

Guidelines for the Insertion of Suprapubic Catheters

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Key Points of document

- To ensure that insertion of Suprapubic catheters (SPC) takes place in accordance with Trust Guidelines
- To ensure that the Trust is compliant with NPSA recommendations for SPC insertion
- The policy will be revised if national guidelines are published subsequently

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Background

The NPSA Report 2009/RRR005 supporting information documentation provides a good background to the rationale behind suprapubic catheter insertion and this is reproduced verbatim below.

A suprapubic catheter is one that is inserted directly into the bladder via the abdomen just superior to the pubic bone.

It is difficult to estimate from routine statistics the volume of suprapubic catheterisations performed in England and Wales, but anecdotal evidence suggests a typical District General Hospital (DGH) may perform around 100 a year.

Suprapubic catheterisation is indicated when urethral catheterisation is contraindicated or where it is technically not possible to relieve urinary retention in both acute and chronic conditions. It may be used as a short-term alternative to urethral catheterisation when this procedure is not possible or is contraindicated; for example, in cases of traumatic injury to the lower urinary tract¹ or when the passage of a urethral catheter has not been possible, e.g. in prostate hyperplasia. Suprapubic catheterisation may also be indicated as a longer-term solution to bladder drainage in patients with neurological conditions that result in bladder insufficiency, decreased genital sensation or in people who require regular catheterisation but are unable to self-catheterise.²

Suprapubic catheterisation is a common urological procedure that may be carried out by clinical staff other than urologists in a variety of clinical settings. It is acknowledged that urogynaecologists and certain other specialists will be skilled in this technique and the focus of this RRR is to ensure all clinical staff who may be required to carry out this procedure have the necessary skills and competence.

A suprapubic catheter passes through the tissues of the lower abdominal wall directly into the bladder and should not traverse the peritoneal cavity. Although the benefits are well recognised, complications include peritoneal perforation with or without bowel perforation, infection and haematuria.³

It is well known that Suprapubic catheterization (SPC) can cause patient harm and the Trust is now required to produce guidelines to minimize this risk.

Guidelines were published by the British Association of Urological Surgeons (BAUS) in November 2010 and these have been incorporated into this document.

The National Reporting and Learning Service has produced 6 questions, which it suggests should be answered by any practitioner who is considering placing a suprapubic catheter. These questions, and the suggested responses are reproduced below

Question	Guidance
1. Does this procedure need to be done?	<ul style="list-style-type: none"> • Insertion of suprapubic catheter carries a risk to the patient. • Indications for the procedure are: the relief of urinary retention where urethral route is contraindicated or not technically possible. • Record in patient notes why this procedure was done and any problems.
2. Am I competent to do this?	<ul style="list-style-type: none"> • You should not undertake this procedure if not competent. • You need to be trained in the procedure. • You need to be familiar with local equipment and guidelines. • Senior supervision should be available, if needed.
3. Does this need to be done now?	<ul style="list-style-type: none"> • Emergency procedures and those performed out of hours present more risk. • Seek advice from the on-call urology team and consider other options, e.g. fine needle aspiration, as an interim measure.
4. Is it the right procedure for this patient?	<p>Absolute contraindications:</p> <ul style="list-style-type: none"> • non-palpable bladder; • non-visualisable distended bladder by ultrasound. <p>Relative contraindications:</p> <ul style="list-style-type: none"> • coagulopathy (until the abnormality is corrected); • prior abdominal or pelvic surgery (potential bowel adherence to the bladder of anterior abdominal wall. In such cases you should consider requesting a urological surgeon to perform an open cystostomy); • pelvic cancer with or without radiation (increased risk of adhesions).
5. Have I got access to an ultrasound?	Ultrasound should be used wherever possible to visualise the bladder and guide insertion of the catheter.
6. Do I know what to look for in the case of bowel perforation?	<ul style="list-style-type: none"> • Monitor patients carefully. • Urology team should carry out the first change of catheter. • Have a high index of suspicion for signs of bowel perforation including: <ul style="list-style-type: none"> ○ patient has abdominal pain; ○ patient has signs of localised peritonitis; ○ patient is systemically unwell.

