

MRSA-Free Healthcare: A Quality Improvement Approach

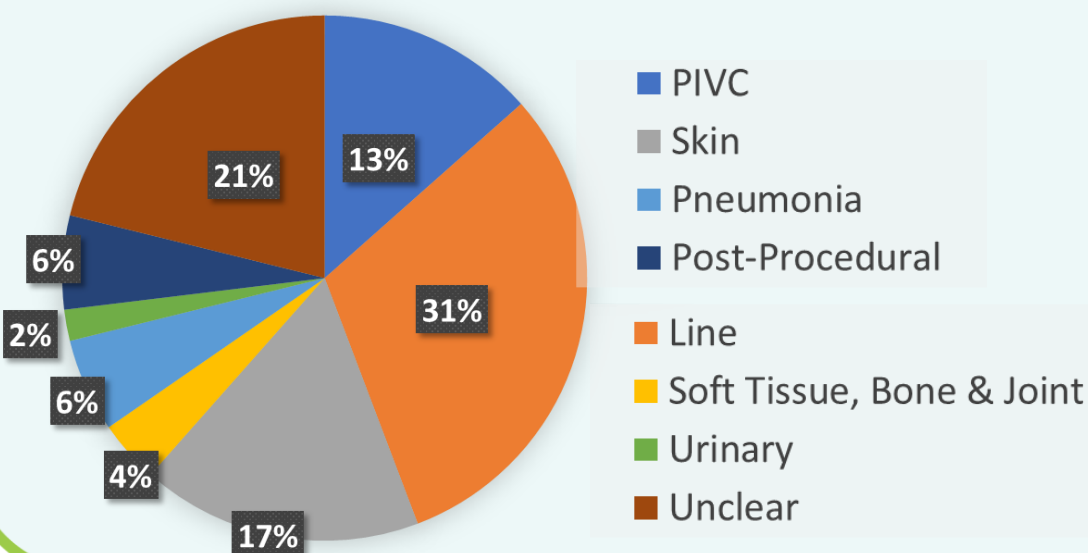
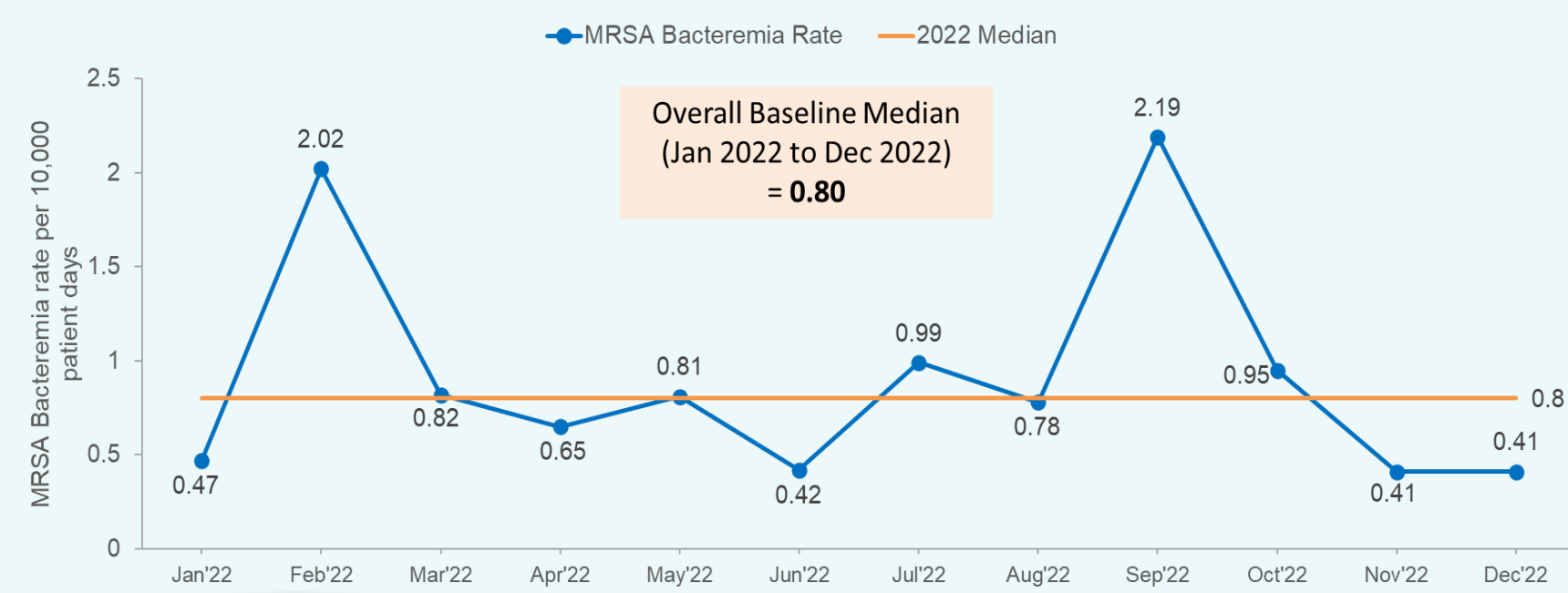
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Problem Statement

