Catheterisation: the scope of professional practice

This article discusses catheterisation, in particular male catheterisation, and the associated scope of professional practice for nurses.

AIM AND INTENDED LEARNING OUTCOMES

The aim of this article is to examine how nurses can broaden their scope of practice in the area of catheterisation, taking into consideration the principles stated by the UKCC in the Scope of Professional Practice (1992). After reading this article you should be able to:

- Discuss the ways in which broadening the scope of practice in relation to urinary catheterisation can affect patient care
- Describe the skills required to perform male catheterisation based on relevant research
- Describe the skills required to perform suprapubic catheterisation based on relevant research
- Demonstrate an understanding of the training needs, accountability issues and legal implications associated with developing the scope of practice with regard to urinary catheterisation.

INTRODUCTION

The use of urinary catheters is an integral part of patient care. The prevalence rate among hospitalised patients is 12.6 per cent for short-term (median of four days) urinary catheterisation (Crow et al. 1986). For patients nursed at home the prevalence rate is 4 per cent (Roe 1989).

Catheters are used for a variety of reasons including:

- Prophylaxis – for example during surgery to allow access and to minimise the risk of damage to the bladder
- Diagnosis – for example during urodynamics
- Therapy – for example to relieve urinary retention or chronic incontinence (Burkitt and Randall 1987)

With the range of developments within the area of catheterisation, and in light of the Scope of Professional Practice (UKCC 1992), there is the opportunity to develop nursing practice further, thus benefiting patient care.

THE NURSE'S ROLE

Pre-registration education incorporates the procedure for female catheterisation within the curriculum; once qualified, nurses are perceived to be competent in that skill. The incorporation of other skills into nursing practice was originally established through the principles of the extended role (DHSS 1977). Under the guise of the 'extended role', professional development was seen as incremental, task orientated and often delegated from other professions (Dimond 1995). Rather than extending the parameters of practice this was a limiting factor, for example, the extension of the role in relation to male catheterisation being permitted by male nurses only (Pottle 1992).

In June 1992, the UKCC published the Scope of Professional Practice document which was a major development in the rationale underlying professional practice (Dimond 1995). The UKCC recognised that practice ‘must be sensitive, relevant and responsive to the needs of individual patients and have the capacity to adjust’; the emphasis is on the individual practitioner being accountable for his or her own practice. It enables nurses to develop in areas that were once seen as delegated medical tasks (Dimond 1995) and facilitates the provision of holistic care rather than emphasis on the task. This has implications for urinary catheter-related care particularly, but not exclusively, in the areas of male catheterisation and suprapubic catheterisation.

MALE CATHETERISATION

The issue of female nurses catheterising male patients has been a subject of debate (Pottle 1992, Pomfret 1993a, Pomfret 1994, Fader 1986). Traditionally, catheterisation of men has been the domain of doctors and male nurses and they were often called upon to perform this task (Pomfret 1993a). Fader (1986) found that only one in ten districts allowed female nurses to catheterise men, both in the hospital and the...
community. The task has also been medically dominated, as demonstrated by one study involving 294 patients in district general hospital wards: 99 per cent of women were catheterised by nurses, while 94 per cent of men were catheterised by doctors (Crow et al 1986). However the study did not specify how many of the nurses catheterising the remaining six per cent of male patients were male.

**NOW DO TIME OUT 1**

Consider a male patient you have nursed who required catheterising. Was the nurse responsible for that patient's care able to perform the catheterisation? If not, consider the reasons for this. What advantages and disadvantages would there have been to the patient if the nurse had been able to catheterise this patient?

The reasons for female nurses not extending their role in the area of male catheterisation is unclear. It is argued that skill and competence are important, not the gender of the nurse, and that the holistic care of the patient is more complex than the relatively simple task of catheterisation (Pomfret 1994).

The principles underlying the Scope of Professional Practice facilitates the incorporation of these skills into everyday practice. Male patients will then have the opportunity to receive holistic, rather than fragmented, care. Limitations in the nurse's knowledge and competence need to be addressed prior to the incorporation of male catheterisation into practice. A qualified nurse should possess an understanding of the anatomy and physiology of micturition and reproduction in males before undertaking the catheterisation of male patients (RCN 1994) (Fig. 1).

Performing a catheterisation, however, is not a simple task due to the physical, mental and social implications that go beyond the passing of urine (Pomfret 1994). Assessment skills require the recognition of the cultural, sexual, social, emotional, physical and practical needs (RCN 1994); the ability to plan all of these concepts appropriately are essential elements in demonstrating competency.