Finally, the Rapid Response report suggests the following actions by all Trusts

<p>For IMMEDIATE ACTION by medical directors in acute and community hospitals (NHS and Independent Sector). Deadline for ACTION COMPLETE is 29 April 2010.</p> <p>Local organisations should ensure that:</p> <ol style="list-style-type: none"> 1. Information about the risk of this procedure is immediately distributed to all staff who may insert or request the insertion of a suprapubic catheter (a sample briefing sheet for clinical staff is given in supporting information www.npsa.nhs.uk/nrls/alerts-and-directives/rapidrr/suprapubic-catheter). 2. A named lead for training is identified and a training plan developed. 3. Local guidelines/policies are reviewed or developed in the light of this report and forthcoming BAUS standards. 4. Ultrasound is used wherever possible to visualise the bladder and guide the insertion of the catheter. There should be ultrasound machines available in the relevant areas and staff trained in their use. 5. Local incident data relating to suprapubic catheterisation is reviewed, appropriate action is taken and staff are encouraged to report further incidents and to take part in the BAUS national clinical audit.

Purpose of the document

To set out Trust guidelines for the insertion of Suprapubic Catheters

Key words

Suprapubic catheter, Ultrasound, Urine retention

Scope

In principle these guidelines would apply to all medical and nursing staff, and certainly all staff should be made aware of them once they have been agreed.

However in practice only the Urology team and Gynaecology teams have in the past been responsible for placing suprapubic catheters and this situation is likely to continue.

It has therefore been agreed that only appropriately trained members of the Urology or Gynaecology department should perform this procedure.

Guidelines for SPC Placement

<p>Does the procedure need to be done?</p>	<ul style="list-style-type: none"> • Patient MUST be confirmed to be in retention • This begins with the clinical history and examination but retention of urine MUST be confirmed by using the portable ultrasound machine to confirm that the bladder is sufficiently distended to allow SPC catheterization to proceed (this will depend in part upon the experience of the person attempting SPC placement). • Consideration of catheterization by the urethral route. In most cases this will already have been attempted and failed (because of stricture, BPH etc.). In cases of chronic retention of urine the suprapubic route may be preferred over the urethral route. • The reasons for attempting SPC and preferment over the urethral route should be clearly recorded in the patient's notes
<p>Am I competent to do this?</p>	<ul style="list-style-type: none"> • Only appropriately trained members of the Urology or Gynaecology departments will perform this procedure. • This will require formal training and Qualified supervision until competence is demonstrated
<p>Does this procedure need to be done now?</p>	<ul style="list-style-type: none"> • The vast majority of SPC placements are performed for acute urinary retention where the urethral route has failed, and therefore the procedure does need to be done • It is suggested that where a SPC is considered outside of the Urology/Gynaecology setting that the practitioner concerned asks for advice from the Urology SpR on call or, out of hours, from the Gynaecology SpR on call • if appropriate expertise for SPC insertion is not available at a particular time, suprapubic aspiration of urine using a needle of up to 21G can be used as a means of temporarily relieving the patient's symptoms

<p>Is this procedure right for the patient?</p>	<ul style="list-style-type: none"> • Absolute Contraindications <ul style="list-style-type: none"> ○ Bladder is impalpable / not visible on portable ultrasound ○ Pregnancy ○ Gross or morbid obesity • Relative contraindications <ul style="list-style-type: none"> ○ Uncontrolled coagulopathy ○ Paediatric cases – Consultant Urologist input required ○ Prior abdominal or pelvic surgery (risk of adhesions) – Urology/Gynaecology Input required as open procedure may be necessary
<p>SPC placement</p>	<ul style="list-style-type: none"> • Assess for retention and confirm bladder visualized on Ultrasound – abandon procedure if any doubt and seek Consultant advice • Consider Urethral route FIRST, but do not persist in attempts at Urethral catheterization if it is clear that catheter will not pass easily via urethra into bladder • Explain procedure to patient • Assess for absolute / relative contraindications • Ensure bladder portable ultrasound to hand • Use Suprapubic catheter set appropriate to signed competency (BARD™ preferred¹) • Lie patient prone and clean abdominal wall below umbilicus with betadine skin preparation • Identify point 2 finger breadths above symphysis pubis in midline and infiltrate skin with 1% Lignocaine + 1/200000 Adrenaline • Infiltrate below skin to include the fascia • Using this needle CONFIRM that urine can be aspirated from bladder – the needle should be positioned at 90 degrees to the skin surface which may not in fact be directly vertical in a distended bladder. Attempting to aspirate directly vertically may lead the needle to enter into the retropubic space rather than going into the bladder. • If urine CANNOT be aspirated from the

