Immediate removal of indwelling catheters after hysterectomy was not associated with adverse outcomes


Does immediate removal of an indwelling catheter after hysterectomy reduce recatheterisations, complications, and pain more than catheter removal on the first day after surgery?

**CONCLUSION**

Immediate removal of an indwelling catheter after hysterectomy did not differ from catheter removal on postoperative day 1 for recatheterisation, fever, or urinary tract infections, but was associated with fewer reports of severe postoperative pain.

*Calculated from data in article.

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**METHODS**

- **Design:** randomised controlled trial.
- **Allocation:** (concealed)*.
- **Blinding:** blinded (outcome assessors and data analysts)*.
- **Follow up period:** 24 hours after surgery.
- **Setting:** a medical centre in Denver, Colorado, USA.
- **Patients:** 250 women (median age 47 y, 63% Hispanic) who had hysterectomy for various benign diseases (eg, fibroid tumours, abnormal uterine bleeding, chronic pain, persistent cervical dysplasia, or microinvasive cervical cancer). Exclusion criterion: anticipated complicated surgical procedures (ie, bladder suspension or colpoproctomy, diagnosis suspicious for severe endometriosis, or requirement of strict fluid treatment).
- **Intervention:** immediate removal of the catheter in the operating room (n = 125) or removal of the catheter on postoperative day 1 (n = 125).
- **Outcomes:** recatheterisation, fever (temperature ≥38.5°C), symptomatic urinary tract infection, and pain located in the bladder or urethra (assessed using a 10 point, pictorial scale).
- **Patient follow up:** 100%.

*Information provided by author.

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**MAIN RESULTS**

Women who had immediate catheter removal in the operating room did not differ from women who had catheter removal on postoperative day 1 for recatheterisation for an additional 24 hours (4.8% vs 2.4%, \(p = 0.31\)*), fever (4% vs 4.8%, \(p = 0.76\)*), or urinary tract infections (2.4% vs 2.4%). Fewer women in the immediate removal group reported severe pain (table).

> **Immediate catheter removal after hysterectomy v removal on postoperative day 1**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Immediate removal</th>
<th>Removal on postoperative day 1</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe pain†</td>
<td>0</td>
<td>48%</td>
<td>100% (94 to 100)</td>
<td>2 (2 to 3)</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; RRR, NNT, and CI calculated from data in article.
†Severe pain in the area of the bladder or urethra, assessed on a 10 point, self report, pictorial scale.