6. ROUTINE POSTPARTUM CARE

6.2 CARE OF MOTHER ON THE POSTNATAL WARD

6.2.2 SUBSEQUENT CARE

6.2.2.1 BLADDER CARE

AIMS:

• To assess bladder function.
• To detect any deviation/s from normal
• To carry out timely preventative measures to avoid complications following birth.

KEY POINTS

1. Postpartum urinary retention is regarded as common event but the reported incidence varies considerably from 1.7 to 17.9%\textsuperscript{1,2}.

2. Vigilant surveillance of bladder functioning and early intervention where problems exist will prevent permanent bladder damage\textsuperscript{3,4}.

3. While all women in the immediate postpartum period have the potential to experience urinary problems several factors increase the risk, i.e.,\textsuperscript{5,8}

   • Prolonged first and second stages of labour\textsuperscript{9}
   • Caesarean section for lack of progress in the first stage of labour
   • Duration of labour\textsuperscript{10}
   • Assisted birth\textsuperscript{9,11}
   • Episiotomy\textsuperscript{11,12}
   • Epidural analgesia\textsuperscript{11,12}, particularly with local anesthetic. (e.g. bupivacaine)
   • Post Caesarean Epidural Morphine\textsuperscript{13}
   • Perineal/vulval trauma
   • Over distension of the bladder during/immediately following birth
   • Larger infant than normal term baby
   • Non English speaking mother
   • Obesity\textsuperscript{12}
   • Nulliparity\textsuperscript{11,12}

4. The timing and volume of the first void urine should be monitored and documented in the patient’s fluid balance chart or progress notes\textsuperscript{14}.
5. If an indwelling catheter (IDC) is used in labour or for a Caesarean birth, prior to removal, assess motor function to ensure sensation has returned to normal. Perform a Bromage Score and check Dermatomes if the epidural contained local Anesthetic. Refer to clinical Guideline E.2.6 Assessment of Motor Function and E.2.5 Testing of Dermatomes.

6. Spontaneous vaginal birth – the first void should be no later than 4-6 hours post birth or removal of IDC.

7. Operative vaginal birth with local anesthetic to the perineum– the first void should be no later than 4-6 hours post birth or removal of IDC.

8. Operative vaginal birth with spinal or epidural topped up for a trial – the woman should have an indwelling catheter for at least 12 hours post birth to prevent asymptomatic bladder overfilling14.

9. Caesarean Births- Urinary Indwelling Catheters to remain in situ for a minimum of 36 hours

10. Commence monitoring from 4 hrs after birth- see Flow Chart on page 6

11. Best practice indicates that women should have voided prior to leaving labour and birth suite.

12. To pass a Trial of Void- a woman should have
   - Normal Sensation
   - Normal Flow and
   - Normal Volume

13. Notify the Urology Nurse Practitioner (on page 3136) or ward Physiotherapist if abnormal bladder sensation/ abnormal voiding function present (see flow chart- hyperlinked).

14. The team Registrar shall be informed if
   - The woman is not voiding normally after birth.
   - ‘Normal’ is defined as
     - A good sensation of bladder filling
     - A constant good stream of urine while voiding
     - Bladder feels empty after a void
     - No urge or passive incontinence
     - Void volumes of >150 mls and < 600 mls
   - A residual volume of more than 600mL is obtained.

