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Background

- Frail patients are at high risk of major postoperative complications and mortality.¹⁻²
- The Risk Analysis Index (RAI) Frailty Index is a validated tool to assess preoperative frailty.³
- In the Veterans Affairs (VA) system, preoperative frailty documentation is now required for all surgical patients.

Low-Risk Surgery 30-day Mortality in National VA Cohort¹

 Not frail: 0.22%

 Frail: 1.55%

 Severely Frail: 10.34%

SMART Aim

- Increase documentation of preoperative RAI frailty scores among general surgery patients from 0% to 25% over the first quarter.
- Prospective goal of increasing frailty scoring by 25% every quarter for a goal of >90% by 1 year.

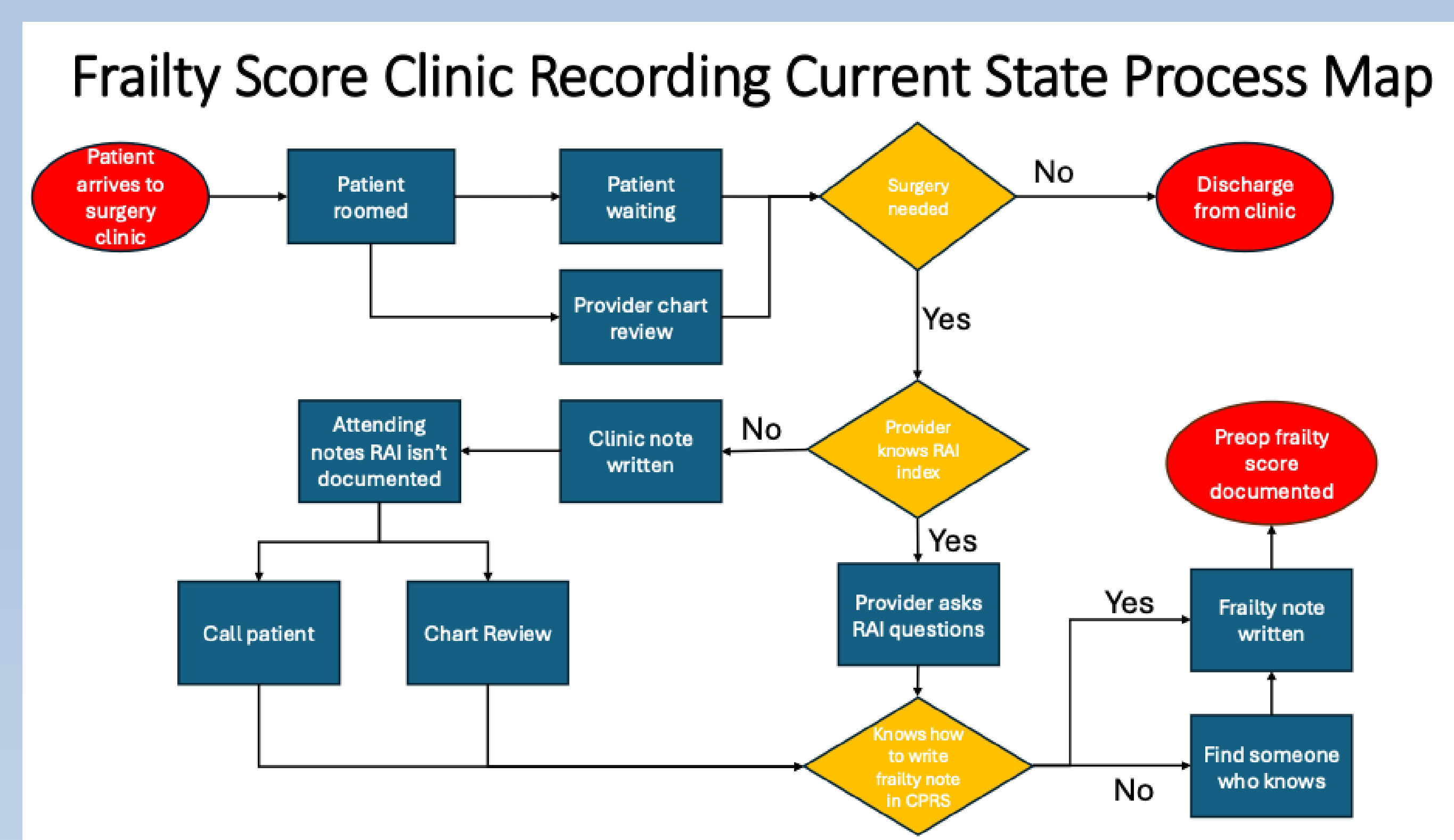


Figure 1. Current state process map for recording frailty data from clinic patients.

