

Using Portable Computers to Increase the Efficiency of Evaluating Psychiatric Emergencies – A Pilot Program

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Purpose

In order to increase the efficiency and throughput of psychiatric patients in the Emergency Department (ED), the Psychiatric Evaluation Service (PES) piloted a program to use portable laptop computers with electronic medical records and real-time data entry instead of traditional data capture on paper and then transfer to electronic medical record via a desktop computer.

Methods

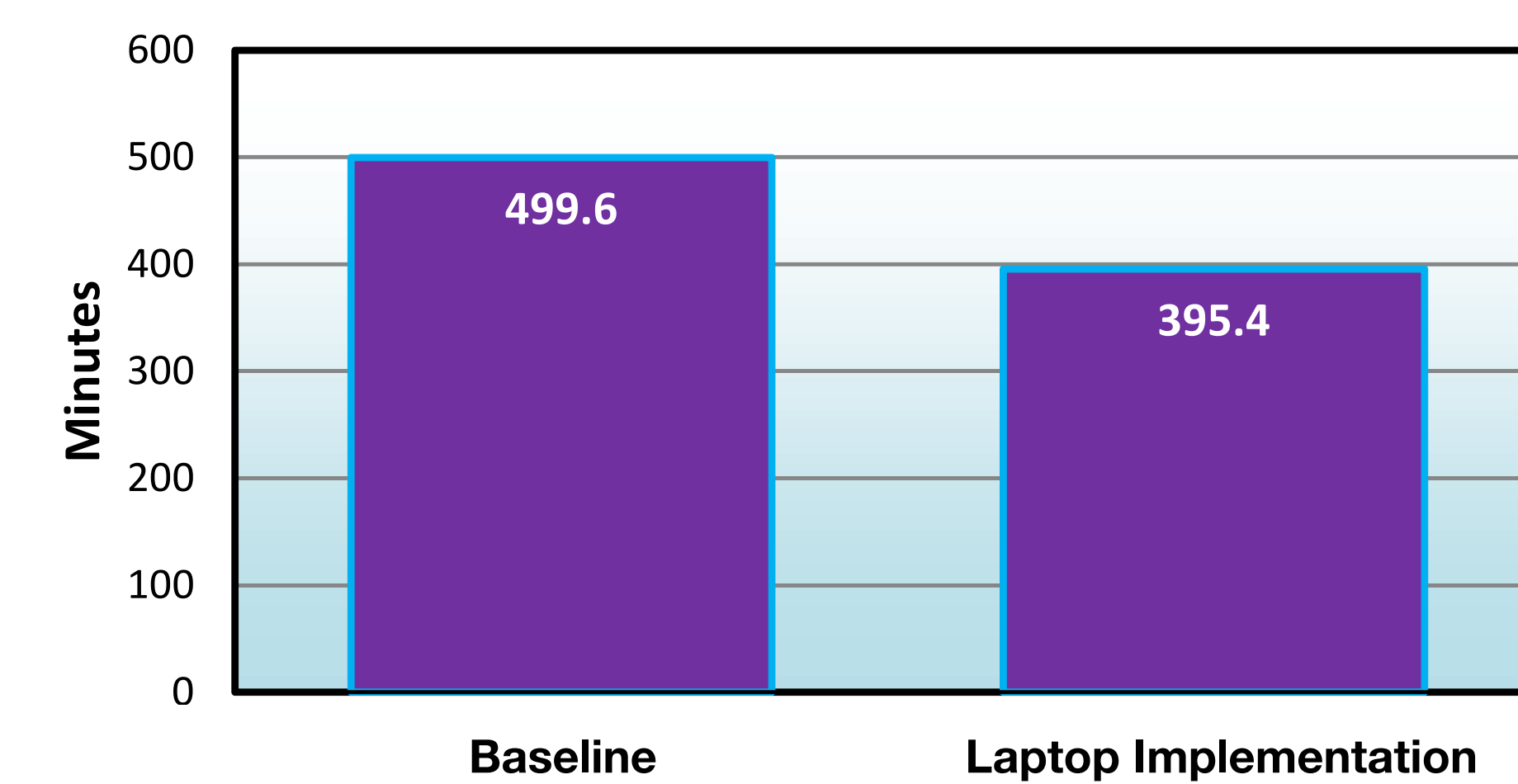
Prior to the use of laptop computers, baseline data were collected over a period of two months and included case completion (the time from the start of the case until report is called to the unit), length of stay post-case completion (the time from report to unit until patient departure to the unit), and ED length of stay (the total time spent in ED). Data from adult patients who were evaluated in Lehigh Valley Health network's ED during the evening shift and were admitted to Lehigh Valley Health Network's inpatient behavioral health unit were examined for this pilot. Evening staff were provided with portable laptop computers equipped with the electronic medical record. Data were then collected over six months and analyzed.