15. A real-time scanner, such as the Portascan, shall be used to assess residual amounts of urine in postnatal women (the bladder scanner is not appropriate for use in postnatal women). If unavailable, a Foley’s catheter should be inserted to determine residual volume.
<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assess the status of the woman’s bladder on admission to the ward. The initial bladder assessment should include:</td>
<td>An initial assessment will provide information on:</td>
</tr>
<tr>
<td>• A review of the labour/birth history to detect any risk factors,</td>
<td>• the presence of any urinary problems,</td>
</tr>
<tr>
<td>• Bladder palpation</td>
<td>• risk factors that may contribute to urinary problems,</td>
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<tr>
<td>Checking to see if the woman has voided after birth.</td>
<td>• baseline values for comparison with subsequent recordings.</td>
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<tr>
<td>2. Assessment</td>
<td>The woman may complain of:\cite{15, 16}</td>
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<tr>
<td>2.1 Subjective Assessment:</td>
<td>• an inability to void,</td>
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<tr>
<td>• Ask the woman if she has a normal sensation to voids, or experiencing any discomfort or difficulty when voiding.</td>
<td>• reduced or loss of sensation of filling,</td>
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<td></td>
<td>• hesitancy or intermittent flow,</td>
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<td></td>
<td>• difficulty in emptying her bladder,</td>
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<td></td>
<td>• involuntary loss of urine,</td>
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<td></td>
<td>• voiding frequent small amounts (retention with overflow),</td>
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<td></td>
<td>• increasing lower abdominal pain.</td>
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<tr>
<td>2.2 Objective Assessment:</td>
<td>• 300- 500 mls is normal bladder volume. But if a woman is dehydrated, 150- 600 mls is acceptable.</td>
</tr>
<tr>
<td>• check the frequency with which urine is passed,</td>
<td>• A distended bladder displaces the uterus upward and to the right side. There may also be a painful cystic swelling palpable in the suprapubic region.\cite{15}</td>
</tr>
<tr>
<td>• check the volume passed with each void,</td>
<td></td>
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<tr>
<td>• examine the woman’s abdomen for displacement of the uterus and swelling of the lower abdomen,</td>
<td></td>
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<tr>
<td>• palpate the woman’s bladder.</td>
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<tr>
<td>3. Prevention and Management</td>
<td>During the early postpartum period a marked diuresis occurs and the woman produces copious amounts of urine. This, combined with a decreased sensation of a full bladder and the need to void, predisposes the woman to over distension of the bladder.</td>
</tr>
<tr>
<td>3.1 • Encourage 2 to 3 hourly voiding for the first 24 hours.</td>
<td>Regular voiding, and observation of urine output will reduce the likelihood of bladder over distension related to urinary retention.\cite{17}</td>
</tr>
<tr>
<td>• Use supportive measures, such as analgesia, ambulation, privacy, warm bath or shower or running water, to enhance the likelihood of micturition.</td>
<td></td>
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</table>

\cite{17}
<table>
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| 3.2       | Measure and document voids and any associated symptoms (e.g. dysuria, loss of sensation).  
• Cease when bladder sensation and voiding function is normal and two consecutive voids of 150-600 mls are achieved.  
• Refer to flow chart.  
• Suspect urinary retention if the voiding pattern is one of frequent small voids (<100mL).  
| Initial voids should always be measured and recorded to give an indication of the amount and frequency of voids.  
It has been shown that where postpartum documentation of urinary output has been poor, urinary problems may go unrecognised.  |
| 3.3       | If at 4-6 hours post birth the woman has not voided, make an assessment of bladder fullness using either a real time scanner or Foley's catheterization (see flow chart)  
|  |
| 4.        | Urinary retention  
Where urinary retention (residual urinary volume of ≥150mL²) is suspected, confirm by performing either a post micturition ultrasound, or a residual catheterization immediately after a void.  
| Early diagnosis and intervention for urinary retention is required to prevent irreversible bladder damage.  |
| 5.        | When inserting a catheter for a residual urine always:  
• inform the Urology Nurse Practitioner on pager 3136 and RMO  
• If after hours- inform RMO  
• use a Foley's catheter  
• observe residual volume after 10 minutes  
• use a strict aseptic technique  
| Using a Foley catheter, instead of an in-out catheter prevents the risk of introducing bacteria into the urinary tract from a second catheterization should an indwelling catheter be required.  |
| 6.        | Indications for an indwelling catheter  
|  
• Lack of sensation from epidural block following birth in which case the catheter should remain in for at least 12 hours and until full sensation returns.  
• Long or difficult labour in which case the catheter should be left in for 24 hours.  
• Extensive perineal/vulval trauma in which case the catheter should be left in for 24 hours, or until swelling subsides.  
| Epidural analgesia impedes sensory impulses in the bladder increasing the risk of urinary retention. It has been reported that it may take up to 8 hours after epidural analgesia for bladder sensation to return.  
Prolonged difficult labour may cause trauma and swelling of the bladder and urethra.  
Pain associated with this type of trauma may inhibit voiding.  
|
### PROCEDURE

