



ISQua's 39th International Conference

27th- 30th August | COEX Seoul



Using Simulation Teaching to Reduce the Sliding Rate of Non-Programmatic Central Venous Catheter in Children's Intensive Care Unit.

Mo-Fan,Wu、Li-Ying, Chung
Nurse of Nursing Department , Taipei Medical University Hospital, Taiwan

P658

INTRODUCTION

During the treatment of critically ill or chronically ill children, a central venous catheter is often necessary to provide optimal care. If nursing staff fails to strictly adhere to standard care measures during the care process, it may lead to unplanned catheter dislodgement, resulting in severe complications and safety risks for the child.

AIM

Therefore, the use of simulation teaching to reduce the incidence of unplanned central venous catheter dislodgement in the pediatric intensive care unit is not only beneficial for enhancing the technical skills and professional knowledge of the nursing staff, but also increases the focus on and protection of the child's safety, ensuring high-quality nursing care.

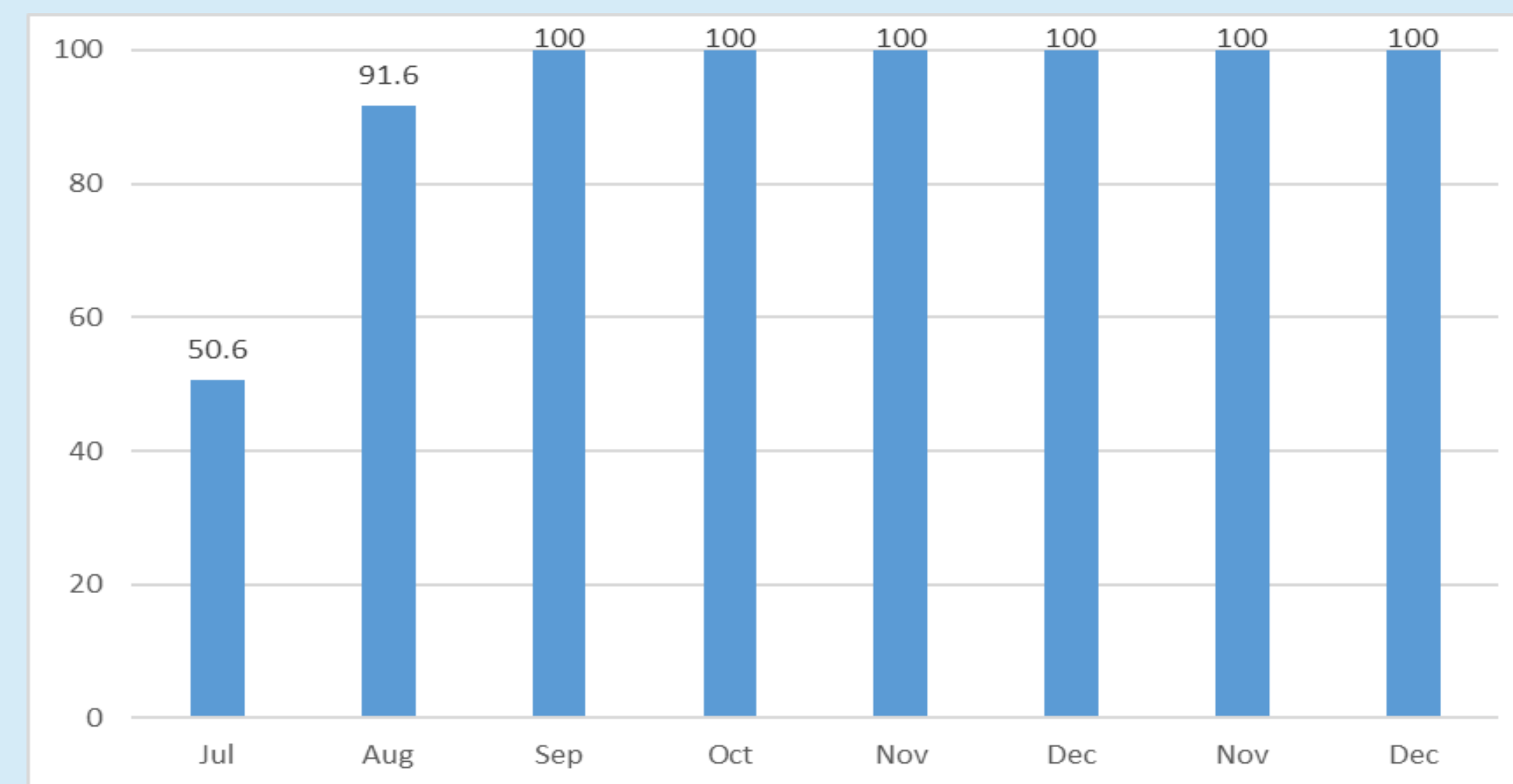
METHOD

- Organize in-service courses on catheter insertion and care. Cover anatomical knowledge, procedural demonstrations, and practice, emphasizing proper cleaning and care. Invite expert speakers to share the latest knowledge. Practical demonstrations and guidance ensure nursing staff proficiency in each step.
- Creating pediatric practice tools: Develop pediatric-specific practice tools simulating child-sized bodies to enhance nurses' proficiency in pediatric catheter insertion and care. This enables nurses to familiarize themselves with pediatric catheter care techniques prior to actual procedures.
- Filming an instructional video on pediatric central venous catheter care: We've created a detailed instructional video showcasing the standard procedures for caring for pediatric central venous catheters. The video covers the correct steps of operation, hygiene measures, and catheter securing techniques. It has been uploaded to a cloud-based learning platform for convenient access and learning by nursing staff.
- Simulation training boosts nursing staff skills and confidence through continuous practice in virtual scenarios. It helps master correct procedures, care techniques, and tackle different situations to prevent catheter dislodgement.

RESULTS

After implementing the measures, nursing staff achieved a 100% correct execution rate in catheter care from July to December 2022, compared to 50.6% previously. The average monthly dislodgement rate of central venous catheters decreased from 3.3% to 0%, successfully achieving the project's goal.