Results

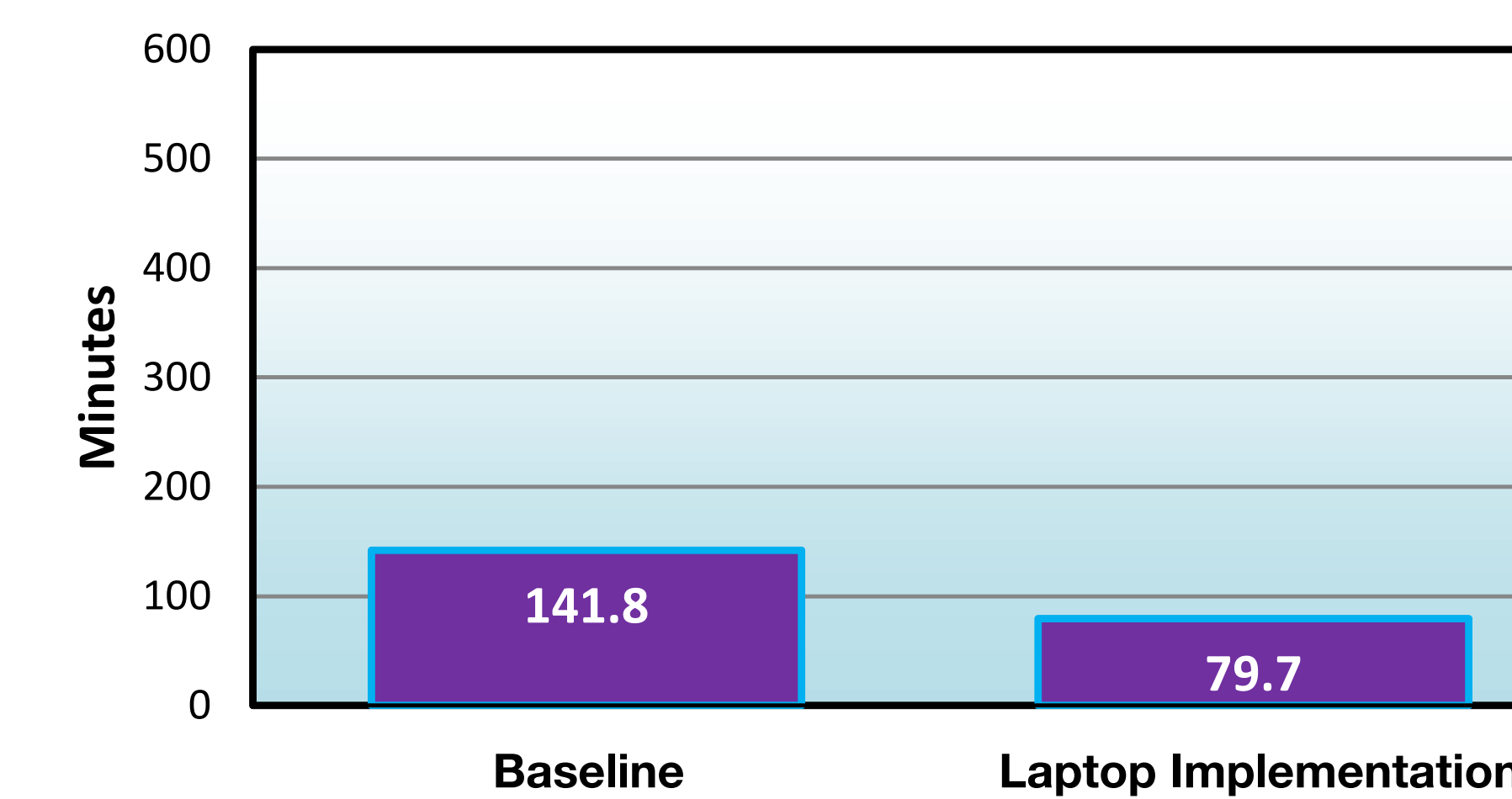
For traditional data capture, 29 charts were reviewed. On average, the time to case completion was 141.8 minutes,