- History of difficulty in voiding, abnormal voiding pattern or an inability to void for 6 hours in which case the catheter should be left in for 24 hours

### ADDITIONAL INFORMATION

During labour the bladder may become numbed and oedematous through injury and pressure. This may result in an inability to void or in an altered voiding pattern. Catheterization for 24 hours allows recovery from the initial trauma.\(^{17}\)

7 **Management of Bladder after excessive distention**

- Where the residual urinary volume is 150-600 mls- IDC to stay in for 24 hrs
- Where the urinary volume is >600 mls- IDC to stay in for 48 hrs.

Over distension of the bladder causes a loss of bladder muscle tone and detrusor hypotonia. Catheterization for 48 hours allows adequate drainage and prevents chronic bladder damage\(^{4, 17, 20}\).

- Remove the catheter in the morning around 06:00 hrs.

Morning removal of the catheter allows time for careful and regular post catheterization bladder assessment.

8. **Management following the removal of catheter**

8.1 • Reassess the bladder as outlined in #2.

8.2 • After removal of the catheter, palpate the bladder 2/24 for 12 hours or until normal voiding patterns are established and two measured voids of 150mL or greater are obtained.

8.3 • Measure residual urine if the woman becomes distressed or is unable to void for 4 hours – either by Real Time Ultrasound or by Foley's Catheter

Because retention may be gradual and asymptomatic\(^{23}\), performing a residual urine is necessary to ensure the bladder has regained its tone and woman is able to empty her bladder completely.

9. Document all findings as a variance point on the clinical pathway and in the woman’s medical notes.

10 **Consider referral to urology team for further management.**
PREVENTION AND MANAGEMENT OF POSTPARTUM URINARY RETENTION

**Voiding difficulty, unable to void or no sensation of bladder filling within 4 hours of delivery or removal of IDC**

Ensure adequate fluid intake (2-3 litres per day)
Encourage to void within 30 minutes
Instigate non-invasive measures - analgesia, privacy, Ural, void in shower, relaxed void, mobilise
Commence bladder diary

No void, unable to void or void < 150ml within 30 minutes

Assess symptoms and diary
Determine bladder volume:
either refer urology nurse for ultrasound
or drain with IDC, record volume, send CSU

Volume 150-600ml → IDC 24 hours
Volume > 600ml → IDC 48 hours

Refer urology nurse/MO after hrs

IDC removed at 0600
Trial of void

Void 150-600ml within 30 minutes

Sensation of filling and voiding well – no need to refer

Loss of sensation and/or voiding difficulty refer urology nurse or physio

Timed void 2-3 hourly

Reassess bladder diary and symptoms after next 2 voids

Loss of sensation and/or voiding difficulty refer urology nurse or physio

Timed void 1.5 – 2 hourly

No void, unable to void or void < 150ml within 4 hours

Insert IDC

Management planning with urology nurse (MO after hrs)

void > 600ml and/or Voiding difficulty continues

Educate to:
Continue bladder diary 24 hours (even if discharged)
Continue timed void for 2-3 days to ensure volumes within normal limits

Refer urology nurse or physio if not done so already (MO after hrs)

No further action

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Review Team: OGCCU

All guidelines should be read in conjunction with the Disclaimer at the beginning of this section

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REFERENCES: