

National Quality Improvement Conference

Enhancing Phlebitis Prevention: A Private Hospital Approach

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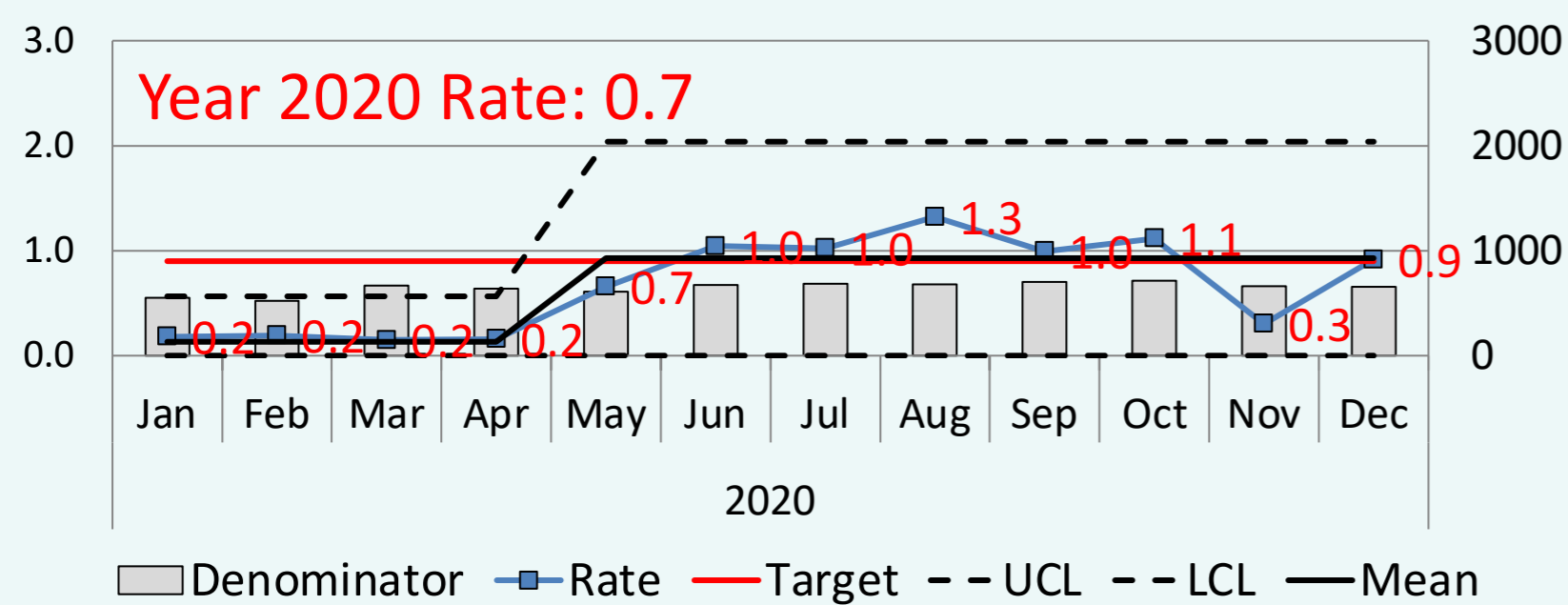
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Problem Statement

From January to June 2020, a private hospital had 26 phlebitis cases, 3 of which had moderate to severe adverse outcomes requiring further treatment. They were Staphylococcus Aureus Bacteremia requiring thrombectomy, 1cm necrotic skin needing wound debridement and a case of eschar that required removal with a negative pressure wound therapy.



