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**Level:**        **Service Ostetrics**

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**Type:**        **Protocol**

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**Name:**        **Obstetric Bladder Care and Management  
(Antenatal, Intrapartum and Postpartum)**

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### **Purpose**

The intrapartum and postpartum period pose significant risks for urine retention, and bladder distension. For some women this may lead to long-term health issues related to bladder dysfunction and incontinence, indicating that assessment of risk and preventative management is merited (RCOG 2002).

Contributing factors include: the hormonal induced reduction in smooth muscle tone and anatomical changes specific to pregnancy (Saultz 1991); pressure exerted by the presenting part in the second stage of labour, temporary loss of sensation due to denervation of the pelvic floor (Mostwin 2005) and the extra pressure exerted on the bladder due to postpartum fluid shift and increased extracellular fluid. Health professionals also need to be vigilant in their assessment of other risk factors such as the length of labour, mode of birth, perineal trauma and the influence of analgesia/anaesthesia.

Delayed diagnosis and intervention may lead to irreversible damage of the detrusor muscle, and long-standing health issues including urinary tract infection, voiding difficulties and persistent painful urinary retention (Rizvi et al 2005, Baldini et al 2009).

Regular bladder assessments are required when a woman is in labour, especially when she has had a regional block, an assisted vaginal birth, or there has been excessive perineal/periurethral trauma. Guidelines are included to optimise care of the bladder and the monitoring that assists in avoiding urinary retention.

### **Scope**

- All WHS midwives and nurses
- All WHS obstetricians, registrars, senior house officers
- All obstetric anaesthetists and anaesthetic registrars
- All access holders

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## Management

### *Antenatal*

All women should be assessed during the antenatal period (for risk factors see below), and their usual bladder function discussed. Refer as required.

### *Intrapartum*

#### **Bladder management for women with an epidural**

Those with a long period of epidural administration are particularly at risk of retention. Whilst women may be able to void if encouraged, bladder emptying may be insufficient and urinary retention may be overlooked with a resultant poor outcome. Early insertion of an indwelling urinary catheter (IDC) may reduce the risk of retention related complications.

For further guidance please see policy [Antenatal, Intrapartum and Postpartum Management of Epidural Analgesia](#) CapDocs ID 1.103846

#### **Management without epidural**

- Bladder assessments are required at least four hourly. This includes an assessment of the woman's risk factors, her hydration state, and whether the bladder is palpable either abdominally or vaginally
- Accurate documentation of all voids in labour should include volume and time.
- If the woman has not passed urine for four hours, catheterisation should be considered
- An in/out or intermittent catheter may be used if birth is imminent within 2 hours. If not an IDC should be placed and remain until after birth
- The woman's bladder must be emptied prior to an assisted vaginal birth and during a prolonged second stage. A full bladder can displace the uterus and pressure may result in damage to the bladder neck.
- All fluid input and output must be recorded on a Fluid balance chart for women with epidurals and indwelling catheters.
- For all women who have an IDC in situ; deflate the balloon to prevent trauma to bladder neck during second stage, re-inflate balloon postpartum (RCOG 2011). If the catheter is expelled during delivery a new catheter should be inserted using aseptic technique.
- An IDC is recommended following an assisted vaginal delivery or for ANY obstetric intervention at birth, where spinal or epidural anaesthesia has been topped up for birth. Obstetric intervention includes manual removal of the placenta, and complex pelvic floor repairs. The IDC should remain in place for a minimum of 12 hours to prevent asymptomatic bladder overfilling (RCOG 2011)
- All women having caesarean section should have an IDC inserted; this should remain insitu for 8 hours - 24 hours postpartum
- Please follow "**Guidelines for first void and removal of IDC**" which offers specific guidance according to mode of birth and analgesia/anaesthesia

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### **Risk factors for retention**

While all women in the immediate postpartum period have the potential to experience urinary problems, several factors increase the risk including:

- Women with underlying neurological conditions
- A previous history of bladder retention
- Primiparity
- > 3 births
- Prolonged or difficult labour
- Prolonged second stage
- Instrumental and operative birth (Zaki et al 2004, RCOG 2002)
- Large baby (> 4kg) (RCOG 2007)
- Opioid use, including spinal opioids- opioids inhibit spontaneous bladder contractions and decrease the urge to void, leading to increased bladder capacity and residual volume (Liang et al 2007)
- Oxytocin infusion, due to the anti-diuretic effects of the medication. Be especially vigilant if a second oxytocin infusion was commenced during induction/augmentation or postpartum
- Excessive intravenous fluids leading to distension and detrusor inhibition (Baldini et al 2009) e.g. during PPH resuscitation
- Perineal / vaginal trauma / haematoma
- Oedematous perineum
- Regional anaesthesia

### **Postnatal**

Ongoing assessment of bladder function is required for all women during the postnatal period. Offer adequate analgesia based on individual needs and ensure privacy. Consideration must be given to the labour and birth history, any symptoms of urinary retention (listed below) and whether (or not) the bladder is palpable.

