

<b>Reference Number: UHBOBS015</b> <b>Version Number: 4</b>	<b>Date of Next Review:</b> <b>Previous Trust/LHB Reference Number:</b>
<b>Bladder Care Postpartum</b>	
<p><b>Introduction and Aim</b></p> <p>Hormonal changes in pregnancy decrease the tone of the detrusor muscle. Combined with trauma to the bladder, pelvic floor muscles and nerves during delivery the postpartum bladder tends to become underactive and is therefore vulnerable to the retention of urine. Postpartum voiding dysfunction is defined as failure to pass urine spontaneously within 6 hours of vaginal delivery or catheter removal after delivery. This occurs in 0.7-4% of deliveries.</p> <p>Overt urinary retention is the inability to void postpartum.</p> <p>Covert urinary retention occurs when there is an elevated postvoid residual volume (PVRV) of &gt;150mL urine <i>without</i> symptoms of urinary retention.</p> <p>If postpartum voiding dysfunction is unrecognised it can lead to long term sequelae such as recurrent urinary tract infection and urinary incontinence. Prevention of this should aim to identify all women unable to pass urine within 6 hours of delivery or catheter removal <i>and</i> all women who are symptomatic of voiding dysfunction.</p> <p>The importance of prompt diagnosis and appropriate management of these women cannot be over-emphasised as early intervention is the key to ensuring rapid return to normal bladder function.</p>	
<p><b>Objectives</b></p> <p>To maintain bladder function and to provide appropriate management to women with postpartum voiding dysfunction.</p> <p>To minimise the risk of prolonged voiding dysfunction in the puerperium and prevent its longterm sequelae.</p>	
<p><b>Scope</b></p> <p>This policy applies to all clinicians working within maternity services including temporary staff, locums, bank and agency / annualised hours staff and visiting clinicians.</p>	
<b>Equality Health Impact Assessment</b>	<i>An Equality Health Impact Assessment (EHIA) has not been completed.</i>
<b>Documents to read alongside this Procedure</b>	<a href="#"><i>Postnatal Care Guidelines</i></a>
<b>Approved by</b>	<i>Maternity Professional Forum</i>

Document Title: <i>Bladder Care Postpartum</i>	2 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

--	--

<b>Accountable Executive or Clinical Board Director</b>	[REDACTED]
<b>Author(s)</b>	[REDACTED]

Disclaimer  
**If the review date of this document has passed please ensure that the version you are using is the most up to date either by contacting the document author or the Governance Directorate.**

<b>Summary of reviews/amendments</b>			
<b>Version Number</b>	<b>Date of Review Approved</b>	<b>Date Published</b>	<b>Summary of Amendments</b>
1	2008	2008	Authors [REDACTED]
2	April 2011	April 2011	Authors [REDACTED]
3	Feb 2015	Feb 2015	Reviewed and Updated
4	09/11/18	13/11/18	Reviewed and Updated by [REDACTED] [REDACTED]

Document Title: <i>Bladder Care Postpartum</i>	3 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

## **Risk Factors for Postpartum Voiding Dysfunction**

Many risk factors have been identified for the development of postpartum voiding dysfunction, including the following:

- Primiparity
- Instrumental delivery
- Epidural analgesia
- Prolonged labour
- Perineal trauma
- History of voiding problems

Postpartum voiding dysfunction however can develop in women without any identifiable risk factors, regardless of mode of delivery or analgesia.

## **Intrapartum bladder care**

Prevention of postpartum voiding dysfunction starts with good bladder management intrapartum which includes the documentation of frequency and volume of bladder emptying. Women should be encouraged to empty their bladder at regular intervals, every 4-6 hours, in labour. If the woman is unable to pass urine spontaneously intermittent catheterisation should be used. Ideally this is done at the time of vaginal examination. If catheterisation is likely to be used more than twice during labour, an indwelling catheter seems reasonable. An indwelling catheter should be removed during pushing to prevent trauma to bladder and urethra.

## **Postpartum bladder care**

Consider (re-)inserting an in-dwelling urinary catheter in women after:

- Regional anaesthesia and prolonged labour
- Mid-cavity instrumental delivery
- Urethral trauma
- Severe perineal trauma

Document Title: <i>Bladder Care Postpartum</i>	4 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

- Women receiving High Dependency Care
- For all deliveries and procedures in theatre, who have spinal anaesthesia (including combined spinal-epidural) or who have had epidural anaesthesia “topped up”.

Regional anaesthesia can affect bladder sensation and therefore the indwelling catheter should not be removed until the woman is mobile as a minimum unless specified otherwise in the operation note. It may be appropriate to leave an indwelling catheter in place for a longer period for example if there is significant perineal trauma/oedema or there is a need for accurate measurement of the urine output.