Potential Solutions

PDSA Cycle 1	PDSA Cycle 2	PDSA Cycle 3	PDSA Cycle 4
Conduct Training	Take Care of Basics	Invest More Resources in Improvement	Emphasis Natural and Logical Consequences
Adult Peripheral Intravenous Course	Resource File Visual Infusion Phlebitis (VIP) Scale	Collaborate with Clinical Pharmacist (extravasation)	E-Learning Platform New Hires Training
Neonatal & Paediatric Intravenous Cannulation	"Rah-Rah"	Splint	Standard of Practice
Competency Assessment	Patient and Family Education	Dressing IV plug with built in extension	Documentation & Reporting
Post-Course Assessment			

INTRAVENOUS CANNULATION & VENEPUNCTURE WORKSHOP

Date: 12 July 2023
Time: 0830 - 1700hours
Venue: Conference Room 2, Mount Elizabeth Nurses Hospital

Target Participants: Registered Nurses with at least 6 months of nursing experience. Priority will be given to nurses from:
• A&E
• Endoscopy
• Radiology

Course Aim: Train the nurses to effectively perform intravenous cannulation and venepuncture.

Course Requirement: Participants will be required to complete and submit Post Course Competency Assessment within 6 months from the course date.

Kindly ensure the work environment permits the nurses to fulfil the post-course requirement.

Visual Infusion Phlebitis (VIP) Scale and Interventions

Score 1	Score 2	Score 3	Score 4	Score 5
No signs of Phlebitis	Redness of skin at IV site	Swelling of the skin at IV site	Streaking of the skin at IV site	Blistering or ulceration at IV site
None	0.5	1.0	1.5	2.0

Management of Extravasation

- Non-pharmacologic interventions
- Pharmacology interventions

Reference table: List of Medications that can act as vesicants

- Cardiovascular agent/Diuretics
- Concentrated Electrolytes, Nutritional/ Hyperosmolar Solutions
- Antimicrobials
- Sedatives & Anaesthetic Agents
- Other agents

Competency Assessments and Post Course Record

- Perform Peripheral Intravenous Cannulation
- Peripheral Intravenous Cannulation (BD Nexiva)
- Performing Venepuncture
- Post-Course Venepuncture Cannulation

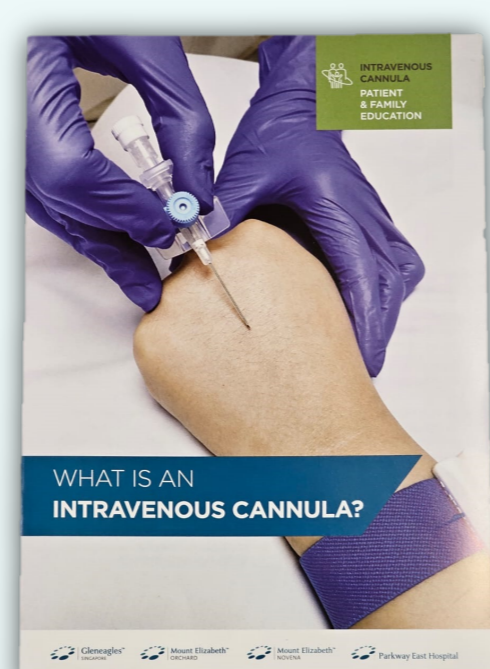
Project Aim

To reduce the incidence of phlebitis, from rate of 1.3 to 0.9 (01 July 2020 to 31 December 2020), and further reduction to 0.4 per 100 peripheral intravenous lines inserted (01 January 2021 to 31 July 2021).

