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Pharmacists Improve Door to Needle Times in the Emergency Department

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PROVIDENCE Health & Services

Background

- An estimated two million brain cells die every minute cerebral perfusion is impaired
- Best outcomes for acute ischemic stroke are achieved by decreasing the time from emergency department (ED) arrival to thrombolytic therapy
- Previously, alteplase was dosed and prepared in the pharmacy which contributed to prolonged door to needle (D2N)

Purpose

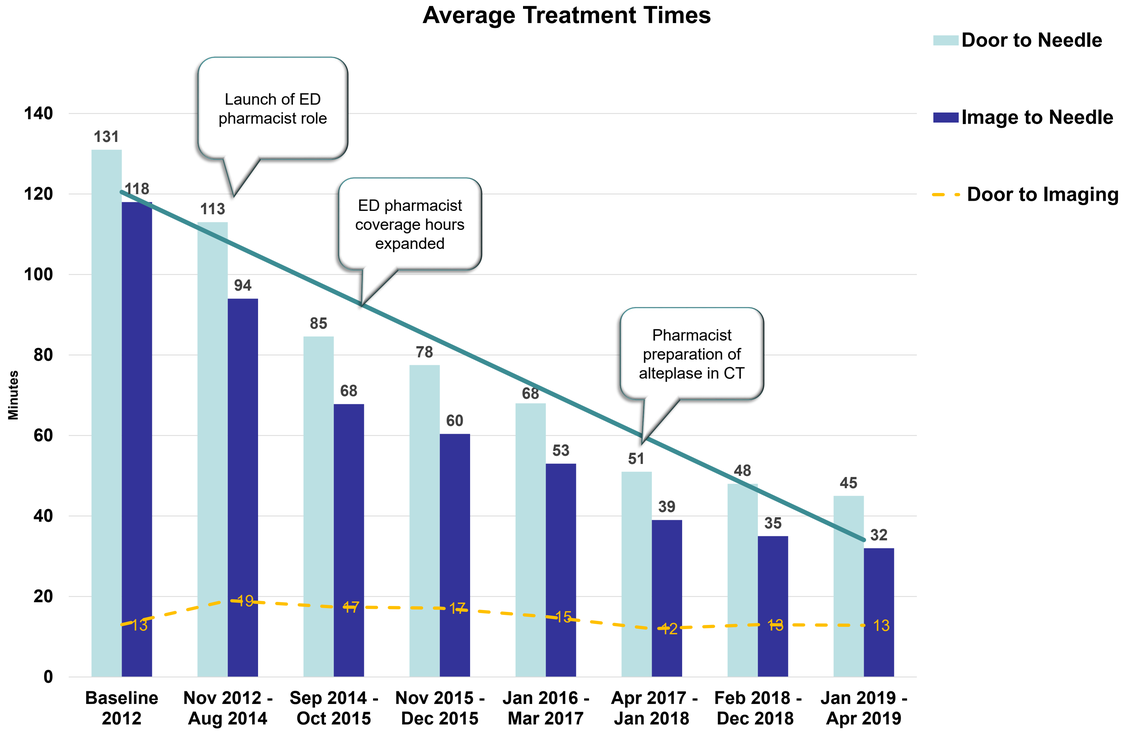
- To describe the impact of various pharmacist interventions on D2N in the ED

Methods

- Retrospective data from all patients who received alteplase for acute ischemic stroke from November 2012- April 2019 compared to baseline (Jan 2012 – October 2012)

Results

- 407 patients received alteplase
- Average D2N decreased from 131 minutes at baseline to 45 minutes
- The largest decrease in average D2N was seen with the launch of the ED pharmacist role (⬇18 minutes), the expansion of the ED pharmacist coverage (⬇28 minutes), and pharmacist preparation of alteplase in CT (⬇17 minutes)



Conclusions

- Pharmacists directly impacted stroke care in the ED by decreasing D2N
- Presence of a pharmacist in the ED enabled fast and safe delivery of alteplase
- Pharmacists also were able to perform rapid medication reconciliation and expedite antihypertensive therapies
- Having pharmacists as a part of the stroke team is a model that can be adopted by hospitals to enhance stroke care

References

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