

Removal of catheters post elective LSCS under spinal: An Audit

Introduction

At our trust it is routine practice to insert a urinary catheter prior to Lower Segment Caesarean Section (LSCS) to prevent bladder injury (direct from surgery and from over-distension of the insensate bladder).

The risks of urinary catheterisation are well known and include bladder injury, infection, urethral stenosis, urinary retention and reduced mobilisation.^{1,2}

Our elective LSCS patients are managed as per enhanced recovery principles and our guideline is for removal of catheter at 6 hours post-partum.³ We have reviewed these patients to assess if catheters are being removed "on-time" and to look at the rate of re-catheterisation in these patients. We also looked at length of stay data.

Method

We interrogated our electronic obstetric database (Badger) and selected for LSCS over a 12 week period.

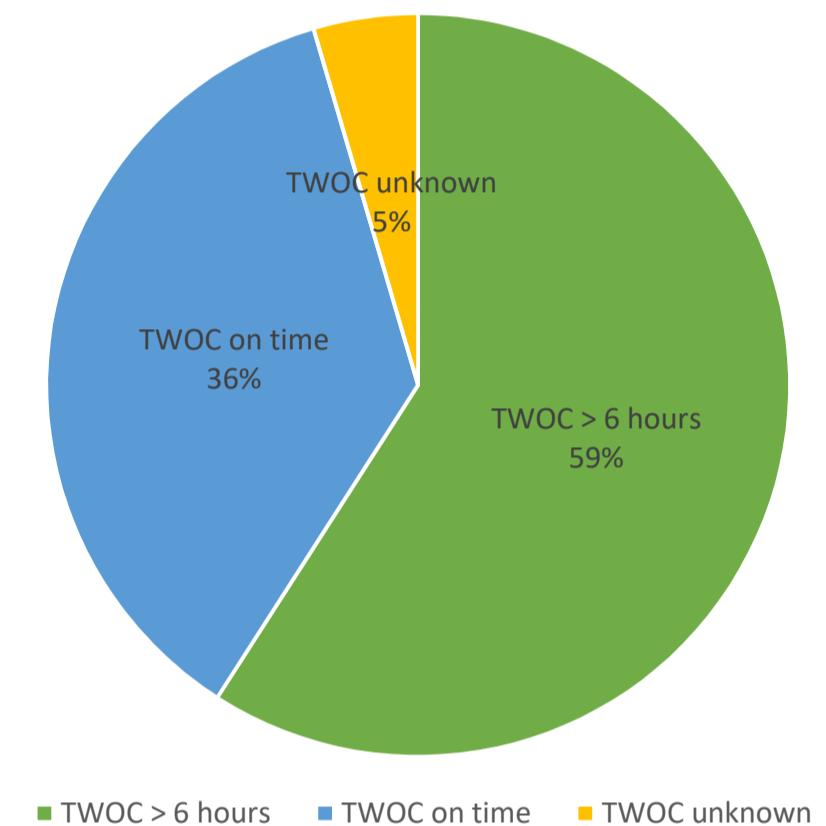
We collected data on patient identifiers, category of LSCS, date of delivery, type of anaesthetic, catheter removal (hours if >6 hours), re-catheterisation and length of stay.

We then performed descriptive statistics on the data collected.

