

BLADDER CARE IN MATERNITY SERVICES	CLINICAL GUIDELINES Register no: 09007 Status: Public
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Consulted With:	Post/Committee/Group:	Date:
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1.0 Purpose

- 1.1 Intrapartum bladder care and the management and prevention of postpartum urinary retention are of great clinical importance. If voiding dysfunction is not recognised, bladder over distention can lead to denervation and permanent bladder damage.
- 1.2 This guideline is to assist the health carers to advise and provide guidance for the routine intrapartum care of the bladder as well as management of postpartum urinary retention.

2.0 Equality and Diversity

- 2.1 Mid Essex Hospital Services NHS Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.

3.0 Aim

- 3.1 To maintain normal bladder function and minimise the risk of damage to the bladder.

4.0 Introduction

- 4.1 Over distension of the bladder, if severe or prolonged can cause permanent damage to the detrusor muscle of the bladder and voiding problems, which can persist for the rest of the patient's life.
- 4.2 The normal capacity of the bladder is 500 ml (millilitres). Over distension of >1000ml is a significant risk.
- 4.3 Postpartum voiding dysfunction is defined as a failure to pass urine spontaneously within 6 hours of vaginal delivery or catheter removal after delivery. This occurs in 0.7–4% of deliveries.
- 4.4 There is considerable variation in practice in postpartum bladder management in the UK. Further research is needed to develop evidence-based guidelines.

5.0 Current Practice for Bladder Care

- 5.1 The Royal College of Obstetricians and Gynaecologists Study Group's report on incontinence recommends that no patient should be allowed to go longer than 6 hours without voiding or catheterisation postpartum.

6.0 Routine Intrapartum and Postpartum Bladder Care

- 6.1 The bladder should be emptied 4 hourly and a urinalysis performed; this should be recorded on the MEOWS chart, linked to the partogram in the Labour Care Record. (Refer to the guideline entitled 'Management of normal and prolonged labour in low risk patients'; register number 09079)
- 6.2 In labour, the bladder should be emptied via intermittent catheterisation if women are unable to void. (Refer to the guideline entitled 'Management of normal and prolonged labour in low risk patients'; register number 09079)
- 6.3 Operative delivery with spinal or epidural topped up – the patient should have an indwelling catheter for at least 6 hours to prevent asymptomatic over-distension of

the bladder. The midwife should refer to the patient's operative notes for individual care planning regarding the post operative period.

- 6.4 Operative delivery with local anaesthetic – the patient should have been catheterised prior to delivery.
- 6.5 The timing and volume of first void should be recorded in the healthcare records and this should be no later than 6 hours post delivery. If the patient is unable to void palpate abdomen and undertake bladder scan (Refer to Appendix B).
- 6.6 Spontaneous vaginal delivery – the patient should have the timing and volume of the first void noted. This should be no later than 6 hours post delivery. If the patient is unable to void refer to point 6.5.
- 6.7 If there is significant perineal trauma, consideration should be given to siting an indwelling catheter for 24 hours following delivery.
- 6.8 Best practice would indicate that the patient should have voided prior to leaving the Labour Ward. If this has not occurred, then this should be handed over to the postnatal ward staff. The timing and volume of first void should be noted (refer to point 6.5)
- 6.9 If at 6 hours post delivery a patient has not voided urine, an assessment can be undertaken to measure the amount of urine in the bladder, a bladder scan or catheterisation can be utilised and the volume documented in the patient's healthcare records (Refer to Appendix B).
- 6.10 If there are concerns regarding the urine output or when an indwelling catheter is in situ, a fluid balance chart should be commenced and filed securely in the patient's healthcare records.
(Refer to Appendix A)
- 6.11 Sensation may be affected by childbirth, so lack of sensation does not indicate that the bladder is not full.
- 6.12 If in doubt, a bladder scanner or in/out catheter should be used. Multiple small voids also suggest bladder dysfunction.

