



The ED Pharm-Assist: Emergency Medicine Pharmacists effect on Regional Anesthesia time to intervention in the Emergency Department

Jonathan Maik D.O.¹ , Robert O’Connell PharmD¹

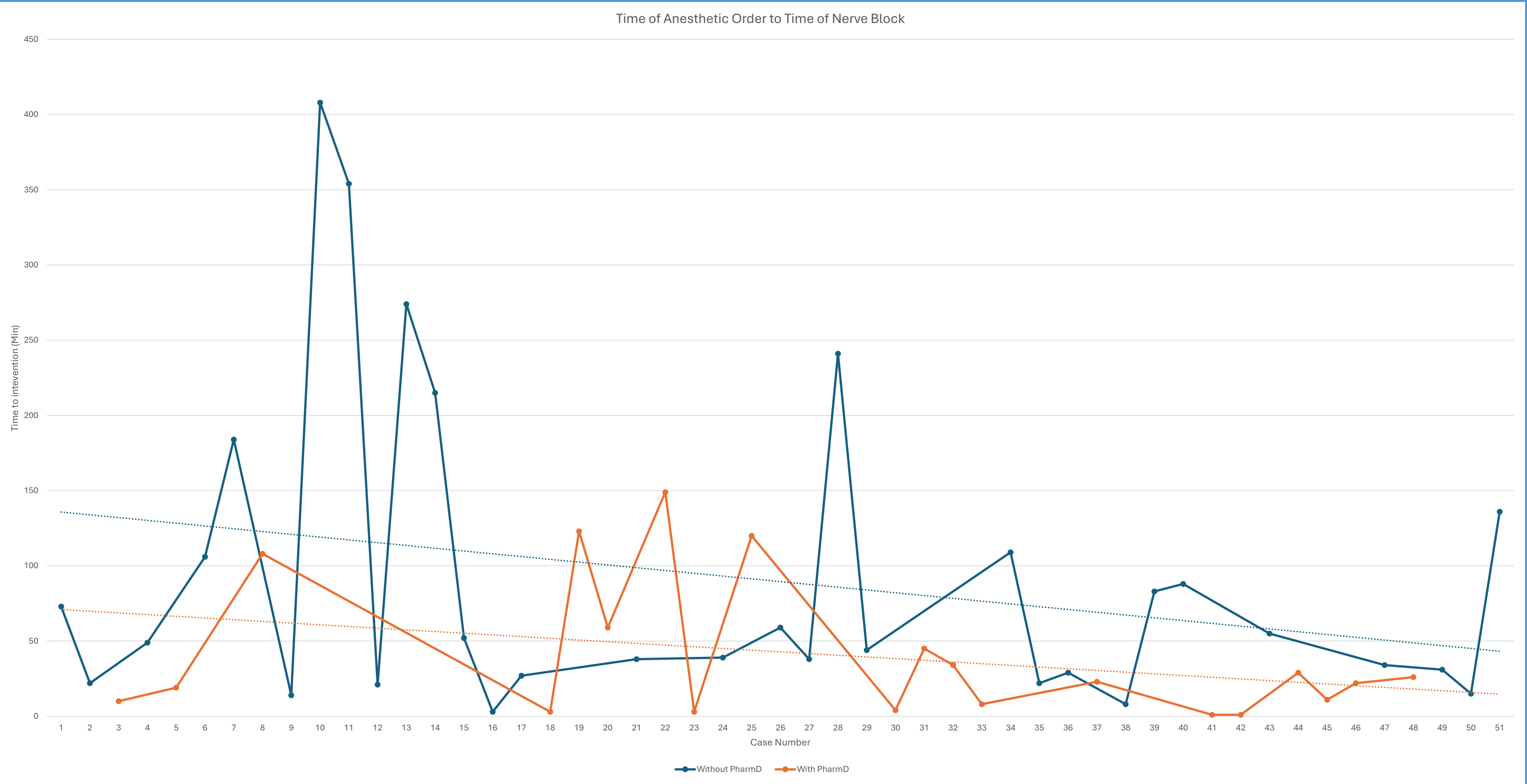
Department of Emergency medicine, SBH Health System.

Methods & Materials

Using EPIC EMR, we searched for all patients who had a Nerve Block procedure note in the emergency department between July 2024 and December 2024. We included only patients who received an erector spinae plane (ESP), serratus anterior plane (SAP), fascia iliaca plane (FIB), or Pericapsular nerve group (PENG) nerve blocks for treatment of acute pain in the setting of acute rib or hip fracture. The data was tabulated Using Microsoft Excel®

We defined time to anesthetic order as the time the local anesthetic was ordered in the EMR, and the time to drug administration as the time the RN scanned the local anesthetic at the bedside during procedure time-out.

Results



Time to Nerve Block with ED PharmD	Time to Nerve Block without ED PharmD	Average Difference
39.9 min IQR: 41.5 (7-48.5)	92.6 min IQR:79.5 (28- 107.5)	52.7 minute

Introduction

Regional Anesthesia is primarily used in the Emergency Department (ED) to treat acute pain in the setting of traumatic injury. Its incorporation into multimodal pain management is guideline based. Logistical limitations to its incorporation, such as the unscheduled nature of patient encounters, lack of ED physician access to automated drug dispensing machines, and competing triage priorities, all act as barriers to performing regional anesthesia in the ED efficiently.

ED pharmacists are primed to facility regional anesthesia in the ED. Their expertise allows them to fully integrate into patient care, assist in drug dosing, drug administration ad procedural setup.

Prior studies have found significant impact of ED Pharmacist presence on time to intervention for other critical conditions such as thrombolysis in AIS, door-to-balloon time in PCI, and time to antibiotics in Sepsis and Trauma

We reviewed cases of regional anesthesia in our ED to determine if there was an association with quicker procedure performance when one of our ED pharmacists was present.

Conclusion

The presence of ED pharmacists in the ED was associated with a significantly reduced time to drug administration of 52.7 minutes compared to when the ED pharmacists were not present. We believe that this data suggests that involvement of ED pharmacists in regional anesthesia procedures in the ED improved efficiency. Emergency Departments looking at strategies to incorporate regional anesthesia into the care of trauma patients, in-line with guideline-based care, while maintaining efficiency, should consider a strategy of incorporating ED pharmacists.

References

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