¹ The technique described below relates to the BARD™ SPC – other sets may require a slightly different technique but the operator must still confirm full bladder by use of ultrasound

	<p>bladder the procedure should be abandoned at this point and the patient assessed with consideration given to an open SPC placement</p> <ul style="list-style-type: none"> • Once the skin and underlying tissues are anaesthetized a 1 cm incision is made in the skin and deepened through the subcutaneous fat. The fascia is also incised – it is critical that this fascial incision is wide enough to allow subsequent placement of the suprapubic catheter trocar to prevent too much “force” being used which can lead to complications • At this point it is helpful (though not mandatory) to confirm with the syringe/needle that Urine can still be aspirated from the bladder. This step also reminds the practitioner of the “approach angle” that the trocar needs to take to enter the bladder and may prevent (for example) the trocar/sheath entering the retropubic space in error • The trocar within its sheath should be inspected to make sure that it can be removed easily from the sheath • The trocar/sheath is then inserted into the bladder. The practitioner should keep one hand on the shaft of the trocar/sheath about 2-5 cm from the tip and use a “corkscrew” motion to allow the trocar to pass into the bladder. It should not be necessary to use excessive force and indeed if this is the case it is likely that the incision in the fascia needs to be extended • Once the trocar tip enters the bladder a “flashback” of urine is common. It is crucial that the trocar/sheath is advanced a further 1cm to ensure that the sheath itself (and not just the trocar tip) is inside the bladder. • At this point the trocar is removed from the sheath and the catheter passed down the lumen of the sheath all the way into the bladder. • The tear-off strip is removed from the sheath while ensuring that the catheter is held within the bladder, and the sheath is removed. • The balloon on the catheter is inflated. For extra security the catheter may be sutured
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	<p>to the skin with a silk suture which may be useful to help close the skin incision around the catheter and minimize bleeding</p> <ul style="list-style-type: none"> • The procedure is fully documented in the patient's notes
<p>Monitoring for complications and after care</p>	<ul style="list-style-type: none"> • If clear urine is drained then it is unlikely that complications will ensue • The passage of urine that is faecally stained should be noted and further investigations performed to exclude bowel perforation • The patient should be monitored for abdominal symptoms and/or told to report these if they should occur • The patient should be given the accompanying warning sheet giving details of symptoms that may be expected in the event of any complications – Appendix 1 • Sometimes rapid decompression of a chronic urinary retention can lead to haematuria. This usually settles but may need urological input if severe, or persistent

Any complications arising in patients from SPC Placement should

1. Be recorded clearly in the patient's case notes
2. Be recorded using the hospital DATIX system

References

1. Minimising risks of Suprapubic Catheter insertion – National Reporting and Learning Service
2. Minimising risks of Suprapubic Catheter insertion – NPSA report 2009/RRR005 (and supporting information)

Information sheet for Patients following insertion of Suprapubic Catheter

Following insertion of a suprapubic certain complications may arise on occasions.

Bleeding into the urine for a few days is common but the bleeding should be neither profuse nor prolonged.

Infection of the wound is more likely where the catheter was placed using an open incision of the abdominal wall. Signs of infection would normally include;

- Redness around the wound site, particularly if this is increasing
- Swelling around the wound site
- Tenderness of the wound site, particularly if it is getting worse
- The presence of pus coming from the wound site
- Fever or temperature, associated with a feeling of being unwell

A rare complication associated with “closed” insertion of a suprapubic catheter (i.e. where the catheter was NOT inserted using an open incision) is perforation of a loop of intestine. Signs of this include the following

- Worsening abdominal pain
- Fever or temperature
- Vomiting
- The presence of particulate matter (i.e. faeces) in the urine which drains into the catheter bag

These can happen without the presence of significant bleeding.

