

# INTRAPARTUM AND POSTNATAL BLADDER CARE

## BACKGROUND

Urinary retention is uncommon but carries significant morbidity and the risk is increased by a number of factors including epidural analgesia (Teo, et al. 2007).

Unidentified urinary retention can lead to significant morbidity due to bladder over distention, detrusor atony (bladder muscle weakness and reduced contractility) and long-term voiding dysfunction (Salimans, Govaerts, Jong, Bavel & Speksnijder, 2019). Urinary retention is a risk factor for a postpartum haemorrhage.

The purpose of this guideline is to promote consistent evidence-based care to prevent, identify and manage urinary retention during intrapartum and postpartum.

## DEFINITIONS

Urinary Retention (UR) is the inability to completely empty your bladder.

Overt UR - inability to void postpartum within 6 hours of catheter removal or vaginal delivery (Kearney & Cutner, 2008).

Covert UR – occurs when a postpartum person has a postvoid residual volume of >150mls with no symptoms of urinary retention (Kearney & Cutner, 2008).

## RISK FACTORS

- Known bladder dysfunction
- Extensive perineal tear, anal sphincter injury, episiotomy
- Prolonged active 2<sup>nd</sup> stage (primiparous > 2 hours, multiparous > 1 hour)
- Spinal/epidural anaesthesia
- Instrumental delivery
- Primiparity
- Operative delivery
- Fetal weight > 4 kgs

## INTRAPARTUM BLADDER CARE

### DURING LABOUR

It is important to ensure that the woman in established labour is passing urine every four hours and ensure urine output is adequate in order to prevent the effects of a full bladder on progress of labour, urine leakage in second stage and the risk of postpartum haemorrhage. If a woman has difficulty passing urine after four hours, then an in/out catheter should be considered.

### EPIDURAL OR SPINAL ANALGESIA

Women with epidural or spinal anaesthesia must have an indwelling urinary catheter (IDC) inserted once the epidural has taken effect. This will ensure the bladder is empty, as the urge to pass urine is reduced and mobility is restricted. The input and output should be documented on a fluid balance chart.

In second stage, the indwelling catheter balloon should be deflated with the urinary catheter secured by tape to the woman's thigh.

If the urinary catheter is displaced during the birth it should be replaced as soon as practically possible following the birth as the woman will still be under the effect of the epidural / spinal anaesthesia at this point.

### INSTRUMENTAL OR ASSISTED BIRTH

It is important to ensure that the bladder is empty before instrumental birth is undertaken.

### CAESAREAN SECTION

All women who are giving birth via caesarean section should have an IDC in-situ before the start of surgery. It is preferable to insert the IDC after regional anaesthesia has been administered.

## POSTNATAL BLADDER CARE

### WOMEN WITHOUT IDC

- The first void should occur within six hours of birth.
- Woman should have two recorded voids of over 200 mL
- After voids, ask the woman if her bladder feels empty and if the flow and volume felt normal.
- If there are any concerns, discuss with ACMM

### WOMEN WITH IDC

The IDC should remain in-situ for a minimum of six hours following removal of the epidural catheter or the last administration of spinal anaesthetic.

The IDC may remain in-situ for twelve hours following regional anaesthesia for caesarean section.

Prior to removal of the IDC check:

- the operative notes to ensure there is no indication for prolonged catheterisation
- the level of the epidural/spinal block and the return of full sensation
- the woman is well enough to mobilise independently

Utilise the supportive cares (see below) to ensure successful TOV.

Following removal of the indwelling urinary catheter:

- The fluid balance chart documentation is to be continued
- The first void should occur within six hours of removal of IDC
- Woman should have two recorded voids of over 200 mL
- After voids, ask the woman if her bladder feels empty and if the flow and volume felt normal.
- If there are any concerns, discuss with ACMM
- Consideration should be given to the timing of catheter removal. If late at night and the woman is settling down to sleep then it may be able to be deferred until a suitable time in the morning.

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## TRANSFER TO A PRIMARY UNIT

If the woman wishes to transfer to a Primary Unit for postnatal care, they can do so with an IDC in-situ providing they are otherwise suitable for transfer.

