Urinary incontinence affects quality of life in a large number of people of varying ages. For a significant number of patients the problem has to be addressed by catheterisation, a treatment method that can give rise to a host of potentially avoidable complications. Catheter stabilisation is an essential practice in avoiding unnecessary damage to the urethra and accompanying pain. While a number of products are available, there seems to be no preferred device for securing catheters. This article looks at CliniFix® (CliniMed, Buckinghamshire), a universal tube-securing device, which approaches tube fixation in a different way to strap-style-devices.

KEYWORDS: Continence ■ Urinary incontinence ■ Catheter fixation

Urinary incontinence and the importance of catheter fixation

Julian Spinks

Urinary incontinence affects quality of life in a large number of people of varying ages. For a significant number of patients the problem has to be addressed by catheterisation, a treatment method that can give rise to a host of potentially avoidable complications. Catheter stabilisation is an essential practice in avoiding unnecessary damage to the urethra and accompanying pain. While a number of products are available, there seems to be no preferred device for securing catheters. This article looks at CliniFix® (CliniMed, Buckinghamshire), a universal tube-securing device, which approaches tube fixation in a different way to strap-style-devices.

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While rarely life-threatening, urinary incontinence (UI) can have a deleterious effect on the physical, psychological and social wellbeing of anybody affected by it (National Institute for Health and Care Excellence [NICE], 2013). The impact on the families and carers of people with UI can be equally serious, and the cost, in terms of health resources, can be considerable.

UI is defined by the International Continence Society (ICS, 2005) as ‘the complaint of any involuntary leakage of urine’. It has been shown to be more prevalent in women than men, with rising prevalence linked to increased body mass index (BMI) and diabetes (Markland, 2011). Specifically, women are 7–8 times more likely to be affected by UI than men (Millard, 1996; Foxley, 2007), with prevalence increasing with age in both genders (Doughty, 2000; Foxley, 2007).

UI affects a wide spectrum of women and has correlations with reduced quality of life (Harris, 1999; Howard, 2010). The Department of Health [DH] (2002) has estimated that in people living at home UI affects:

- Up to one in 4 women aged 15–44
- Up to one in seven women aged 45–64
- Up to one in five women aged 65 and over
- Over one in 33 men aged 15–64
- Up to one in 10 men aged 65 and over.

The numbers of people experiencing UI are even greater for those (of either sex) living in institutions:

- One-in-three in residential homes
- Nearly two in every three in nursing homes
- One-half to two-thirds in wards for elderly people and elderly people with mental health problems.

TYPES OF URINARY INCONTINENCE

Stress UI results from physical exertion, or bodily reactions like coughing and sneezing. Urgency UI is preceded or accompanied by a sudden impulse to micturate, which is difficult to control. Mixed UI is where the patient experiences both episodes of stress and urge incontinence (although this does not have to occur simultaneously).

Overactive bladder (OAB) occurs with or without incontinence and is where the bladder muscle (detrusor) contracts suddenly without the individual having control, even when the bladder is not full. The condition known as ‘OAB dry’ is characterised by urgency UI, but without leakage. Conversely, ‘OAB wet’ is urgency UI accompanied by leakage.

Nocturia (waking to go to the toilet more than once at night) and frequency (the urge to urinate often) are other factors that can complicate the overall UI picture.

TREATMENTS

Because of the variety of types and symptoms of UI, it follows that treatments are similarly varied. Treatment is dependent upon the type and aetiology of UI, as well as the existence (or not) of associated conditions (such as diabetes). Sexual activity and quality of life are also considerations.

In most cases it is recommended that non-invasive, conservative techniques be tried first, rather than moving straight to pharmacological or surgical intervention (NICE, 2013). These include avoiding triggers such as alcohol or caffeine, performing regular pelvic floor exercises or timing visits to the toilet, and ‘training’ the bladder to respond differently to cues by using bladder ‘drills’ (these can involve attempting to ‘hold on’ for increasing periods before visiting the toilet, for example).

Some treatments, such as intermittent self-catheterisation (ISC), have been used for 4,000 years (Nazarko, 2007), with the materials...
CliniFix® - the Universal Hydrocolloid Securement Device

CliniFix, the unique multi-purpose medical tube holder, is the most comfortable and secure way to hold catheters and most sizes of medical tubing in place. It can be used in two distinct ways for different security needs - a hook and loop securement device for some movement or an inner adhesive strip for extra security. The resealable design allows repeated access. With a skin-friendly hydrocolloid base it can remain in place for up to seven days and no rigid plastic edges, straps or clips means Clinifix fits like a second skin anywhere on the body.

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advancing while the technique remains largely the same (ISC involves patients periodically self-inserting a catheter).

Other treatments, such as the use of botulinum toxin A (which helps reduce bladder wall contractions) and sacral nerve stimulation for the treatment of OAB, are becoming more routine (NICE, 2013).

