Obstacles to Nurse-Performed Ultrasound Guided Peripheral IV Placement

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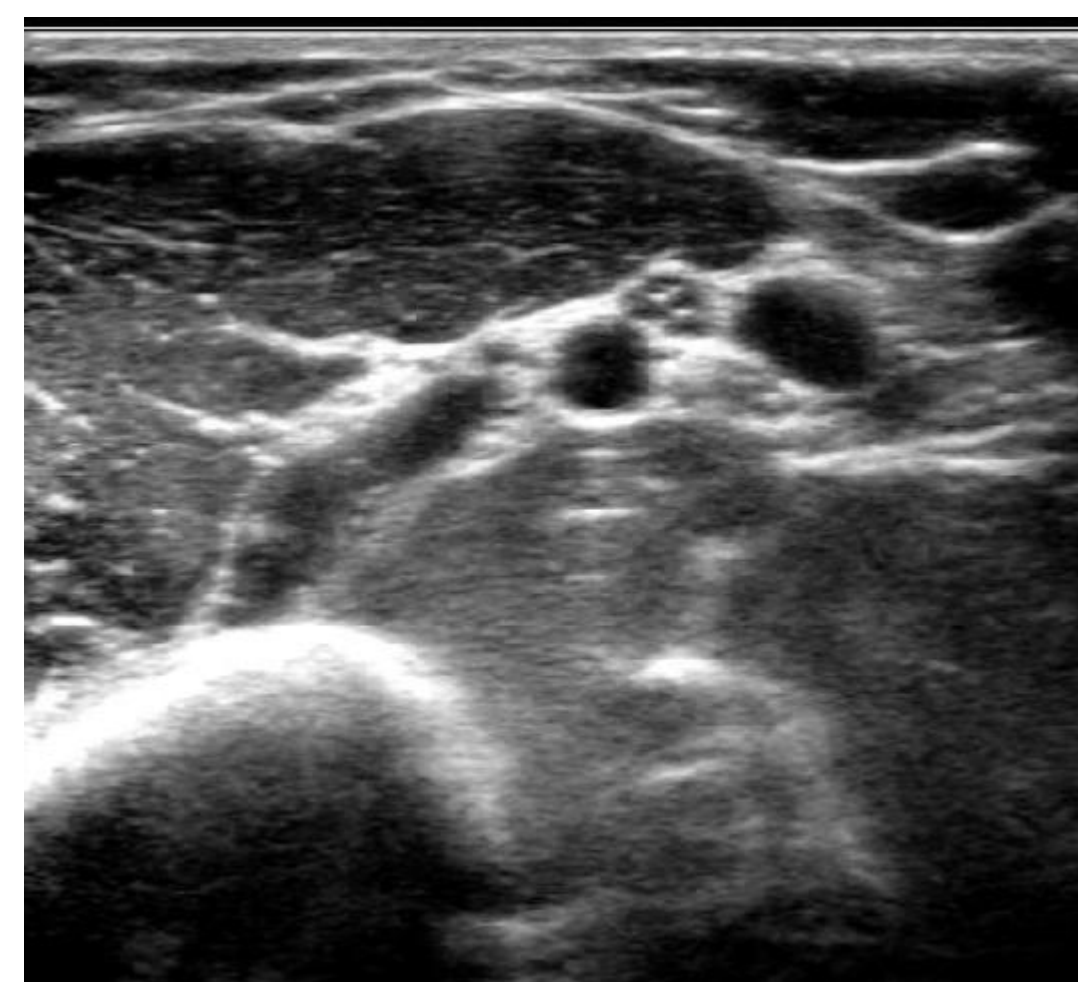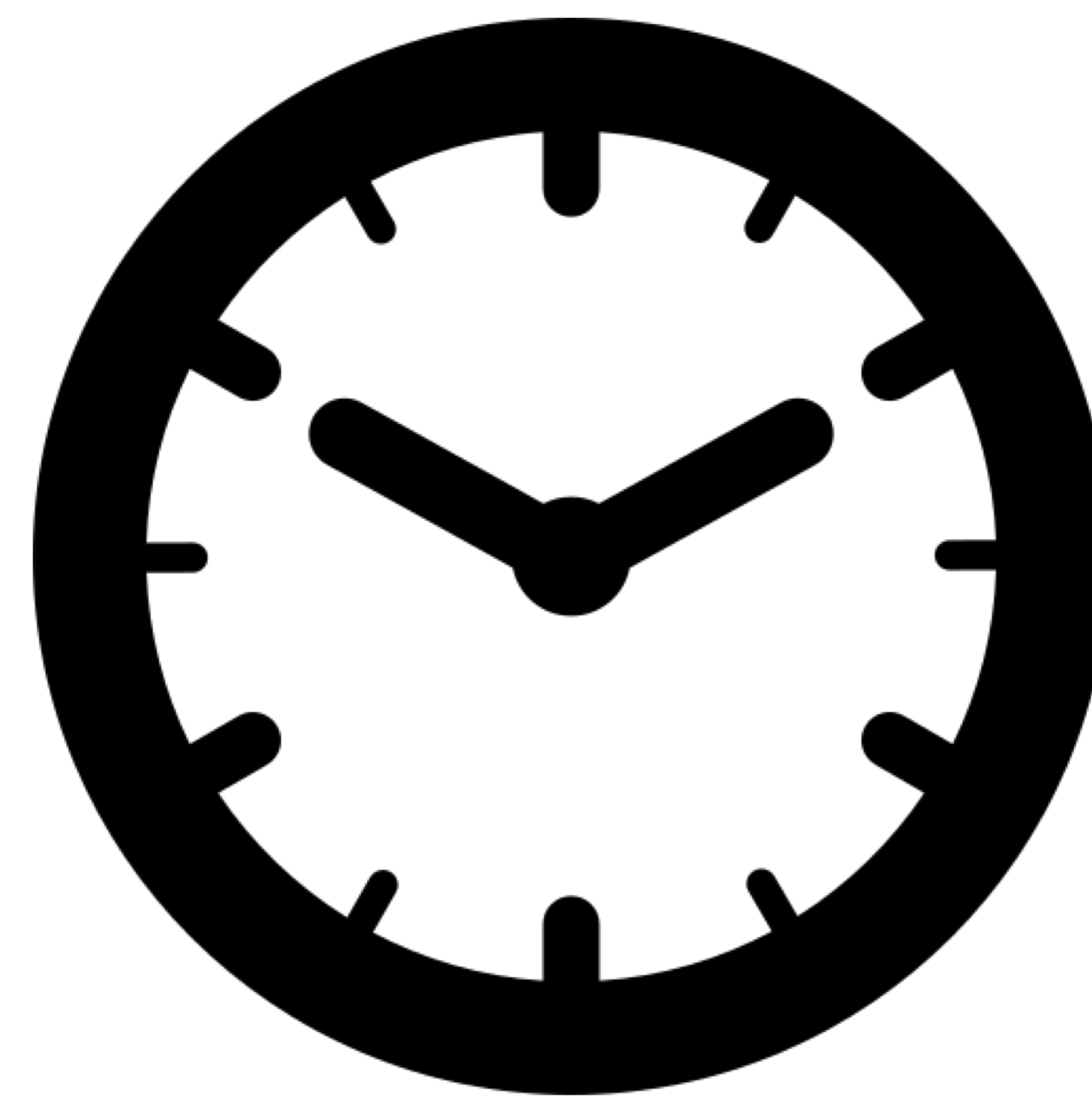Jefferson Health - Northeast

