

IMPLEMENTATION OF A DECISION FLOWCHART FOR THE MANAGEMENT OF PHLEBITIS AND INFILTRATION/EXTRAVASATION IN A NEONATAL INTENSIVE CARE

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INTRODUCTION:

Phlebitis, infiltration, and extravasation in peripheral venous access are critical adverse events in Neonatal Intensive Care Units (NICU). At Hospital Moinhos de Vento, the lack of a specific neonatal protocol led to inconsistent management and underreporting. This study implemented a specialized decision flowchart to standardize nursing care and enhance newborn safety.

CONTACT



METHODS:

This experience report describes an intervention in a high-complexity NICU. The strategy involved a decision flowchart for the management of phlebitis and infiltration/extravasation, based on validated pediatric algorithms and the infusion Nurses Society (INS) Phlebitis Scale. Nursing technician monitored sites every 3 hours, while registered nurses performed systematic INS scale assessments once per shift. The implementation included a pilot phase and staff training on early identification and standardized documentation.

Phase 1: Situational diagnosis and literature review

Phase 2: Flowchart construction and validation

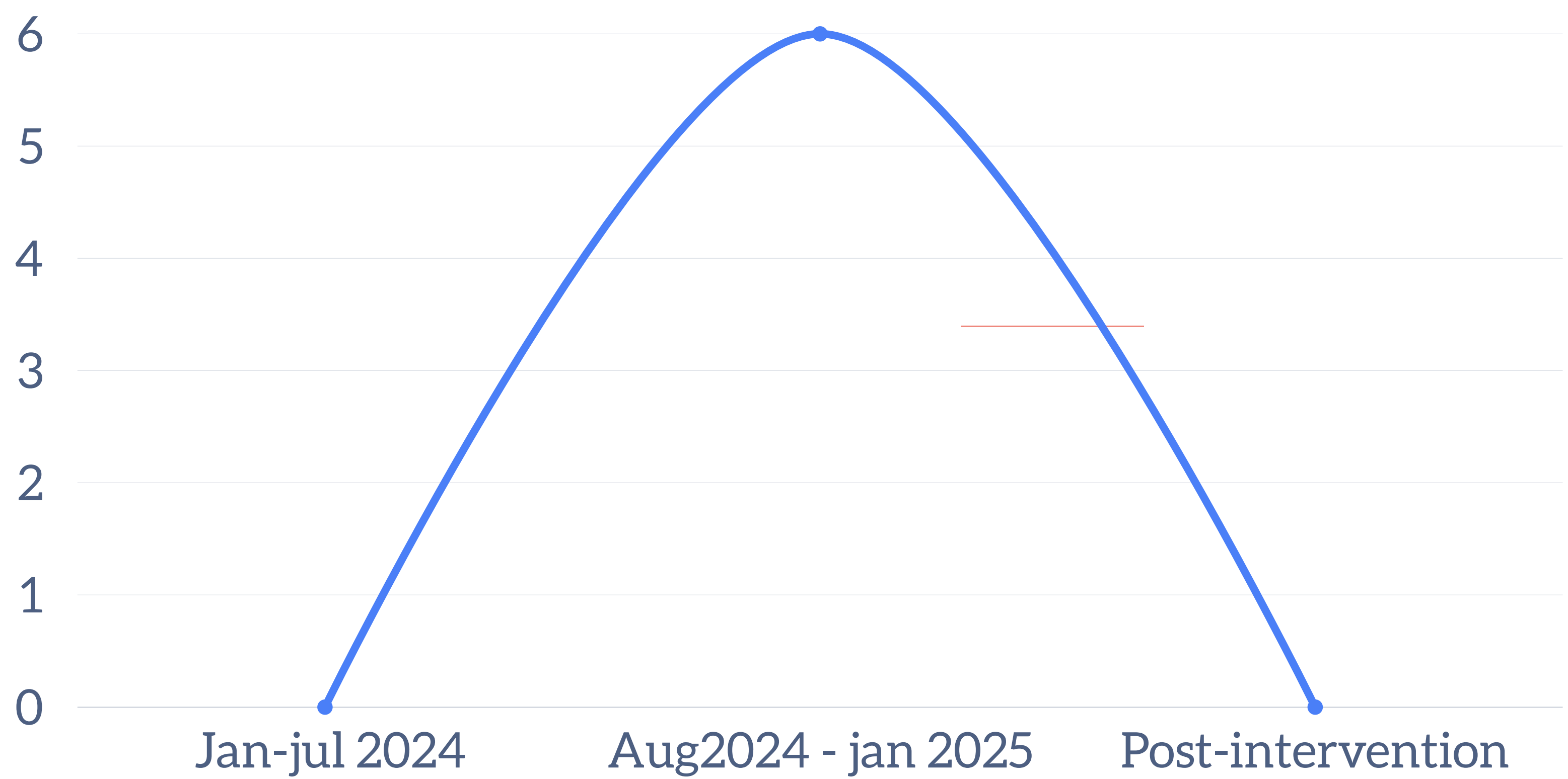
Phase 3: Multidisciplinary team training

Phase 4: Post-implementation monitoring and evaluation

RESULTS:

Data analysis revealed distinct phases in complication rates. From January to July 2024, zero cases were recorded. However, between August 2024 and January 2025, phlebitis cases with INS ≥ 2 peaked at six occurrences. Following the full consolidation of the flowchart and systematic assessments, zero cases of phlebitis with INS ≥ 2 were observed in the post-intervention period. Beyond clinical outcomes, there was a noticeable improvement in nursing autonomy, reporting compliance, and the speed of response to infiltration and extravasation events.

Cases of phlebitis with INS $\geq$ in the NICU



CONCLUSION:

Integrating a specialized decision flowchart with the INS Phlebitis Scale proved highly effective for NICU vascular access management. Standardizing assessments prevented the progression of inflammatory signs into severe complications and solidified evidence-based practice, ensuring a safer therapeutic environment for neonates.

REFERENCES:

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