



To investigate the procedural aspects in inserting central venous catheters that minimise central line associated bloodstream infections rates in adult intensive care units through a structured literature review” Hina and McDowell (2017).

Abstract:

AIM: To investigate the procedural aspects in inserting central venous catheters that minimise central line associated bloodstream infections rates in adult intensive care units through a structured literature review.

BACKGROUND: In adult intensive care units (AICU), central line associated bloodstream infections (CLABSI) are a major cause of high mortality rates and increased in costs due to the consequences of complications.

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METHODS: Eligible articles were identified by combining indexed keywords using Boolean operator of “AND” under databases of Ovid and CINAHL. Titles and abstract of retrieved papers were screened and duplicates removed. An inclusion and exclusion criteria was applied to derive the final papers which contained seminal studies. The quality of papers was

assessed using a special data extraction form.

RESULTS: The number of papers retrieved from all databases was 337, reduced to 302 after removing duplicates. Papers were scanned for titles and abstract to locate those relevant to the review question. After this, 250 papers were excluded for different reasons and a total of 52 papers were fully accessed to assess for eligibility. The final number of papers included was 10 articles.

CONCLUSION: Many interventions can be implemented in the AICU during the insertion of a central venous catheter (CVC) to minimise CLABSI rates. These include choosing the subclavian site to insert the catheters as the least infectious and decolonising patients' skin with alcoholic chlorhexidine gluconate (CHG) preparation due to its broad antimicrobial effect and durability.

RELEVANCE TO CLINICAL PRACTICE: Choosing optimal sites for CVC insertion is a complex process that relies on many factors. Furthermore, the introduction of CHG preparations should be accompanied with multifaceted interventions including quality improvement initiatives to improve healthcare workers' compliance. As a quality marker in AICUs, healthcare sectors should work on establishing benchmarks with other sectors around the world.

Reference:

Hina, H. and McDowell, J. (2017) Minimising central line associated bloodstream infections' (CLABSIs) rate in inserting central venous catheters (CVCs) in the Adult Intensive Care Units (AICUs). *Journal of Clinical Nursing*. March 23rd. .

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