**NOW DO TIME OUT 2**

Think about how you would address the health education needs of a patient prior to catheterisation. What issues do you think are important?

**Health education** An understanding of health education issues regarding catheterisation is necessary to enable the skilled nurse to provide accurate and relevant health education to patients. The health education needs and opportunities involved in providing holistic care of a man requiring catheterisation are often overlooked.

Of a study involving 36 patients (20=M, 16=F) with long-term catheters (median of four years), 78 per cent of patients stated that they had received no advice as to the function of their catheter, and only 30 per cent of the men were able to demonstrate the location of the catheter correctly when asked to indicate as such on a diagram (Roe and Brocklehurst 1987).

In addition, 45 per cent of men stated that they were frightened of the catheter and were concerned that it would affect their body; no professional had voluntarily discussed the issue of sex with any of the patients since the insertion of the catheters, even though 16 patients had used a catheter for more than four years (Roe and Brocklehurst 1987). If the patient is sexually active, practical and health education advice regarding: turning the catheter back along the shaft of the penis and wearing a condom, the possibility of temporarily removing the catheter, or alternatives such as suprapubic catheterisation or intermittent self-catheterisation, are options which the patient should be made aware of.

The importance of avoiding constipation, having an adequate fluid intake and the signs and symptoms of complications associated with

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**Fig. 1. Cross section of male anatomy**

- Bladder
- Rectum
- Prostate
- Urethra
- Scrotum
- Glans penis
urethral catheterisation should also be incorporated into the patient’s care. Patients may be advised to drink cranberry juice, as it has been suggested that it reduces the incidence of bacteriuria (Avorn et al 1994).

The complications associated with urethral catheterisation include:

- Urinary tract infection (Crow et al 1988, Roe 1993)
- Encrustation and blockage (Getliffe 1993a)
- Bypassing (Roe and Brocklehurst 1987)
- Tissue damage (Getliffe 1993a)
- Patient discomfort (Roe and Brocklehurst 1987).

These may be minimised by the use of evidence-based practice. Nurses have a professional responsibility to maintain and improve their professional knowledge and competence (UKCC 1992) and, therefore, should be aware of current research evidence regarding catheter care.

When performing male catheterisation, the same principles of asepsis apply to the procedure as in female catheterisation (Gould 1994). The selection of the catheter material should be based on the research evidence and individual needs, for example, the intended duration of catheterisation (Box 1).

The ideal catheter material needs to be comfortable, easy to insert and remove, and must minimise the risk of tissue inflammation, bacterial adherence and encrustation (Getliffe 1993b). All catheter materials must conform to the standards set by British Standard 1695 (Getliffe 1993b) and the catheter should be used in line with the manufacturer’s recommendations to avoid product liability (RCN 1994).

A ‘male length’ catheter, approximately 45cm, should be used to accommodate the length of catheter required to pass through the male urethra and into the bladder. The use of large gauge catheters (over 16 Fg) are associated with pressure necrosis (Blandy 1980), bypassing (Roe and Brocklehurst 1987) and patient discomfort (Roe and Brocklehurst 1987). Unless otherwise indicated, such as post-prostatectomy, the use of size 12-16 Fg is advocated (Roe 1993).

The insertion of a catheter is a common cause of urethral damage and stricture formation in men; again the use of a narrow gauge catheter reduces this risk (Blandy 1980). The bypassing of urine around the catheter is also associated with the use of balloon sizes over 10ml and it is suggested that larger balloon sizes should not be used unless otherwise indicated, such as post-prostatectomy (Kennedy and Brocklehurst 1982).

The larger balloon may also cause ulceration of the bladder or urethral wall (Getliffe 1993a).

The procedure Consideration should be given to the patient’s privacy, dignity and information needs, as in any healthcare procedure. Once the sterile field is established, the penis is held with sterile gauze and, if present, the foreskin is retracted. The urethral meatus and glans is then cleansed (Thomas 1993). The cleansing agents suggested vary from washing with soap and water and drying thoroughly (Pomfret 1993a) to the use of an antiseptic solution (Burkitt and Randall 1987). Local policy should be followed.

Local anaesthetic is then applied into the male urethra (Burkitt and Randall 1987). The penis is held erect so that the anaesthetic lubricating gel remains in the urethra and also to facilitate catheterisation by reducing the acute angle of the bulb urethra (Stoller 1995). The catheter is inserted slowly and should not be passed against resistance as this may cause urethral trauma (Burkitt and Randall 1987, RCN 1994). If resistance is felt, increasing the traction on the penis may reduce spasm of the external sphincter; encouraging the patient to cough may ease the passage of the catheter (Thomas 1993).

