The following pages provide examples of clinical guidelines to enable clinicians to develop their own resource material relevant to their hospital and Area Health Service. They have been compiled by clinicians for clinicians. If you wish to use this material please acknowledge those that have kindly provided their work to enable use by others. Revise all material with colleagues before using to ensure it is current and reflects best practice.

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NEOBLADDER
GUIDELINES

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With thanks to Colleen McDonald, Karina So and Jeannette Werda for compiling this information. August 2010
GUIDELINES ON NEOBLADDER

WHAT IS A NEOBLADDER

Neo = new  Neobladder = new bladder

A Neobladder is a urinary pouch made from 50 - 60 cm of the intestine. Whilst the lower part of the small intestine (ileum) is generally used, it is possible the surgeon may utilize the large intestine (colon).

During surgery, the bladder and prostate gland will be removed and the chosen segment of intestine is detubulated and turned into a sphere shaped Neobladder.

The left and right ureters are implanted into the Neobladder allowing urine to drain into the Neobladder directly from the kidneys. The urethra is then anastomosed onto the base of the neobladder. This surgical procedure prevents the need for an external urinary drainage device, with all the plumbing being internalized.
PREOPERATIVE CARE

- General Preadmission assessment
- Medical assessment
- Anaesthetic assessment – request a central line placement in Operating Theatre in case post operative Total Parenteral Nutrition is required
- Stomal Therapy – assessment/siting, this is only with potential for Ileal Conduit following a failed Neobladder
- Clinical Nurse Specialist/Consultant – assessment and education
- Clean Intermittent Self Catheterisation – CISC education
- Continence management education – information on neobladder management, selection of continence aids – catheters, uridome, pads
- Pelvic floor muscle exercises
- Identify patient’s specific concerns and needs
- The patient needs to be fit and well
- Good nutritional status
- On a high protein diet
- Have a good support network
- Sexual function assessment – by Medical officer
- Discuss possible fertility issue – referral to Sperm Bank (Concord Hospital) as required.
- Bowel preparation – as per hospital protocol

Patient admission is on day of surgery.

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POST OPERATIVE MANAGEMENT

• General post operative care
• Naso-gastric (NG) tube – on 4 hourly manual aspirations and on free drainage
• Intravenous Therapy
• Two suction drains – am/pm. measures
• One large bore supra pubic catheter (SPC) – on free drainage
• Urethral catheter – free drainage
• Two exteriorized ureteric stents – free drainage
• The Neobladder is irrigated as per hospital policy to remove mucous. This may be intermittent or continuous. This is attended via the SPC.
• Ureteric stents may be irrigated with 10 mls Normal Saline (NaCl) if there is a notable decrease in urine output.

❖ NG tube may be removed when bowel sounds return and aspirate volume decreases.

NB Progress to diet as tolerated and as ordered by MO following daily assessment. If diet is not tolerated then Total Parenteral Nutrition (TPN) must be considered.

❖ Vacuum drains are removed as per medical officer instruction, commonly when drainage is <50mls in 24 hours.

NB If there is a significant increase in drainage output, a drain specimen is sent for creatinine levels to determine if there is a urine leak.

❖ SPC irrigation is titrated down during the first 2 weeks post operatively. Commenced at 4 hourly irrigation > reduce to 4 times per day > reduce to 3 times per day > reduce to 2 times per day – Or as per hospital policy for SPC irrigation in Neobladder.

NB A Cystogram is required prior to removal of urethral catheter. A Stenogram may or may not be required before removal of ureteric stents (medical decision) Once urethral catheter and ureteric stents are removed patient education commences on self catheterization and manual bladder irrigation.

❖ Spigot SPC until Clean Intermittent Self Catheterization (CISC) technique is established. This may vary with surgeon preference.
PATIENT SELF MANAGEMENT OF NEOBLADDER

Education is required of self-care, including practical education on skin care, and selection of continence aids. Education is also given on regular timed toileting, self catheterisation technique and neobladder irrigation for the purpose of mucous evacuation.

Education re-voiding techniques e.g. Abdominal straining (these patients do not experience a bladder filling sensation)

**NB** Patients should observe their urine for type and amount of mucous and titrate the frequency of irrigation as necessary.

MANUAL BLADDER WASHOUT

A manual bladder washout is required to evacuate mucous

**EQUIPMENT**

- Nelaton Catheter 14Fg
- 50ml catheter tip syringe
- Lubricant (KY Gel)
- Kidney dish – (sterile)
- 500ml bottle NaCl (Normal Saline) – at room temperature
- Plastic container with a lid, one big enough to store the kidney dish and the 50ml syringe
- Milton tablets/solution

**METHOD**

- Wash hands
- Set up equipment
- Wash hands
- Clean urethral meatus
- Proceed to perform self catheterization
- Drain bladder
- Instill 50mls NaCl – via catheter
- Withdraw NaCl- from catheter by drawing back on plunger – dispose of used NaCl
- Repeat procedure until clear of mucous – instilling 50mls at a time, withdrawing 50mls and disposing into a receptacle or toilet.

This procedure needs to be titrated according to local hospital policy, physical appearance and quantity of mucous.

At the completion of the procedure, the kidney dish and the syringe (barrel removed and rinsed) can be soaked in Milton solution. This equipment can be reused for the one patient.

With thanks to Colleen McDonald, Karina So and Jeannette Werda for compiling this information. August 2010
What is a Neobladder?

A Neobladder is a pouch to store urine, it replaces the bladder that you have had removed. The neobladder is made from a piece of your intestine, around 50-60cm long.

