Is it Better to Know Your Patient Care Deficiencies Now or Later?

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INTRODUCTION

A comprehensive Performance Improvement and Patient Safety (PIPS) program is the cornerstone to ensuring optimal and timely patient care. Despite the American College of Surgeon's (ACS) requirement for a PIPS program at accredited centers, the ACS does not provide a "how to guide" on effective performance improvement (PI) since there is variation in practice at each center. This autonomy, allows for individual "best practices" but also requires centers to continuously reevaluate their processes to identify challenges and improve patient outcomes. To ensure we are providing optimal care, our center performs PI reviews on 100% of our trauma volume and identifies loop closure as needed through primary, secondary, tertiary, and quaternary reviews. Historically, the PI Team (three nurses) reviewed trauma charts retrospectively and concurrently addressed issues brought to their attention by the Trauma Team in real time. We slowly realized that even though we were reviewing 100% of our charts and addressing immediate concerns, we were identifying PI filters 30 to 60 days after they occurred, which slowed down process change and loop closure. Therefore, it was determined that the best way to address patient care concerns in real time, was to adjust the PI process to review charts concurrently.

OBJECTIVES

- Develop an internal process to close retrospective charts and begin reviewing charts concurrently.
- Review all charts to capture total volume and PI filters for true measured change.
- Identify process to provide real time feedback to providers to address potential PI concerns before discharge.

PROJECT DEVELOPMENT

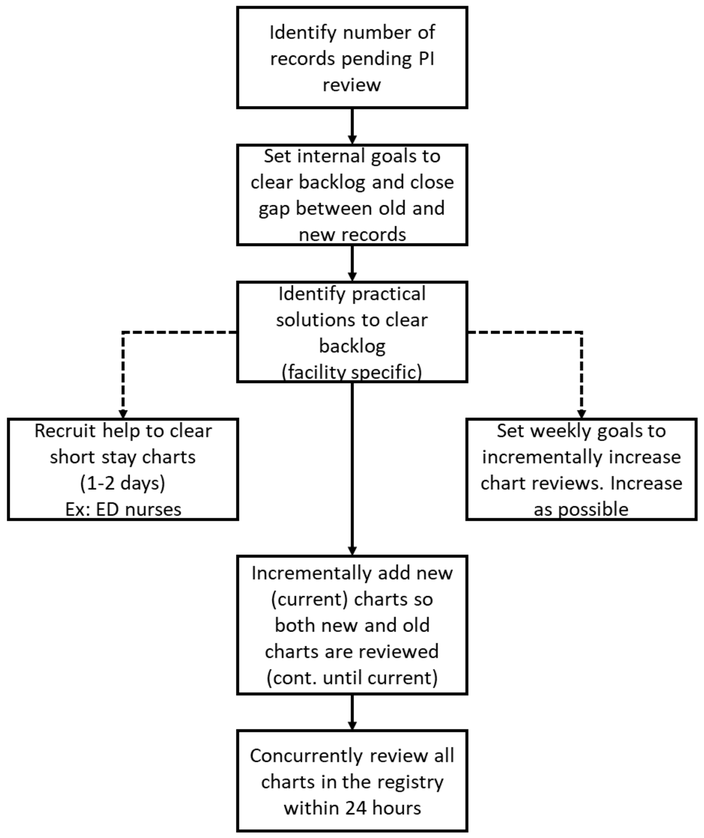

Figure 1. Flowchart highlighting process development from identification of backlog to concurrent review.

PROJECT IMPLEMENTATION

- PI Team involved in process development and informed of start date for PI process change. Important to get team by-in.
- Trauma Program Manager (TPM) provided weekly goals to facilitate gap closure and PI Team accountability.
- Recruit support staff (e.g. ED Nurses) to assist with backlog.
- Routinely monitor PI Team goals and progress towards new process, adjust as needed until all backlog charts are reviewed, and PI Team is current.
- Concurrently review 100% of trauma records to identify care concerns in real-time (within 24 hours, except for weekends).

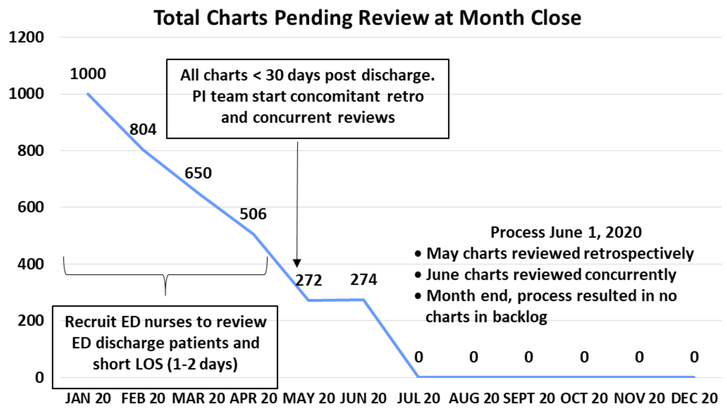

Figure 2. Timeline representation of chart review backlog (retrospective reviews) and gradual decrease with temporary recruited support and PI process change implementation. PI process now 100% concurrent with no backlog.

