Ambulatory Emergency Care Pathways

Acute Painful Bladder Outflow Obstruction

Effective Date: November 2011
## Content Summary

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### 1. Condition Details

<table>
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<th>Condition Details Summary</th>
<th>Data (Baseline using 2010/11 outturn)</th>
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<tr>
<td>HRG/ICD-10 Codes</td>
<td>LB16C, LB16B / R33X, R391</td>
</tr>
<tr>
<td>Total Patients per Month (Avg)</td>
<td>5.58</td>
</tr>
<tr>
<td>Bed Days Utilised per Month (Avg)</td>
<td>19.67</td>
</tr>
<tr>
<td>Number of Beds Utilised per Month (Avg)</td>
<td>0.05</td>
</tr>
<tr>
<td>Average Length of Stay</td>
<td>3.52</td>
</tr>
<tr>
<td>Potential Percentage suitable for ambulatory care</td>
<td>60-90%</td>
</tr>
</tbody>
</table>

**Sign Off:**

**Pathway Designed by Clinical Subject Matter Expert**  
_________________________ Signed
_________________________ Print

**Pathway Approved by Specialty Lead**  
_________________________ Signed
_________________________ Print

**Pathway Authorised by Divisional Director**  
_________________________ Signed
_________________________ Print
2. Pathway Algorithm

Patient Presents with: Acute Painful Bladder Outflow Obstruction (NOT Chronic Indwelling Catheter)

History & Examination
(Inc Basic Obs: Temp, Pulse, BP)

Investigations
U&E’s, Residual Urine Volume

Red Flags
Retention associated with Heamaturia & Clots, Sepsis or Renal Failure

No

Yes

RUV GREATER than 500ml

No

Consider alternative diagnosis

Yes

ADMIT

Refer to Urology

Monitor Fluid I/O for 6 to 12hrs

Urine Output OVER 200mls/hr, sustained over a 4hr period

No

Yes

ADMIT

Urology Middle Grade Assessment: Is there Post-Obstructive Diuresis or Decompression Heamaturia?

No

Define patient definitive management plan with surgery or trial without catheter

Yes

Discharge Patient
Issue Patient Info
Arrange Clinic F/Up (if required)
Letter to GP
“Tick” APD box on CAS form
### 3. Patient Criteria

**Red Flags - Exclude the following Patients and Admit:**

- Retention associated with Haematuria & Clots, Sepsis or Renal Failure

**Clinical Criteria that requires addressing same day for AECP, else Admit / Reconsider Diagnosis:**

- If RUV not greater than 500ml, reconsider diagnosis
4. Patient Information

What is Acute Urinary Retention?

Acute Urinary Retention (AUR) is the inability to pass urine resulting in retention of urine. It is usually painful and requires urgent treatment with a urinary catheter in the first instance.

AUR is more common in men than in women. The majority of this information sheet explains the causes in men due to the frequency of the condition being caused by an enlarged prostate only present in men.

Causes of Acute Urinary Retention

In Men

It is a common urological emergency with an incidence of primary AUR in the UK of approximately 3/1,000 men per year. Increasing age is a significant risk factor for men: a man in his 70s has a 1 in 10 chance of experiencing AUR within 5 years; but for those in their 80s, the risk is nearly 1 in 3. It is much less common in women.

To pass urine the muscles in the bladder called detrusor muscles contract and the sphincter at the ‘exit’ from the bladder, called the bladder neck, relaxes in a co-ordinated fashion. In men, urine then flows into the urethra, through the prostate which sits underneath the bladder. The prostate is normally the size of a walnut, but as men get older it increases in size and this can result in it occluding the tube. Benign enlargement of the prostate is called BPE or BPH. BPH is by far the most common cause of urinary retention, although it can also be caused by nerve dysfunction, constipation, infection, or medications (including anticholinergics, antidepressants, COX-2 inhibitors, amphetamines and opiates).
In Women
The cause of AUR in women includes nerve dysfunction, constipation, infection, or medications (including anticholinergics, antidepressants, COX-2 inhibitors, amphetamines and opiates).

How will it be treated?
The immediate treatment is placement of Foley urinary catheter to drain the bladder. The patient should then be referred to the urologists for longer term management.

As for any intimate examination, the patient should always have the option of a chaperone although many will decline. If this fails or is contra-indicated (e.g. urethral trauma or stenosis) you will be seen by a urologist. Alternatives include suprapubic catheters which can be inserted directly into the bladder or special tipped catheters such as Coude catheters.
In Women
Treatment is the same as for men with a catheter inserted into the female urethra or occasionally placed suprapublically (see diagrams above of a male Foley catheter and a suprapubic catheter – the location/insertion is the same for men and women).