**All women should void within 6 hours of delivery or indwelling catheter removal.** The Royal College of Obstetricians and Gynaecologists (RCOG) study group on incontinence recommends that no woman should be allowed to go longer than 6 hours without voiding or catheterisation postpartum. Encouragement to pass urine after 4 hours allows time for conservative measures to be tried (analgesia, mobilisation, bath or shower, privacy).

### **Symptoms of Postpartum Voiding Dysfunction**

Signs and symptoms that should raise the alert to voiding dysfunction include:

- Inability to pass urine within 6 hours of delivery or catheter removal
- Slow urinary stream
- Urinary frequency passing small amounts of urine
- (Sensation of) incomplete emptying
- Urinary incontinence

It is important to recognise that acute retention can be **painless** in the postpartum period especially following regional analgesia.

Document Title: <i>Bladder Care Postpartum</i>	5 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

## Hospital Birth

1. Document time and volume of first void after delivery or after removal of indwelling catheter on the postnatal pathway. It is important to ask the woman about her voiding pattern as this could point towards voiding dysfunction (see symptoms above).

In women with an indwelling catheter time of removal of the catheter must also be documented.

2. Insert an in/out catheter OR bladder scan for post void residual volume (PVRV) in the following patients:

- No void within 6 hours of delivery or removal of indwelling catheter. OR
- Passing frequent small amounts of urine with the sensation of incomplete voiding.

A bladder scan however, may not give accurate readings in patients with a high BMI or with the presence of clots in the uterus.

3a. If PVRV < 500mL: measure the next voided volume and PVRV.

- If PVRV < 150mL: no further management needed in the *asymptomatic* patient.
- If PVRV > 150mL: insert an indwelling catheter for 24 hours followed by trial without catheter (TWOC) – this can be done as an outpatient.

3b. If PVRV > 500mL: insert an indwelling catheter for 24 hours followed by TWOC – this can be done as an outpatient. The obstetric team should be informed.

4. If at TWOC the woman is either unable to void within 6 hours or has a PVRV > 150mL; record the next 2 voids and if PVRV > 150mL after the 2<sup>nd</sup> void then re-catheterise the woman for 1 week. Leave the catheter on free drainage. TWOC should be attempted after 1 week. (This can be done as an outpatient)

5. At 2<sup>nd</sup> TWOC record 2 voids and if the woman is either unable to void within six hours or has a PVRV > 150mL after 2<sup>nd</sup> void; re-catheterise for 10 days.

Document Title: <i>Bladder Care Postpartum</i>	6 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

Fit a flip-flo valve for daytime use and keep the catheter on free drainage at night. After 10 days a TWOC is attempted (as an outpatient).

6. If at 3<sup>rd</sup> TWOC the woman is either unable to void within 6 hours or has a PVRV > 150mL after 2<sup>nd</sup> void; re-catheterise and refer to Mrs Jo Davies, urogynaecology Nurse Practitioner using attached referral form.

Above management of postpartum retention and voiding dysfunction is summarised in attached flow diagram.

**In all of these cases, the time and volume of voiding must be documented in the hospital notes. The voided volumes and the PVRV must also be recorded. Measurement of intake and output volumes needs to be recorded in these cases and a fluid balance chart commenced.**

Further management aims to identify any factors contributing to delayed bladder emptying and to ensure adequate bladder drainage while waiting for normal function to return. Following the diagnosis of urinary retention or voiding dysfunction, the following actions should be taken and documented in the hospital notes:

- Perform urinalysis and sent for MC&S as the presence of infection is an important contributory factor to prolonged voiding dysfunction.
- If a urinary tract infection is suspected, prompt antibiotic therapy should be initiated following Microguide guidance.
- The perineum should be examined and if swollen or painful, a catheter should be sited until the swelling and pain have settled.
- Ensure and provide adequate analgesia, as perineal pain is a significant factor in development of retention.
- Avoid and treat constipation if required.

Document Title: <i>Bladder Care Postpartum</i>	7 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

All women experiencing voiding dysfunction must have follow up after discussion with the responsible consultant or senior registrar. It is the responsibility of the midwife who discharges the woman from the postnatal area to ensure that this appointment for the perineal trauma clinic has been arranged.

### **Home Birth**

Following a homebirth, the woman should be instructed to make a note of the time of the first void and contact the community midwife if

- this has not occurred within 6 hours or
- there are any symptoms of voiding dysfunction

so that referral to the postnatal ward can be arranged for management as described above for a hospital birth.

Document Title: <i>Bladder Care Postpartum</i>	8 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

## POSTPARTUM BLADDER CARE

Measure and record first void post delivery or catheter removal.  
Midwives to question the woman directly about voiding pattern.

