p>Economic analysis: CC</p> <p>Study design: Within-cohort study analysis.</p> <p>Approach to analysis: Analysis of individual level data for resource use. Unit costs applied.</p> <p>Perspective: Italian university hospital</p> <p>Follow-up: 1 month</p> <p>Treatment effect duration: n/a</p>	<p>Population: Patients who underwent parathyroidectomy for primary hyperparathyroidism^(a).</p> <p>Cohort settings: N = 264 Age: 60 Male: 30%</p> <p>Intervention 1: No intraoperative PTH assay</p> <p>Intervention 2:</p>	<p>Total costs (mean per patient): Intervention 1: £581 Intervention 2: £1,218 Intervention 3: £681</p> <p>Incremental (2-1): £637 (95% CI: NR; p=NR) Incremental (3-1): £100 (95% CI: NR; p=NR) Incremental (3-2): cost saving £537 (95% CI: NR; p=NR)</p> <p>Cost breakdown: Intervention cost:</p>	<p>None.</p>	<p>ICER (Intervention 2 versus Intervention 1): n/a</p> <p>Analysis of uncertainty: None undertaken.</p>

<p>Discounting: Costs: n/a; Outcomes: n/a</p>	<p>Rapid intraoperative PTH assay</p> <p>Intervention 3: Delayed intraoperative PTH assay – sample taken during surgery with results given postoperative day 1.</p>	<p>Int. 1: £0 Int. 2: £160 (5 assays) Int. 3: £23 (5 assays)</p> <p>Operating room costs: Int. 1: £563 Int. 2: £1,040 Int. 3: £563</p> <p>Re-intervention cost: Int. 1: £1,127 Int. 2: £1,199 Int. 3: £0</p> <p>Currency & cost year: 2015 (assumed) Euros (presented here as 2015 UK pounds^(b))</p> <p>Cost components incorporated: Rapid intraoperative PTH assay, delayed intraoperative PTH assay, operating room, cost of reoperation for surgical failures.</p>		
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Data sources

Health outcomes: None. **Quality-of-life weights:** n/a. **Cost sources:** Not stated.

Comments

Source of funding: NR. **Limitations:** Italian resource use (2000 -2015) and unit costs (assumed 2015) data may not reflect current NHS context. QALYs not used as outcome measure. Analysis is based on a retrospective cohort study. Within-study analysis and so does not reflect full body of evidence. Cost sources not stated, nor cost year applied. No exploration of uncertainty. **Other:** None.

Overall applicability:^(c) Partially applicable **Overall quality:**^(d) Potentially serious limitations

Abbreviations: CC: comparative costing; 95% CI: 95% confidence interval;

- (a) Preoperative localisation was based on MIBI, ultrasonography or both. Surgical approach was either minimally invasive video-assisted parathyroidectomy (incision <25mm), mini-incision parathyroidectomy (incision <35mm), or conventional parathyroidectomy (incision >35mm). Bilateral exploration mandatory when no concordance of preoperative imaging in locating adenoma, when intraoperative finding did not correspond to preoperative imaging, when ipsilateral gland to adenoma was hyperplastic or not in usual site.*
- (b) Converted using purchasing power parities³⁵⁴*
- (c) Directly applicable / Partially applicable / Not applicable*
- (d) Minor limitations / Potentially serious limitations / Very serious limitations*