7.0 Management of Postpartum Urinary Retention

- 7.1 The rationale is to prevent damage to the bladder muscle resulting in long-term bladder dysfunction.
- 7.2 The main aim is that the volume of urine in the bladder should rarely exceed 500 mls.
- 7.3 Postpartum urinary retention (PUR) has an incidence ranging from 0.05 to 14.1% of deliveries. This wide variation in quoted incidence is due partly to the lack of an agreed definition of PUR.
- 7.4 Overt urinary retention is defined as the inability to void postpartum. Covert (asymptomatic) retention occurs when a patient has elevated post-void residual urine volume of more than 150ml with no symptom of urinary retention.
- 7.5 Retention can be self reported or identified by health care personnel, or may be asymptomatic.

7.6 Persistent postpartum urinary retention may be defined as the inability to void spontaneously despite the use of an indwelling catheter for three days.

8.0 Risk Factors

8.1 The risk factors are as follows:

- Previous history of voiding difficulties
- Epidural, spinal or pudendal block in labour
- Difficult instrumental birth
- Prolonged second stage
- Excessive perineal trauma i.e. para-urethral tear, clitoral tear, large episiotomy, large 2nd or 3rd degree tear, significant oedema
- Incomplete emptying of bladder

9.0 Complications

9.1 Incomplete emptying of the bladder after birth may cause the following complications:

- Urinary tract infection
- Urinary / faecal incontinence
- Short and long term bladder dysfunction
- Ureteric reflux
- Bilateral hydronephrosis
- Acute renal failure
- Long-term renal impairment

10.0 Warning Signs or Symptoms of Incomplete Emptying of the Bladder

10.1 The following signs and symptoms include:

- Feeling full or partially full bladder after voiding
- Dribbling urine during or after voiding
- Urinary frequency with small voided volumes
- Slow urinary flow rate or straining to void
- Nocturia more frequent than 2-3 times not related to feeding the baby
- Delay in voiding for more than 6 hours after the birth
- Difficulty in initiating micturition after the birth
- High or displaced uterine fundus with palpable bladder (detected with dense sound on percussion) and possible lower abdominal pain

11.0 Management and Subsequent Prevention

11.1 Patients should be encouraged to void every 2-4 hours in labour with a low threshold for catheterisation if unable to void.

11.2 After birth, encourage all patients to void within one to two hours, with a maximum of 6 hours.

11.3 If a patient has not voided by 6 hours postpartum and measures to encourage micturition, such as taking a warm bath or shower, are not immediately successful, bladder volume should be assessed and catheterisation considered.

- 11.4 Discuss with the patient the importance of ensuring urinary function returns to normal.
- 11.5 Document the frequency of emptying the bladder.
- 11.6 If unable to void six hours after birth or following the removal of the urinary catheter consider the following:
- A bladder scan. This is a diagnostic tool that measures the amount of urine in the bladder or can determine how much urine remains in the bladder after urination as a way to measure residual levels. It is a non-invasive procedure capable of avoiding catheterisation
(Refer to Appendix B)
 - If the patient is found to have a full bladder (500mls or more) on scan and still cannot void insert an indwelling urinary catheter (IDC) and leave in place for 24 hours (also obtain catheter specimen of urine for microbiology at this time) and inform the obstetric registrar
 - If the patient has not voided after six hours, following the removal of the 24 hour IDC, a **consultant obstetrician** should be informed to review the patient and instigate a management plan which should be documented in the Postnatal Care Record
 - Patients who continue to have high urine residuals or retention after removal of the indwelling urinary catheter should be offered a choice between management with another indwelling urinary catheter with a Flip-flo valve or an intermittent self-catheterisation system. Please refer to Urogynaecology Clinical Nurse Specialist clinic (Clinic code is UROJLB or Tel 01245 513691)
 - If trial without catheter (TWOC) or bladder retraining is required, refer the patient to Urogynaecology Clinical Nurse Specialist Clinic (Clinic code is UROJLB) experienced in bladder retraining (contact number 01245-513691) or Continence Physiotherapist (contact number 01245 515141)
- 11.7 Checking for residual urine as follows:
- Ask the patient to void
 - Scan the bladder immediately after the void
 - Record the volume voided and the residual obtained (a significant residual urine is greater than 100 ml. Expect a patient to pass 80 % of the total bladder volume).
- 11.8 Planning at discharge - all patients should have voided before discharge. The usual volume is between 300 - 400 ml.
- 11.9 Patients who failed TWOC after a second catheter should be sent home with indwelling catheter with flip-flo valve and booked into the Urogynaecology CNS Clinic (UROJLB) the following Monday.