Results

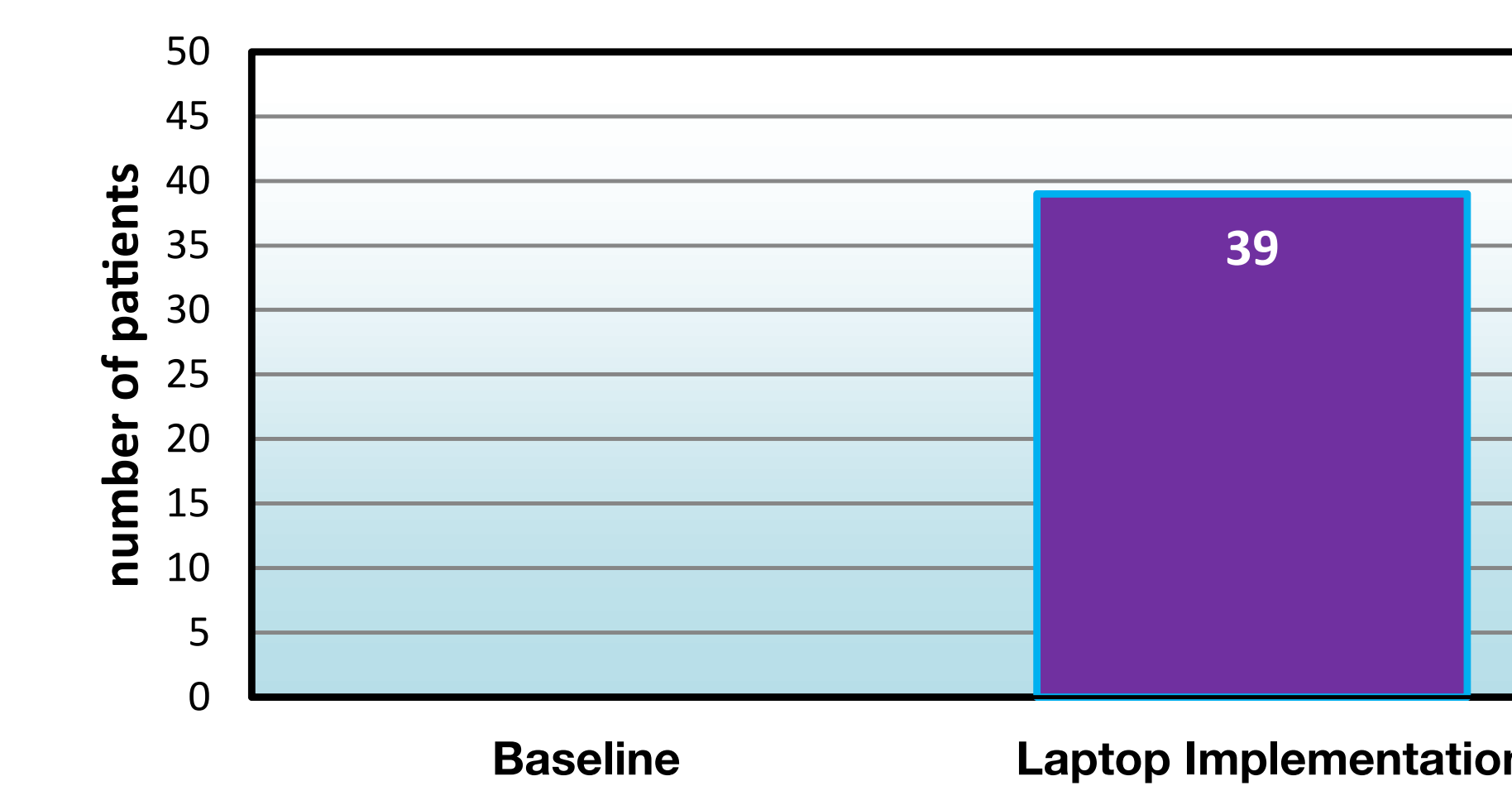
ED LOS



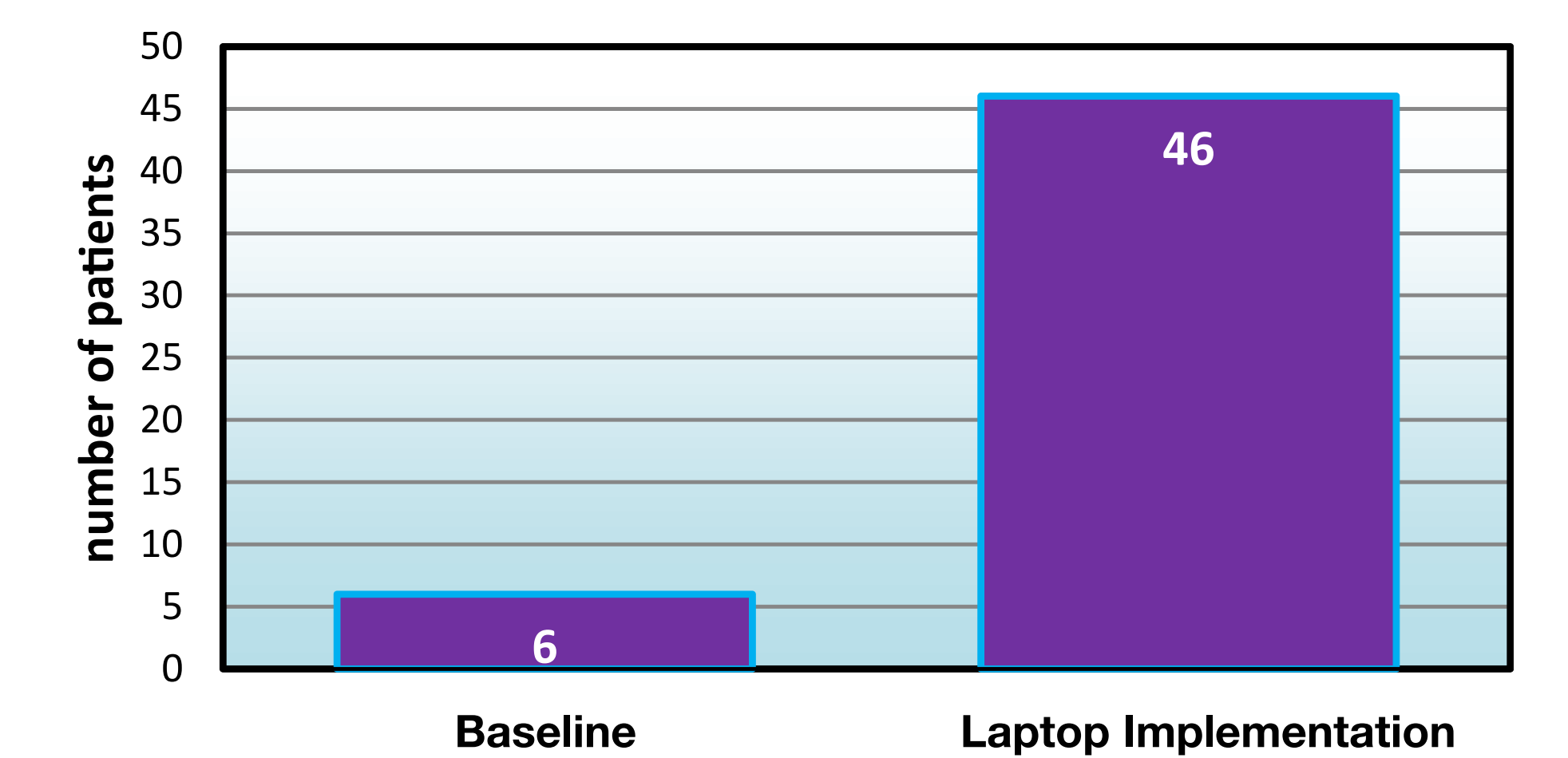
Psychiatric Evaluation Time



Evaluations Less Than 60 Minutes



ED LOS Under 6 Hours



length of stay post case completion was 57.6 minutes, and ED length of stay was 499.3 minutes. The number of case completion under 60 minutes was 0, and the number of cases with ED length of stay less than 6 hours was 6 (21%). After the initiation of laptop computers, 106 charts were reviewed over 6 months. On average, the time to case completion was 79.7 minutes, length of stay post-case completion was 69.4 minutes, and ED length of stay was 395.4 minutes. The number of case completion under 60 minutes was 39 (37%), and the number of cases with ED length of stay less than 6 hours was 46 (43%).

Conclusions

The use of laptop computers increased the efficiency of ED patient evaluation with an average decrease of ED length of stay of 103.9 minutes. The increased efficiency has allowed PES to evaluate more patients during a worker's shift and better manage the flow of psychiatric emergencies.

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- 2 Murphy, J., Fenichel, G., & Jacobson, S. (1984). Psychiatry in the emergency department: factors associated with treatment and disposition. *The American Journal Of Emergency Medicine*, 2(4), 309-314.