NHS Supply Chain

Information for Clinical Choice

3-Way Catheters Urology and Bowel Management Framework

Support Document

Introduction

Information for Clinical Choice (ICC) has been developed to assist Clinicians in the decision-making process when assessing the suitability of a product by providing a clear illustration and description of the features of a range of similar products supplied through NHS Supply Chain.

The criteria provided, in the form of a Product Matrix and Support Document, is the result of a product review conducted by the clinical team in NHS Supply Chain with support from clinical stakeholders from across the NHS as part of our assurance process.

The aim is to provide features and functions of products against defined criteria, enabling informed choice; right product for the right patient in the right setting, optimising product use and delivering savings to the NHS.

3-way catheters are urinary catheters that have three lumens. They enable fluid to be instilled into the bladder and drained out without the need to disconnect the catheter. These catheters are predominantly used following bladder or prostate surgery and used to enable continuous bladder irrigation to reduce bleeding and blood clot formation in the bladder resulting in catheter blockage and retention of urine.

They are sometimes called post operative catheters, haematuria catheters, 3 way or triple lumen.

Material

They are made from a range of materials including silicone, latex and PVC.

The most common material is silicone. The use of silicone in urinary catheters is rapidly replacing latex, in part to reduce allergy risk but also because the material is more stable. The strength it offers allows for wider internal lumens within the catheter without impacting external diameter.

Latex catheters may be coated to improve stability and have traditionally been thought of as the most flexible, however many of the silicone catheters now rival latex in flexibility and therefore comfort.

PVC may be used as it is more rigid which may make catheterising easier. However, the balloon on a PVC catheter is likely to be latex so they are not latex free.

Length

All 3-way catheters are supplied in standard length of a minimum 40cm which is universal and safe for use in males and females.

Tips

The catheters come with a range of tip types which can lead to confusion as manufacturers may have different names for tip types that are broadly similar and may be considered clinical alternatives in terms of their design and use.

Tips may be straight or curved and have at least two eyes (fenestrations). The eyes may be opposing (at the same level on opposite sides of the catheter tip) or staggered. The eyes are bevelled to ensure they are smooth.

Some tips have an open end which can enable the use of a guidewire.

Straight catheter tips

Straight catheter tips may be called Nelaton, Straight, Cylindrical or Round. These are all straight tips with a smooth rounded end and at least two eyes.

Open tips are also straight but as the name suggests the tip end is also a hole and is often used to enable a guidewire to be used for insertion.

Couvelaire or Whistle tips are straight but have a larger scoop shape cut away in the end to enable blood clots to pass.

Curved catheter tips

Curved tips for 3-way catheters are often used to navigate past the prostate in male anatomy. Curved tips are commonly known as Coude tips.

Curved tips with a rounded end are called Mercier or Delinotte. Dufour tips are curved with larger scoop eye on the upper tip to enable blood clots to pass.

Size

Charriere (Ch) is a measurement of diameter and size is indicated numerically followed by Ch.. One Ch is equivalent to 0.33mm diameter. The diameter can be calculated by dividing the size by 3 to give the external catheter diameter. For example, a size 12Ch would have a 4mm diameter.

Catheters with three lumens are available in sizes ranging from 12Ch to 30Ch.

Charriere	12Ch	14Ch	16Ch	18Ch	20Ch	22Ch	24Ch	26Ch	28Ch	30Ch
External diameter in mm	4mm	4.6mm	5.3mm	5.9mm	6.6mm	7.3mm	8mm	8.6mm	9.3mm	10mm

Balloons

Self-retaining urinary catheters have a balloon at the tip which is inflated once the catheter is inserted to the correct depth in the bladder. This retains the catheter in the bladder. They are filled with water or saline usually although some long-term catheters (used up to 90 days) recommend using a 10% glycerine solution that is more stable over longer periods of time.

The balloon sizes vary depending on the reason for catheter insertion and whether pressure at the neck of the bladder is desired following surgery. For 3-way catheters balloon sizes range from 10mls to 100mls.

Term of Use

The term of use reflects how long a urinary catheter is licensed to remain in place before it needs removing and is based on the medical device class and licensed use.

The NHS Supply Chain catalogue descriptions include the term of use as indicated below:

Short Term - Up to 7 days

Medium Term - Up to 28 days

Long Term - Up to 90 days

The majority of 3-way catheters are designed for post operative continuous bladder irrigation. The procedure of irrigation should not be required in the long term and can increase the risk of infection. Consequently, the term of licensed use is seven days in the majority of products.

There are a small number of 3-way catheters that are licensed for long term use up to 90 days. A long term 3-way catheter is made of latex and used when regular instillation of bladder treatments is required.

Product Matrix Guide

The data in the accompanying product matrix is accurate at time of publication. Please review this ICC guidance document and see the downloads section of the Urology and Bowel Management contract page for the product matrix - www.supplychain.nhs.uk/urology#download-panel

References

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