Treatment for stress UI can be approached by various pathways and many are equally applicable to mixed UI. As mentioned above, lifestyle interventions include dietary alterations (smoking cessation, weight loss), and a higher/lower fluid intake as appropriate. Physical therapies, such as pelvic floor exercises and electrical stimulation are also employed, sometimes in collaboration with biofeedback therapy (Burgio, 1990). Biofeedback uses visual displays and audible tones to demonstrate to the patient the muscles he or she is exercising, allowing muscle strength to be measured and exercise programmes to be individualised.

Pharmacological intervention for urge UI is possible through use of various drugs, and is in widespread use, although efficacy is variable (Rovner, 2004).

If conservative non-invasive approaches have proved ineffective, and/or are poorly-received by the patient with stress UI, surgery becomes the focus. Somewhere in the region of 200 different procedures exist in the surgical treatment of stress UI (Rovner, 2004), but most common is the use of tapes to support the mid-urethra.

CATHETERISATION AND THE 2013 NICE GUIDELINES

The management of urinary incontinence in women
Use of a catheter, whether intermittent urethral, indwelling urethral, or indwelling suprapubic, falls into what NICE define as an ‘alternative conservative management option’ (NICE, 2013), and is employed when an individual is not able to completely empty the bladder.

Such inability to void, whether due to detrusor dysfunction, urethral stricture, obstruction, or other problems, is commonly the result of interference with the spinal or bladder nervous pathways. This may be due to diseases such as Parkinson’s, multiple sclerosis, spina bifida, and diabetes mellitus, or to infection, trauma, constipation, or paraplegia (Nazarko, 2009).

The recently updated guidelines (NICE, 2013) on the management of urinary incontinence in women build upon the 2006 guidelines in light of advances in evidence and treatment. They form a best practice guideline on caring for women with UI, with specific recommendations expanding upon a selection of key priorities for implementation.

The NICE guidelines advise catheterisation when other methods have not been effective.

These cover all aspects of care from lifestyle-based advice to invasive surgical intervention. The following is a summary of the guidelines regarding the use of catheters:
- Bladder catheterisation, be it intermittent, indwelling urethral, or suprapubic, should be considered for women who suffer from persistent retention of urine, giving rise to incontinence, related infections and renal malfunction, and which cannot be alleviated or corrected using any other method.
- Patients with urgency UI should be made aware that indwelling catheterisation will not necessarily result in continence.
- For those patients who are able to be taught self-catheterisation, or who have a carer, intermittent self-catheterisation should be offered.
- The long-term effects of indwelling urethral catheterisation should be considered with care.

Patients for such a treatment include:
- Those who suffer from chronic retention of urine, and are unable to perform intermittent self-catheterisation.
- Those who suffer from pressure ulcers, skin wounds and other irritations being contaminated by urine.
- Those who experience distress and disruption from frequent bed or clothing changes.
- Those who elect to undergo this treatment.

As an alternative to long-term urethral catheters, indwelling suprapubic catheters (inserted through the abdomen directly into the bladder) may be considered. The nurse should inform patients that suprapubic catheters may be linked to lower rates of urethral complications — ‘bypassing’ — and lower incidence of symptomatic urinary tract infection compared to indwelling urethral catheters.

Intraurethral and intravaginal leakage prevention devices should not be employed for regular management of UI, but rather only used occasionally, such as during exercise.

The NICE guidelines advise catheterisation when other methods have not been effective, and Newman (2007) provides the following indications for the use of an indwelling catheter:
- Short term for acute urinary retention.
- Sudden and complete inability to void.
- Necessary for immediate and rapid bladder decompression.

Indwelling catheters can also be used to provide temporary relief of bladder outlet obstruction secondary to (Newman, 2007):
- Enlarged prostate gland.
- Urethral stricture.
- Obstructing pelvic organ prolapse.
- Urologic or prolonged surgical procedure.
- Chronic urethral obstruction or urinary retention with surgical interventions and/or where the use of intermittent catheterisation is either not practical or has failed.
The thought of catheterisation is a daunting one, but the procedure needn’t be painful or traumatic. Instillagel anaesthetises the urethra whilst providing broad-spectrum antimicrobial coverage that helps protect her against UTIs, as well as giving essential lubrication. Tried and trusted for 25 years, Instillagel is the triple action urethral gel that you can both rely on.

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Prescribing information: Composition: Each 100g of Instillagel contains: Lidocaine Hydrochloride 2.0g, Chlorhexidine Digluconate solution 0.25g, Methyl Hydroxybenzoate 0.06g, Propyl Hydroxybenzoate 0.025g. Uses: Catheterisation, cystoscopy. Exploratory and intra-operative investigations, exchange of fistula catheters, protection against iatrogenic damage to the rectum and colon. Gynaecological investigations. Dosage and administration: Unless otherwise prescribed by a doctor: Urethral catheterisation: instil 6-11ml of gel into the urethra. The anaesthetic effect begins after 3-5 minutes. Contraindications, Warnings, Precautions and Interactions: Instillagel® must not be used in patients with known hypersensitivity to the active ingredients (amide-type anaesthetics, chlorhexidine and alkyl hydroxybenzoates) or any of the excipients. It should not be used in patients who have damaged or bleeding mucous membranes. Use with caution in patients with impaired cardiac conditions, hepatic insufficiency and in epileptics. Difficulty in swallowing may occur with an increased risk of aspiration and biting trauma. Use with caution in patients receiving antiarrhythmic drugs. Undesirable effects: In spite of the proven wide safety range of Instillagel®, undesirable effects of lidocaine are possible where there is severe injury to the mucosa; for example, anaphylaxis, fall in blood pressure, bradycardia or convulsions. Presentations: Pre-filled disposable syringes; for single use only. 6ml and 11ml; packs of 10.