Intervention

- A patient-facing questionnaire piloted in general surgery clinic.
- A frailty note template was introduced in the electronic medical record.
- Primary outcome was percentage of general surgery cases with a documented frailty index.
- The process measure was the number of completed surveys. Balancing measure of clinic workflow impact was assessed qualitatively.



U.S. Department of
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Surgical Pause Risk Analysis (RAI)

Active User:
John Austis

The RAI is an assessment of frailty—a global syndrome of physiological decline and loss of reserve marked by diminished cognition, strength, balance, and coordination. It can be used to predict the risk of postoperative morbidity and mortality. It is validated as a patient-facing survey, but clinicians should modify patient-reported values to reflect most appropriately the patient's clinical status.

Patient Demographics

Age:
Sex:

Social History

Does the patient live in a nursing home, skilled nursing facility or another assisted living environment? ☐ No

Medical Conditions

Has the patient ever seen a nephrologist (kidney doctor) or have a history of kidney problems? ☐ No

Does the patient have chronic (long-term) congestive heart failure (CHF)? ☐ No

Does the patient currently have shortness of breath while resting or with minimal activity?
Prompt: "Do you have trouble catching your breath when you are resting or doing minimal activities? For example: walking to the bathroom or mailbox," ☐ No

In the past 5 years, has the patient been diagnosed with or treated for cancer? ☐ No

Surgeon Pre-Operation Survey

Name: _____ Last 4 DSN: _____ Sex: M/F Age: _____

- 1) Do you live in a nursing home, skilled nursing facility, or another assisted living environment?
 - a) No
 - b) Yes, nursing home
 - c) Yes, skilled nursing facility
 - d) Yes, assisted living
- 2) If yes to question 1, since when?
 - a) Less than three months ago
 - b) Three months to one year ago
 - c) More than one year ago
- 3) Have you ever seen a nephrologist (kidney doctor)?
 - a) No
 - b) Yes
- 4) If you answered yes to question 3, did you see the nephrologist for kidney stones, kidney disease, or for both?
 - a) Kidney stones only
 - b) Kidney diseases, for example, dialysis or dialysis evaluation
 - c) Both stones and kidney disease
- 5) Do you have heart failure? This may include seeing a cardiologist/heart doctor, taking a water pill or diuretic, or having leg swelling.
 - a) Yes
 - b) No
- 6) Do you have trouble catching your breath when you are resting or doing minimal activities? For example: walking to the bathroom or mailbox.
 - a) Yes
 - b) No
- 7) In the past 5 years, have you been diagnosed with or treated for cancer?
 - a) Yes
 - b) No

Continue on back →

For provider only: Please write a "RAI Frailty Tool" Note in CPRS if the patient is getting surgery scheduled.

Figure 2. Excerpts from the online VA RAI calculator and the patient-facing clinic questionnaire