12.0 Staffing and Training

- 12.1 All midwifery and obstetric staff must attend yearly mandatory training which includes skills and drills training.
- 12.2 All midwifery and obstetric staff are to ensure that their knowledge and skills are up-to-date in order to complete their portfolio for appraisal.

13.0 Professional Midwifery Advocates

- 13.1 Professional Midwifery Advocates provide a mechanism of support and guidance to women and midwives. Professional Midwifery Advocates are experienced practising midwives who have undertaken further education in order to supervise midwifery services and to advise and support midwives and women in their care choices.

14.0 Infection Prevention

- 14.1 All staff should follow Trust guidelines on infection prevention by ensuring that they effectively 'decontaminate their hands' before and after each procedure.
- 14.2 All staff should ensure that they follow Trust guidelines on infection prevention, using Aseptic Non-Touch Technique (ANTT) when carrying out procedures i.e. insertion of an indwelling urinary catheter.
- 14.3 All invasive devices must be inserted and cared for using high impact intervention guidelines (refer to Saving Lives policy guideline, DoH, 2007) to reduce the risk of infection and deliver safe care. This care should be recorded in the Saving Lives High Impact Intervention Monitoring Tool Paperwork (Medical Devices).

15.0 Audit and Monitoring

- 15.1 Audit of compliance with this guideline will be considered on an annual audit basis in accordance with the Clinical Audit Strategy and Policy (register number 08076), the Corporate Clinical Audit and Quality Improvement Project Plan and the Maternity annual audit work plan; to encompass national and local audit and clinical governance identifying key harm themes. The Women's and Children's Clinical Audit Group will identify a lead for the audit.
- 15.2 As a minimum the following specific requirements will be monitored:
 - Recording in the health records the time of the first void
 - Recording in the health records the volume of the first void
 - When indwelling urinary catheters should be used
 - The commencement of a fluid balance chart
 - When to refer to an appropriate clinician for evaluation
 - When to instigate a management plan
 - Documentation of all of the above
- 15.3 A review of a suitable sample of health records of patients to include the minimum requirements as highlighted in point 15.2 will be audited. A minimum compliance 75% is required for each requirement. Where concerns are identified more frequent audit will be undertaken.

- 15.4 The findings of the audit will be reported to and approved by the Multi-disciplinary Risk Management Group (MRMG) and an action plan with named leads and timescales will be developed to address any identified deficiencies. Performance against the action plan will be monitored by this group at subsequent meetings.
- 15.5 The audit report will be reported to the monthly Directorate Governance Meeting (DGM) and significant concerns relating to compliance will be entered on the local Risk Assurance Framework.
- 15.6 Key findings and learning points from the audit will be submitted to the Patient Safety Group within the integrated learning report.
- 15.7 Key findings and learning points will be disseminated to relevant staff.

16.0 Guideline Management

- 16.1 As an integral part of the knowledge, skills framework, staff are appraised annually to ensure competency in computer skills and the ability to access the current approved guidelines via the Trust's intranet site.
- 16.2 Quarterly memos are sent to line managers to disseminate to their staff the most currently approved guidelines available via the intranet and clinical guideline folders, located in each designated clinical area.
- 16.3 Guideline monitors have been nominated to each clinical area to ensure a system whereby obsolete guidelines are archived and newly approved guidelines are now downloaded from the intranet and filed appropriately in the guideline folders. 'Spot checks' are performed on all clinical guidelines quarterly.
- 16.4 Quarterly Clinical Practices group meetings are held to discuss 'guidelines'. During this meeting the practice development midwife can highlight any areas for further training; possibly involving 'workshops' or to be included in future 'skills and drills' mandatory training sessions.

