

Urine Luck: comparing voiding outcomes and length of stay after removal of urinary catheter on Day 1 versus Day 2 after urogynaecological surgery.

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Introduction:

An indwelling catheter is routinely placed during pelvic organ prolapse (POP) and hysterectomy surgery, but optimal timing of removal is uncertain. Early removal risks urinary retention, while later removal requires longer hospital admission.

Aims:

To compare outcomes following catheter removal and trial of void (TOV) on Day 1 versus Day 2 after urogynaecological surgery. Outcomes included initial TOV success, re-catheterisation, discharge with catheter and length of stay.

Methods:

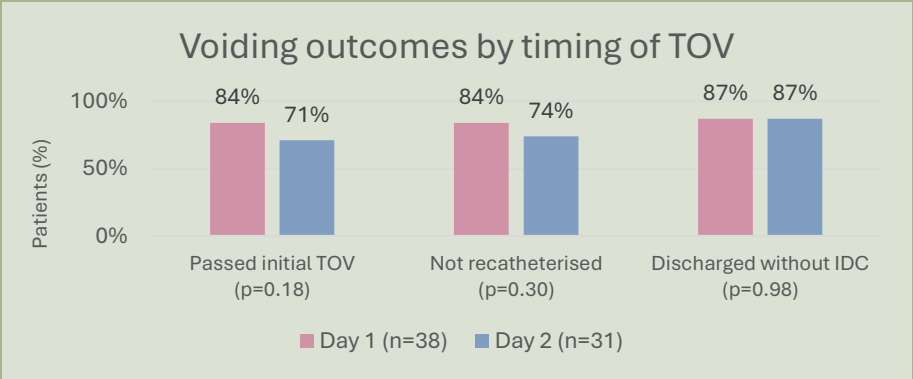
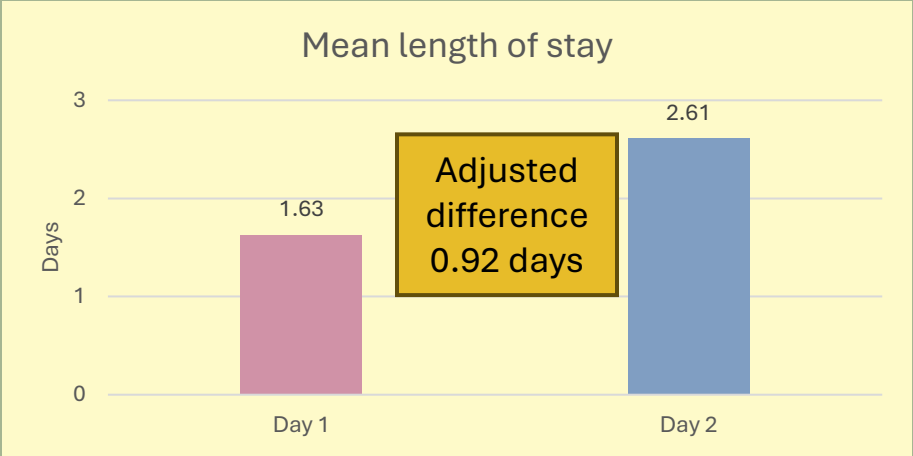
Retrospective audit of patients undergoing surgery supervised by a single urogynaecologist over 2022 - 2023 at a tertiary hospital after practice changed from Day 2 to Day 1. Procedures included vaginal hysterectomy, anterior repair, posterior repair, sacrospinous fixation and colpopexy performed alone or in combination. Voiding outcomes were compared using Pearson's chi-square tests. Length of stay was analysed using an independent samples t-test. Multivariable linear regression was used to assess the association between timing of initial catheter removal with TOV, age, BMI and year of surgery.

Results

70 patients were identified but 1 was excluded due to intraoperative bladder injury. Sixty-nine patients were included (38 Day 1, 31 Day 2). Due to the change in practice the distribution by year shows more patients in 2023 for the Day 1 group. There was uneven distribution of the seven procedures among the two groups. Exploratory chi-square analysis found no statistically significant association between procedure type and initial TOV success ($p=0.219$). However, small subgroup sizes limit the reliability and interpretation of this.

Although not significant, the Day 1 group had a higher number of successful Initial TOV compared to Day 2 (84% versus 71%, $p=0.18$), lower number of re-catheterisation (16% versus 26%, $p=0.30$), and similar number of patients discharged with a catheter (13% vs 13%, $p=0.98$).

Mean length of stay was significantly shorter for Day 1 than Day 2 (1.63 versus 2.61 days; $p<0.001$). After adjusting for age, BMI and year a 0.92 day longer stay with Day 2 was found ($\beta = 0.92$ days, $p<0.001$, 95% CI 0.55–1.29).



	Day 1 TOV, n=38	Day 2 TOV, n=31
Age (years)	63.1 (15.2)	64.2 (10.4)
BMI (kg/m)	27.1 (6.3)	27.4 (3.9)
Surgery in 2022	10 (26%)	21 (68%)
Surgery in 2023	28 (74%)	10 (32%)

Age and BMI are presented as mean (SD); year of surgery as n (%).

Discussion:

Day 1 catheter removal was associated with significantly reduced length of stay without evidence of worsening short-term voiding outcomes.

Findings support Day 1 removal as standard practice.

This reduction in length of stay persisted after adjustment for age, year of surgery and body mass index. Limitations include moderate sample, retrospective study, single supervising surgeon, and differing distribution of procedure between groups.