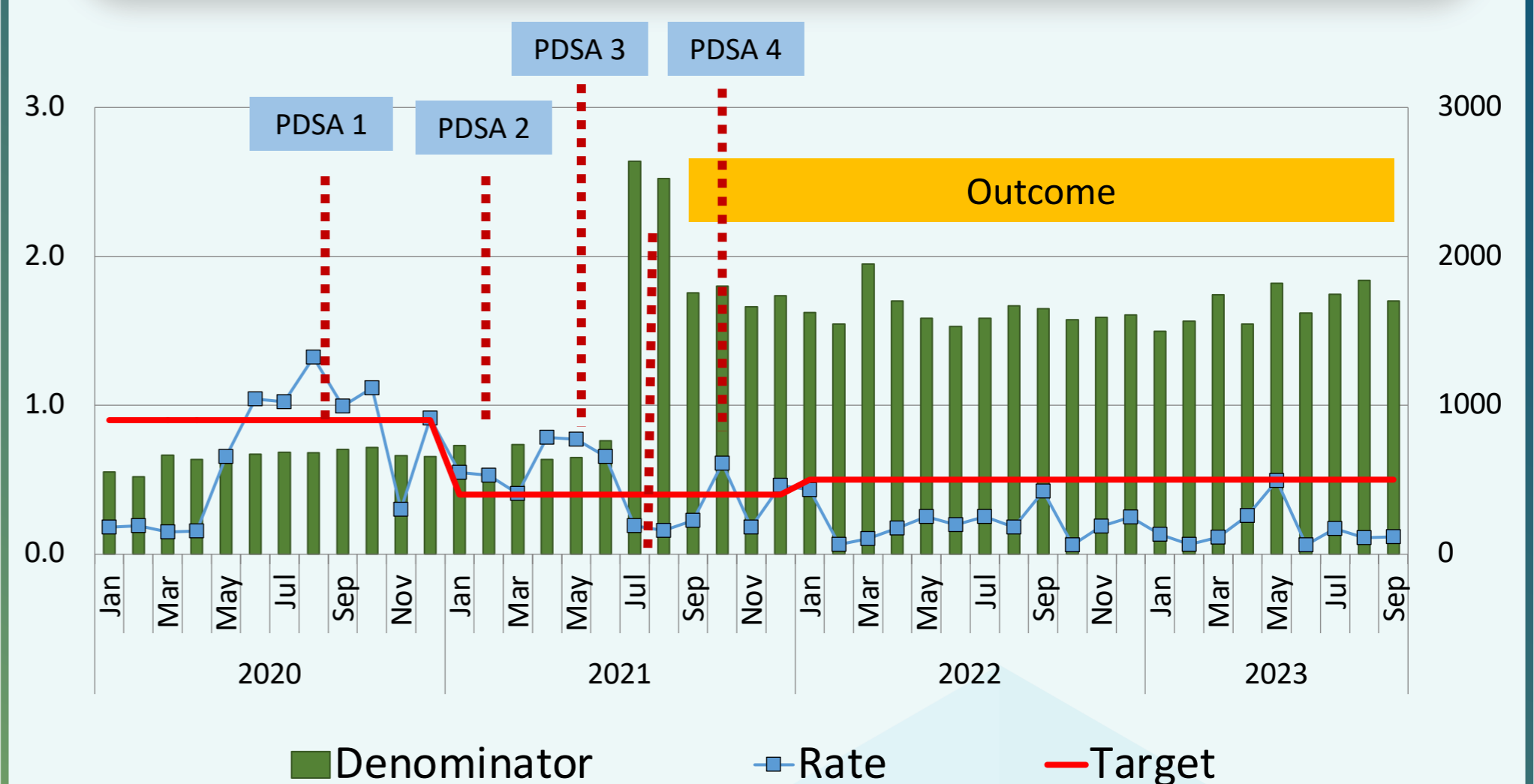
Lessons Learnt

The identified challenges within the work environment were successfully overcome by embracing the 5 pragmatic methodology recommended for the prevention of phlebitis. This multifaceted strategy has played a pivotal role in our ongoing pursuit of continuous improvement and excellence.

Auditing and monitoring phlebitis rate, ensured the effectiveness and comprehensive approach to phlebitis prevention.



Outcomes & Impacts



Year	2020	2021	2022	2023 YTD Sept
Average Rate	0.7	0.5	0.2	0.2

The incidences of phlebitis dropped by 29%, with an average rate of 0.7 in 2020 to 0.2 in 2023. In May 2023, the spike was attributed to phlebitis occurring after cannula removal. In response, post-cannula removal assessment for 48 hours was incorporated into the clinical practice.