The ongoing care of the woman with an IDC will be the same whether she is in a primary unit or secondary/tertiary unit. If the woman is diagnosed or suspected of having urinary retention consult with on call medical team.

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## SUPPORTIVE MANAGEMENT TO ACHIEVE SUCCESSFUL TRIAL OF VOID

- Adequate analgesia
- Assess perineum/offer cold packs for oedema
- Encourage double voiding (Technique to ensure the bladder is completely emptied and there is no residual volume. <https://www.lhsc.on.ca/women-s-health/timed-toileting-and-double-voiding>)
- Privacy
- Adequate hydration
- Manage constipation
- Running water
- Warm shower
- Check in with the woman during TOV period and assist with the above cares

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## RECOGNITION OF URINARY RETENTION

Clinical signs and symptoms of urinary retention include:

- abdominal pain
- palpable distended bladder, abdominal distension, uterus above umbilicus or deviated
- frequent passing of small amounts of urine
- slow or intermittent stream, straining to void, reduced sensation
- incomplete emptying

If urinary retention is suspected scan the bladder to assess the residual volume. If a bladder scanner is not available insert an in/out catheter or IDC if high suspicion for UR. The residual volume should be recorded in the clinical record.

## MANAGEMENT OF URINARY RETENTION

- Inform ACMM or Team Leader
- Residual volume < 250 mL – manage conservatively with simple measures to encourage voiding and a review of progress in two to three hours
- Residual volume of 250-500 mL – drain the bladder using an in/out catheter and manage conservatively for a further six hours, if still unable to void insert an indwelling urinary catheter for 24 hours
- Residual volume of > 500 mL – insert an indwelling urinary catheter for 24 hours
- Residual volume > 1000 mL – insert indwelling catheter for 48-72 hours.
- The woman should be reviewed by a physiotherapist

When inserting a catheter:

- Use aseptic technique
- Obtain CSU and send to lab for M/C/S
- Document on the Fluid Balance Chart
- Document in Postnatal MCP

Following reinsertion of IDC, a repeat TOV will be successful for most women

If secondary TOV is unsuccessful, the woman will be taught to self-catheterise by a gynae nurse and follow-up will be arranged in the Gynaecology Assessment Unit (GAU).

Voided and residual volumes are to be recorded at least twice a day (morning and evening). The woman will be reviewed weekly in GAU. When residual volumes are consistently less than 150 mL, the woman can be discharged.

The assigned O&G team should follow-up and manage the care of the woman.

If there is no improvement after 6 weeks, consider referral to urology team

## INTRAPARTUM AND POSTNATAL BLADDER CARE ALGORITHM

### INTRAPARTUM CARE

- Women should pass urine every four hours
- Consider in/out catheter if unable to void in labour
- Empty bladder prior to assisted birth
- Insert indwelling urinary catheter (IDC) for women having epidural/spinal anaesthesia

### POSTNATAL CARE

- Encourage women to void urine within six hours of birth or IDC removal
- IDC can be removed six hours after last epidural dose once sensation and mobility assessed
- Volume of urine voided should be measured and documented
- Ensure supportive cares have been provided

Woman passes > 200 mL of urine on two occasions post birth or IDC removal

YES →

Continue normal postnatal care

NO

Assess residual volume in bladder by USS or by passing an in/out urinary catheter

#### < 250 mL residual volume

- Monitor urine output
- Review in 2-3 hours

#### > 250 mL but ≤ 500 mL residual volume

- Insert in/out catheter
- Monitor urine output
- Review in 6 hours

#### > 500 mL residual volume

- Insert IDC for 24 hours to rest bladder then remove
- CSU for M/C/S
- Monitor urine output
- Review in six hours

#### > 1000 mL residual volume

- Medical team review, consider transfer to secondary care back from Primary Unit for further management
- Physio review
- Failed trial of void – contact GAU (Gynae Assessment Unit) to discuss plan of care
- If no improvement after 6 weeks postpartum – consider referral to GUOP
- CSU for M/C/S

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## ASSOCIATED DOCUMENTS

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