If you concerned about any of the symptoms above then please either

- Contact your GP urgently (He/She may arrange for you to be admitted back to the ward for observation, or may telephone your consultant for advice)
- In an emergency please attend the emergency department of the Peterborough City Hospital

Peterborough and Stamford Hospitals NHS Foundation Trust
STAGE ONE : Equality Impact Assessment (EqIA) Screening form
Assessing Functions/Policies for Relevance

Blue boxes are to be filled in
 Yellow boxes - Click the box to select from the drop down list

Free text
Select from drop down box

Name of function/service/strategy/policy/project (activity) to be assessed:	Guidelines for the insertion of Suprapubic Catheters		
Name(s) of those completing this EqIA Screening form:	Chris Dawson		
CBU/Department	Surgery	Date	05-Oct-10

Function/service/strategy/policy/project (activity) aim or purpose:	Guidelines e on Insertion of Suprapubic Catheters
Is this a new or existing activity?	New
What are the intended results of this activity?	To ensure that Suprapubic Catheters are inserted in a safe manner to minimise risk to Patients
How will you measure the outcome of the activity?	Audit of Patient Outcomes
Who is intended to benefit from the activity?	Patients
Please identify any internal/external groups who have been consulted regarding this activity:	None

Use the table below to identify whether the activity could/does have a positive impact, a negative impact or no impact at all on either any or all of the equality groups specified.

	Age	Disability	Ethnicity/Race	Gender	Religion/Belief	Sexual Orientation
Eliminating unlawful or unjustifiable discrimination	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Promoting equality of opportunity	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Promoting positive attitudes and good community relations	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Eliminating harassment or victimization	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Encourage involvement and participation	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Eliminating health inequalities	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral

If there is either a Positive (Disability group exempted) or a Negative impact you must consider completing the Stage Two - Full Equality Impact Assessment form to address or remove any significant potential/actual impact.

Peterborough and Stamford Hospitals NHS Foundation Trust
STAGE ONE : Equality Impact Assessment (EqIA) Screening form

Decision to proceed (please select):

No, we have decided that it is not necessary to carryout a full EqIA

If you have selected "Yes, a full EqIA is required", please identify when the Full EqIA will be completed. **Date**

Reason for decision to proceed or not to full EqIA

The document is not discriminatory to any person or group of persons

Executive Director/General Manager - I confirm that I have been briefed and agree with the results of this EqIA.

Name

Date

Job Title

Please note the following:

It is essential that this EqIA screening form is discussed by your management team and remains readily available for inspection. A copy should also be forwarded to the Communications team for publication on the Trust's internet site.

CAUTION: You must refer to the intranet for the most recent version of this policy

Summary and Audit trail

Development Process							
Title: Guidelines for the Insertion of Suprapubic Catheters							
Tick the appropriate boxes below to indicate where and to whom the policy applies:							
Trust and Shared Care	<input checked="" type="checkbox"/>	Trustwide	<input type="checkbox"/>	CBU	<input type="checkbox"/>	Department	<input type="checkbox"/>
Multidisciplinary	<input type="checkbox"/>	Medical Staff	<input type="checkbox"/>	Nursing / Midwifery	<input type="checkbox"/>	Allied Health Professionals	<input type="checkbox"/>
Reason for Development: (e.g. planned review of existing document, patient complaint, critical incident, publication of new evidence, inconsistent practice, NICE Guidance)							
To ensure Trust compliance with NPSA report 2009/RRR005 (and supporting information)							
Development Lead(s):		C Dawson Consultant Urologist					
Tel. Number:				Email Address:			
Development Team Members:				Key sources of evidence			
C Dawson				Evidence used in the development of the document or the method of achieving consensus where evidence is not available: <ol style="list-style-type: none"> 1. Minimising risks of Suprapubic Catheter insertion – National Reporting and Learning Service 2. Minimising risks of Suprapubic Catheter insertion – NPSA report 2009/RRR005 (and supporting information) 			
Consultation Process							
Please list key Staff Members and Groups/Committees involved in the Consultation Process:							
Urology CMT							
Please identify committee(s) which will approve the policy (see flow chart for development) :							
Surgical CBU Governance Committee							
Gynaecology CBU Governance Committee							
Clinical Governance Committee (Mr J Randall Chair)							