Caring continues with a monthly dislodgement rate of 0%, demonstrating the effectiveness of the implemented measures in reducing central venous catheter dislodgement in critically ill patients and improving the quality of critical care. Through systematic training and practice, nursing staff have gained proficiency in the placement and care techniques of pediatric central venous catheters. They have also acquired knowledge on preventing catheter dislodgement. These measures not only enhance the professional competence of the nursing staff but also prioritize children's safety. Additionally, they foster knowledge sharing and communication among the nursing team, enhancing overall capabilities.



CONCLUSIONS

In summary, revising nursing procedures, establishing audit standards, and monitoring catheter care execution and dislodgement rates are crucial for enhancing catheter placement and care. These measures ensure adherence to proper procedures and facilitate effective communication with the medical team, resulting in integrated care and significant improvements in catheter dislodgement and associated medical costs. The instructional video on pediatric central venous catheter care procedures has been uploaded to a cloud-based learning platform. It effectively promotes the application and learning of pediatric catheter care and is recommended for future use in learning other clinical techniques.

ACKNOWLEDGEMENT

Neonatal Intensive Care Unit.

REFERENCES

- Shah, H.,Bosch, W.,Thompson, K. M.,Hellinger, W. C.(2013).Intravascular catheter-related bloodstream infection.Neurohospitalist,3(3),144-151.
- Alexandrou, E., RayBarruel, G., Carr, P. J., Frost, S., Inwood, S., Higgins, N., ... & Rickard, C. M. (2015). International prevalence of the use of peripheral intravenous catheters. Journal of Hospital Medicine, 10(8), 530-533.
- Schuster, C., Stahl, B., Murray, C., Keleekai, N., & Glover, K. (2016). Development and testing of a short peripheral intravenous catheter insertion skills checklist, Journal of the Association for Vascular Access; Clinton, 21(4), 196-204.
- Meng-Ling , S ., Hui-Ching ,C ., Yu-Mei L. (2016). Applying Team Resource Management to Reduce the Unplanned Removal Rate of Central Venous Catheter in Surgery Intensive Care Unit.Chia Yi Christian Hospital Journal of Nursing,16(2),10-20.

CONTACT INFORMATION

Name:Mo-Fan,Wu
Email:mofanwu@gmail.com