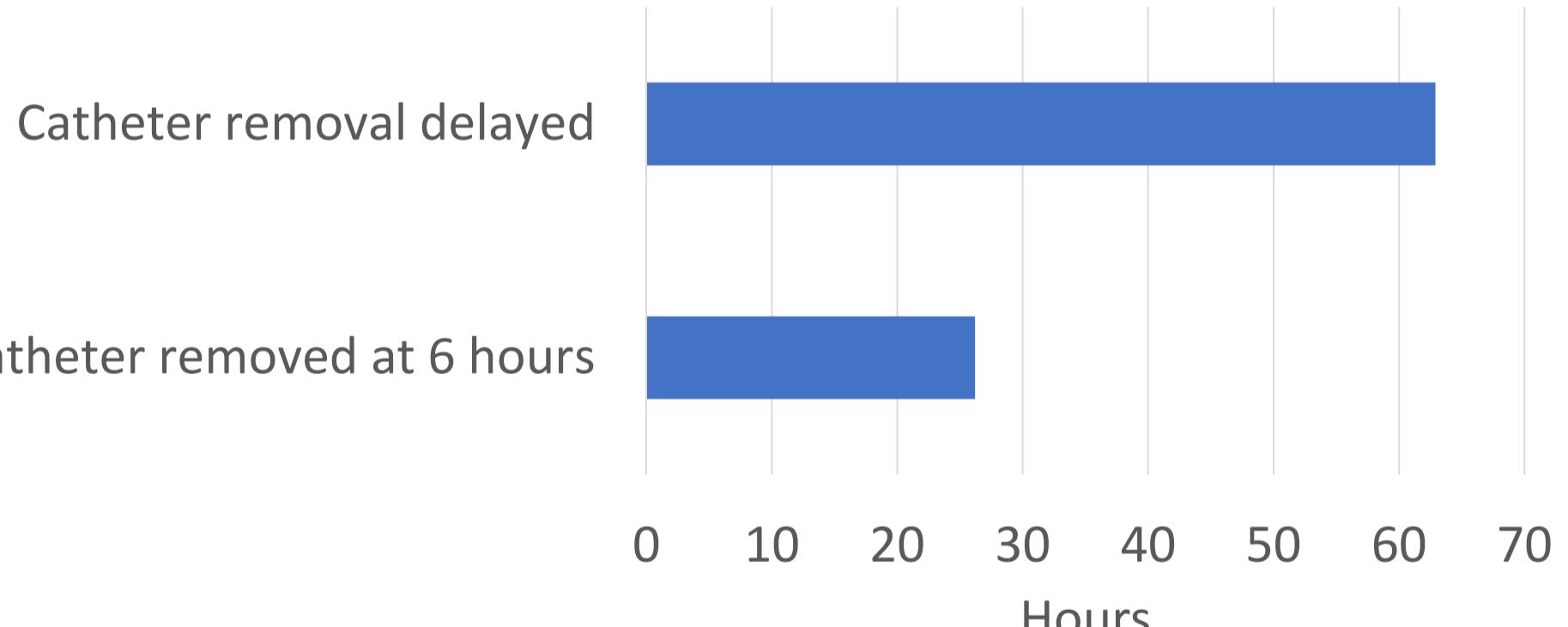
Results

153 LSCS were performed in the 12 week period (01/01/2016 to 25/03/2016), 66 were recorded as category 4. 52 cases were clearly recorded as having spinal anaesthesia and 1 general anaesthetic. The remaining 13 cases the type of anaesthetic was not clearly recorded. 6 of these patients were re-catheterised (11.5%) after trial without catheter (TWOC). Timing of removal of catheter was within 6 hours for 32.7%, unknown for 3.8% and greater than 6 hours for 63.5% (average time of removal 11.27 hours). Decisions for delay in removal of catheter were mostly unknown or made by midwives and as per patient request with only 3 cases being due to medical instruction. Re-catheterisation rate in the group where TWOC was at 6 hours was 5.9% and where TWOC was at greater than 6 hours it was 15.2% (average hours to TWOC 8.6). There were 2 cases where there was no documentation of TWOC time but neither required re-catheterisation. The average length of stay in the category 4 patients was 49.5 hours; this was 51 hours (range 22-76) in the re-catheterised group and 49.3 hours (range 23-238) in the group not requiring re-catheterisation. Length of stay averaged at 26.2 hours in the group TWOC'd at 6 hours and 62.8 in the delayed TWOC group.

Cat 4 LSCS TWOC times (%)



Average length of stay



Discussion

Urinary catheters are not without risk and the timing of removal of the catheter post elective LSCS is contentious. In our trust we found varied practice as to removal of catheter post-elective LSCS. Our re-catheterisation rate was 11.5% overall; 5.9% where catheter was removed around 6 hours as per enhanced recovery principles and 15.2% where removal was delayed. This suggests that delay in removal of catheter increases the chance of requiring re-catheterisation. The length of stay in the group where the catheter was removed at 6 hours averaged at 26.2 hours (62.8 hours in the delayed TWOC group). The timing of removal of catheter seemed to have a greater impact on length of stay than whether or not the patient required re-catheterisation. Our audit suggests that early removal of catheter may have benefits in reducing rate of re-catheterisation and length of stay. We suggest that further work would clarify this.

Reference: 1. <http://www.nhs.uk/conditions/Urinary-catheterization/Pages/Introduction.aspx#Risks-and-problems> (accessed Sept 2017)

2. <https://www.uptodate.com/contents/complications-of-urinary-bladder-catheters-and-preventive-strategies> (accessed Sept 2017)

3. South Warwickshire Foundation Trust Guideline SWH0079