Bladder Care Postpartum and Management of Urinary Retention

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• Department(s)	Maternity
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• Used by which staff?	All clinicians in maternity including access holder lead maternity carers (LMCs)
• Excluded	
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1. Purpose of guideline

The purpose of this guideline is to assist health professionals in bladder care during the postpartum period, with the aim of preventing urinary retention and its long-term consequences within Auckland District Health Board (Auckland DHB).

2. Guideline management principles and goals

Hormone induced reduction in smooth muscle tone decreases bladder tone (hypotonia) during pregnancy and for a period following birth. These changes may persist for days or longer in some women with the risk of over distension of the postpartum bladder (Saultz, 1991, see supporting evidence).

Vigilant surveillance of bladder function and early intervention where problems exist should prevent permanent bladder damage and long-term voiding problems (Rizvi, 2005, see supporting evidence).

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

- Prolonged/difficult labour
- Delay in the second stage
- Assisted birth
- Caesarean birth
- Epidural analgesia, particularly with local anaesthetic
- Perineal/vulval trauma
- Over distension of the bladder during/immediately following birth
- Large infant > 4 kg
- English as a second language
- Pain
- Constipation

2.1 Aims of care

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

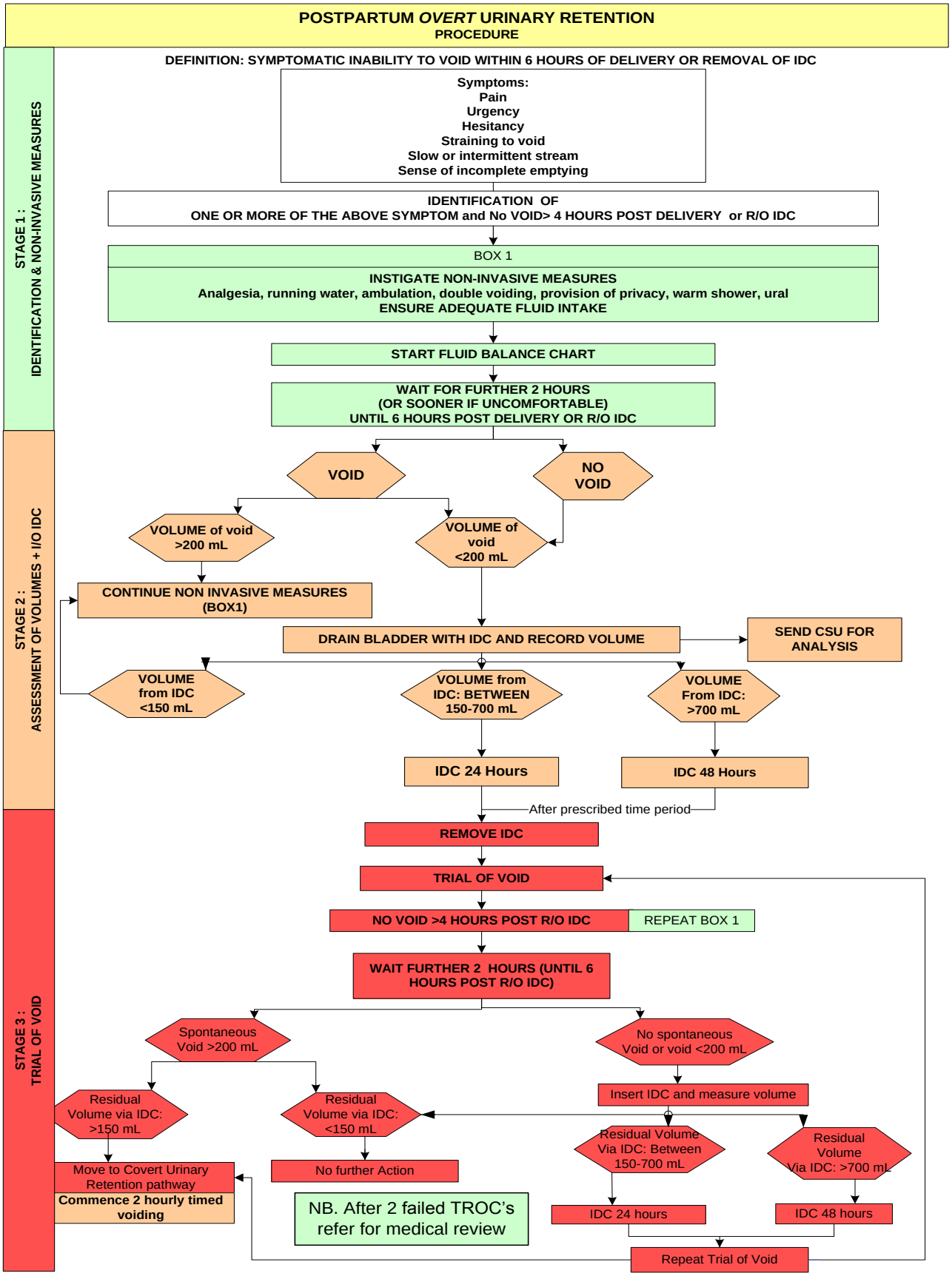
3. Management

There are two types of urinary retention that can affect a woman in the postpartum period.

