RETAINER Data Collection

Record number (automatic)

_____

Study ID
(Centre ID followed by 3 Digit subject number, e.g. UHL001, UHL 002...)

_____

Has patient consented to be contacted in the future as part of RETAINER II (patient reported outcome measures following hernia repair?)

- ◯ Yes
- ◯ No

Gender

- ◯ Male
- ◯ Female

Patient Age

_____

Patient BMI

_____

ASA Grade

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5

Current Medications (Tick all that apply)

- ☐ None
- ☐ Alpha-blocker (e.g. Tamsulosin, Silodosin, Doxazosin, Alfuzosin, Terazosin)
- ☐ 5-Alpha reductase inhibitor (e.g. Dutasteride, Finasteride)
- ☐ Dutasteride/Tamsulosin (Combodart)
- ☐ Anti-androgen therapy (hormone manipulation, e.g. for prostate cancer)
- ☐ Urological Anti-Cholinergic (e.g. Solifenacin, Fesoterodine, Darifenacin, Trospium, Propiverine, Oxybutynin patch/tablet)
- ☐ Non-urological medication with powerful anti-cholinergic properties (e.g. certain psychiatric and anti-Parkinson medications)
- ☐ Mirabegron (Betmiga)
- ☐ Solifenacin/Tamsulosin (Vesomni)
- ☐ Intravesical Botox in past 12 months

Known Neurological Condition with Potential to Affect Voiding

- ◯ None
- ◯ Spinal Cord Injury
- ◯ Spina bifida
- ◯ Multiple Sclerosis
- ◯ Other neurological condition with potential to affect voiding

Has the patient ever been diagnosed with one of the following urological conditions?	☐ None ☐ BPH (benign prostatic hyperplasia) ☐ Prostate cancer ☐ Urethral stricture ☐ Bladder neck stenosis ☐ Hypospadias or other congenital anomaly of the lower genitourinary tract ☐ Detrusor failure ☐ Overactive bladder
Has the patient ever had surgery on the bladder or prostate? (Purely diagnostic procedures e.g. cystoscopy not included)	☐ Never ☐ TURP (trans-urethral resection of prostate) ☐ Bladder neck incision or dilation ☐ TURBT (transurethral resection of bladder tumour) ☐ Prostatectomy (removal of prostate) for cancer or benign disease via any approach ☐ Urethral stricture surgery (urethroplasty/urethral dilation/any) ☐ Botox injection to bladder within past year ☐ Bladder augmentation or other complex reconstruction
Has patient had previous episode of urinary retention requiring a catheter?	◯ Yes ◯ No

IPSS Score	◯ N/A - female patient ◯ 0 ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 ◯ 7 ◯ 8 ◯ 9 ◯ 10 ◯ 11 ◯ 12 ◯ 13 ◯ 14 ◯ 15 ◯ 16 ◯ 17 ◯ 18 ◯ 19 ◯ 20 ◯ 21 ◯ 22 ◯ 23 ◯ 24 ◯ 25 ◯ 26 ◯ 27 ◯ 28 ◯ 29 ◯ 30 ◯ 31 ◯ 32 ◯ 33 ◯ 34 ◯ 35
Post void residual measurement pre-operatively, in millilitres (If possible to obtain. A reading from previous 12 months is acceptable)	◯ Could not obtain ◯ < 50ml ◯ 50-100ml ◯ 100-150ml ◯ 150-200ml ◯ 200-250ml ◯ 250-300ml ◯ 300-350ml ◯ 350-400ml ◯ >400ml
When did the patient's bowels last open prior to surgery?	◯ Day of surgery ◯ Day before surgery ◯ 2 days before surgery ◯ >2 days before surgery
Time of surgery	◯ 7am - 1pm ◯ 1pm-5pm ◯ After 5pm
Laterality of hernia repair	◯ Left ◯ Right ◯ Bilateral

