Adult Emergency Nurse Protocol

NSW GOVERNMENT | Health | South Eastern Sydney Local Health District

Urinary Retention

SESLHDPR/407

Aim:
- Early identification and treatment of life threatening causes of urinary retention, escalation of care for patients at risk.
- Early initiation of treatment / clinical care and symptom management within benchmark time.

Assessment Criteria:
On assessment the patient should have one or more of the following signs / symptoms:

- Dysuria
- Abdominal discomfort
- More than 500mls in bladder post void

Escalation Criteria:
Immediate life-threatening presentations that require exclusion and referral to a Senior Medical Officer (SMO):

- Haematuria
- Recent urological surgical procedure
- Pelvic trauma

Primary Survey:
- Airway: patency
- Breathing: resp rate, accessory muscle use, air entry, SpO_2.
- Circulation: perfusion, BP, heart rate, temperature
- Disability: GCS, pupils, limb strength

Notify CNUM and SMO if any of following red flags is identified from Primary Survey.

- Airway - at risk
  - *Partial / full obstruction*
- Breathing - respiratory distress
  - *RR < 5 or >30 /min*
  - *SpO_2 < 90%*
- Circulation – shock / altered perfusion
  - *HR < 40bpm or > 140bpm*
  - *BP < 90mmHg or > 200mmHg*
  - *Postural drop > 20mmHg*
  - *Capillary return > 2 sec*
- Disability – decreased LOC
  - *GCS ≤ 14 or any fall in GCS by 2 points*
- Exposure
  - *Temperature < 35.5°C or > 38.5°C*
  - *BGL < 3mmol/L or > 20mmol/L*

History:
- Presenting complaint
- **A**llergies
- **M**edications: Anticoagulant Therapy, Anti-hypertensives, Diabetic meds, Analgesics, Inhalers, Chemotherapy, Non-prescription meds, any recent change to meds
- **P**ast medical past surgical history relevant - Radical Prostatectomy, Bladder Cancer.
- **L**ast ate / drank and last menstrual period (LMP)
- **E**vents and environment leading to presentation
- Pain Assessment / Score: **PQRST** (Palliating/ provoking factors, Quality, Region/radiation, Severity, Time onset)
- Associated signs / symptoms: nature of pain / radiation, nausea, vomiting, urinary symptoms, haematuria, clots
- History: family, trauma and travel

Systems Assessment:
Focused Abdominal assessment:
- *Inspection:* Scars, masses, distention, bruising, discoloration, midline pulsations, devices and movement of patient*; is the abdomen distended*
- *Auscultation:* Bowel sound; hyperactive, reduced or absent
- *Palpation:* tenderness, guarding, rebound tenderness, masses, pulses; Identify location of pain*; palpate bladder*

Notify CNUM and Senior Medical Officer (SMO) if any of following red flags is identified from History or Systems Assessment.

- Recent bladder /urinary tract surgery
- Gross haematuria with clots
- Elderly > 65 years
- Cancer to the urinary system
- Hypotension
- Acute confusion / agitation
- Unrelieved pain
- Signs of urinary sepsis
- Decreased urine output - oliguria

Investigations / Diagnostics:

Bedside:
- BGL: If < 3 or > 20mmol/L notify SMO
- ECG: [as indicated] look for Arrhythmia , AMI
- Urinalysis / MSU (if urinary symptoms)
- Bladder Scan *(look for residual >500mL)*

Laboratory / Radiology:
- **Pathology**: Refer to local nurse initiated **STOP**
  FBC, UEC, LFTs, Coags, Venous Lactate, MSU
  (if sepsis suspected)
  Group and Hold (if bleeding suspected)
  Blood Cultures x 2 (if Temp ≤35 or ≥38.5°C)
- **Radiology:** Not generally indicated – refer to SMO

Nursing Interventions / Management Plan:

Resuscitation / Stabilisation:
- Oxygen therapy and cardiac monitor
- IV Cannulation (consider large bore i.e. 16-18gauge)
- IV Fluids: Sodium Chloride 0.9% 1 Litre stat *(discuss with SMO)*

Symptomatic Treatment:
- **Antiemetic:** as per district standing order
- **Analgesia:** as per district standing order
- **IV Fluids:** as per district standing order

Supportive Treatment:

- Nil By Mouth (NBM)
- Monitor vital signs as clinically indicated (BP, HR, T, RR, SpO_2)
- Monitor neurological status GCS as clinically indicated
- Monitor pain assessment / score
- Fluid Balance Chart (FBC)
- Indwelling Catheter Device – Maximum 2 attempts
- Consider Bladder Irrigation via IDC: 3 way irrigation catheter 22fg *(discuss with SMO)*

Practice Tips / Hints:[3-5]

- Urinary Retention is the inability to completely or partially empty the bladder of urine. Retention with overflow can be associated with long term or chronic urinary retention. The bladder is unable to empty completely though the patient still voids frequent small amounts.
- Medications with Anticholinergic properties can contribute to urinary retention.
- If gross haematuria present, discuss with SMO regarding need for 3 way irrigation catheter.
- Attempt size 12 -14fg for females, 14 – 16 for males. Two (2) attempts maximum.
- Do not give more than 15mLs lignocaine gel. If size 18fg IDC must be placed by Medical Officer.
- An 'Introducer' is only for use by a Urology Registrar/Consultant.
- A 3-way irrigating IDC is necessary to breakdown and dilute blood clots. Only size 22fg available, and must be inserted by Medical Officer. Irrigation with appropriate solution should commence immediately.
- Post IDC insertion, do not inflate balloon in male without urine output.
- Check time out form for consent requirements.
- **DO NOT attempt catheterisation of any patients who have had a recent urological surgical procedure within the past 6 weeks - refer to an ED SMO.**
- Suprapubic catheters may be placed by appropriately trained Senior Emergency Department (ED) and Urology Medical Officers.
- Large residual volumes suggest chronic or acute on chronic significant retention and are at risk of decompression bleeds as well as post obstructive diuresis. Haematuria predisposes to clot retention. Patients with these problems need a period of observation and treatment and are inappropriate for early discharge. Intravenous antibiotics as indicated.
- A discussion between the Urology Registrar/Consultant and ED SMO needs to take place to ensure admission to the appropriate designated area, and a clear management plan and Continence Service follow up.

Further Reading / References:

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5. Barrisford, G and Steele, G (2021) Acute urinary retention. Accessed from: https://www.uptodate.com.acs.hcn.com.au/contents/acute-urinary-retention?search=urinary%20retention&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

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- Murphy, M (2007) Emergency Department Toolkits. Westmead Hospital SWAHS
- Hodge, A (2011) Emergency Department Clinical Pathways. Prince of Wales Hospital SESLHD.

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