Overall MRSA Bacteremia Rates in TTSH

Period: January 2022 to December 2022



- Out of the 52 cases from Jan to Dec 2022, 3 were recurrences.
- Line and Skin were the predominant sources in Year 2022.

Project Aim

To achieve a 50% reduction for MRSA Bacteremia rates in TTSH, from median 0.80 per 10,000 patient days in 2022 to 0.40 per 10,000 patient days by 2025.

Reason(s) for Choosing Ward 5A as Pilot Site

- (A) Patients with positive status upon admission form 44% of the hospital-wide cases. As this is the group that is most easily identified, it means that we can apply interventions as soon as upon patient's admission.
- (B) % of cases attributed to cohort wards are significant at 30.8%, of which
- (C) Ward 5A has the 2nd highest no. of cases. It may also be easier to get the ground's buy in if we want to introduce any intervention.
- (D) GMD is attributed with 2 out of 5 cases in Ward 5A. GMD is also the highest attributed department from Year 2021 to 2022. They account for 38% of MRSA bacteremia cases in Year 2021 and 23% of MRSA bacteremia cases in Year 2022.

Lessons Learnt

- Strong leadership support and commitment to a culture of safety are crucial for sustaining MRSA improvement efforts and ensuring that infection control measures remain a priority.
- Regularly assessing the effectiveness of interventions, learning from successes and failures, and making necessary adjustments are key to the ongoing improvement of MRSA control strategies in hospital.
- Enforcing strict adherence to infection control protocols, including hand hygiene, isolation precautions and cleaning procedures are fundamental to reducing MRSA transmission.

