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BACKGROUND

- **ED Boarding:** Patients remain in the ED for extended periods awaiting inpatient beds, leading to overcrowding, delayed care, and worse patient outcomes (Smalley et al., 2020).
- **Patient Impact:** Gaieski et al. (2017) found ED crowding delays critical treatments, increasing mortality rates. Prolonged boarding also leads to longer hospital stays and higher healthcare costs (Singer et al., 2011; Broida et al., 2016).
- **Handoff Challenges:** Inefficient verbal and written handoff methods contribute to delays and miscommunication (Hillgoss & Cohen, 2013). ED nurses provide verbal telephone reports to OBS nurses, leading to inefficiencies.
- **Electronic Solutions:** Standardized handoff processes, such as structured reporting and electronic tools, reduce ED length of stay and improve transitions (Dahlquist et al., 2018; Sermersheim et al., 2020).
- **EHR Integration:** Leveraging electronic health records (EHR) optimizes workflows, reduces delays, and enhances patient throughput (Burden et al., 2024).
- **Study Focus:** This QI project examines how electronic handoff solutions, particularly Epic™ systems, can mitigate ED boarding and improve emergency care efficiency.

PICOT QUESTION

Does implementing an electronic handoff tool from ED to OBS reduce the time from bed assignment to “ready to move” within 30 minutes compared to the traditional verbal report?

PURPOSE

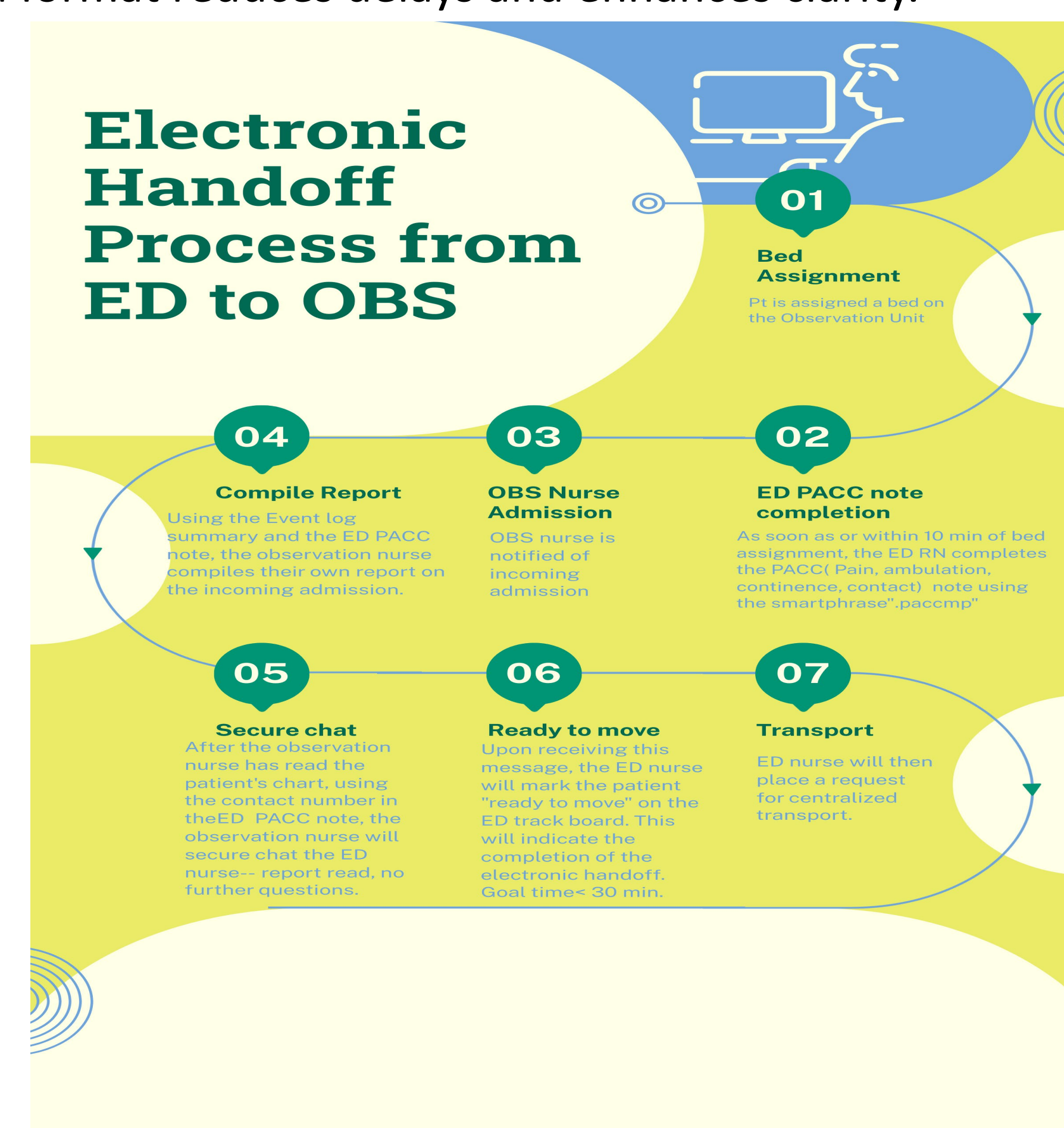
Implement and evaluate an evidence-based, patient-centered handoff process from the ED to the Observation Medicine (OBS) unit at an urban nonprofit hospital in Chester County, PA.