Approach	◯ Open ◯ Laparoscopic ◯ Robotic ◯ Minimally Invasive Converted to Open
Bladder involved in hernia?	◯ Yes ◯ No ◯ Unsure
Type of anaesthesia used? Please tick all that apply.	☐ General ☐ Spinal ☐ Epidural ☐ Local
If general anaesthesia, were any of the following agents used?	☐ No ☐ GA not used or agents not known ☐ Glycopyrrolate ☐ Atropine ☐ Diazepam ☐ Thiopentone ☐ Propofol ☐ Isoflurane ☐ Sevoflurane ☐ Enflurane
If spinal or epidural anaesthesia, which of the following agents were used? (please tick all that apply)	☐ N/A (no spinal/epidural used) ☐ Bupivicaine ☐ Levobupivicaine ☐ Fentanyl ☐ Sufentanil ☐ None of these ☐ Not sure
If local anaesthetic used, which drug?	◯ N/A (no local used) ◯ Levobupivicaine (Chirocaine / Marcaine) ◯ Lidocaine (Lignocaine) ◯ Mixture of Levobupivicaine / Lidocaine ◯ Other ◯ Not sure
Perioperative analgesics administered (Intraoperatively or within 8 hours, tick all that apply)	☐ Paracetamol ☐ NSAIDs (non steroidal anti-inflammatories) ☐ Opioids ☐ Steroids ☐ Clonidine
Perioperative IV fluids, volume infused (millilitres)	_____
Was a urinary catheter inserted during or prior to the procedure and removed prior to reversal of anaesthesia?	◯ Yes ◯ No
Duration of surgery, skin-to-skin (minutes)	◯ < 30 minutes ◯ 30-60 minutes ◯ 60-120 minutes ◯ >120 minutes ◯ Unknown

Intraoperative injuries recognised?	☐ None ☐ Bowel injury ☐ Urological injury ☐ Ilioinguinal nerve injury/intentional sacrifice ☐ Other
Mesh used?	◯ Yes ◯ No
Type of mesh used?	◯ None ◯ Non absorbable (e.g. polypropylene, PTFE, polyester) ◯ Absorbable (e.g. Vicryl) ◯ Composite (e.g. PP, Polyglactin 'Vypro', Collagen 'Parietex') ◯ Biologic mesh (human dermis, porcine dermis) ◯ Bovine (e.g. 'Permacol', 'Alloderm', 'Surgisis')
Drain used?	◯ Yes ◯ No
Did patient resume normal voiding (passage of urine) postoperatively (on the day of surgery) by clinician's judgement?	◯ Yes ◯ No
Was a bladder scan performed postoperatively for a post-void residual measurement (PVR) as part of routine clinical care?	◯ Yes ◯ No
If a PVR was measured postoperatively, what was the value?	◯ PVR not measured ◯ < 50ml ◯ 50-99ml ◯ 100-199ml ◯ 200-299ml ◯ 300ml or more
Was patient admitted to hospital unexpectedly on day of surgery (e.g. from a planned day surgery pathway?)	◯ Yes ◯ No
If patient was admitted to hospital on the day of surgery, was urinary retention the primary reason for admission or a significant contributor?	◯ Yes ◯ No ◯ Not admitted
Was patient readmitted to hospital (following discharge) within 30 days of surgery?	◯ Yes ◯ No
If patient was readmitted to hospital following discharge within 30 days of surgery, was urinary retention the primary reason for admission or a significant contributor?	◯ Yes ◯ No ◯ No readmission
Was a diagnosis of urinary retention made within 1 week of surgery? (If the answer is no, the data entry for this patient is complete)	◯ Yes ◯ No

The remaining questions apply only if urinary retention developed. If urinary retention occurred, when was the diagnosis made?	◯ Day of surgery ◯ Day 1 postoperatively ◯ Day 2 postoperatively ◯ Day 3 postoperatively ◯ Day 4 postoperatively ◯ Day 5 postoperatively ◯ Day 6 postoperatively ◯ Day 7 postoperatively
How was the diagnosis of retention made? Please tick all that apply.	☐ Failure to void over a given period ☐ Suprapubic pain/pressure ☐ Palpable bladder ☐ Bladder scan reading above a given level
How did urinary retention manifest itself?	◯ Patient did not pass urine at all, or passed only small dribbles, postoperatively ◯ Patient initially seemed to be passing urine normally, but subsequently retention evolved
If diagnosis was made by failure to void, at how many hours postoperatively or from the last void was this made?	☐ < 4 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ >12
If retention was diagnosed by a bladder scan, at what scan volume was diagnosis made?	◯ < 300ml ◯ 300 - 400ml ◯ 400 - 500ml ◯ 500 - 600ml ◯ 600 - 700ml ◯ 700 - 800ml ◯ 800 - 900ml ◯ 900 - 1,000ml ◯ >1,000ml
If urinary catheter placed, what was the residual volume of urine?	◯ < 300ml ◯ 300 - 400ml ◯ 400 - 500ml ◯ 500 - 600ml ◯ 600 - 700ml ◯ 700 - 800ml ◯ 800 - 900ml ◯ 900 - 1,000ml ◯ > 1,000ml
Digital rectal exam (DRE) findings (tick all that apply)	☐ DRE not done ☐ Small prostate ☐ Moderate prostate ☐ Large prostate ☐ Suspicious / hard / malignant prostate ☐ Stool in rectum ☐ "Normal"