Information about adverse event reporting can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Farco-Pharma on 0049221594061.
In the presence of irreversible medical conditions (e.g. terminal cancer, vegetative states)
Where healing of category three or four pressure ulcers is impeded because of urine leakage
Where healthcare staff (often in the home care setting) are not available to provide incontinence care.

**IMPORTANCE OF FIXATION**

The indications for catheterisation listed above cover a diverse range of conditions and patients, many of whom may well have serious debilitating illnesses. Catheter usage will be common among these groups and, therefore, the importance of securing them properly is paramount.

Complications of varying severity can arise from catheter usage, whether from infection, the presence of bacterial biofilm within the catheter itself (Newman, 2007), or because of poor, or total lack of, catheter fixation.

Despite the availability of various fixation devices (specialised tape, fixation retainers), some nurses may be tempted to use products that are not meant for the express purpose of securing the catheter, such as sticking plaster. Because the correct fixation devices are not always used, or practical in every case, urethral traction due to catheter movement often results in tissue damage, inflammation and significant pain (Centers for Disease Control and Prevention [CDC], 2002; Billington et al, 2008). This can further complicate a physical environment that is already at risk from the very presence of the catheter.

Unstabilised catheters can be sufficiently irritating to cause detrusor muscle spasm in patients with detrusor hyper-reflexia (involuntary bladder contractions), potentially resulting in dislodgment, or even expulsion of the catheter (Hanchett, 2002). Re-insertion of catheters is a process that inevitably costs time and money and can cause distress and increased infection risk.

Therefore, it is important that community nurses are aware of the problems of catheter fixation and take measures to reduce the chances of movement, dislocation and traction.

**CLINIFIX**

As has been discussed above, some methods of catheter fixation, whether institutional practices or ‘off-the-cuff’ DIY solutions, can result in catheter movement, which in turn may cause urethral traction (Fisher, 2010), CAUTI and encrustation (Newman, 2007). CliniMed’s CliniFix® product seeks to address and resolve such issues (Figure 1).

Using a hydrocolloid adhesive strip (Figure 2), CliniFix adheres to the skin securely as well as allowing CliniFix to stay in place for up to seven days at a time without irritation. The hydrocolloid adhesive also facilitates atraumatic removal. Hydrocolloid has been incorporated into wound dressings and stoma care flanges for over 25 years and widespread use has shown it to be an effective and skin-friendly adhesive (Berry et al, 2007).

The incorporation of a hydrocolloid strip means that CliniFix avoids any possible incidence of deep vein thrombosis (DVT), which has been identified as a potential problem in strap-style devices that tighten around the entire leg (Gray et al, 2006).

CliniFix’s design allows for a choice of two fixation methods — using the ‘hook and loop’ fastening, tubes of different diameters can be attached, held in place, or removed without the device having to be removed from the skin. The hook and loop can be closed without adhesion to the catheter tube, preventing tension and ‘pulling’ on the catheter tube itself. Alternatively, if a rigid fixation to the tube is desired, an inner film can be removed to reveal an adhesive contact layer for extra security. This inner adhesive is free from solvents, so the catheter’s integrity is not affected.

Overall, CliniFix provides a solution to any community nurse’s
UI affects the quality of life of a large number of people of varying ages. For a section of these patients, the problem of urinary retention has to be addressed by catheterisation, a treatment method that can give rise to a host of potentially avoidable complications. Catheter stabilisation is an essential practice in avoiding unnecessary damage to the urethra and pain.

CliniFix approaches tube fixation in a different way to strap-style devices.

By using a skin-friendly hydrocolloid adhesive, rather than an around-the-leg strap or a regular tape adhesive, any concerns around hampered venous flow or lymph return are circumvented, while irritation-free wear time and atraumatic removal are ensured. The option for a fixed or secure hold means CliniFix exerts an additional degree of control over catheters with varying tube diameters.

Investing in this type of technology not only helps nurses to reduce adverse incidents, it also means that they can provide more cost-effective care as choosing the correct product for a clinical scenario avoids costly equipment wastage and exacerbation of symptoms. More importantly, having the right equipment helps community nurses to provide patient-centred care.

REFERENCES


KEY POINTS

- Urinary incontinence (UI), is defined as ‘the complaint of any involuntary leakage of urine’.
- Women are more likely to be affected by UI than men.
- Catheters are commonplace and the importance of securing them is paramount.
- Urethral traction due to catheter movement can result in tissue damage, inflammation and significant pain.
- CliniFix, a universal tube-securing device, approaches tube fixation in a different way to strap-style devices.