Deep endometriosis transvaginal ultrasound in the workup of patients with signs and symptoms of endometriosis: a cost analysis

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INTRO
• Annual cost burden:
  • AUS - $6 billion AUD
  • UK - £8.2 billion GBP
  • USA - $22 billion USD
  • 40% of diagnostic laparoscopies done for CPP
  • DE + POD obliteration diagnosable on TVS

METHODS
• The conventional model (M1) includes the basic pelvic ultrasound and diagnostic laparoscopy. The novel model (M2) includes the deep endometriosis ultrasound.
• Estimates for endometriosis prevalence and severity were drawn from local Australian hospital data.
• A Markov model with a 12-month time horizon was built to estimate the change to government, health service and patient costs.
• Surgical intervention rates of 33, 50, and 66% were applied.
• Probabilistic sensitivity analysis was conducted.

RESULTS

An endometriosis-focused ultrasound may negate a two-step surgery pathway, including diagnostic surgery, and save healthcare money.

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<table>
<thead>
<tr>
<th>Health state</th>
<th>Fixed value M1 (standard error)</th>
<th>Fixed value M2 (standard error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultrasound</td>
<td>183 (14.30)</td>
<td>254 (19.84)</td>
</tr>
<tr>
<td>MRI</td>
<td>0*</td>
<td>0*</td>
</tr>
<tr>
<td>Medical Management</td>
<td>60 (17.50)</td>
<td>60 (17.50)</td>
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<tr>
<td>Advanced Surgical Tx</td>
<td>22428 (1752.19)</td>
<td>22428 (1752.19)</td>
</tr>
<tr>
<td>Minor Surgical Tx</td>
<td>6846 (534.84)</td>
<td>6846 (534.84)</td>
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<tr>
<td>Diagnostic Laparoscopy</td>
<td>2773 (216.64)</td>
<td>2773 (216.64)</td>
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<tr>
<td>Post-operative</td>
<td>63 (4.92)</td>
<td>63 (4.92)</td>
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</tbody>
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