17.0 Communication

- 17.1 A quarterly 'maternity newsletter' is issued and available to all staff including an update on the latest 'guidelines' information such as a list of newly approved guidelines for staff to acknowledge and familiarise themselves with and practice accordingly.
- 17.2 Approved guidelines are published monthly in the Trust's Focus Magazine that is sent via email to all staff.
- 17.3 Approved guidelines will be disseminated to appropriate staff quarterly via email.
- 17.4 Regular memos are posted on the guideline notice boards in each clinical area to notify staff of the latest revised guidelines and how to access guidelines via the intranet or clinical guideline folders.

18.0 References

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Guide to Completing a Fluid Balance Chart

It is essential that you record all fluid input, including intravenous and oral fluids and all fluid output, urine, vomit and drains.

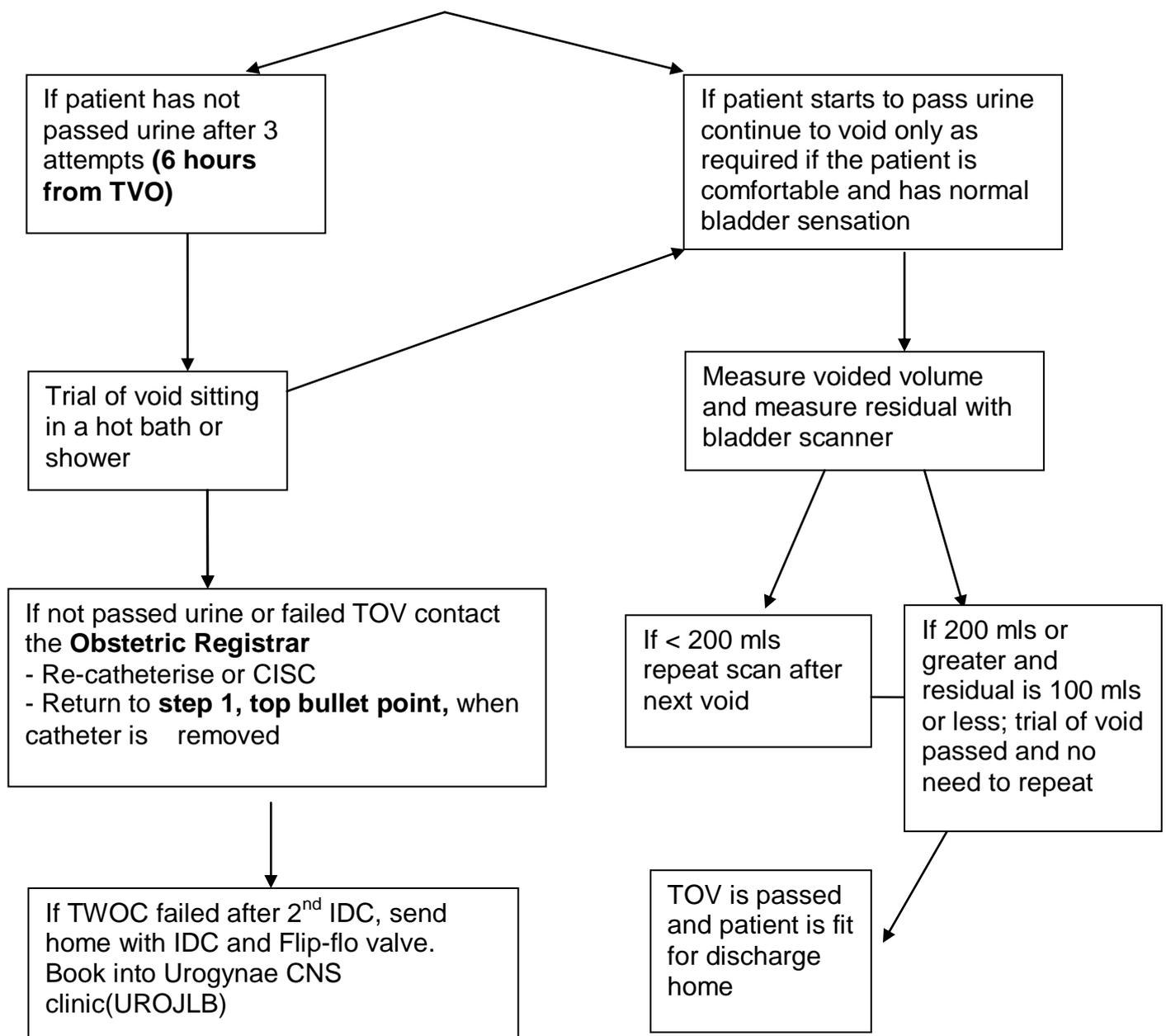
1. **Oral fluids:**
 - Use the standard measurements documented on the chart
 - The volume is entered after it has been consumed against the appropriate time.
2. **Intravenous infusion:**
 - When you commence an IVI the full volume must be recorded in the commenced column
 - Whenever an IVI is either completed or discontinued, the total volume administered must be recorded in the completed column against the appropriate time.
3. **Urine output**
 - Whenever you go to the bathroom to pass urine you must do so into a measuring jug
 - All urine passed must be measured accurately and the volume documented against the appropriate time.
4. **Indwelling and suprapubic catheter**
 - In a healthy adult the hourly urine output is calculated using the following formula $0.5 \text{ mls/kg body weight}$. This will give you the woman's individual expected hourly urine output. Any deviation from this calculated volume must be escalated to the medical staff
 - Where the urine output is required to be measured more frequently than 4 hourly, a urimeter catheter bag must be used