How was retention managed in the first instance?	◯ Urethral catheter (indwelling) ◯ Self-intermittent catheterisation ◯ Suprapubic catheter
If urethral catheter was placed or attempted, how many catheterisation attempts were required?	◯ 1 ◯ 2 ◯ 3 ◯ 4 or more ◯ No attempts to pass urethral catheter
Was a urology consult performed?	◯ Yes ◯ No
Was an alpha blocker started? (e.g. Tamsulosin, Silodosin, Alfuzosin) (do not include combination pills e.g. Combodart here)	◯ Yes ◯ No ◯ Patient was already taking one
Was a 5-alpha reductase inhibitor started? (e.g. Dutasteride, Finasteride) (do not include combination pills e.g. Combodart here)	◯ Yes ◯ No ◯ Patient was already taking one
Was a tablet combining an alpha blocker and a 5-alpha reductase inhibitor started? (e.g. Dutasteride/Tasmulosin 'Combodart')	◯ Yes ◯ No ◯ Patient was already taking one
Were any longterm medications stopped due to the urinary retention?	◯ No ◯ Anti-cholinergic stopped (including combination tablets e.g. 'Vesomni') ◯ Mirabegron (Betmiga) stopped
Were laxatives/suppositories/enemas given as constipation was thought to be contributing to urinary retention?	◯ Yes ◯ No ◯ Takes regularly, not changed
If admitted, how many inpatient nights were involved?	◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ >5 ◯ Not admitted
Was urinary retention, or complications related to same, the primary reason for this length of stay?	◯ Yes ◯ No ◯ N/A - not admitted
Did the patient develop an acute kidney injury within the first postoperative week?	◯ Yes ◯ No
Was a urinary tract infection detected in this patient?	◯ Yes - on day of admission ◯ Yes - between postoperative day 1 and day 7 or discharge ◯ No
Was a course of antibiotics used to treat a suspected urinary tract infection?	◯ Yes ◯ No

Did patient suffer pain / a frequent sensation of needing to void / bladder spasm with a urinary catheter?	◯ Yes ◯ No ◯ N/A - did not have an indwelling catheter
Were any additional complications seen related to catheterisation? Please tick all that apply	☐ Traumatic catheterisation ☐ Haematuria ☐ Catheter dislodged with balloon inflated ☐ Delirium ☐ Impaired mobility due to catheterisation
Did patient undergo successful trial without catheter? (i.e. resume normal voiding without an indwelling urethral or suprapubic catheter and without the need to perform self-catheterisation in the longterm)	◯ Yes ◯ No
From time of initial catheterisation, on what day was trial without catheter passed?	◯ Day 1 ◯ Day 2 ◯ Day 3 ◯ Day 4 ◯ Day 5 ◯ Day 7 ◯ Day 7-14 ◯ > Day 14 ◯ Trial without catheter not passed
How many times has a trial of catheter removal been performed in this patient following the postoperative urinary retention?	◯ 1 ◯ 2 ◯ 3 ◯ >3 ◯ No trials without catheter to date ◯ N/A as catheter was not inserted
Was urological intervention/training performed whilst patient was admitted? (Tick all that apply)	☐ Urology service was required to place a urethral catheter ☐ Cystoscopy was required to place a urethral catheter ☐ Suprapubic catheter was inserted ☐ Urethral stricture dilation was performed ☐ Transurethral resection of prostate was performed ☐ Patient was trained in intermittent self-catheterisation
What was the patient's status at discharge?	☐ Discharged without catheter, voiding by self ☐ Discharged without catheter, performing intermittent self catheterisation ☐ Discharged with indwelling urethral catheter, on free drainage ☐ Discharged with indwelling urethral catheter, with flip-flo valve ☐ Discharged with suprapubic catheter, on free drainage ☐ Discharged with suprapubic catheter, with flip-flo valve
Was urology follow-up planned from time of discharge?	◯ Yes ◯ No