Royal Manchester Children's Hospital

NHS Manchester University NHS Foundation Trust

Improving nursing prevention strategies in relation to central line associated blood stream infections within Paediatric critical care

Authors: Paul Laycock, Heather Jackson, Charlotte Robinson, Elise Thompson

Royal Manchester Children's Hospital

Background

Central line associated blood stream infection (CLABSI) prevention is a very important aspect of patient care and harm free care. Following a recent incident review relating to an acquired CLABSI within Paediatric critical care (PCC), it has highlighted the need for reviewing and reducing gaps in knowledge and practice across PCC. Therefore, an action plan has been implemented to review education, documentation and completion of strategies relating to CLABSI prevention. This will aim to ensure increased awareness, knowledge and understanding of the importance of CLABSI prevention within PCC.

Objectives:

- Create a nursing group dedicated to improvement to CLABSI prevention
- To review the strategy for nurse education
- Develop audit strategies to show the level of improvement to compliance
- Develop an Audit report which can collate and clearly show practice performance levels relating to CLABSI prevention

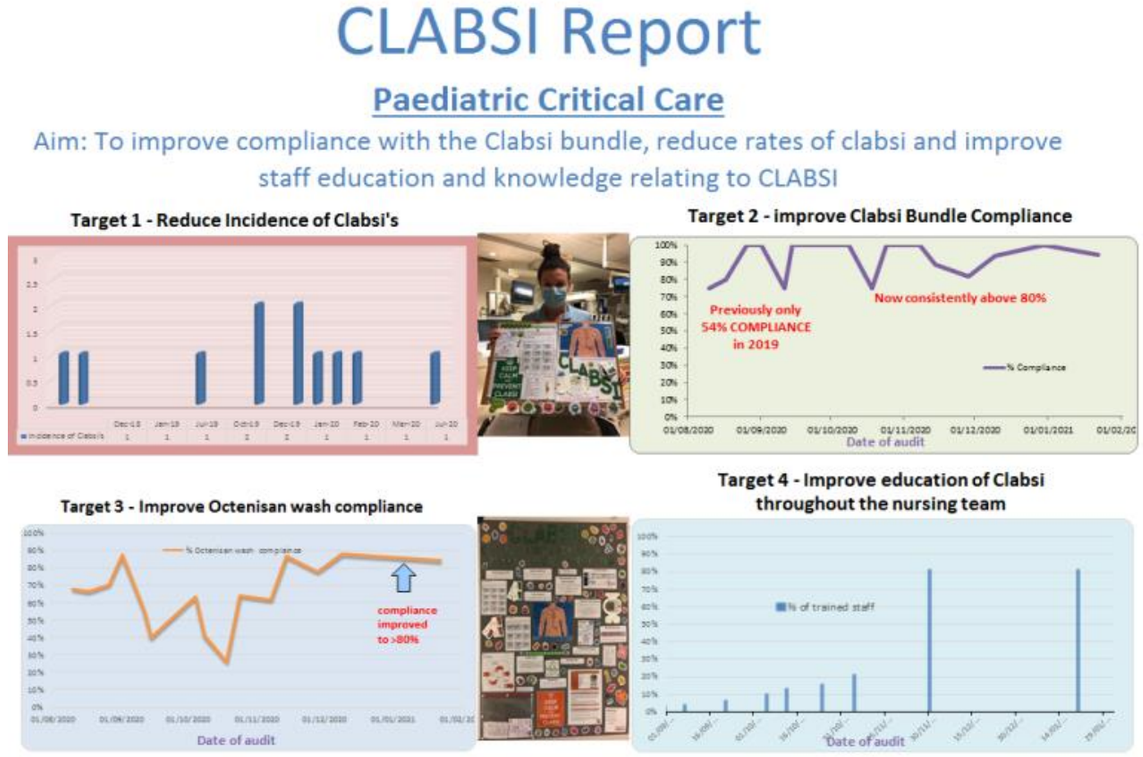
Methods

Weekly antimicrobial washes and central venous catheters care bundle audits have commenced to monitor progression and development across PCC. Thematic analysis was undertaken to collate topics that were seen as important in improving knowledge and compliance. These strategies included bedside teaching, learning materials including quizzes, pocket guides, computer prompts, an information and resource folder and CLABSI information noticeboard. An Audit report was created, collating audit results to monitor compliance levels, education and acquired CLABSI levels within Paediatric critical care.

Conclusions

Creating a dedicated nursing interest team relating to CLABSI prevention is vitally important in establishing an educated and knowledgeable nursing workforce in relation to CLABSI prevention. Improved education and awareness showed a direct correlation to improved compliance of following prevention strategies and actions implemented to prevent risk of CLABSI. The audit report and actions put in place have shown compliance levels significantly increase to >80% across PCC. Ultimately improving CLABSI prevention and improving harm free care, therefore improving both patient safety and care.

Results



Prior to the actions being put in place, compliance was at less than 55%. Following the implementations put in place it is clear from the data that the compliance to both the CVC CLABSI care and the daily antimicrobial wash has significantly improved and is now above 85% with a reduced number of CLABSI's seen. The CLABSI team continue to complete regular audits to ensure implementation and progression is monitored and compliance remains consistently >85%. Data is gathered monthly where compliance levels and CLABSI rates are displayed for all staff on the CLABSI communication board and this data is analysed monthly at the PCC harm free care meeting.

References

1. Central venous catheters(cvcs):Guidelines for their management in children. RMCH/mcs quality and safety committee, jan 2020