Postpartum urinary retention should be suspected if:  
1. Not voided within 6 hours of delivery or removal of catheter.  
2. Passing frequent small amounts of urine with sensation of incomplete voiding.

In-out catheter OR bladder scan to record post void residual volume (PVRV).  
*Note: bladder scan may not be accurate in postnatal women or with high BMI.*

PVRV < 500mL

PVRV > 500mL

Measure next voided volume and PVRV

1. Insert indwelling catheter for 24 hours  
2. Trial without catheter (TWOC)

If PVRV < 150mL:  
No further action to be taken unless symptomatic

If PVRV > 150mL

If unable to void or PVRV >150mL:  
Record 2 further voids

If PVRV >150mL after 2nd void:  
1. re-catheterise for 1 week on free drainage  
2. TWOC

If unable to void or PVRV > 150mL after 2 voids:  
1. re-catheterise  
2. Complete referral to Jo Davies, Urogynaecology Nurse Practitioner

Record 2 voids, if PVRV > 150mL after 2nd void:  
1. recatheterise for 10 days  
2. fit flip-flo valver for daytime use and free drainage at night  
3. TWOC

Document Title: <i>Bladder Care Postpartum</i>	9 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

## POST NATAL VOIDING DYSFUNCTION REFERRAL FORM

Pt sticker

Referral date.....

Consultant.....

Patient's tel no.....

Date of delivery: ..... BMI: ..... Parity: ..... Baby Weight: ..... g

SVD  Forceps  Ventouse  Epidural  Caesarean  3<sup>rd</sup>/4<sup>th</sup> Degree Tear

History of presenting complaint:

.....

.....

.....

.....

Date of initial catheterisation.....

Date of 1<sup>st</sup> TWOC ..... Re-catheterised

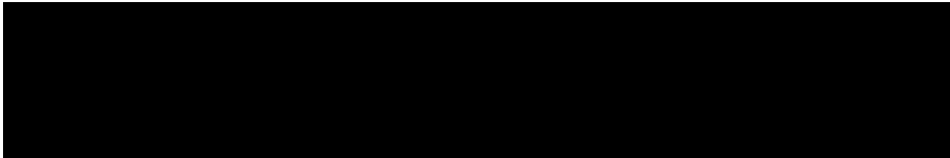
Date of 2<sup>nd</sup> TWOC ..... Re-catheterised  Flip-Flo attached: Y / N

Date of 3<sup>rd</sup> TWOC ..... Re-catheterised  Flip-Flo attached: Y / N

Signature of Person Referring: .....

PRINT NAME & Designation: .....

Ext/Contact No: .....



Document Title: <i>Bladder Care Postpartum</i>	10 of 10	Approval Date: 09/11/2018
Reference Number: UHBOBS015		Next Review Date:09/11/2021
Version Number: 4		Date of Publication:13/11/2018
Approved By: Maternity Professional Forum		

## References

Kearney R, Cutner A (2008) Postpartum Voiding Dysfunction. *The Obstetrician & Gynaecologist* 10:2:71, 71-74

Ching-Chung et al (2002) Postpartum urinary retention: assessment of contributing factors and long term clinical impact. *Australian & New Zealand Journal of Obstetrics & Gynaecology* 42(4) 365-8

Dorflinger A & Monga A (2001) Voiding dysfunction. *Current Opinion in Obstetrics & Gynaecology* 13 507-512

Jeffery et al (1990) Chronic urinary retention postpartum. *Australian & New Zealand Journal of Obstetrics & Gynaecology*. Nov 30 (4) 364-366

Watson W J (1991) Prolonged postpartum urinary retention. *Military medicine* 156(9) 502-503

Carley et al (2002) Factors that are associated with clinically overt postpartum urinary retention after vaginal delivery. *American Journal of Obstetrics & Gynaecology* Aug 187(2) 430-433

Glavin K & Bjork J (2003) Incidence and treatment of urinary retention postpartum. *International Urogynaecology Journal* 14(2) 119-121

Zaki et al (2004) National survey for intrapartum and postpartum bladder care: assessing the need for guidelines. *BJOG Monitoring compliance and effectiveness*

Khullar V & Cardozo L D (2002) Bladder sensation after epidural analgesia. *Neurourology Urodynamics* 1993; 89: 424-425. MacLean A & Cardozo L. *Incontinence in Women*, London, RCOG Press

Ramsay I & Torbet T (1993) Incidence of abnormal voiding parameters in the immediate postpartum period. *Neurourology Urodynamics*12: 179-183

Reo et al (2007) Clinically overt postpartum urinary retention after vaginal delivery: a retrospective case-control study. *International Urogynaecology Journal Pelvic Floor Dysfunction* 18: 521-524