

# Sustainment of Trauma Documentation Compliance During Epic Trauma Narrator Implementation

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## Introduction

Trauma centers have stringent documentation requirements set by the American College of Surgeons Committee on Trauma that must be maintained for designation/verification. When a trauma center is non-compliant with key aspects of trauma documentation, including:

- detailed pre-hospital information
- trauma activation time and level
- precise physician arrival times
- specific time requirements for vital signs and assessments
- detailed timing of procedures, blood product and medication administration, consults, and transfers
- mandatory screenings such as alcohol, substance abuse, and mental health

it may result in a criterion deficiency, putting them at risk of losing their trauma center verification/designation. Capturing the mandatory documentation components in a fast-paced, high stress trauma resuscitation environment has been found to be most suitable to paper documentation. Although there is evidence that electronic medical records (EMRs) improve patient safety, increase access to all care providers, increase workflow efficiency, and minimize time spent on documenting (Coffey et al., 2015; Wurster et al., 2012), trauma centers across the country have been reluctant to transition to EMR systems due to evidence of lost integrity of their documentation compliance (Kieffer et al., 2021).

Despite these concerns, and to align with Atrium's organizational goal to operationalize Epic across all service lines, the trauma centers across the system began collaborating in July 2020 to develop an electronic trauma flowsheet referred to as the Trauma Narrator. The team worked for over a year to create a documentation tool that would capture all the components from multiple facility-specific flowsheets, as well as the differing state regulatory requirements. Staff nurses were included in the build and provided feedback regarding the functionality.

However, with reports of trauma narrator implementation negatively impacting documentation compliance at other trauma centers across the region, and because of the risk to the Greater Charlotte trauma centers scheduled for site surveys in 2023, a collective decision was made to stay on paper documentation until the designation/verification visits were completed. Atrium Cabarrus was particularly interested in keeping the paper flowsheet as we had made impressive strides in improving documentation compliance and did not want to risk low performance. As the highest volume Level 3 trauma center in the state, we were at a particular high risk. Apprehensions were further heightened when despite our previous collaborative decision, an enterprise Level 1 trauma center in the Epic wave proceeding us attempted to implement the Trauma Narrator, but were unsuccessful, quickly returning to paper.

Atrium Cabarrus went live with Epic on August 6, 2022, and the ED implemented use of the EMR for all patients except for traumas and cardiac/respiratory arrests. Delayed scanning of documentation, missing paper flowsheets, and staff frustrations rooted in the workflow discrepancies of documenting with two different processes were quickly identified. To improve the integrity of patient records, reduce errors, increase medication safety, and foster staff satisfaction, Trauma Services quickly moved forward with a robust plan to be the first trauma center in the Greater Charlotte region to train ED trauma nurses for successful transition to the Trauma Narrator.

## Objectives

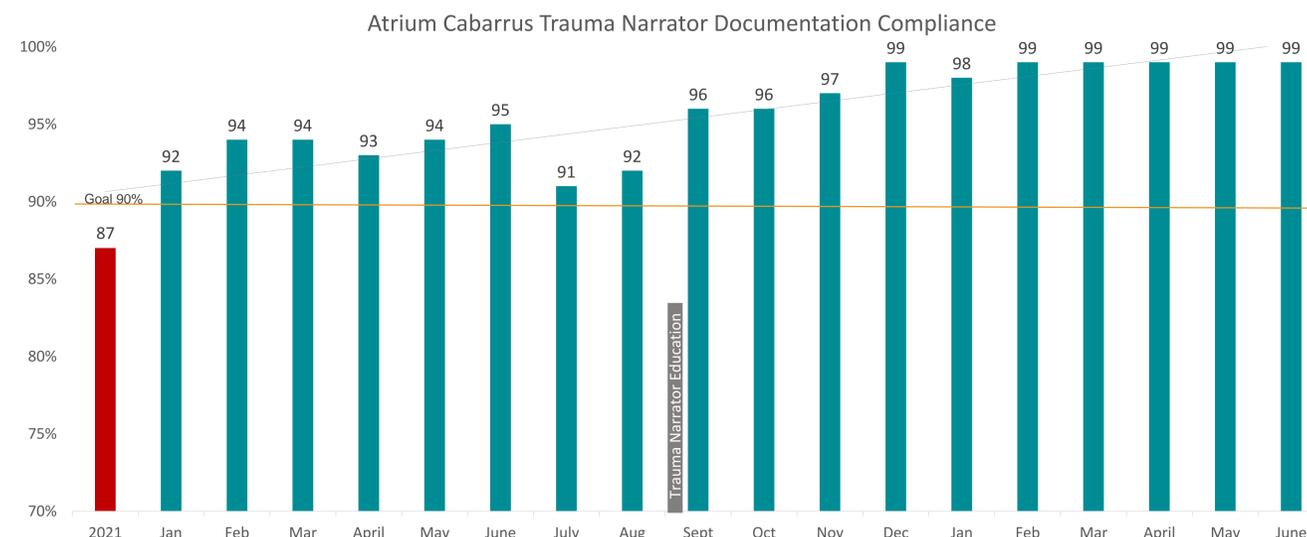
- Successful implementation of the Epic Trauma Narrator at Atrium Cabarrus, during a site survey year, without compromising trauma documentation compliance below 90%.
- Develop a plan to maintain documentation compliance without requiring busy nurses to duplicate charting in two forms (paper and electronic).