Once the urine starts to flow, the catheter should be inserted at least a further 5cm to avoid inflating the balloon in the urethra, and causing severe damage (Burkitt and Randall 1987). The balloon is inflated with sterile water and the catheter attached to an appropriate closed sterile drainage system to minimise the risk of infection (Garibaldi et al 1974). The foreskin should then

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**Box 1. Guidelines for the selection of urinary catheters**

<table>
<thead>
<tr>
<th>CATHETER MATERIAL</th>
<th>DURATION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>14 days</td>
<td>Rigid, painful (Pomfret 1993b)</td>
</tr>
<tr>
<td>Latex</td>
<td>14 days</td>
<td>Causes discomfort and tissue trauma due to high-surface friction (Getliffe 1993b)</td>
</tr>
<tr>
<td>Teflon-coated latex</td>
<td>28 days</td>
<td>Smoother, resistance to encrustations (Pomfret 1993b)</td>
</tr>
<tr>
<td>Silicone elastomer-coated latex</td>
<td>12 weeks</td>
<td>Resistance to bacterial adherence (Roberts et al 1993)</td>
</tr>
<tr>
<td>Silicone</td>
<td>12 weeks</td>
<td>Smooth, resistance to encrustations, non-inflammatory (Talja et al 1990)</td>
</tr>
<tr>
<td>Hydrogel-coated latex</td>
<td>12 weeks</td>
<td>Resistance to bacterial adherence, improved patient comfort, non-inflammatory (Talja et al 1990, Roberts et al 1993)</td>
</tr>
</tbody>
</table>
Fig. 2. Suprapubic catheter

Suprapubic catheter

Flange or dressing (if necessary)

To drainage bag

REFERENCES


The indications for use of suprapubic catheterisation include:

- Elective procedures following abdominal or urological surgery (Hilton and Stanton 1980)
- Acute retention of urine in men (Hilton and Stanton 1980)
- Disorders of the genitalia or urethral trauma (Hilton and Stanton 1980)
- Advanced neurological disease requiring long-term catheterisation for incontinence (Winder 1994)
- Incontinence predisposing to skin damage due to pressure
- Patient preference, particularly if sexually active or to maintain their ability to self care
- Patients with surgical or acquired urethral closure (Feneley 1983)

The use of suprapubic catheters is contraindicated when there is known or suspected carcinoma of the bladder, undiagnosed haematuria, cognitive impairment or if it is against patient choice.

Nurses have extended their scope of practice to include the changing of suprapubic catheters. General principles of asepsis apply throughout the procedure. It is essential that the new catheter is inserted immediately upon the removal of the old one as the detrusor fibres (bladder) contract and the hole may be obliterated (Winder 1994). After deflating the balloon the old catheter is removed, noting the length of catheter so that the new catheter can be inserted to that same length. The new catheter is then inserted along the fistulous track of the old catheter (Feneley 1983) and the balloon inflated, ensuring the patient does not feel any discomfort which would be caused if the balloon was inflated in the ureter or urethra, and the patient and were often associated with infection and pain (Lawrence et al 1989). A new technique has been developed which involves the use of a trocar and sheath to insert a foley type catheter, usually size 18-22 Fg (Winder 1994), into the bladder. The balloon of the catheter retains it in position and extra fixation is not required (Lawrence et al 1989).
catheter secured and attached to a closed drainage system (Winder 1994).

It may take several minutes before the urine begins to flow and some areas advocate the use of a catheter valve prior to recatheterisation to promote urine flow. As with all other catheterisations, the accountable nurse has a duty to document all aspects of the catheterisation within the nursing record in accordance with the Standards for Records and Record-keeping (UKCC 1994).

As with the use of a urethral catheter, patient education is again an important element in the patient's holistic care. Advice regarding the avoidance of constipation, having an adequate fluid intake and the signs and symptoms of complications should be incorporated into the care assessment. The signs and symptoms of complications associated with suprapubic catheters should be discussed and information reinforced with the use of written material.

**COMPlications**

The complications associated with suprapubic catheters include:

- Urinary tract infections and bacteriuria, although it is generally agreed that the infection rates are significantly lower compared to urethral catheterisation (Horgan et al 1992, Vandoni et al 1994, Sethia et al 1987)
- Granulation tissue at the insertion site - it is suggested this is treated with a silver nitrate stick (Pomfret/ACA 1995) or a preparation containing hydrocortisone (Getliffe and Dolman 1997) and effective practice. Nurses should be fully aware of their professional accountability, and unless they possess the knowledge and competence they should decline to perform any duties or accept responsibilities if unable to perform them in a skilled and safe manner (UKCC 1992). The Scope of Professional Practice has allowed nurses the flexibility and opportunities to improve the care delivery to patients; with the correct training, skills and knowledge the competent nurse has the potential to deliver holistic care to the patients in his or her care.