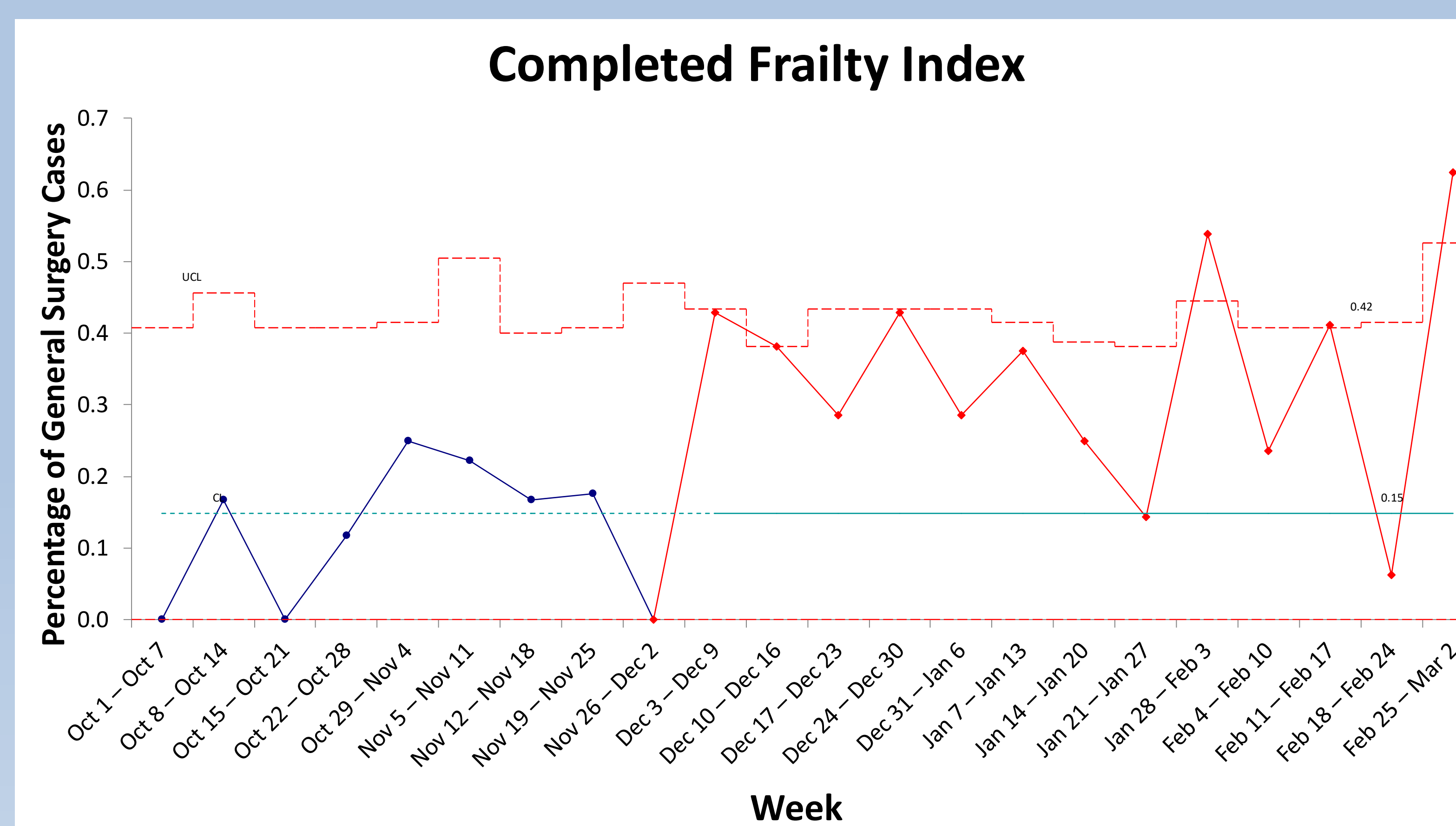


Figure 3. Proportion chart (p-chart) of completed frailty indexes. CL = Center Line; UCL = Upper Control Limit

Results

- From February 1, 2026 to February 28, 2026, 63 eligible patients were identified and booked for surgery.
- 20 patients had a recorded frailty index, representing a 31% increase from baseline.
- 100% of preoperative general surgery patients were receiving and filling out surveys.
- Residents and clinic staff appreciated easy integration to clinic workflow.
- Recording inconsistencies after implementation attributable to team turnover and inconsistent access to the frailty calculator.

Conclusion

- A patient facing questionnaire plus clinic education and workflow integration can lead to improved frailty screening.
- Embedding the intervention within existing team roles maximized success.
- The questionnaire will be expanded to all surgical services and preoperative patients.

References

1. Shinall MC Jr, Arya S, Youk A, et al. Association of Preoperative Patient Frailty and Operative Stress With Postoperative Mortality. *JAMA Surg.* 2020;155(1):e194620. doi:10.1001/jamasurg.2019.4620
2. Varley PR, Buchanan D, Bilderback A, et al. Association of Routine Preoperative Frailty Assessment With 1-Year Postoperative Mortality. *JAMA Surg.* 2023;158(5):475-483. doi:10.1001/jamasurg.2022.8341
3. Hall DE, Jacobs CA, Reitz KM, et al. Frailty Screening Using the Risk Analysis Index: A User Guide. *Jt Comm J Qual Patient Saf.* 2025;51(3):178-191. doi:10.1016/j.jcjq.2024.12.005