## Methods

- Obtained buy-in from ED leadership to cover the cost of additional trauma-specific Epic education time.
- Created specific education plan/requirements for nurses & secretaries:
  - Trauma Trained Nurses- 2.5 hour "live" virtual class reviewing trauma documentation standards, requirements, and changes. Nurses then used the Epic playground to complete scenario-based Trauma Narrator documentation training. Offered six times over 4 days, 8/26/22-8/31/22.
  - General ED Nurses- Trauma Program Coordinator recorded a 45-minute video with a general review of trauma documentation, followed by a scenario-based trauma documentation using screen recording. Emailed to all staff with an attached attestation of review & understanding.
  - Secretaries: Provided 1:1 education for their role in the registration process and activation messaging. Developed Code Activation templates and guides for secure messaging (Rover).
- Mirrored the workflow of the trauma resuscitation and paper flowsheet by creating Favorites.
- Made recommendations for personalization and screen configurations to optimize workflow.
- Created a one-page Self-Audit Tool and help sheets to be kept in trauma bays, nurses' stations, and secretary's desk.
- Imprivata badge scanner education to capture precise time stamps for surgeon arrivals.
- Trauma Service Staff provided in-person support 24/7 during the first two weeks of implementation.
- Daily documentation compliance monitored on ALL trauma patients and real time feedback was consistently provided (in person and via Rover).
- Weekly trauma documentation compliance audits completed by the Trauma Registry and results shared with staff, highlighting success and areas of opportunity.
- Patterns and trends of frequently missed documentation, or gaps within the design that prevented efficient documentation of required elements, were tracked for solution development and reported to Barbara Wise.

## Results

- Trauma Narrator Training was completed the last week of August 2022, with 100% of trauma nurses participating.
- Atrium Cabarrus went live with the Trauma Narrator on September 6, 2022, exactly one month after the Epic Implementation.
- Within the first month, trauma documentation was not only maintained, but compliance increased to our highest percentage to date.
- In the 9 months since, we have continued to improve, with many weeks achieving 100% compliance.



## Discussion

- Atrium Cabarrus now has an all-inclusive EMR adopted as the standard documentation method for all patients, aligning with the organization's vision.
- EMR documentation allows for real time chart review and the ability to provide immediate feedback to staff in-person or via secure messaging, quickly correcting non-compliance.
- Multiple Trauma Narrator updates have been released- 10/10/22, 11/3/22, 1/18/23- improving the product for all trauma centers, but also customizing to Cabarrus when able. With each update, education presented to staff through 1:1 conversation, Trauma Nurse Council, huddles, private social media, email, & text.
- Patient, physician, nursing staff, and trauma center benefit have been recognized.

## Next Steps

- Ongoing concurrent Performance Improvement monitoring by Trauma Services and weekly audits by the Trauma Registry.
- Scenario-based documentation assessment was added to our annual trauma competency validations.
- Work was shared with another Charlotte Region Level 3 Trauma center who adopted our education plan and approach and has had similar success with their implementation.
- Knowledge sharing occurring as work begins on the Wake Harmonization project.

## References

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## Acknowledgements

Thank you to the trauma nurses at Atrium Cabarrus Emergency Department whose commitment and dedication to our patients made this project successful.