There are two types of urinary retention that can affect women in the postpartum period

**Overt retention:** symptomatic inability to void spontaneously within 6 hours of birth or IDC removal. Assessment should be ongoing and earlier intervention may be necessary. Symptoms may include:

- Urgency
- Small frequent voids
- Inability to void
- Straining to void
- A slow or intermittent stream
- Woman has a sense of being unable to empty her bladder fully

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- Increasing lower abdominal pain
- Leakage of urine
- Palpable bladder

**Covert retention:** non symptomatic increased post void residual volumes after birth or removal of IDC.

- Ability to void, but no urge
- No obvious symptoms of retention

## **Guidelines for first void and removal of IDC**

All women should pass urine within 6 hours of giving birth and ideally prior to leaving the Birthing Suite.

Document on the fluid balance chart voids (volume and timing) postpartum and/or removal of IDC for the first 12 hours. Measurements can be stopped when there has been:

- A spontaneous void > 400mls, but less than 600mls  
**or**
- Two successive spontaneous voids of > 200mls  
**and**
- the woman is asymptomatic of urinary retention symptoms.

If a single spontaneous void > 600mls is passed there is a greater risk of bladder damage due to distension. Assessment should take into consideration:

- Urge to void
- Ability to control the passage of urine
- Any leakage of urine prior to voiding

### **Care will include**

- Palpation of the woman's bladder post initial void to assess for incomplete emptying
- Prompt the woman to pass urine within the next 2 hours and record volume on the fluid balance chart
- Repeated large voids carry the risk of long-term morbidity and medical advice should be sought.

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## Guidelines for first void and removal of IDC

| Type of Delivery          | Analgesia/anaesthesia  | Removal of IDC if present   | First void                                  |
|---------------------------|--|---|---|
| Spontaneous Vaginal Birth | None/ entonox/ opioid  | Individual decision dependant on risk factors/once able to mobilise independently to toilet   | 4-6 hours postpartum or from removal of IDC |
| Spontaneous Vaginal Birth | Epidural/PCEA  | Once able to straight leg raise and mobilise independently to toilet  | 4-6hrs postpartum or from removal of IDC    |
| Instrumental Birth        | Local Anaesthesia i.e. pudendal block, local perineal infiltration | <b>Minimum 8 hours</b> from birth<br><br>Individual directive by registrar/consultant may apply, see maternal notes.<br><br>If no instructions IDC to be removed prior to 06.00am following morning   | 4-6 hours postpartum or from removal of IDC |
| Instrumental Birth        | Spinal or epidural top up for birth                                | <b>Minimum 8 hours</b> and up to 24 hours where there is extensive perineal trauma from birth<br><br>Individual directive by registrar/consultant may apply, see maternal notes.<br><br>If no instructions IDC to be removed prior to 06.00am following morning | Up to 6 hours from removal of IDC           |
| Caesarean Section         | Spinal or epidural top up  | <b>Minimum 8 hours</b> from birth<br><br>Individual directive by Registrar/Consultant may apply, see maternal notes<br><br>If no instructions IDC to be removed prior to 06.00am following morning  | Up to 6 hours from removal of IDC           |

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## Management of Retention

If a postnatal woman **has not** passed urine within 6 hours of giving birth or she has not passed >200mls as a single void then consideration should be given to the woman's hydration status, her risk factors for retention and her bladder should be drained using a Foleys catheter.

**NB: Bladder scanners are not a reliable measurement of residual volumes in the early postpartum period and are not recommended for use.**

1. If residual urine < 200mls then continue to observe the woman
2. If 200 – 600ml residual urine; the IDC should remain insitu for 24 hours.
3. If > 600mls the IDC should remain in for 48 hours. Medical review should be sought to assess the need for prophylactic antibiotics and follow up.

A urinary catheter specimen should be sent to the lab.

4. The fluid balance chart must be completed if the woman is catheterised.
5. Regular observation of the IDC for drainage is required. The collection bag should be securely attached to the bed with a blue clip holder and not allowed to overfill as increased weight may cause traction of the catheter and pain.

If a woman is discharged with an indwelling urinary catheter insitu she must have

- Adequate education around catheter management.
- Follow up with WHAS for removal at a date agreed with the medical team.

## For trial removal of catheter following retention

- Manage as per **Guidelines for first void and removal of IDC**
- If voids < 150mls discuss with registrar and consider replacing the IDC
- If voids 150-250 mls, continue measuring voids, liaise with medical staff
- Ensure the abdomen is palpated to assess bladder emptying
- Assess symptoms for overt / covert urinary retention previously listed

## Option Protocol for TROC

When there are recognisable risks for urinary retention when removing a catheter, a systematic approach to TROC is to retrograde fill the bladder through the Foley catheter. This may be considered in discussion with the obstetric registrar and guidelines may be found in the protocol [Catheter management and Trial Removal of Catheter \(TROC\) for post-operative Gynaecology Patients](#) CapitalDoc ID 1.101411

## Subsequent Management

- Pelvic floor exercises should be discussed and supporting literature provided. Women should be aware that pelvic floor exercises will need to continue in the longer term
- A physiotherapy referral is required for women considered to be at high risk of urinary retention and bladder damage e.g. neurological disease, 3<sup>rd</sup> degree or 4<sup>th</sup> degree tear, retention associated catheterisations >24 hours and for all women with more than one failed trial of void

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- Before discharge ensure that follow up has been arranged, as discussed with the obstetric team consultant
- A discharge summary must be completed by the House Surgeon or Registrar

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