Health Protection Scotland

Minimising indwelling urinary catheter associated urinary tract infections (community settings)

NHS National Services Scotland

RISK FACTORS

- Indwelling urinary catheters (IUCs) increase the risk of urinary tract infection (UTI) by microorganisms gaining direct entry to the bladder: during insertion resulting from contamination from the patient's skin or from the perineum; or from the hands of healthcare workers and from any of the connection points of the indwelling urinary catheter drainage system if they are disconnected or opened.
- Once organisms have entered the IUC, biofilm forms on the lumen surface and can lead to infection and blockage of the IUC.
- The duration of IUC use and poor insertion and maintenance actions also increase the risk of infection.

ENVIRONMENT

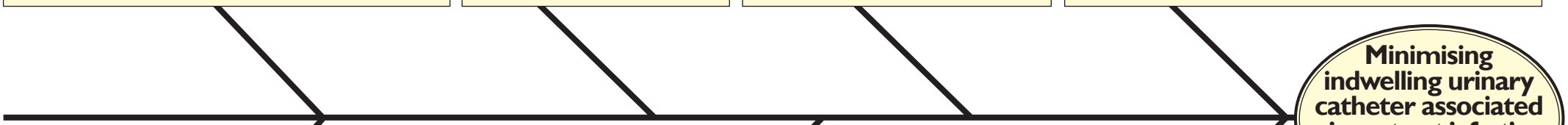
- Surfaces used for any IUC care procedures e.g. changing the bag must be visibly clean (cleaning should follow National Infection Prevention and Control Manual and local policies).
- Assess the immediate environment and consider appropriate measures to ensure individual's privacy in order to maintain their dignity.

EQUIPMENT

- Use only single-use sterile equipment, with intact non-stained, non-wet packaging that is within its expiry date.
- Store indwelling urinary catheters and other sterile single-use items in a clean, dry area where it will not be subject to possible splash contamination.
- Ensure the patient receives the most appropriate indwelling urinary catheter and drainage system based on assessed need.
- Plan and order equipment for future needs.

HEALTHCARE WORKERS (HCWs)

- Must be aware of their legal, ethical and professional code of conduct, remaining clinically current and competent.
- Should advise patients/carers on indwelling urinary catheter care procedures.
- Only competent individuals delivering care or those working under close supervision, may catheterise patients and undertake IUC care procedures.
- Should be aware of their role in avoiding UTIs and aware of the National Infection Prevention and Control Manual and local policies.
- Document all rationale, date, for ICU insertion and care procedures.
- Act on locally available data.



METHODS (insertion)

- Ensure that alternatives to indwelling urethral catheterisation have been considered.
- Consider the use of bladder scanning for measuring post voiding residual urine.
- Explain the reason for an IUC to the patient and gain consent.
- Discuss the choice of the equipment with the patient.
- Use an insertion checklist to document care/ rationale for catheterisation.
- Ensure that the indwelling urinary catheter selected has the smallest gauge and once inserted, the balloon is filled to recommended level i.e.10ml (unless clinically indicated).
- Assess and select a suitable drainage system to meet patient/carer needs.

METHODS (Catheterisation)

- Reassure the patient.
- Ensure that hand hygiene is performed immediately before donning sterile gloves prior to insertion of the indwelling urinary catheter (WHO Moment 2).
- Ensure that aseptic technique is used for insertion of indwelling urinary catheters (sterile gloves, apron and creating a sterile field).
- Ensure that the urethral meatus is cleaned with sterile saline prior to indwelling urinary catheter insertion.
- Ensure that single use sterile lubricant is used prior to insertion.
- Ensure the balloon is filled to the recommended level in the bladder and urine is draining.
- Connect sterile catheter drainage system to catheter prior to insertion to maintain closed drainage system. (Ensure that aseptic technique is applied/maintained when connecting indwelling urinary catheter to sterile closed drainage system (bag)).
- Position the IUC drainage system as per manufacturer's instructions in most cases the bag is positioned below the level of the bladder.

METHODS (Maintenance)

- Ensure that there is a regular review of the need for the indwelling urinary catheter; remove if possible.
- Ensure that the connection between the indwelling urinary catheter and the drainage system is not broken except to meet clinical requirements (for example changing the bag in line with manufacturers' recommendations).
- Ensure that daily meatal hygiene is performed (ensure individuals are aware of their contribution in preventing urinary tract infections).
- Ensure that the drainage bag is emptied when clinically indicated; avoid contact of the drainage tap with any environmental surface.
- Ensure that hand hygiene is performed and gloves donned immediately before access or manipulation of the indwelling urinary catheter (WHO Moment 2).
- Monitor for signs of infection, e.g. fever, pain, cloudy urine. Report abnormal findings.
- Samples are taken aseptically from the sample port when specimens are required.

September 2014