Association for Continence Professionals | BAUN British Association of Urological Nurses | ips Infection Prevention Society | Association for Safe Aseptic Practice ANTT Aseptic Non Touch Technique | NHS England

Device Related Infection Prevention Practice (DRIPP)

Improvement collaborative

Spreading best practice, reducing infections, and improving outcomes for patients with urinary catheters and intravascular devices

High Impact Interventions for Urinary Catheters

Introduction

These high impact interventions (HII) have been developed using evidence-based guidelines and a care bundle approach as a patient safety strategy to reduce the risk of infection associated with indwelling urinary catheters (UC). Each bundle comprises of a small number of essential elements within the clinical process. The risk of infection reduces when all elements within the clinical process are performed every time and for every patient. The risk of infection increases when one or more actions of a care process are excluded or not performed.

Background

Urinary tract infections account for around I in 5 of all healthcare-acquired infection (HCAI), with almost 50% associated with urinary catheters.[1] For every day that a urinary catheter remains in-situ, the risk of a catheter-associated urinary tract infection (CAUTI) increases by approximately 5%.[1] Catheterisation should only be undertaken after considering alternative methods of management and the person's clinical need for catheterisation should be reviewed regularly.[2]

The use of an aseptic technique is fundamental in minimising the risk of infection both during UC insertion and ongoing management.[1] Aseptic technique is a generic term applied to a set of specific practices, including hand decontamination, use of personal protective equipment, and prevention of contamination of susceptible sites and sterile parts of devices[1,2]. Aseptic Non Touch Technique (ANTT) is a specific and comprehensively defined type of aseptic technique with a unique theory-practice framework based on a concept of Key-Part and Key-Site Protection[1]. Key-Parts and Key-Sites are protected by a combination of non-touch technique, standard infection prevention precautions and correct use of aseptic fields. This methodology uses two approaches: Standard-ANTT, used for clinical procedures where achieving asepsis is straightforward and short in duration, such as emptying a UC drainage bag or obtaining a catheter specimen of urine. Surgical-ANTT is used for more complex procedures such as UC insertion where the main aseptic field needs to be managed in a more critical manner with sterile drapes, a critical aseptic field and sterile gloves.[3]

Healthcare staff performing any of the elements in the UC bundles must be trained, skilled and competency assessed to decrease the risk of UC related infections[2]. In addition, information and education should be provided for patients and carers.[1,2,4]

These care bundles are not intended to replace local procedural guidelines and policies but are a collection of essential elements selected from national guidelines of the effectiveness of insertion and maintenance practices.[1,2,4]

Further understanding of how to apply care bundles can be found on the Institute of Healthcare improvement http://www.ihi.org

Elements of the care process

There are two sets of actions for UC to be implemented for best practice in the:

a) insertion phase
b) ongoing care phase

Urinary Catheter Bundles

Urinary Catheter Insertion Bundle	
1.	**Avoid unnecessary use** [1, 4, 5, 6] Assess whether an indwelling urinary catheter is clinically indicated and avoid unnecessary placement. Consider alternatives (e.g. sheath, intermittent catheter, continence device) and discuss with the patient. Assess bladder volume using a bladder ultrasound scanner, where available, to decrease need for catheterisation.
2.	**Aseptic insertion** [1-5, 7] Aseptic insertion by a competent HCW using Aseptic Non Touch Technique (ANTT) or other standardised aseptic technique, with hand hygiene before and after. Clean the urethral meatus with sterile normal saline or chlorhexidine prior to insertion of the catheter. Use a sterile lubricant and smallest possible catheter size. Stabilise the urinary catheter with a securement device.
3.	**Documentation** [1, 8] Document date of insertion, aseptic technique, clinical indication, type of catheter and catheter size. All patients must have a documented management plan, including agreed criteria and planned date for removal.

Urinary Catheter On-going Care Bundle	
1.	**Daily evaluation and prompt removal** [1, 5, 8] Review clinical indication for short term urinary catheters on a daily basis with the multi-disciplinary team and document. Remove catheter as soon as agreed criteria for removal are met. Review long term catheters regularly, at

	least every catheter change, and document. Monitor daily for signs and symptoms of infection and send a specimen only when clinically indicated.
2.	**Routine maintenance** [1, 2, 4, 5, 8-10] • Hands must be decontaminated, and non-sterile gloves applied immediately before manipulation of the catheter. • Maintain closed drainage system. • Perform meatal cleansing at least daily. • Position the drainage bag below the level of the bladder; prevent contact with the floor and avoid kinks in the tubing. • Ensure adequate hydration. • Use appropriate collection device or catheter bag. • Ensure securement device is still in place. • Document catheter care and ongoing plan.
3.	**Patient and carer education** [1, 8, 11] Ensure patients and carers are aware of the risks of infection associated with urinary catheters, and provide written information about catheter care, plan for review and removal.

Healthcare practitioners (HCP) should have the skills and knowledge and be assessed as competent for insertion and care for urinary catheters. [1, 5]

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