

Project Charter: Supply Tracking & Advance Readiness for Timeliness (START) Project

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NURS 5334: Informatics IV

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March 13, 2026

START Project Charter

Project Name

Supply Tracking & Advance Readiness for Timeliness (START)

Team Members

One representative from each of the following areas:

- Procedural Area Management Team
- Procedural Nurse
- Certified Surgical Technologist (CST)
- Materials Management (will also represent vendor interests)
- Scheduling Coordination
- Central Supply
- EHR Analyst
- Informatics Nurse (Project Lead)

Problem Statement

Procedures are frequently delayed because required supplies are not available at the scheduled start time. Supply readiness checks are performed inconsistently, and accountability for ensuring supply availability is unclear, resulting in supply issues being identified too late to prevent delays. This gap contributes to workflow disruptions, inefficient use of staff time, increased costs, and negative patient and staff experiences.

Rationale (Evidence-Based Background)

Procedural delays related to missing or incomplete supplies are a well-documented contributor to inefficiencies in perioperative and procedural environments (Pappada et al., 2022). Late starts lead to wasted staff time, overtime expenses, increased stress for clinical teams, decreased patient satisfaction, and a greater risk of workarounds and suboptimal equipment use that may compromise patient safety (Mitchell et al., 2025). From a financial perspective, during a 12-week baseline period from July 7, 2025, to September 28, 2025, supply-related issues accounted for a 7.9% late start rate and an average of 26.38 staff hours per week spent expediting last-minute supplies, representing approximately \$53,200 annually in wasted staffing costs when shared between procedural nurses and certified surgical technologists (U.S. Bureau of Labor Statistics, 2025a; 2025b).

Knox et al. (2024) tell us that EHR-based readiness dashboards can significantly reduce first-case delays by identifying supply issues earlier in the workflow. Although the organization's overall on-time performance may already meet or exceed commonly cited first-case benchmarks of 88.3%, these benchmarks do not account for delays occurring across all cases, and ongoing supply-related delays continue to generate avoidable labor costs, staff frustration, and patient dissatisfaction (Saul et al., 2022).

Aim Statement

By October 31, 2026, reduce procedure on-time start delays related to missing or incomplete supplies by 30% (target: 5.5% or less) across participating procedural areas through implementation of a standardized pre-procedure supply verification workflow.

Baseline late-start rate due to supply issues is 7.9% over a 12-week measurement period.

Expectations

This aim was selected because supply-related delays are largely preventable and represent a meaningful opportunity to improve operational efficiency without requiring new technology purchases. While the organization may already meet or exceed benchmarks for first cases, supply-related delays across all cases continue to generate unnecessary labor costs, staff frustration, and patient dissatisfaction. Improving supply readiness is expected to reduce wasted staffing dollars, minimize overtime, improve staff workflow and morale, and enhance the patient procedural experience (Pappada et al., 2022).

How will we know a change is an improvement?

Metrics/Measures

Outcome Measure

Percentage of procedures classified as late start due to missing or incomplete supplies (target: 30% reduction from baseline 7.9% to $\leq 5.5\%$).

A “supply issue” will be operationally defined as:

- Required supply not present in procedure room at scheduled start time
- Incorrect size/type of supply requiring replacement
- Sterility issue requiring reprocessing or replacement
- Vendor-dependent item not available at case start
- Case documentation in Epic indicating delay reason = “supply” (discrete delay code)

Numerator: Number of procedures late started due to supply issues

Denominator: Total number of scheduled procedures

Process Measure

Percentage of scheduled procedures with documented, accurate pre-procedure supply verification completed at least 24 hours prior to case start.

Numerator: Number of procedures with supply verification completed at least 24 hours before case start

Denominator: Total number of scheduled procedures

Balancing Measure

Average weekly minutes of documented staff time spent resolving day-of-procedure supply issues.

$$\frac{\text{Numerator: Total documented minutes per week spent locating or expediting missing supplies on day of procedure}}{\text{Denominator: Number of weeks in measurement period}}$$

What changes can we make to improve?

