

STANDARD OPERATING PROCEDURE THE USE OF A BLADDER SCANNER

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Name of Trust Strategy / Policy / Guidelines this SOP refers to:	Community – Trial without catheter (Adults) SOP Community – Urinary Catheterisation SOP

CHANGE RECORD

Version	Date	Change details
1.0	April 2023	New SOP. Approved at Physical Health and Medical Devices Group (19 April 2023).

Contents

1.	Introduction.....	3
2.	Scope	3
3.	Duties and responsibilities	3
4.	Procedure:.....	4
4.1.	Clinical Indication for the use of bladder scanning.....	4
4.2.	Contraindications for use	4
4.3.	Responsibility and process	4
4.4.	Equipment required.....	5
4.5.	Technique	5
5.	Results	5
5.1.	Results that require further intervention, and when to escalate this.....	5
5.2.	Other factors to consider.....	6
6.	Maintenance of the Unit.....	6
7.	References	7

1. INTRODUCTION

Portable bladder scanners are non-invasive ultrasonic devices which are used to estimate the volume of urine in the bladder. They are used as part of the diagnosis process when assessing children, young people and adults with bladder problems or disorders.

A bladder scan must only be performed following a patient assessment by a registered nurse or medical practitioner who is competent in using the scanner. Appropriate and timely use of the scanner can assist in managing incontinence and help diagnose urinary and bladder dysfunction.

This Standard Operating Procedure is aimed at all clinical staff in both the inpatient and community settings including both registered and unregistered staff who are permanent, temporary, bank and agency staff.

This SOP must be considered alongside the following materials:

Trust Guidance

- Community – Trial without catheter Adults SOP
- Community – Urinary Catheterisation SOP

Manufacturer Guidance

- De-Smit Medical General Guidelines for Using the Portable Bladder Scanner (Cubescan BioCon-700)

Training and competency assessment

- E-Learning available from De-Smit Medical Systems
- Bladder Scanning: Role Specific Competency [Role Specific Clinical Competencies \(humber.nhs.uk\)](http://humber.nhs.uk)

Support with training needs and competencies is available from Bladder & Bowel Team (Community Division).

2. SCOPE

This Standard Operating Procedure is aimed at all clinical staff in both the inpatient and community settings including both registered and unregistered staff who are permanent, temporary, bank and agency staff.

3. DUTIES AND RESPONSIBILITIES

The Chief Executive

- Retains overall responsibility for ensuring effective implementation of all policies and procedures.

The Trust Board

- Will ensure that this procedure is acted on through delegation of implementation to Assistant Directors or equivalent General Managers/Service Managers/Modern Matrons/Lead Professionals.

Service Managers, Modern Matrons and appropriate professional leads

- Will ensure dissemination and implementation of the policy within the sphere of their responsibility.
- They should ensure staff are supported in attending relevant training and that time is dedicated to the provision and uptake of training and sign off competencies.

Charge Nurse/Team Leaders

- Will disseminate and implement the agreed SOP.
- Will maintain an overview of associated training needs for their respective teams.
- The Charge Nurse/Team Leader will ensure mechanisms and systems are in place to facilitate staff to attend relevant training as part of their Performance and Development Review (PADR) process to undertake training and sign off competencies.

All clinical staff employed by the Trust

- Will familiarise themselves and follow the agreed SOP and associated guidance and competency documents.
- Will use approved documentation and complete relevant paperwork as per policy and Standard Operating Procedures as relevant to each clinical activity.
- Will make their line managers aware of barriers to implementation and completion.

4. PROCEDURE:

4.1. CLINICAL INDICATION FOR THE USE OF BLADDER SCANNING

- To provide an accurate non-invasive estimate of bladder volume
- Establish rationale for catheterisation (alongside a holistic assessment)
- To measure bladder volume if the history suggests reduced bladder capacity and before commencing anticholinergic medication
- To measure post-void residual bladder volume (PVR) if symptoms suggest incomplete bladder emptying; or prior to commencing anticholinergic medication
- To assist in bladder retraining
- To confirm / unconfirm catheter blockage
- To assess the success / failure of a trial without catheter (See Community Trial Without Catheter – Adults SOP)

4.2. CONTRAINDICATIONS FOR USE

- If the patient does not consent
- The patient has a wound or non-intact skin in the supra pubic region, or sutures / staples in place
- Muscle spasm
- If the patient is known to be pregnant
- Known altered anatomy that may interfere with ultrasound waves
- Accuracy may be affected for patients with ascites or free floating fluid in the peritoneum and ovarian cysts

4.3. RESPONSIBILITY AND PROCESS

- Staff who are required to undertake bladder scanning in the course of their clinical duties must be trained in the correct use of the scanner, including its safe transportation.
- Staff must not undertake bladder scanning unless they have received training and been assessed as competent and must only use scan machines that they are trained to use.
- Staff training will be provided by the manufacturer (De Smit Medical) or the Continence Specialist Nurses.
- The Bladder Scanner Competencies can be found on the trust clinical competency framework page in the role specific category.