**TRAINING NEEDS**

The Scope of Professional Practice (UKCC 1992) emphasises the responsibility and accountability of individual practitioners and states that any limitations in knowledge and competence must be acknowledged. The 'extended role' model was task orientated and the nurse received certification as evidence of his or her competence prior to incorporating that task into everyday practice. The Scope of Professional Practice, however, is based on principles and is therefore less prescriptive.

The RCN has issued guidelines for education, training and skills for clinical practice regarding male catheterisation, which also incorporate suprapubic catheterisation (RCN 1994). Within these guidelines it is recommended that nurses should receive classroom demonstrations in urethral and suprapubic catheterisation, followed by clinical observations and supervised practice. Local arrangements should be in place to ensure that registered nurses, midwives and health visitors are assisted to undertake, and are enabled to fulfill, any suitable adjustments to their scope of practice (UKCC 1992), and clinical practice must follow local policies and procedures (RCN 1994).

**CONCLUSION**

Urinary catheterisation is associated with significant morbidity and mortality and should be avoided if possible (Mulhall 1992). Where it is necessary, the nurse should possess the necessary complex skills and knowledge to ensure safe and effective practice. Nurses should be fully aware of their professional accountability, and unless they possess the knowledge and competence they should decline to perform any duties or accept responsibilities if unable to perform them in a skilled and safe manner (UKCC 1992). The Scope of Professional Practice has allowed nurses the flexibility and opportunities to improve the care delivery to patients; with the correct training, skills and knowledge the competent nurse has the potential to deliver holistic care to the patients in his or her care.

**NOW DO TIME OUT 5**

Review the intended learning outcomes at the beginning of this article to see if you have achieved them. You may like to re-read the article before tackling the assessment.

**NOW DO TIME OUT 4**

Consider what your training needs might be prior to incorporating male or suprapubic catheterisation into your practice?
Assessment


TO COMPLETE THE ASSESSMENT:
- Follow the instructions on the answer sheet found in your copy of the journal.
- Mark the title of the article as Catheterisation: the scope of professional practice. The number is 424.
- You should only answer a question when you are confident that you can do so correctly.
- If you should wish to change your selection, use a soft eraser to remove or lighten the mark that you do not want to appear and ensure that the answer(s) that you have finally selected show up boldly.
- Fold the answer sheet only where indicated.
- Send it with the your free assessment voucher or £10 fee (£15 for non-RCN members) to: RCN CE Articles, Royal College of Nursing, Freepost, Cardiff CF5 1ZZ, by December 17, 1998 (cheques payable to RCN).
- If successful, you will be informed in writing. Five CEPs are awarded for successful completion of this CE article assessment. You are entitled to one retake if you are unsuccessful.

FURTHER ANSWER SHEETS CAN BE OBTAINED BY CALLING 0181 423 1066

PROFILE ONE

Mr White has been discharged from a hospital ward following a cystoscopy to investigate his intermittent urethral dribbling. His treatment will continue as an outpatient. On return to the clinic for review of his treatment and management, Mr White complains that the present 'pad system' is unsatisfactory and causing him problems. After discussion it is decided that urethral catheterisation is the most appropriate option for him. The catheter will remain in situ for approximately three months.

1 Which catheter material is most appropriate for Mr White?

a) Hydrogel-coated catheter
b) Teflon-coated catheter
c) PVC catheter
d) Latex catheter
e) None of these

d) Ask the patient to cough
e) Use a smaller gauge catheter

3 Once the catheter is in the bladder, what is the next step to take when the urine begins to flow:

a) The catheter is attached to the catheter bag
b) Urine is allowed to empty into a suitable receptacle
c) The catheter is entered a further 5cm into the bladder
d) The catheter is entered further into the bladder to the point of bifurcation of the catheter
e) The balloon is inflated

4 At the beginning of the catheterisation procedure, Mr White's foreskin was retracted. At the end of the procedure it must be placed back over the glans to prevent:

a) Parametritis
b) Paracys
b) Paraesthesia
d) Paraphimosis
e) Paramnesia

5 Following the catheterisation of Mr White the accountable nurse should document all details of the catheterisation within the patient's record in accordance with the UKCC's:

a) Code of Professional Conduct
b) Standards for the Administration of Medicines
c) Guidelines for Professional Practice
d) Standards for Records and Record Keeping
e) Scope of Professional Practice

