Reduction and Control of Surgical Site Infections: A multidisciplinary approach to enhance patient safety

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evercare
HOSPITAL LAHORE
Transforming Healthcare

ABOUT EVERCARE HOSPITAL LAHORE

- Started Journey in November 2019.
- First LEED (Leadership Energy and Environmental Design) Certified Hospital in Pakistan
- Evolved into a 124 Specialty Tertiary Care Hospital.
- 600+ Employees including Doctors, Nurses, and other healthcare staff.
- Touched thousands of lives since its inception.

1. INTRODUCTION AND BACKGROUND

Surgical site infections (SSI) are severe post-surgical complications that can lead to extended hospital stays, interventions, and even patient mortality. Our main objective was to identify the root causes of increased SSIs, analyze common factors, and implement continuous monitoring to reduce the SSI rate.

The rationale for selecting the project included:

1. SSIs are a serious threat to patient safety, increasing morbidity and healthcare costs.
2. High SSI rates at Evercare Hospital since January 2023 have triggered targeted interventions.
3. Addressing SSIs is integral to our ongoing quality improvement mandate.
4. A multidisciplinary approach is being utilized to effectively tackle this critical issue
5. Immediate action is required due to the urgency and potential consequences of untreated SSIs.

2. METHODOLOGY (PDCA)

PLAN

1. Defined the problem: Increased SSI rate in the hospital.
2. Formed a multidisciplinary team with Quality and clinical representatives.
3. Analyzed existing data: Frequent surgeries with SSIs, staff hygiene practices, organism types, antibiogram review, and patient risk factors.
4. Designed SSI protocols and awareness flyers for staff implementation.

DO

1. Conducted frequent meetings and raised the issue in infection control and Quality committees.
2. Engaged surgeons for consensus on the way forward.
3. Developed SSI protocols per CDC guidelines.
4. Trained staff and enforced strict monitoring of hygiene and disinfection.
5. Ensured traffic control in OR and Surgical ICU.
6. Deployed Infection Control Nurse in OR.
7. Provided wound-care instructions to patients.
8. Integrated SSI alerts into HIMS for prompt action.

CHECK

After implementing SSI control measures, random audits assessed infection control practices and adherence to protocols. The data, showing a declining trend, indicated that the interventions were effective.

ACT

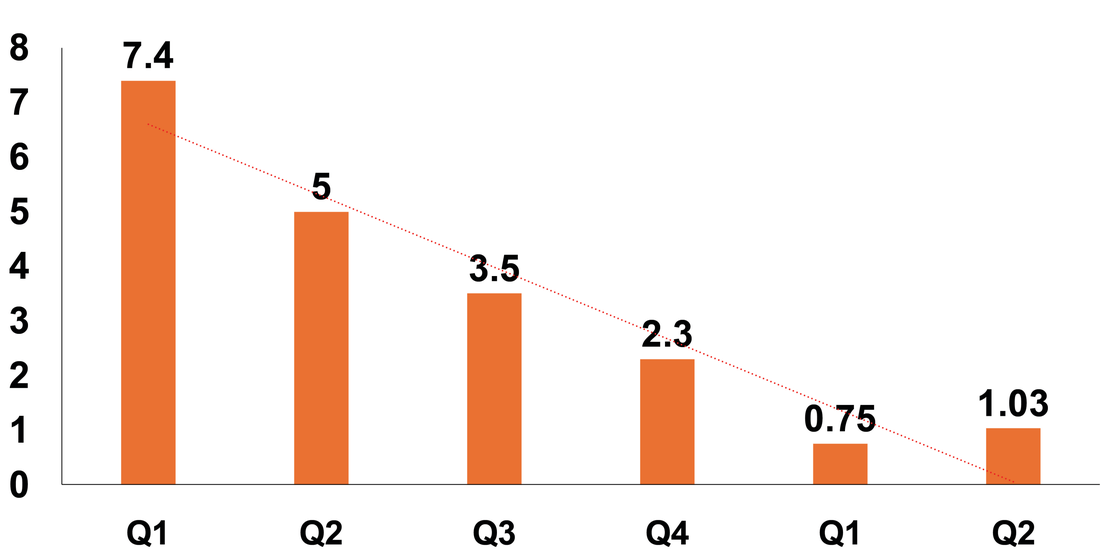
All initiatives continued with ongoing staff evaluations and continuous SSI training. SSI reporting was improved with a new HIMS module. These measures are part of a continuous process, not a one-time activity.

3. RESULTS

Trend analysis of *Surgical Site Infection (SSI) rate from Q1 2023-Q2 2024

Month	Total Number of SSIs reported	SSI Rate
Jan	3	11.9
Feb	2	7.4
Mar	1	2.9
Apr	1	4.7
May	1	2.5
Jun	3	7.9
Jul	2	5.3
Aug	1	2.4
Sep	1	2.8
Oct	0	0
Nov	1	2.4
Dec	2	4.7
Jan	0	0
Feb	1	2.7
Mar	0	0
Apr	0	0
May	0	0
Jun	1	3.1

Declining trend in the rate of SSIs was observed based on our quarterly trend analysis for 2023 and 2024



*SSI Rate = Total number of Surgical site infections/Total number of surgeries x 100

4.CONCLUSION

This project produced significant results due to the unparalleled efforts and commitment of the entire team.
Hand hygiene and scrubbing practices are being done as per the standardized procedures and in case any SSI is reported, thorough investigation is done to prevent future SSIs.

Acknowledgements

Special thanks to our Group CEO, **Mr. Irfan Khan and Mr. Uzair Shaikh COO,** we acknowledge the efforts of **IT team** for technical support and for developing SSI **Nursing** for training and staff motivation, **Nursing, Infection Control and OR team** for ensuring implementation of SSIs protocols