4.4. EQUIPMENT REQUIRED

- Bladder scanner
- Ultrasound gel – single use sterile sachets only
- Cleaning / disinfection agent – Clinell wipes / similar.

4.5. TECHNIQUE

- Ask the patient to void
- The patient should be comfortable, situated in the supine position, with the supra – pubic area accessible and clearly visualised. The patient’s privacy and dignity will be maintained throughout the procedure
- Press the male / female button. The LCD screen will show a male or female icon to indicate the gender that is selected N.B Use the female option only for women who have not undergone a hysterectomy

N.B If a child requires a scan there is a child option, however if the child is above 120cm or above 25kg then select the adult mode

- Clean the rounded end of the probe by wiping gently
- Use only ultrasound transmission gel (sterile – from a single use sachet) and apply a generous amount on the rounded dome of the probe
- Locate the patient icon on the scan head and make sure the head of the icon is pointing towards the head of the patient when the probe is placed on the patient’s abdomen, with the scan button facing the right – hand of the patient’s body
- The probe should be placed firmly in contact with the patient’s skin, midline, immediately above the symphysis pubis

Aim the probe so the ultrasound is projected toward the expected location of the bladder. For most patients this means aiming the tip of the probe towards the patient’s coccyx

NB: There may be some anatomical differences between patients

- Press the scan button, located on the scan head or on unit and then release. Angle the probe until the bladder shape comes into view on the pre – scan screen. When maximum volume visible, press the scan button again and release
- Hold the scan head steady whilst the measurement process is taking place. The maximum urine volume is then displayed on the screen. Use the cross guide to ensure that the maximum bladder shape is indicated. If the cross is not centrally placed within the bladder outline, re – position probe and re – scan
- It is recommended to take **three** measurements to ensure maximum accuracy. Ensure that the bladder image is in both views
- Use a paper towel to remove excess gel

5. RESULTS

5.1. RESULTS THAT REQUIRE FURTHER INTERVENTION, AND WHEN TO ESCALATE THIS

- Post void residual less than 100mls – discuss bladder emptying techniques, rescan at next appointment, but if no increase in post void residual noted; and no problems with recurrent urine infections / renal function deterioration then no further action is required.

- Post void residual between 100mls and 300mls – discuss bladder emptying techniques. Discuss with Senior member of staff / Specialist Nurse / GP.
- Will require monitoring – further bladder scans will be needed to see if there is any improvement, and if not, a treatment plan will be required.
- Post void residual over 300mls. Is this an acute painful retention? Or a failed TWOC? – if so, then immediate attention is required. Otherwise discuss with Senior member of staff / Specialist Nurse / GP. Will require monitoring – further bladder scans will be needed to see if there is any improvement, and if not, a treatment plan will be required, such as referral to urology if cause of post void residual is unknown. Or if expected due to MS / Parkinson's for example, then ISC can be taught, but be careful of diagnosis 'over shadowing'.

5.2. OTHER FACTORS TO CONSIDER

Health professionals reviewing results of a bladder scan need to consider the reading in association with other factors, such as:

- Any know cause for the residual urine or any diagnosed or suspected cause of the presenting problem
- Whether the voiding problem is likely to be curable or incurable
- Whether the urinary retention is acute or chronic
- The correlation between the presenting symptoms, voiding problems and urine volume recordings
- Whether the urinary problem affects the individual's quality of life or general health and wellbeing
- Whether the patient has incomplete bladder emptying
- The risk of over or under intervention
- Whether the patient has renal failure

6. MAINTENANCE OF THE UNIT

- It is the responsibility of the user of the Bladder Scanner to ensure it is cleaned and disinfected after use. Ensure manufacturers guidance is followed
- To avoid electric shock disconnect the system from the AC mains and the battery during cleaning / disinfection
- Do not immerse the console or the probe in water or any other liquid during cleaning / disinfection
- Do not immerse the console or the probe in water or any other liquid during cleaning / disinfection
- Do not allow liquids to leak into the device while cleaning
- Remove the residual gel on the probes surface after scanning and prior to cleaning / disinfection
- The scan probe must be decontaminated between each patient as per manufacturers guidance
- Medical Devices are responsible for ensuring timely calibration and essential maintenance is carried out on a yearly basis
- Please ensure that the device is on the asset register or added when new, this can be actioned via the estates intranet page. [Estates Team \(humber.nhs.uk\)](http://estates.humber.nhs.uk)

7. REFERENCES

- Catheterisation Competency
- De-Smit Medical General Guidelines for Using the Portable Bladder Scanner (Cubescan BioCon-700)
- Lower urinary tract symptoms in men; management (CG97) (NICE 2015)
- Male, Female, Suprapubic and Intermittent Catheterisation Training Workbook (accessed via HumberNet)
- Nursing & Midwifery Council (2015) The Code: Professional standards of practice and behaviour for nurses and midwives. London: NMC
- RCN (2019) Catheter Care – RCN Guidance for Health Care Professionals
- Urinary incontinence and pelvic organ prolapse in women; management (NG123) (NICE 2019)
- Urinary incontinence in neurological disease; assessment and management (CG148) (NICE 2012)