Type	Management
Overt retention	Symptomatic inability to void spontaneously within six hours of birth or removal of indwelling catheter (IDC).
Covert retention	Non symptomatic increased post void residual volumes after birth or removal of IDC.

See algorithms on the following two pages outlining procedures for management of these two types of urinary retention.

3.1 Overt retention



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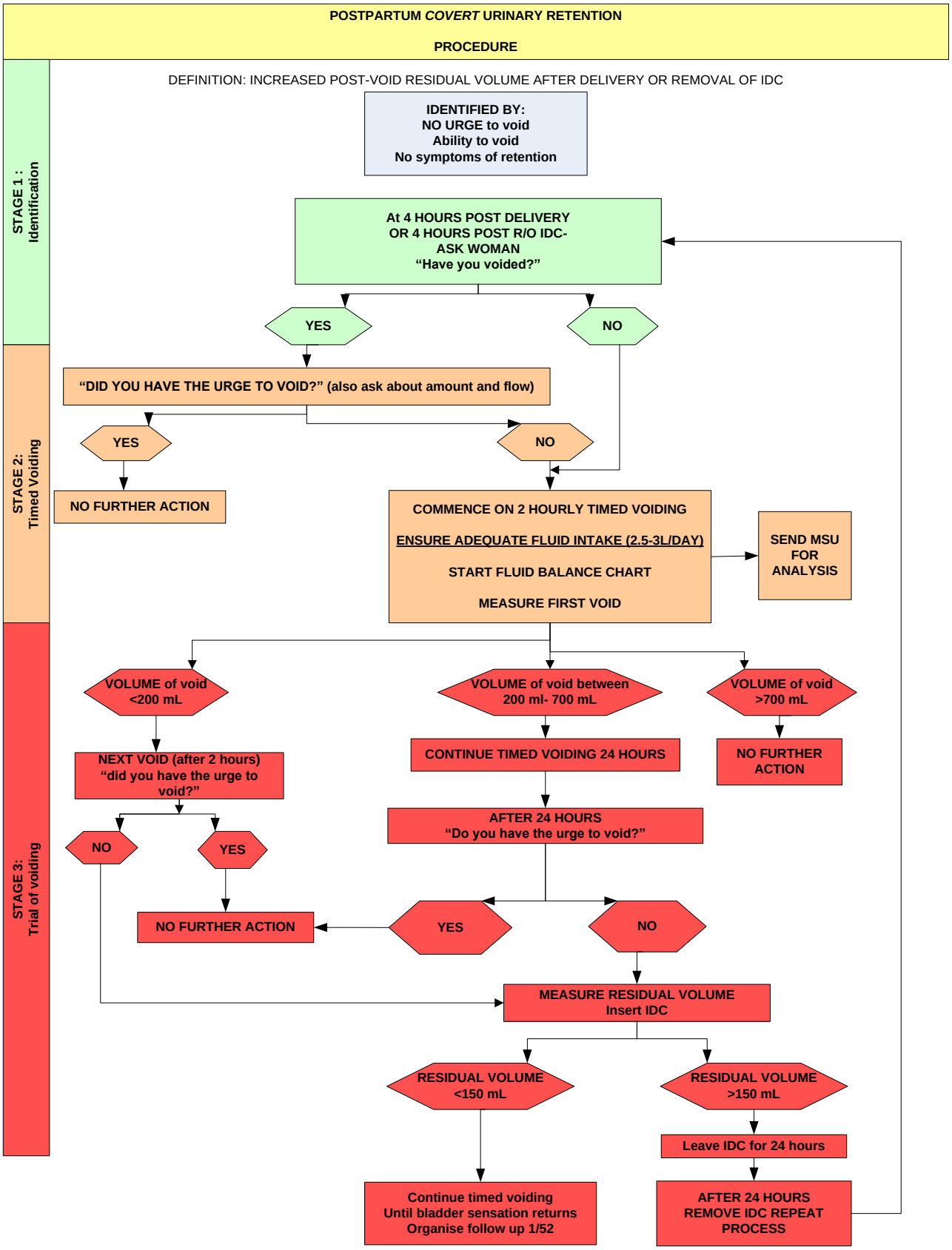
3.2 Covert retention



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4. Admission assessment

The initial bladder assessment should include:

- A review of the labour and birth history to detect any risk factors
- History of urological problems
- Bladder palpation
- Check to see if the woman has voided after vaginal birth
- IDC in situ –check that it is draining.

