Minimising central venous catheter associated bloodstream infections: Matching Michigan

April 2009

Context

An estimated 200,000 central venous catheters (CVCs) are inserted in the UK each year. Of these, approximately 6.2% (or 12,400 cases) may be associated with bloodstream infections (BSIs). The report ‘High Quality Care for all: NHS Next Stage Review’ recommended a national patient safety initiative to reduce central venous catheter associated bloodstream infections (CABSIs) titled ‘Matching Michigan’. This initiative draws on evidence from a study conducted by Professor Pronovost and his colleagues in intensive care units (ICUs) in Michigan, USA. This study was published in the New England Journal of Medicine in 2006 and showed that evidence-based interventions resulted in a large and sustained reduction (up to 66%) in rates of CABSIs that was maintained throughout the 18 month period. Although Wales & Scotland have made progress in this area, the UK as a whole lacks a standardised reporting system for bloodstream infections attributable to CVCs. This impedes benchmarking, feedback of data to clinicians, and nationwide improvement efforts.

Aims and objectives

- Provide clinicians & hospitals with a web-based data collection & reporting system for CABSI rates in ICUs in England.
- Minimise CABSIs in adult & paediatric ICUs in England by supporting current best practice guidance and offering additional behaviour change interventions
- Enhance overall patient safety by promoting technical and adaptive (cultural) interventions in ICUs.
- Spread the interventions to other clinical areas which use CVCs.

Value added

Matching Michigan will add to the achievements of other campaigns tackling CABSIs by:

- Standardising the definitions and measurement methodology for CABSIs.
- Creating an interactive database owned by the intensive care community for benchmarking their performance in minimising CABSI rates in adult and paediatric intensive care units in England.
- Supplementing the care bundle with an intervention to improve safety culture within ICUs.
- Providing a cost-effectiveness study of CABSI minimisation.

Implementation Overview

This is a two year project involving all adult and paediatric ICUs in England. All ICUs in the North-East SHA were invited and accepted to take part in a three month pilot for data collection tools and also collect baseline infection rates. Clinical and executive leads have been nominated for each unit. Critical care networks and patient safety actions teams (PSATs) have agreed to help support this pilot and future rollout of Matching Michigan. Critical care stakeholders and professional organisations have joined a core group and others will be invited to take part in a wider external reference group. Trusts will be invited to participate as part of the national rollout after evaluation of the pilot later this year.

If you would like to get involved or would like further information please contact us by emailing matching.michigan@npsa.nhs.uk

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