6 Mr White experiences bypassing of urine around his catheter. You suspect this is related to the size of his catheter. Which of the following should be considered?

a) Inserting a larger gauge catheter
b) Inserting a smaller gauge catheter
c) Inserting a new catheter of the same gauge
d) Advising Mr White against another urethral catheter
e) Advising Mr White to increase his fluid intake

7 Mr White is sexually active and asks for advice regarding his catheter. What advice should he be given?

a) To use a non-penetrative method of sexual intercourse
b) To tape the catheter along the shaft of the penis before sexual activity
c) To consider an alternative method of managing his incontinence
d) To abstain from any type of sexual relationship
e) To place the catheter back along the penis and apply a condom

8 Mr White's catheter needs changing. Who, traditionally, would have been the most likely health professional group to insert a urethral catheter?

a) Female nurses
b) Male nurses
c) Doctors and male nurses
d) Doctors
e) Doctors and nurses

9 Which body has issued guidelines for education, training and skills for clinical practice regarding male catheterisation?

a) United Kingdom Central Council
b) English National Board
c) Association for Continence Advice
d) National Health Service Management Executive
e) Royal College of Nursing
Mr White experiences discomfort and pain from his urethral catheter. What is one of the factors that would contraindicate the use of a suprapubic catheter?

a) Mr White's age  

b) Mr White's dexterity  

c) Undiagnosed haematuria  

d) Allergy to latex  

e) None of these

**PROFILE TWO**

Mr Jones is a 50-year-old man who was diagnosed as having multiple sclerosis ten years ago. Recently he has found his ability to do clean intermittent self-catheterisation difficult due to some reduction in dexterity and a change in his lifestyle. Mr Jones is anxious to maintain his social contacts and travel independently as much as possible.

Which would be the most appropriate method for Mr Jones to manage his incontinence?

a) Urinary sheaths  

b) Incontinence pads  

c) Suprapubic catheter  

d) Continue intermittent self-catheterisation  

e) Urethral catheter

Consider the educational needs of Mr Jones. What would be the best way to provide information regarding the signs and symptoms of complications associated with suprapubic catheters?

a) Provide verbal information only  

b) Encourage Mr Jones to speak to another patient  

c) Advice is the doctor's responsibility  

d) Provide both written and verbal information  

e) Provide manufacturer’s information

When replacing a suprapubic catheter, once the old catheter is removed, you should:

a) Wait a few minutes before inserting a new catheter  

b) Ask the patient to cough before inserting a new catheter  

c) Insert the catheter immediately  

d) Nurses should never replace a suprapubic catheter  

e) None of the above

When replacing a suprapubic catheter there is a risk that the catheter may enter the urethra or ureter. What warning sign or symptom should the accountable nurse be observing for?

a) Urine not draining via the catheter  

b) Pain on inflating the balloon  

c) Resistance on inserting the catheter  

d) The balloon would not inflate  

e) All of the above

To avoid product liability all catheters should be used in accordance with:

a) Research findings  

b) Custom and practice  

c) The patient's preference  

d) The doctor's instructions  

e) Manufacturer’s recommendations

The infection rate associated with suprapubic catheters compared with urethral catheters is:

a) Significantly increased  

b) Significantly decreased  

c) There is no difference  

d) Initially increased, then decreased  

e) Initially decreased, then increased

You discuss with Mr Jones that there is some evidence that drinking a certain juice can prevent bacterial colonisation of the bladder. This is:

a) Cranberry juice  

b) Lemon juice  

c) Orange juice  

d) Blackcurrant juice  

e) Apple juice

Once established, Mr Jones' suprapubic catheter will be retained in position by:

a) Sutures  

b) An adhesive dressing  

c) The balloon of the catheter  

d) Granulation tissue  

e) The flange of the catheter

Mr Jones reports that he has observed some granulation tissue around his suprapubic catheter site. What treatment has been advocated?

a) Hydrocortisone cream or an antiseptic emollient  

b) An antiseptic emollient or silver nitrate  

c) Silver nitrate or antiseptic ointment  

d) Betadine ointment or hydrocortisone cream  

e) Silver nitrate or a hydrocortisone preparation

In accordance with the Scope of Professional Practice Principles, the nurse should:

a) Always follow the doctor's instructions  

b) Never perform suprapubic catheter replacements  

c) Decline any duties unless able to perform them in a safe manner  

d) Not perform suprapubic catheter replacements until six months post-registration  

e) Assist medical staff only to perform male catheterisations and suprapublic catheter replacements