National Quality Improvement Conference

Impact of POD0 vs POD1 Mobilisation in ERAS® Colorectal Surgery – A Propensity Score Matched Study

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Problem Statement

- Early mobilisation is an important facet of Enhanced Recovery After Surgery (ERAS)® that is shown to improve postoperative outcomes
- Postoperative day (POD) 0 mobilisation is difficult to achieve due to
  - Patients reaching the ward late with reduced nursing staff at night
  - No physiotherapists available for mobilisation after hours
  - Psychological barrier due to fear of complications
- Traditional practice of sending patients to surgical high dependency (SHD) after elective colorectal surgery may hinder POD0 mobilisation due to monitoring devices
- It is uncertain if POD0 mobilisation will improve clinical outcomes compared to POD1 mobilisation

Project Aim

✔ Compare outcomes between accelerated (from POD0) and standard (from POD1) mobilisation

- Length of stay (LOS)
- Number of PT sessions
- Costs
- Discharge destination
- Any morbidity

Lessons Learnt

- Empowerment of nurses by PTs and surgical team to mobilise patients on POD0 key to success
- Improved communication between intraoperative and postoperative team is crucial
- Postoperative disposition to general ward instead of high dependency unit ironically improved mobilisation and recovery
- Disposition to non-surgical wards especially during COVID-19 pandemic can disrupt efforts for POD0 mobilisation, thus cohorted ERAS® ward may be useful
- Nursing motivation and dedication to intervention is key to success
- Education and reassurance to nurses, PTs and surgeons on benefits of POD0 mobilisation needed for sustainability and scaling

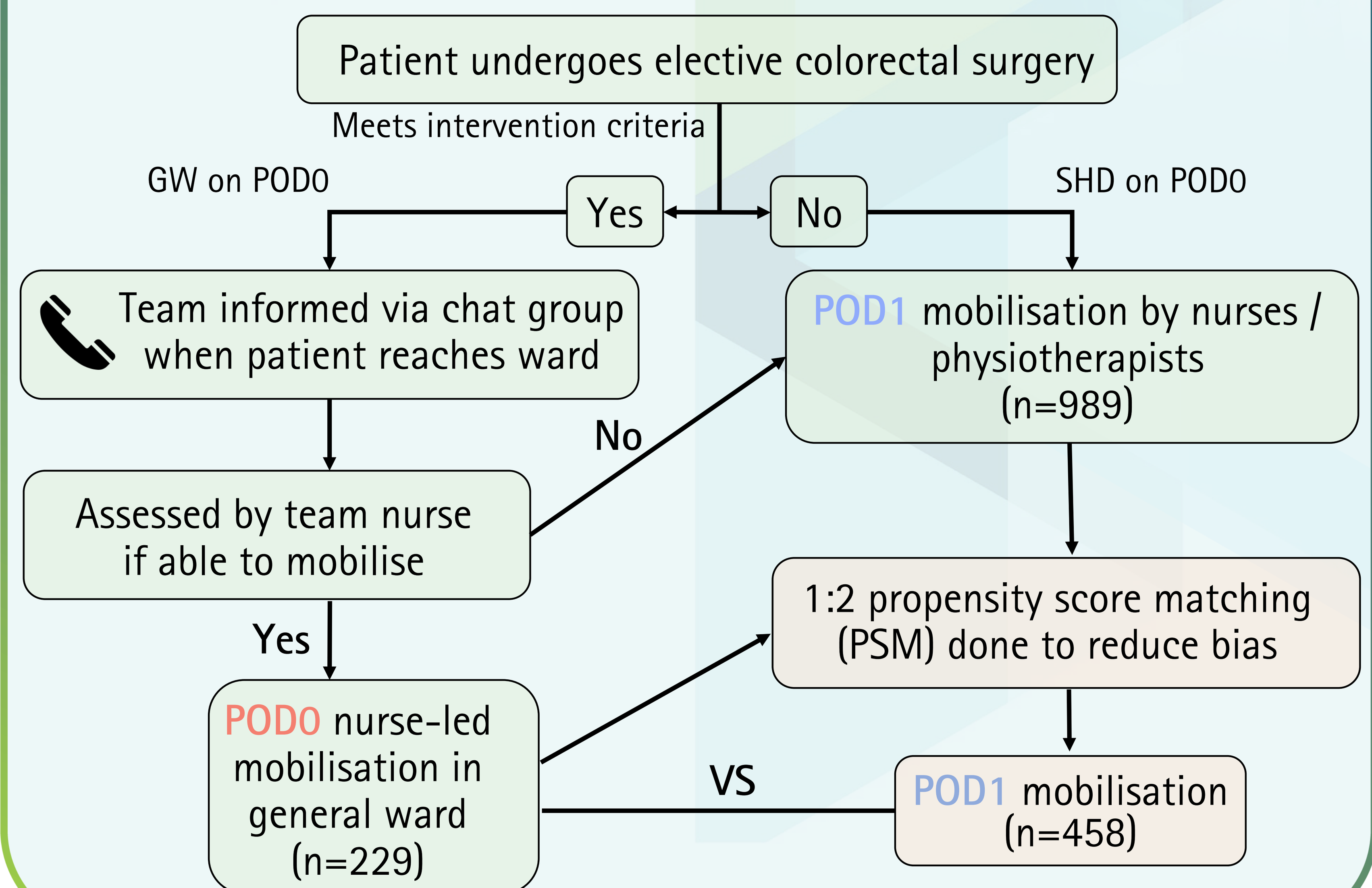
Potential Solutions

Retrospective cohort study from Jan 2018 to June 2023

Criteria for POD0 mobilisation:

- ☑ In ERAS® program
- ☑ No intra-operative events
- ☑ Deemed safe for general ward (GW) by surgeon and anaesthetist

PSM done for (a) Age ≥80 years, (b) Sex, (c) ASA score ≥3, (d) Premorbid ambulation status, (e) Surgical approach



Outcomes & Impacts

After PSM Benefits persisted

	POD0	POD1	p-value
Median LOS (days)	5 (IQR 3-7)	6 (IQR 4-11)	<0.001
Median PT sessions	2 (IQR 1-3)	3 (IQR 2-6)	<0.001
Discharge to home	99.6%	96.1%	0.031
Any morbidity	30.6%	35.4%	0.209

- ✔ Reduced LOS and PT sessions, increased discharge to home
- ✔ No difference in complication rate
- ✔ Faster return to pre-morbid, possibly higher patient satisfaction
- ✔ Overall median cost reduction of $1035.85 per patient
- ✔ Reduced need for SHD and physiotherapy sessions in POD0 group allows for better allocation of finite resources to patients who need SHD and physiotherapist review

Further works

- Improve proportion of patients mobilised in POD0 through increasing post-operative disposition to GW
- Increase pool of nurses involved in POD0 nurse-led mobilisation
- Regular audits of processes and outcomes to ensure sustainability of intervention
- Extend POD0 mobilisation to other types of surgery