Your kidneys will drain urine directly into the neobladder via your right and left ureters which have been implanted into the neobladder.

The urethra (outlet/water pipe) has been connected to the base of the neobladder to allow normal passage of urine.

Neobladder

At the end of the surgery your neobladder will store urine in a normal manner; you will need to learn different methods of emptying your neobladder.

In the early recovery period you will have two tubes (catheters) to drain urine and wash out mucous (bladder irrigation). One catheter is positioned in the urethra and the other in the abdomen, just above the pubic bone (suprapubic catheter). Both catheters go directly into the neobladder. A couple of weeks later these catheters will be removed.

Initially the neobladder has a small volume capacity, about 120-200mls of urine. Over the next 6 months its capacity will gradually increase to the normal range of 400-500mls.
WHAT ARE THE CHANGES TO YOUR BLADDER FUNCTION FOLLOWING THE OPERATION?

The neobladder will not have muscular contraction, and will not have the usual bladder sensation. This means that there will not be the same degree of urgency and pressure when the bladder reaches its capacity.

Following your surgery you will be given support, education and information from specialist nursing staff. This will assist you to adjust and learn to manage your neobladder.

CHANGES TO YOUR BLADDER CONTROL

Bladder control is going to be reduced initially. Following your operation your new bladder capacity is small and the new bladder outlet might not be watertight.

This may mean that as your neobladder is filling up, you may experience some dribbling (stress) incontinence.

At night, when the bladder is full, urine may leak out of the urethra resulting in (overflow) incontinence.

You can overcome these initial problems by regular toileting and the use of continence aids.

FURTHER CHANGES YOU WILL HAVE

Following surgery, you will notice the appearance of lumpy mucus in the urine. This is normal because your neobladder (which has been made of bowel) has an inner lining which produces mucous. This means that there will always be mucus in your urine.

It is good to clear the mucus regularly because retention of mucus in the bladder may cause problems.

POSSIBLE PROBLEMS OF NON-CLEARED MUCOUS FROM YOUR NEOBLADDER

Mucous not cleared regularly from the bladder can cause a reduction in the flow of urine, due to mucus obstruction.

Non-cleared mucous may result in an inability to pass urine and cause the neobladder to over-distend.

Non-cleared mucus may also provide a medium for bacteria to grow causing a urinary tract infection.

In the first two weeks after surgery, the nurse will carry out bladder irrigation every four hours removing mucus from the neobladder. This procedure helps to maintain good urine flow into the urinary drainage tube (catheter) and collection bags. This procedure should not cause any discomfort or pain.

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The production of mucus will continue, though reduce in volume over the next twelve months. Meanwhile the capacity of the bladder to hold larger volumes of urine will continue to increase, up to around 500mls.

**HOW CAN I MANAGE?**

**BLADDER CARE REGIME**

Around two weeks after surgery the catheters will be removed. From this time on you will need to empty your new bladder in one of two different ways, with “External abdominal pressure” or through “Intermittent self catheterisation” or with a combination of both.

Your new bladder should be emptied regularly, initially every 2 hours during the day and every 3 hours at night. The space between each emptying will be gradually increased over the first four weeks.

By week four your bladder should be emptied every 3 -4 hours during the day to a maximum interval of 6 hours at night.

**METHODS OF BLADDER EMPTYING**

‘External abdominal pressure’

When it is time to empty your bladder, sit down on the toilet
1. Relax your pelvic floor muscles.
2. Tug in (tighten) your abdominal muscles for 10 – 15 seconds. Repeat three to four times.
3. Apply direct pressure on the lower tummy (abdomen) just above your pubic bone for about 10 seconds using forearm or both hands.
4. Repeat this step three to four times until you cannot expel any more urine from the bladder.
5. Next bend your tummy by leaning forward. Maintain your position for 30 seconds and repeat once or twice.

NB Some men can empty their bladder well in a standing position. Try different positions to see which suits you best.
**Intermittent self catheterisation and bladder irrigation**

This is a procedure involving the insertion of a very small soft straight catheter into the urethra (water pipe) to empty the neobladder of mucus and residual urine.

A specialist nurse will instruct you in this technique. You may have the opportunity to watch an instructional film/DVD.

- You should maintain a record of catheterised urine volume for review.
- Maintain regular fluid intake. About 2 litres of fluid, including a few glasses of water, is recommended every day.
- Please avoid alcohol at the initial stage until you have your first check up with the urologist.

**Continence Aids**

If you require a long term supply of continence aids, including catheters for intermittent catheterisation then you may be eligible for a Continence Aids Payment Scheme (CAPS – processed by Medicare). Please talk to your specialist nurse about the application form.

**Follow up Care**

You will need regular follow-up checks with your local doctor and urologist. This will involve regular blood tests to monitor your electrolytes, vitamin B level and your kidney function.

**Important Points:**

**Once you have a bladder care regime established remember to always empty your bladder at least 4 -5 hourly during the day.**

**Discuss any concern with your nurse, local doctor or urologist.**

**Have regular follow-up checks with your local doctor and urologist.**

**Carry a medical card about your Neobladder in your wallet.**

**If you require surgery in the future, you may require continuous bladder drainage until you can manage your bladder independently. Please discuss bladder care with the treating physician.**
References:

Patient Information Sheet – “Neobladder” - Concord Hospital -Urology Support Services

Patient Information Sheet –“Neobladder” – John Hunter Hospital Urological Services

Patient Information booklet – “Urinary Diversions” –Prince of Wales Hospital

Bladder Cancer Web Café- Information on Neobladder-
http://blcwebcafe.org/neobladders.asp

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