 - The volume in the urimeter chamber must be measured, amount recorded on the chart and the urine emptied into the main catheter bag. The main catheter bag should be emptied four hourly
 - Urine from a free drainage bag must be emptied four hourly into a measuring jug, the volume recorded and urine discarded.
5. **Naso Gastric Tube (NGT) drains and vomit**
 - NGT: The volume must be measured accurately and recorded on the chart
 - Drains: The volume in the drain must be recorded on transfer from the recovery room and the amounts thereafter will be a accumulative total as abdominal drains cannot be emptied
 - Vomit: This should be measured accurately where possible. The measured volume or estimated volume must be recorded on the chart against the appropriate time
6. **Running Total - Input and Output**
 - Running totals must be completed with each new entry on the fluid balance chart
 - Where a deficit is identified in the fluid input output balance this must be escalated to a Senior Midwife or Medical Staff.

Trial of Void (TOV) Algorithm

Refer to the following 'Trial of Void' (TOV) procedure:

- Remove indwelling urethral catheter (if patient has IDC)
- Drink normally, do not push fluids
- Commence 'trial of void' on the toilet after 3 hours of removal of the catheter; noting the following advice: no straining, sit properly on toilet i.e. feet on a box for short patients, lean forwards, elbows on knees; relax to allow urine out (breathe out during voiding) and no "pushing"
- Trial of void on toilet every hour if unable to void
- Remember to scan and record bladder volume every hour if unable to pass urine after initial 3 hours

Refer to the flow chart below to summarise as follows:



Fluid Balance Chart							
Date	IVI	Drinks (mls)	Running Total	Urine Passed	SPC / IDC Catheter	Use for ng tube, drains, vomit	Running Total
08:00							
09:00							
10:00							
11:00							
12:00							
13:00							
14:00							
15:00							
16:00							
17:00							
18:00							
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05:00							
06:00							
07:00							
TOTALS		INPUT				OUTPUT	