

Society of Thoracic Surgeons
General Thoracic Surgery Database

Quality Improvement Series:
Timeliness to Surgical Resection

February 26, 2026



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STS NDB Quality Improvement Series

What are our GOALS?

To show value of the database outside of just getting reports and Star Ratings

Showing how important YOU are in abstracting Data

Be part of a National Team Effort

Making your STS data actionable

Because it's awesome to work toward something together

QI Project: Timeliness to Surgical Resection

Goal: Using the new temp date sequence, determine baseline measurement for 'time to resection' for pulmonary resections and then improve upon baseline.

Exclusions: Patients receiving neo-adjuvant treatment

Timeliness - Why do we care?

Review

Timeliness of access to lung cancer diagnosis and treatment: A scoping literature review

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<https://doi.org/10.1016/j.lungcan.2017.08.011> ↗

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Highlights

- Significant variation exists in how access to lung cancer care is reported.
- Many patients are waiting longer than recommended for diagnosis and treatment.
- Standardization of meaningful wait intervals across the care continuum is needed.
- Common metrics can improve ability to assess quality, interventions, and outcomes.

DMAIC:

Define:

- Potential Problem: Delays from diagnostic CT to surgical resection for lung cancer.
- Goal: Reduce median CT-to-surgery time by 10% within 24 months.
- Scope: CT scan through surgical date

Measure:

- Metric: Days from diagnostic CT to surgical resection.
- Baseline: Obtain baseline data ASAP. Then track monthly/quarterly.
- Process mapping to identify bottlenecks.

Analyze:

- Causes: Referral delays, tumor board timing, fragmented pre-op testing, scheduling gaps, communication issues.
- Tools: Fishbone, Pareto, process time analysis, FMEA.

Improve:

- Automatic referral triggers, expedited testing bundles, optimized tumor board scheduling, standardized workflows, care coordination.
- Pilot interventions and measure impact.

Control:

- Ongoing monitoring with control charts.
- Standardize workflows in EHR.
- Assign process owner and conduct periodic audits.

Define

Problem Statement — The current lung cancer care pathway can have a prolonged interval between diagnostic CT scan and surgical resection, leading to delays in definitive treatment for early-stage lung cancer patients. This variation affects patient outcomes, care quality, and alignment with national cancer care standards.

Project Goal — Reduce the median time from diagnostic CT confirming suspicion of lung cancer to surgical resection by 10% within 24 months.

Scope — From diagnostic CT scan through pre-operative evaluation, multidisciplinary review, and completion of surgical resection. Excludes patients receiving neoadjuvant therapy.

Stakeholders — Radiology, pulmonology, thoracic surgery, oncology nursing, scheduling teams, tumor board coordinators, pre-operative testing services, quality improvement leadership.

Business/Clinical Case — Timely surgical resection improves survival for early-stage lung cancer and supports accreditation requirements, national quality metrics, and patient-centered care standards.

Measure

Primary Metric — Number of days from ‘worrisome’ CT scan date to surgical resection date.

Baseline Assessment — Establish current median and distribution (e.g., baseline median 45 days).

Data Collection Plan – Use new temp seq for date of ‘tipping point’ CT and date of surgery to establish baseline.

Process Mapping — Each site will create a detailed current-state value stream map to identify handoffs, bottlenecks, and variation across providers.

Example Value Stream Map

Value Stream Summary (Example Metrics)

Stage	Process Time	Wait Time	Key Waste / Bottleneck
CT → Report	1 day	0–3 days	Slow result review
Report → Referral	<1 hour	1–5 days	No auto-trigger
Referral → Consult	<1 hour	3–10 days	Scheduling delays
Consult → Testing	1–3 hours	7–21 days	Sequential testing
Testing → Tumor Board	<1 hour	7 days	Missed meeting cycles
Tumor Board → Surgery	1–3 hours	7–21 days	OR availability

Total process time: ~6–10 hours

Total lead time: ~45 days (baseline)

Primary wastes: Waiting, rework, unnecessary handoffs, lack of standardization.

Analyze

Analyze

- Root Cause Exploration
- Delays in referral initiation after CT findings.
- Variability in timing and frequency of multidisciplinary tumor board review.
- Fragmented or sequential (rather than parallel) pre-operative testing workflows.
- Scheduling constraints for pulmonology consults, biopsies, and thoracic surgery.
- Communication gaps between departments.

Tools to Use

- Fishbone diagram for delay drivers.
- Pareto analysis of most common delay sources.
- Process time analysis to identify non-value-added steps.
- Failure mode and effects analysis (FMEA) for high-risk steps.

Improve

Examples of Possible Interventions

- Implement automatic referral triggers from radiology when CT suggests lung cancer.
- Create expedited pre-operative testing bundles (PFTs, cardiac clearance, labs) ordered simultaneously.
- Optimize weekly multidisciplinary tumor board scheduling to ensure earlier case review.
- Standardize workflows and communication pathways between radiology, pulmonology, and thoracic surgery.
- Introduce a care coordination role or navigator to track each patient's progress.

Control

1. Monitoring Plan

- Continue monthly tracking of CT-to-surgery interval.
- Use control charts to detect variation or regression.
- Quarterly review with multidisciplinary leadership.

2. Develop Standardization

- Embed referral triggers and testing bundles into the EHR.
- Document workflows and create quick-reference guides for staff.
- Maintain tumor board scheduling standards.

3. Sustainability Measures

- Assign process ownership to a designated clinical leader or navigator.
- Conduct periodic audits of pathway adherence.
- Integrate metrics into quality dashboards and accreditation reporting.

Open Discussion



Please use the Q&A Function.



We will answer as many questions as possible.



We encourage your feedback and want to hear from you!

Upcoming GTSD Webinars

Monthly Webinars

- March 11 @ 2:30ET (1:30CT)
- April 8 @ 2:30ET (1:30CT)

Quality Improvement Series

- June 25 @ 3:00pmET (2:00pmCT)
- October 29 @ 3:00pmET (2:00pmCT)



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