As the common causes for AUR in women is different and may require further investigations to rule out an underlying neurological cause. If this is necessary in your case, you will have discussed this with your doctor prior to leaving the hospital.

Subsequent Management
This is dependent on the cause of the AUR. If you have an underlying cause for your retention such as constipation, infection or recent operation then you will be treated with suitable medication and sent home with the catheter after you have been shown how to manage it.

Medication may include antibiotics if you have an infection, medication to help with constipation if you are constipated or an alpha blocker such as tamsulosin (trade name ‘flomax’) to help relax the bladder neck and improve your urinary stream. If you have an enlarged prostate you may also be commenced on an alpha reductase inhibitor (finasteride or dutasteride) which is a tablet that will shrink your prostate over time. It takes approximately 4 months before the prostate is shrunk sufficiently for you to notice a difference in your urinary flow rate but the tamsulosin works after a day or so.

You will then come back to a specialist nurse led clinic to have your catheter removed and to make sure that you are then emptying your bladder sufficiently. This is called a trial without catheter or ‘TWOC’ and involves removing the catheter after 3-7 days: patients are able to pass urine successfully in about 40% of cases and surgery, if needed, can be planned for a later date.

Surgery is indicated for male patients who have complications of BPH and for those that have symptoms that are poorly controlled by medical management or occasionally in those who elect to forego a trial of medical therapy and wish to receive more definitive treatment. It is recommended for patients who experience serious complications, such as the following:

- Large amount of urine in the bladder with more than 1.2 litres of urine drained off with the catheter. This indicates that the bladder hasn’t been emptying well for a long time and that you are at high risk of going back into retention or potentially damaging your kidneys from back pressure.
- Abnormal kidney function or obstructed kidneys seen on an ultrasound scan due to poor emptying of the bladder.
- Significant lower urinary tract symptoms. If you have a lot of ongoing symptoms that are due to an enlarged prostate it may be preferable to proceed to an operation.
- Frequent urinary tract infections
- Blood in the urine may require your bladder to be washed out with irrigation until it settles.
- Stones in the bladder
The most common operation is transurethral resection of the prostate (also known as TURP). It is performed by visualising the prostate through the urethra. This operation involves telescopic removal of the obstructing, central core of the prostate with cutting diathermy. The surgeon cuts away part of your prostate gland to stop it pinching the urethra (urine carrying tube from your bladder through your penis) and causing difficulties passing urine. This can now be done with various newer techniques such as bipolar TURP and button vaporisation that can result in shorter hospital stay and less bleeding.

For more information on all these surgical techniques go to www.surreyurology.co.uk

What can I do if I become worried about my condition?

Once you have your catheter in place and it is draining normal amounts of clear urine then the situation is controlled and you can be discharged. Your doctor will discuss with you a management plan before you are discharged.

You should seek further medical advice if you have signs of:

- Smelly, cloudy urine, feeling hot and sweaty, possibly with rigors (shakes).
- Feeling nauseous and lethargic.
- If you are passing more than 200mls of urine every hour or are feeling faint then you should seek medical attention.
- If you are passing significant amounts of blood or clots in your urine.

If at any point you are concerned, please see your GP or contact NHS Direct on 0845 46 47.

The information in this leaflet is not intended to replace the advice given to you by your doctor or the service looking after you.
5. KPIs

<table>
<thead>
<tr>
<th>KPIs</th>
<th>Description</th>
<th>How it will be measured</th>
<th>Baseline (2010/11)</th>
<th>At Min %</th>
<th>At Max %</th>
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<tbody>
<tr>
<td><strong>Core KPIs</strong></td>
<td>Reduction in the number of patients requiring a stay of more than 24 hours (i.e. a 0-Day LoS)</td>
<td>PAS</td>
<td>67</td>
<td>7</td>
<td>10</td>
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<tr>
<td></td>
<td>Reduction in the Avg number of Bed Days utilised for the condition</td>
<td>PAS</td>
<td>236</td>
<td>24</td>
<td>35</td>
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<tr>
<td></td>
<td>Reduction in Bed Numbers</td>
<td>PAS</td>
<td>0.647</td>
<td>0.065</td>
<td>0.097</td>
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<tr>
<td><strong>Other KPIs</strong></td>
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<td><strong>Scope</strong></td>
<td><em>Scope:</em> Patients entering the AECP Pathway at St. Peter’s Hospital</td>
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- Above Min and Max figures are part year effects for 2011/12 based on month of implementation