

Emergency Department and Laboratory Focus on LBTC Waxahachie

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1. Background

Emergency Departments (ED) deliver care to approximately 145 million patients every year.¹ Improving patient flow (throughput) is vital in order to improve patient outcomes and their experience. The percentage of patients who leave before treatment complete (LBTC) is an important marker of department efficiency, and potentially has a negative impact on patient quality outcomes, and the patient's level of satisfaction.

Baylor Scott & White Medical Center – Waxahachie ED sees approximately 65,000 visits a year. Improvement work has been done in the past, to improve LBTC, which included not placing lower level acuity patients (level 4 & 5) in ED rooms and having a provider in triage, to expedite patient care.

2. Problem Statement

Baylor Scott & White Medical Center – Waxahachie noted an increase in December of a 6.9% LBTC compared to a 5-month average of 3.7%. The team felt this was an improvement metric to improve, in order to meet the needs of the community.

3. Understand The Problem

A multidisciplinary team met to identify why patients were LBTC. Issues identified were timeliness of provider seeing patients, increased patient length of stay awaiting laboratory (lab) and imaging results. In addition, there was an influx in patient volume in December which created a longer length of stay and decreased room turn around times. The team prioritized lab issues to work on based on recognizing easy process modifications that would impact patient throughput.

The lab process were inconsistent which created backups in the ED. This had been an ongoing opportunity with the ED and Lab even before EPIC Go-Live and will continue to be an opportunity as volumes continue to increase. The team identified root causes with lab results being delayed and identified several process issues.

3. Understand The Problem

Brainstormed Issues	< Why It Happens	< Why It Happens
Delay in obtaining Lab Results	<Lab not processing ED lab orders in a timely manner	<Lab processor is only available during 9:00am-4:00pm and not during peak times of when lab orders are being placed
	<ED sending specimens without Orders	<Laboratory unable to distinguish between ED and Inpatient lab draws <Nurses proactively drawing patient labs during triage <Assumption that Physician placed orders once labs were sent
	<Lab Specimens being mislabeled	<Opportunities with lab specimens being mislabeled due to Epic not printing in consecutive order <Only one Epic printer available for lab labels in Nursing Station
	<Lab Specimens not being collected in a timely manner	<Unavailable Nurses or Techs to draw blood <Lab Orders not being placed

4. Implemented Change

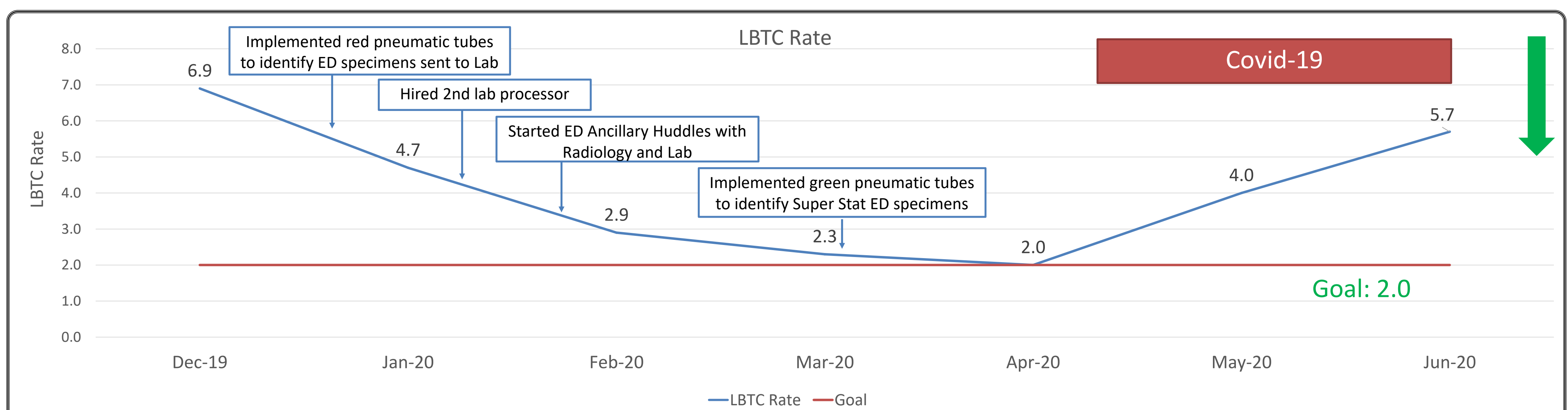
After reviewing the root causes the team implemented several changes over a 3-month period.

- Implemented red pneumatic tubes to identify ED specimens sent to lab (12/17/2019)
- Hired an additional lab processor on 1/6/2020 due to high ED volume which created 24-hour coverage
- Began ED Ancillary Huddles with Lab and Radiology weekly (1/20/2020)
- Standardized process for drawing lab by verifying order in Epic prior to sending.
- Implemented green pneumatic tubes to identify Super Stat (trauma and stroke) ED specimens (3/13/2020)
- Continue to work on getting lab label printers in each ED room

REFERENCES

1. Centers for Disease Control and Prevention. National Center for Health Statistics. (2017). Emergency department visits. Retrieved from <https://www.cdc.gov/nchs/fastats/emergency-department.htm>

5. Calculate & Demonstrate The Success



6. Lessons Learned

- Implementing ED Ancillary Huddles helped to improve LBTC rates. The Huddle created accountability by reviewing each department's metrics. This communication eliminated the "silo effect" and enhanced communication between departments.
- Covid-19 has impacted LBTC due to increased LOS and throughput challenges. We are adjusting to this new patient population.