DISCUSSION

Time to tertiary review was calculated at the onset of the project (2019), while the PI Team conducted partial retrospective and partial concurrent reviews (2020), and finally when the PI process transitioned to 100% concurrent reviews (2021). Average time to tertiary review decreased from 78 days to 17 days with a 78% decrease in overall time with 100% concurrent reviews (Figure 3).

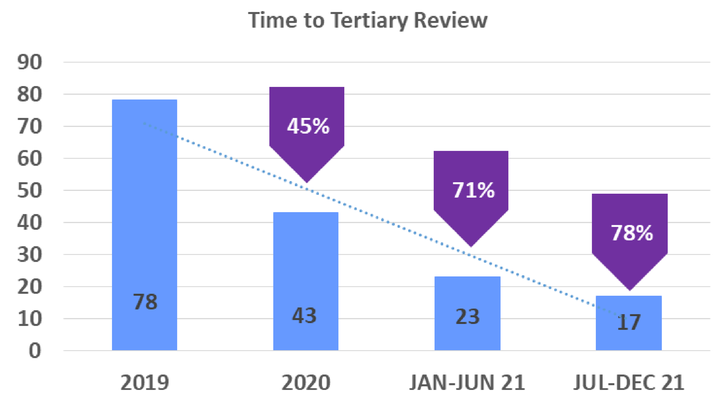

Figure 3. Prior to the PI process change (2019), the PI process took on average 78 days for cases to reach tertiary review. Transition from retrospective to concurrent review (2020), average days decreased to 43 (45% decrease). During the initial rollout of 100% concurrent review (early 2021), average time to review continued to decrease to 23 days (71% decrease). As the process for concurrent review evolved (late 2021), time to tertiary review decreased further, averaging 17 days (78% decrease).

DISCUSSION cont.

With the reduction in backlog, the PI Team does the following to maintain the process:

- Review records concurrently
  - Primary concerns are closed by PI Team.
  - Care concerns requiring secondary review are addressed through weekly meetings with the Trauma Medical Director and TPM.
  - Tertiary review is done during Multidisciplinary Physician Peer Review (MPPR) every other week.
- Round in the ICU with the Trauma Team.
- Flag records for revisit and unplanned re-admission within 30 days.
- Use electronic medical record (EMR) chat to share PI concerns with Trauma Team in real time before discharge.

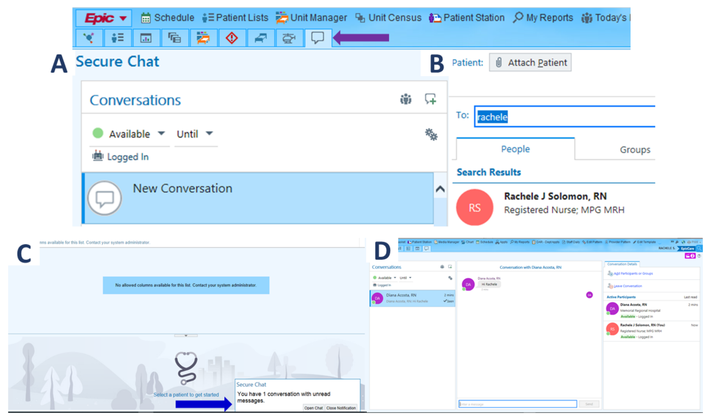

Figure 4. Secure chat feature in EMR to address care concerns in real-time. **(A)** Conversation start option (purple arrow), **(B)** Blank field to type in provider name, **(C)** EMR start screen indicating message as soon as you log on (blue arrow), and **(D)** Timestamp conversation details.

CONCLUSIONS

- Concurrent review of patients included in the trauma registry is achievable and improves patient outcomes.
- Reviewing all patient charts accurately depicts volume and PI filters to quantify patient outcomes and improvements.
- Identifying potential complications before progression, decreased the average cases requiring MPPR (Figure 5).
- With less chart review time, the PI Team started internal validation to verify NTDB definitions and accuracy (84%) – team goal to improve to 95%.

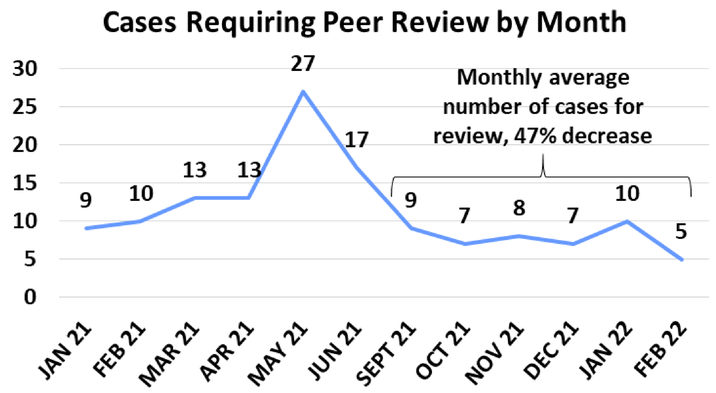

Figure 5. Measured impact concurrent review had on number of cases requiring MPPR. Identifying potential complications before progression (e.g. guideline compliance issues, subtle clinical status changes) decreased the average number of cases (47%) requiring monthly MPPR. Transitional months (July/August 2021) in concurrent process omitted from impact data due to skewed volume (both old and new charts went to MPPR at the same time).