

ERAS® Adds Value for Elective Colorectal Surgical Patients by Reducing Infective Complications

Lim VQ, Kong L.P, Hu Y, Lin J, Norafida I, Chi HJA, Li J, Darmawirya P, Sng NJA, Wang B, Goh CC, Lim ZW, Tham A, Teo K, Hou MC, Poh BL, Soh YM, Yang Y, Tan ST, How KY. email: vera_qy_lim@ttsh.com.sg

Problem Statement

Post-operative infective complications are a significant burden on patient outcomes and healthcare cost.

Additional cost is incurred by the patient and healthcare system from the additional man-hours and consumables from diagnosing, investigations and treatment required.

This is in addition to facilities and bed days lost when lengths of stay (LOS) are increased.

Project Aim

To investigate the reduction in infective complications and cost savings from the Colorectal ERAS® programme.

Data obtained from the ERAS® Interactive Audit System and time driven activity-based costing.

Lessons Learnt



Missing data on mild complications in Pre-ERAS® group likely underestimated incidence of complications in this group.

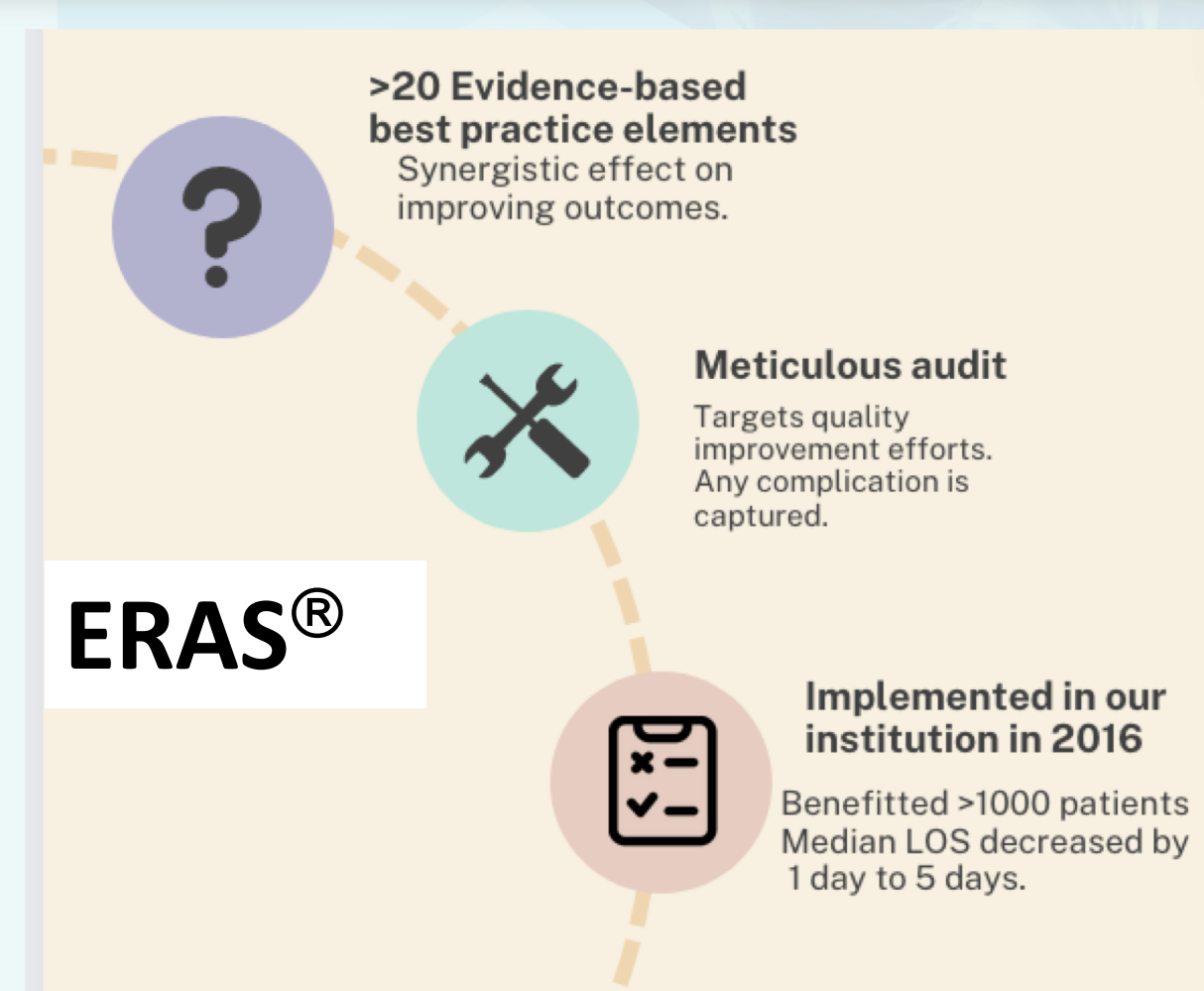


Maintaining communication among the multidisciplinary team champions at the pre-intra- and postoperative phases of care is crucial, especially when there is disruption of service during COVID-19 period.



Continued education of new members of the multidisciplinary team is essential for sustainability.

Potential Solutions



Patients who experienced any complications

	Pre-ERAS® (40.6% patients)	ERAS® (39.8% patients)
Compliance to ERAS® elements	42.8 %	61.6%
LOS (average)	16.8 days	14.6 days
LOS (median)	11 days	11 days
Reoperations	17.6%	10 %
Serious complications	17.6%	10.2%
ICU	11.8%	8.8%
Readmission	23.5%	15%

LOS: length of stay, ICU: Intensive care unit

Outcomes & Impacts

Distribution of types of complications

	Pre-ERAS®	ERAS®
Wound infection	24%	21%
Pneumonia	18%	6%
Urinary tract infection	12%	8%
Sepsis	6%	1%
Total infective complications	60%	36%

Of the patients who had complications post colorectal surgery, ERAS® patients had:

- **Lower LOS**
- **Fewer reoperations**
- **Less complications**
- **Less serious complications**
- **Less infective complications**
- **Lower ICU and readmission rates**

At least **\$150per day saved**
(cost for mild infection that can be managed in general ward EXCLUDING facilities cost)

At least **\$2, 640 saved**
(cost of extra 6 days stay in general ward due to complications)

Extra cost of infective complication

