Position Statement:
Periurethral cleaning agents and CAUTI prevention strategies

Purpose

The purpose of this position statement is to provide a collaborative position to guide Hospital and Health Services (HHS) on the use of cleaning agents used prior to indwelling urinary catheter (IDC) insertion. These recommendations are part of a comprehensive approach to preventing catheter-associated urinary tract infections (CAUTI).

Scope

This position statement is recommended to Queensland hospital and health staff who insert, maintain, and remove IDCs.

Background

IDCs are commonly used invasive medical devices in Queensland Health facilities and are associated with infectious complications such as CAUTI. CAUTI refers to a urinary tract infection (UTI) occurring in a person who has an indwelling urinary catheter (IDC) or has been catheterised within the past 48 hours[1]. IDCs provide a portal of entry for bacteria introduced into the urinary tract. CAUTIs account for a high proportion of healthcare-associated urinary tract infections and are associated with increased morbidity, mortality, additional hospital costs and length of patient stay[2.] Currently, there is a variation across Queensland HHS policies, procedures, and guidelines for the type of periurethral cleaning agent used before IDC insertion.

Recommendations

There is emerging evidence that chlorhexidine irrigation cleaning solution 0.1% 30 mL used as a cleaning agent prior to insertion of IDCs is more effective in preventing CAUTI compared to normal saline[3]. A recent randomised controlled trial in 1642 hospitalised patients in Australia demonstrated a 94% decrease in the incidence of CAUTI where chlorhexidine was used as a cleaning agent[4]. Health services should consider incorporating chlorhexidine as a pre-insertion cleaning agent in local policies and procedures for IDC insertion.

To minimise the risk of CAUTI, a multi-modal approach should always be implemented for care of IDCs. This includes the following strategies:

- *Appropriate use of IDCs C*linicians must be aware of appropriate and inappropriate indications for IDCs. Check indication before inserting device.
- *Aseptic insertion* Use aseptic technique when inserting device to reduce the risk of introducing microorganisms from surrounding anatomy or environment into the catheter,

and subsequently into the bladder.

- *Maintenance of device* Regularly review device to ensure the catheter is secured, and there are no breaches in asepsis or breaks in the closed system. Assist with periurethral hygiene care when needed.
- *Timely removal of device* Daily review is needed to avoid unnecessary duration of device. IDCs must be removed when they are no longer needed.

Special Considerations

For patients with suspected or confirmed chlorhexidine sensitivity, careful planning and precautions are required to ensure exposure to chlorhexidine is prevented, therefore preventing subsequent harm. Side effects of chlorhexidine may range from allergic contact dermatitis which has an unknown incidence to rare cases of life-threatening anaphylaxis[5-6]. Clinicians should always ask patients about suspected or confirmed allergy and adverse reactions that must be documented as per HHS recording and reporting of alerts, allergies, and adverse reactions procedures. Queensland HHS's can follow their local policies/procedures, work instructions and clinical guidelines on how to manage chlorhexidine sensitivity.

Consumer Engagement

Patients, carers, and family members are to be encouraged and given the opportunity to ask questions and clarify information is understandable and meets the patient's needs.

Further Information

Clinical Excellence Commission NSW, Catheter-associated urinary tract infections (CAUTI) prevention

Evidence summary for periurethral cleaning agents

References

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