An initial assessment should provide information on:

- The presence of any urinary problems
- Risk factors that may contribute to urinary problems.

5. First six hours post-delivery or removal of IDC assessment

Continue to assess bladder functioning two hourly. If unable to void or quantity or flow is abnormal at four hours, refer to the postpartum overt urinary retention flowchart (adapted from the Women's Hospitals Australasia [WHA] Guidelines, 2009).

Notes:

- During the night: If there is no history of urological problems, use opportunities when the woman is awake to check bladder. A woman with a history may require two hourly checking
- Onset and progression of urinary retention may be gradual and asymptomatic
- It can take eight hours for the bladder to regain sensation following epidural analgesia.

Assessment:

- Establish by questioning void or no void
- If yes to void, ask the woman if she is experiencing any discomfort or difficulty when voiding
- Check the frequency with which urine is passed
- Ask volume and quality of flow with each void
- Examine the woman's abdomen for displacement of the uterus and swelling of the lower abdomen
- Palpate the woman's bladder
- Establish by questioning void or no void.

The woman may complain of overt symptoms (symptomatic inability to void spontaneously within six hours of birth or removal of IDC):

- An inability to void
- Increasing lower abdominal pain
- Urgency
- Straining to void
- Involuntary loss of urine
- Voiding frequent small amounts (retention with overflow).

Note: 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.

If no void at four hours either post birth or removal of IDC use supportive measures, such as ambulation, privacy, shower, hands under cold running water, warm flannel over bladder or if necessary appropriate analgesia for pain relief to enhance the likelihood of micturition. Ensure adequate fluid intake and commence fluid balance chart.

Monitor a further two hours: (i.e. until six hours post-delivery or sooner if discomfort)

- If void and volume > 200 mL continue with supportive measures and encourage two to three hourly voiding
- If no void or volume < 200 mL drain bladder with IDC.

When inserting a catheter:

Step	Action
1.	Use a Foley's catheter.
2.	Use a strict aseptic technique.
3.	Send catheter specimen of urine (CSU) to laboratory.
4.	Document on the fluid balance chart.

Note: 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.

A woman may have covert urinary retention (non-symptomatic increased post void residual volumes after birth or removal of IDC):

- Ability to void
- But no urge to void
- No obvious symptoms of retention.

Refer to postpartum covert urinary retention flowchart (adapted from the WHA Guidelines, 2009).

6. Urinary retention

- Alert obstetric team.
- Diagnosed by symptoms and volume drained following insertion of IDC.
  - Residual urinary volume of 150 - 700 mL will require IDC for 24 hours
  - Residual urinary volume > 700 mL will require IDC 48 hours
  - Residual volumes of > 1500mls require discussion with the Urogynaecology team.
- A woman who has a residual volume of more than 700 mL is more likely to require repeat catheterization (Ching-Chung, 2002, see supporting evidence). After a failed trial of removal of catheter discussion with Urogynaecology team is required for further management and refer to the ward physiotherapist.
- Catheterization rests the over distended bladder allowing it to gain its elastic recoil.

- It is advisable to remove urinary catheters early in the day to allow time for careful and regular post catheterization bladder assessment.

7. Removal of catheter (trial of void) management

Step	Action
1.	Encourage two to three hourly voiding and document voids until normal voiding patterns are established and two measured voids of 200 mL or greater are obtained.
2.	Reassess the bladder as documented and follow the appropriate flowchart for postpartum overt urinary retention or postpartum covert urinary retention (adapted from the WHA Guidelines, 2009).
3.	Document all findings on the fluid balance chart and in the clinical record.
4.	Persistent urinary retention and large urinary residuals will require long term resting of the bladder and management by the obstetric team in conjunction with Urogynaecology.

Note: Bladder scanners are not a reliable measurement of residual volumes in the postpartum woman and are not recommended for use. The automatic calculation is rendered inaccurate because of the volume of the involuting uterus and its tendency to distort the bladder outline (Pallis & Wilson 2003, see supporting evidence).

8. Supporting evidence

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9. Associated documents

- Bladder Care Post Gynaecology & Urogynaecology Surgery

10. Disclaimer

No guideline can cover all variations required for specific circumstances. It is the responsibility of the health care practitioners using this Auckland DHB guideline to adapt it for safe use within their own institution, recognise the need for specialist help, and call for it without delay, when an individual patient falls outside of the boundaries of this guideline.

11. Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed ***before*** the scheduled date, they should contact the owner or Document Control without delay.