METHODOLOGY

Objective: Establish a structured electronic handoff process between the ED and OBS unit to improve efficiency and communication.

Development of PACC Note:

- Created to ensure consistent communication of **pain, ambulation, continence, and contact** details.
- Addresses missing critical information in verbal reports.
- A standardized format reduces delays and enhances clarity.



RESULTS

Objective: Compare assigned bed to **Ready to Move (RTM)** times before and after implementing the electronic handoff system.

Data Analysis (After Removing Outliers):

• 23 Outliers were identified using the **Interquartile Range (IQR) method** (times >80 min excluded).

• **Pre-implementation (164 samples):**

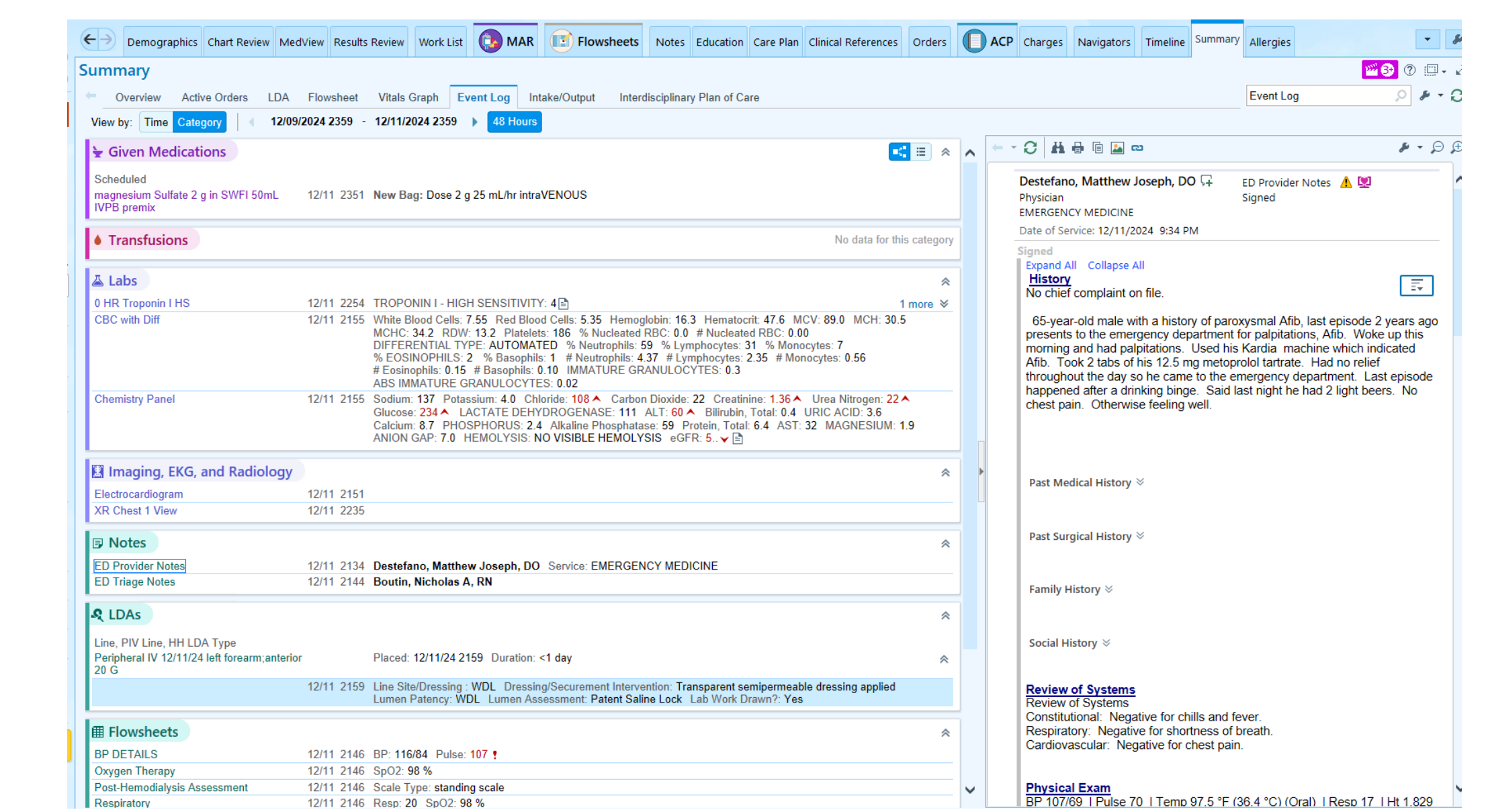
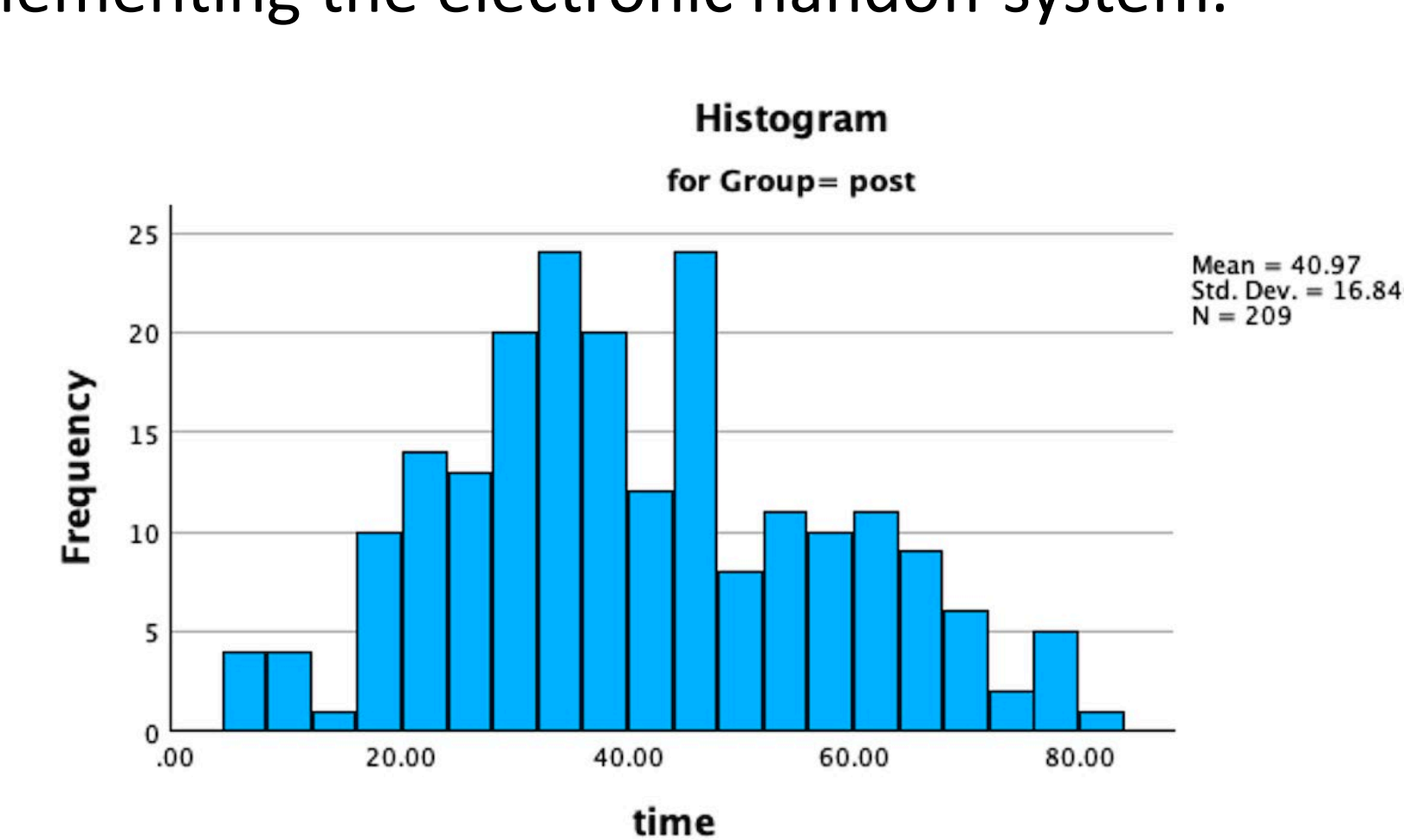
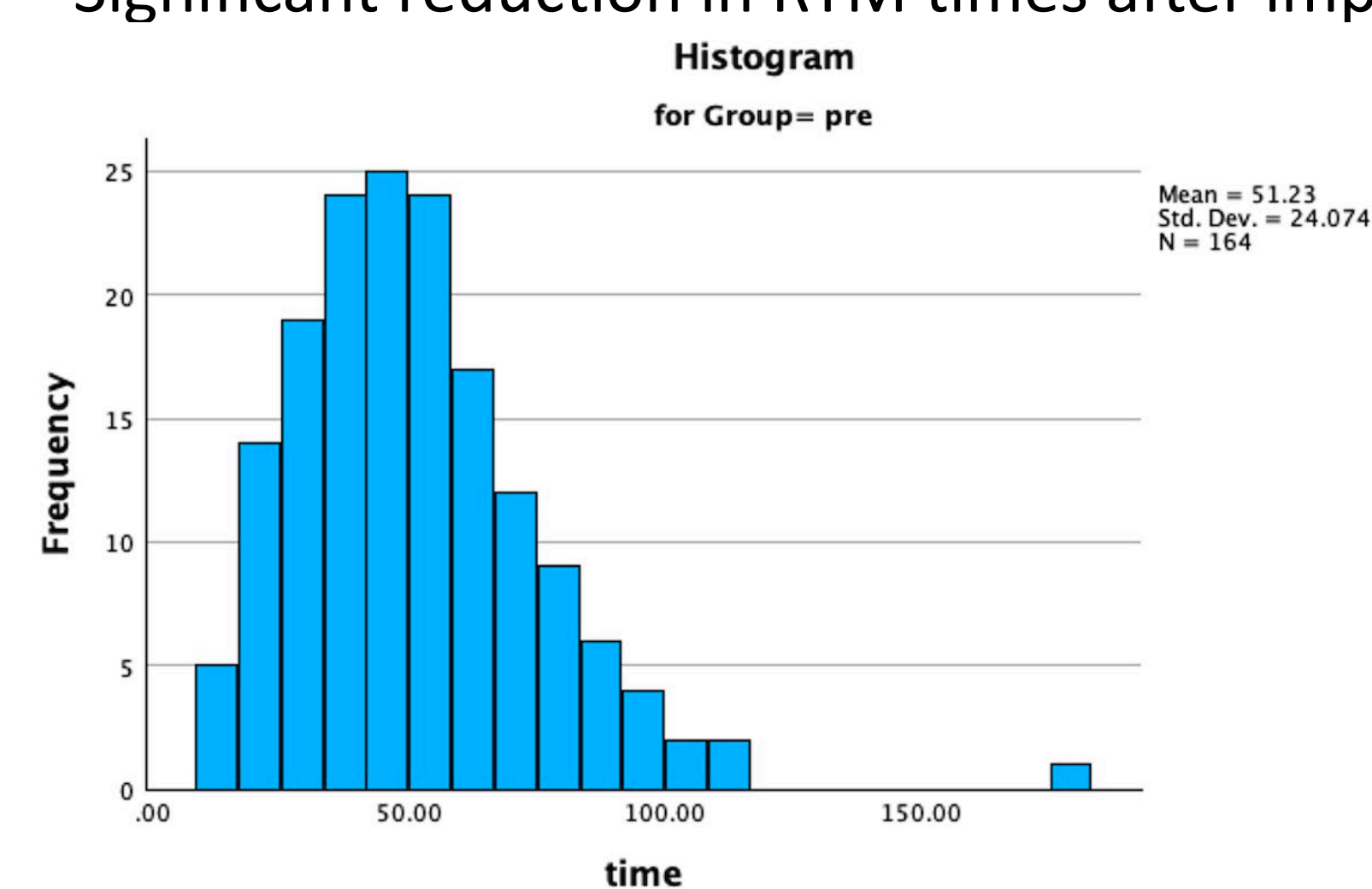
- Mean RTM time = 51 minutes
- Median = 48.4 minutes