FMEA Summary

START Project – Failure Modes and Effects Analysis (FMEA)							
Failure Mode	Failure Causes	Failure Effects	Likelihood of Occurrence (1–10)	Likelihood of Detection (1–10)	Severity (1–10)	RPN	Actions to Reduce Occurrence of Failure
No standardized pre-case supply verification performed	No defined workflow; unclear role accountability for supply readiness	Supply gaps found on DOS; case delays; wasted staff time	8	9	7	504	Implement Epic-based 24-hr look-ahead supply verification (START core intervention)
Inconsistent or narrative-based preference card documentation	Preference cards use free-text fields for important info including some supplies; not maintained in structured format	Required supplies missed; verification unreliable; delays on DOS	7	6	7	294	Standardize Epic preference cards with all supply items contained within discrete structured supply fields; conduct card audits
Unclear accountability for who verifies supplies	No policy defining CST vs. RN responsibilities; variable staff engagement	Duplicated effort or gaps in coverage; staff friction; missed supplies	7	6	6	252	Define CST vs. RN accountability in Epic workflow; formalize in departmental policy
Inadequate supply preparation for add-on cases	Limited prep time; add-on cases not visible in Epic scheduling to supply team	Missing critical supplies; emergent delays; patient safety risk	6	5	7	210	Rapid critical-supply verification protocol; enable real-time Epic scheduling visibility for add-ons
Staff resistance or non-compliance with verification documentation	Perceived increase in documentation burden; inadequate training; change fatigue	Low compliance; workarounds persist; intervention fails to reduce delays	6	5	5	150	Embed verification in existing Epic workflow; stakeholder engagement; staff training at go-live
Unused or misplaced supplies after case cancellation	No standardized cancellation supply return process; Epic case status not updated	Supply waste; inventory discrepancies; incorrect readiness status visible to team	6	5	4	120	Standardize supply return process for cancellations; update Epic case status at cancellation
Epic unable to fully support verification workflow as designed	Functional limitations in EHR/inventory system; IT constraints	Verification relies on manual workarounds; reduced compliance and reliability	4	4	6	96	EHR Analyst assessment of Epic capabilities pre-implementation; escalate gaps to IT leadership

Key Stakeholders

1. Procedural Nurses
2. CSTs
3. Procedural Leadership (Nurse Manager/DON/Medical Director)
4. Performing physicians
5. Physician Partners/Shareholders – waste affects distributions \$\$\$
6. Patients and their families

Stakeholder Engagement Strategy

1. Workflow mapping sessions
2. Feedback (targeted surveys)
3. Discussion during regular staff meetings and daily huddles

Anticipated Barriers

1. Resistance to change and perceived increase in documentation burden
2. Time constraints for completing advance supply verification
3. Variability in staff engagement and role accountability
4. Inconsistent or narrative-based preference card documentation
5. Limited preparation time for same-day add-on cases in procedural areas
6. Case cancellations resulting in unused or misplaced supplies
7. Functional limitations of the existing EHR and inventory systems

Strategies to Overcome Barriers

1. Utilize existing Epic preference cards as the primary source of supply requirements
2. Standardize preference cards so all required supplies are listed in structured fields, rather than narrative text
3. Embed a simple supply verification step into the existing Epic scheduling or case preparation workflow using discrete fields (e.g., checkbox or status indicator)
4. Establish clear role accountability, with CSTs responsible for routine supply verification and procedural nurses assisting with high-risk or specialty items
5. Implement a rapid supply verification process for same-day add-on cases, focusing on critical and specialty supplies
6. Use Epic's real-time scheduling visibility to ensure add-on cases are immediately visible to procedural and materials teams
7. Develop a standardized process for returning unused supplies to inventory following cancellations
8. Conduct end-of-day or rolling look-ahead reviews for upcoming procedures to identify potential supply gaps early

Change Ideas and Learning Plan

1. Workflow observation of procedural nurses, CSTs, and materials staff to identify current supply preparation practices and informal workarounds
2. Preference card analysis within Epic to assess structure, completeness, and usability of supply documentation
3. Staff interviews and feedback sessions to understand perceived barriers, time constraints, and opportunities for improvement

4. Case delay cause analysis using Epic data to quantify the contribution of supply issues to overall late starts
5. Evaluation of how same-day add-on cases are currently scheduled, prepared, and supplied, including identification of common failure points

Initial PDSA Cycles

Plan

- Finalize project scope, aim, metrics, and secure leadership approval
- Conduct stakeholder kickoff and engage interprofessional team
- Map current-state workflow and validate baseline delay data
- Review Epic delay codes and preference cards
- Design standardized verification process and define role accountability

Do

- Build Epic verification workflow and rapid add-on process
- Train pilot department staff
- Go-live in IR and monitor compliance
- Collect post-implementation data

Study

- Evaluate outcome, process, and balancing measures
- Gather staff workflow feedback
- Refine workflow and processes

Act

- Present results to leadership
- Evaluate plan for broader rollout

Generative Artificial Intelligence (AI) Attestation

I attest that I used a generative AI tool in accordance with course guidelines and assignment-specific permissions. I used ChatGPT (OpenAI, 2026) on January 25, 2026 for the purpose of generating insights for my paper. The prompt(s) used included: “I do not have much experience with EPIC. Can you help me come up with some ideas for how EPIC can be utilized in procedural areas (such as IR) for this project?” I used Claude (Anthropic, 2026) on March 8, 2026 to critique my updated and revised charter and compare it to the rubric for the Module III assignment.

All AI-generated content was critically reviewed, edited, and appropriately integrated with my own academic and clinical reasoning.

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