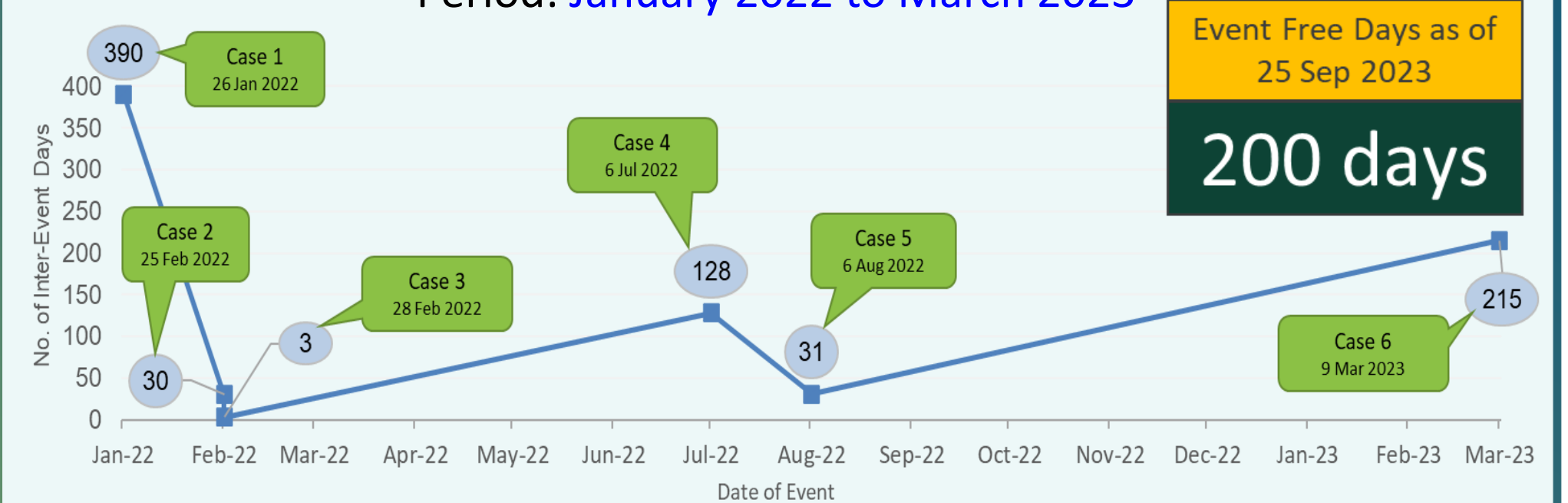
Potential Solutions

Jul 2022	Jan 2023	May 2023	Jun 2023	Jul 2023	Aug 2023
Decolonisation therapy for bedbound patients during sponging	Standardize practice and compliance for MRSA treatment for patients	A step-by-step guide to empower patients in the application and completion of Octenisan gel (5 days) therapy	Vein Visualizer (Hospital-wide intervention)	1. Installation of handrub holder and rack for PPE 2. Audit by Scrub the Hub Champions 3. Display MRSA Free Days in Ward	1. Ward 5A MRSA Roadshow 2. Audit by Scrub the Hub Champions
				1. Standardize orientation on MRSA & prevention (Junior and Senior General Medicine doctors) 2. Refresher on MRSA transmission / prevention / decolonization (Senior & Junior Nurses)	

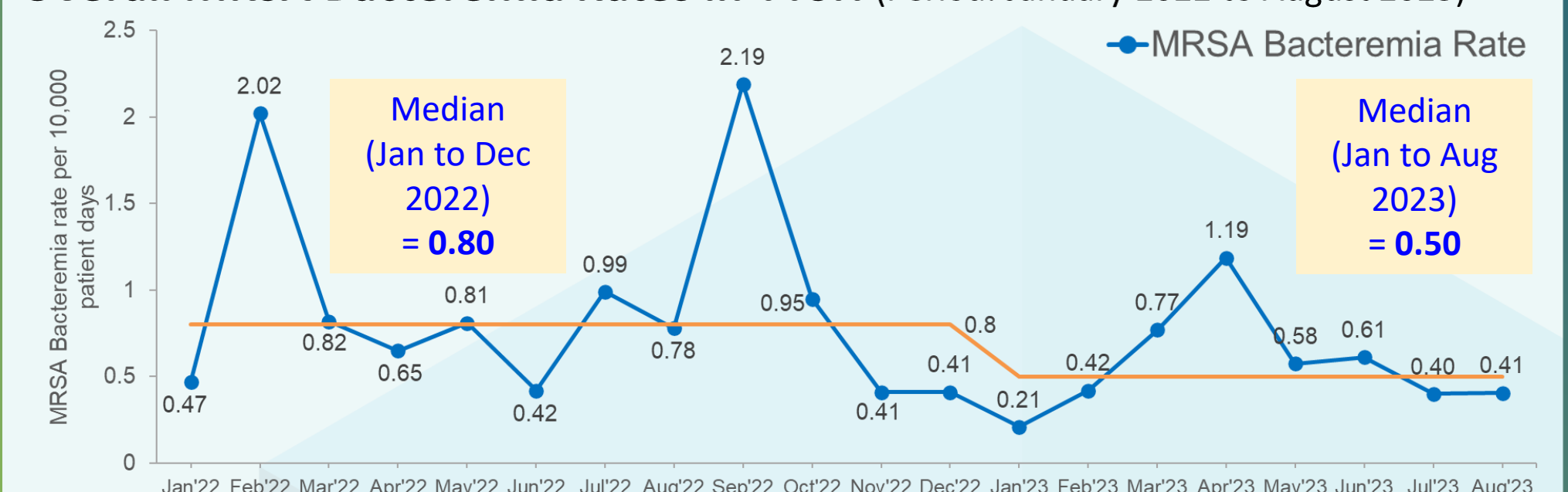
Outcomes & Impacts

MRSA Free Days in Ward 5A (Pilot Site)

Period: January 2022 to March 2023



Overall MRSA Bacteremia Rates in TTSH (Period: January 2022 to August 2023)



Period	Year 2022												Year 2023							
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
No. of MRSA Bacteremia Cases	2	8	4	3	4	2	5	4	11	5	2	2	1	2	4	6	3	3	2	2
Patient Days	42,202	39,589	49,033	46,298	49,202	47,691	50,627	50,957	50,197	52,864	49,137	49,109	47,992	47,281	52,159	50,553	52,173	49,007	50,036	49,339