• **Post-implementation (209 samples):**

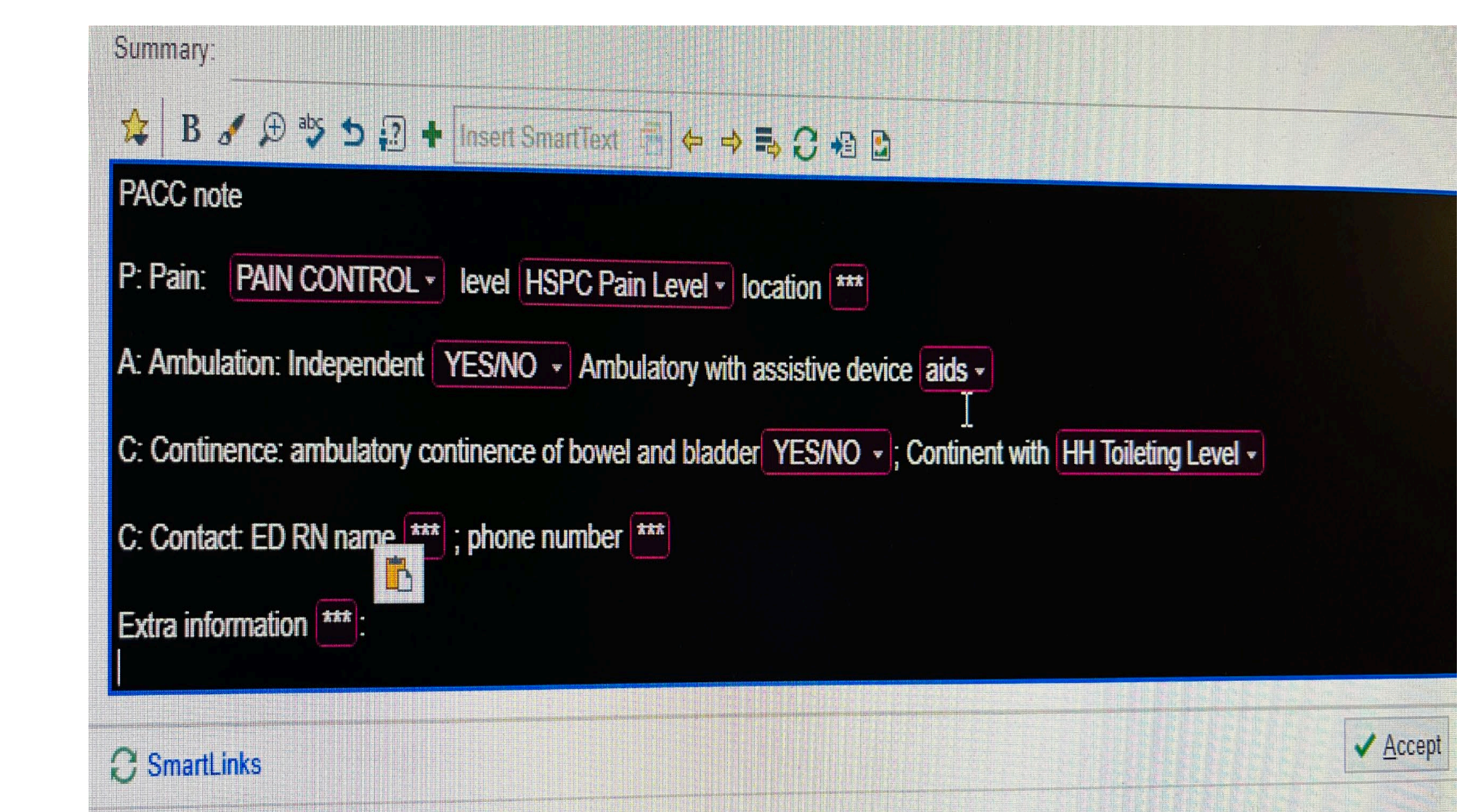
- Mean RTM time = 40.97 minutes
- Median = 38.57 minutes

Statistical Findings:

- Mann-Whitney U test showed a **highly significant P-value < 0.001**,
- **Pre-implementation mean rank = 212.64 vs. Post-implementation mean rank = 166.88.**
- Significant reduction in RTM times after implementing the electronic handoff system.



Epic™ Event Log Summary



SmartPhrase™ PACCMP

CONCLUSION

✓ **Key Benefits**

- Faster patient transfers
- Standardized & more accurate handoff reports
- Improved communication & workflow efficiency

🚀 **Future Enhancements**

- Real-time tracking for better monitoring
- Automation of handoff steps to minimize delays
- Long-term research on patient care impact

💡 **Takeaway:** The electronic handoff system optimizes hospital workflow, reduces transfer delays, and enhances patient safety.

REFERENCES

