

STOP Red

Parkway East Hospital



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1. PROBLEM Statement

The rate of Visual Infusion Phlebitis Score (VIPS) of > 2 was at average of 0.16% from January 2024– May 2024 as compared to 0.025% from January 2023 to December 2023 in Medical-Surgical Ward 4A & 4B in PEH.

3. AIM Statement & TARGET

To achieve ZERO incidences Visual Infusion Phlebitis Score (VIPS) of > 2 occurrences for all adult patients in the inpatient medical/surgical wards by 30 September 2024

2. BACKGROUND Information

The number of patients with VIPS > 2 increased by 150% from January 2024 to May 2024 in Medical-Surgical Ward 4A & 4B at PEH. Factors included longer hospital stays, extended therapy duration, higher nurse responsibilities, and elevated patient risk for other health issues. Implemented stricter catheter care protocols, enhanced nurse training on phlebitis prevention, and introduced regular monitoring and early intervention systems. Reduced VIPS > 2 cases by 40%, decreased hospital length of stay by 20%, and improved patient outcomes, leading to lower healthcare costs and reduced risk of complications such as sepsis and multi-organ failure.

4. MEASURE & INDICATOR

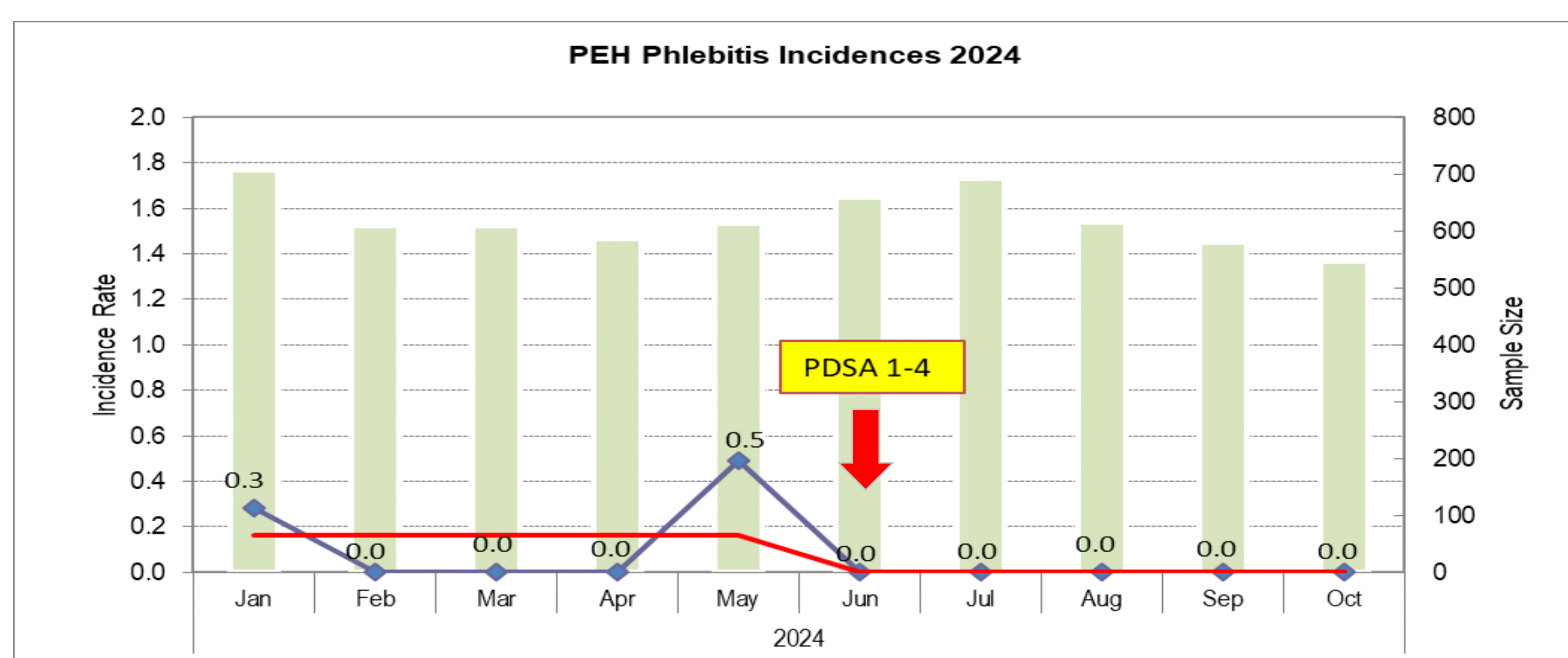
All patients admitted in ward 4A & 4B that were inserted with IV Cannula will be measured as denominator. We will utilise any incidences of adult patients in Ward 4 A & 4B with a Visual Infusion Phlebitis Score (VIPS) score of > 2.

5. CHANGE STRATEGY

Cause#	PRIORITISED CAUSES	CHANGE IDEAS (Solutions)
Cause #1	Staff had multiple task and overlook to check for phlebitis	Change #1 <ul style="list-style-type: none"> Use standardized handover templates which include IV drip and infusion details, including start and stop times, medication and dosage Get the involvement of PCA & EN on monitoring the IV cannula as per the recommended frequency
Cause #2	Patient requiring multiple IV antibiotics transfusion or medication	Change #2 <ul style="list-style-type: none"> Conduct re-education sessions for staff on the proper technique for inserting larger-gauge IV cannulas Advocate to physician for PICC (Peripheral Inserted Central Catheter)
Cause #3	No initiation of early removal of IV cannula after review by specialist	Change #3 <ul style="list-style-type: none"> Empower nurses to be on nurse- led assessment for the need of IV cannula and early removal of IV cannula
Cause #4	Staff not educating patient of phlebitis	Change #4 <ul style="list-style-type: none"> Mandate to ensure all patient with IV cannula to be given pamphlet on care with IV cannula upon admission

Key changes included standardised handover templates, regular training sessions, involvement of PCA and ENs, advocacy for PICC, and nurse-led assessments and patient education materials to ensure consistency in catheter care, reduce phlebitis risk, and improve patient outcomes. The intervention did not involve any specific devices or software. However, the standardised handover templates and patient education materials were developed in-house to ensure they met the specific needs of our patients and staff. The changes in SOP/workflow were designed to integrate seamlessly into the existing processes. Nurses and other relevant stakeholders were trained to adapt to the new protocols without disrupting their regular duties, ensuring a smooth transition and minimal impact on their BAU (Business As Usual) processes. The analysis of the problem was shared with stakeholders through meetings, presentations, and reports.

6. RESULTS



Year	2024									
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Numerator	2	0	0	0	3	0	0	0	0	0
Denominator	706	610	608	586	613	660	693	615	579	547
Incidence Rate	0.3	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Average incidence rate	0.16	0.16	0.16	0.16	0.16	0.00	0.00	0.00	0.00	0.00

From January 2024 to May 2024, the number of patients with VIPS > 2 increased by 150%. After implementing changes from June 2024 to December 2024, this number decreased by 40%. The intervention led to productivity gains by reducing nurse workload and streamlining handover processes. It also proved cost-effective, lowering healthcare costs due to reduced hospital stays and fewer complications, with avoidance of catheter-associated bloodstream infections.

7. LESSONS LEARNT

Regular IV site monitoring is crucial for preventing phlebitis through early detection. Training healthcare professionals improves compliance with IV care protocols, ensuring high standards of patient care. Educating patients and families about IV care raises awareness of phlebitis and empowers their participation, leading to better outcomes. To start over, enhancing training, piloting in a small ward, and creating engaging materials would be beneficial.