Background

With an aging population, the rate of obesity, the regional prevalence of dialysis patients and the increase in IV drug abuse, obtaining routine vascular access in the emergency department (ED) has become more challenging. Ultrasound (US) guided IV placement has been pivotal in identifying deeper veins to access. This is traditionally performed by ED physicians, however given the time constraints, lower acuity patients who require US IV access can experience significant delays to care. We attempted to train ED nurses to perform this skill, however many trained nurses are still not attempting US IVs regularly. This study aimed to identify barriers to ED nurse performed US IV attempts.

Intervention

Results

Approximately 10 of the 32 (31%) trained nurses are even attempting US IVs. Through a combination of email responses and survey results, nurses discussed their obstacles:

Conclusion

Our preliminary results suggest that multiple factors prevent nurses from practicing US IV placement. Most factors focus on time -- time to setup, time to perform the procedure while caring for patients, and a desire for dedicated nonclinical time with ED US faculty as they attempt on actual patients. Many nurses are excited to learn this procedure, but lack the time and incentive to do so outside of other responsibilities.

While we certainly need to continue obtaining survey results from more nurses, the results we have are instructive. If we can spend more nonclinical time with US trained nurses, perhaps we can reduce the amount of time it takes for them to setup, attempt, and succeed with this procedure.

Aims for Improvement

We need to gather more data to more accurately identify obstacles ED nurses face in performing US IVs. We need to teach US guided IV access in both a simulated environment (on models) and in a clinical environment (on patients). This will more likely lead to success in ED nurses attempting and succeeding at this procedure.