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# Improving Length of Stay: Transitioning Care from the Emergency Department to a Clinical Decision Unit

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# IMPROVING LENGTH OF STAY: TRANSITIONING FROM THE EMERGENCY DEPARTMENT TO THE CDU

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# Objectives

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- Understand the effect Emergency Department (ED) and Observation length of stay has on patient outcomes such as quality and safety
- Review the important ED throughput metrics and how they are tied to hospital payment by the Center of Medicare & Medicaid (CMS)
- Describe the transitional care process and how to expedite patients being placed in the Clinical Decision Unit (CDU) from the ED
- Discuss the collaborative approach between nursing, physician, case management, and ancillary departments in order to make the process change a success



# Introduction

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- Background
  - Increased patient visits/Overcrowding
  - Physical constraints
  - Increased ED patient length of stay
  - Boarding
  - Risk in patient safety and quality (Singer, Thode, Viccellio, & Pines, 2011)

# Background

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- Observation status vs. Inpatient
  - ▣ Short term stay in the hospital based on the needs of the patient
  - ▣ Continued evaluation, testing and observation to determine the need of inpatient admission
  - ▣ Recommendations of care regulated by the Centers for Medicare and Medicaid Services
    - To reduce per capita expenses of healthcare

(Arslanian-Engoren *et al.*, 2016)

# Problem Statement

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- The problem is the prolonged length of stay of emergency department patients, after a decision to admit is made by the emergency department physician, resulting in emergency department overcrowding and boarding.

# Significance of the Problem

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- Healthcare/Nursing Practice
  - Increases nurse to patient ratio
  - Delay in medication administration
  - Poor patient outcomes
- Healthcare Delivery
  - Overcrowding
  - Increased wait time to be seen by provider
  - Safety Risk
  - Access to Care



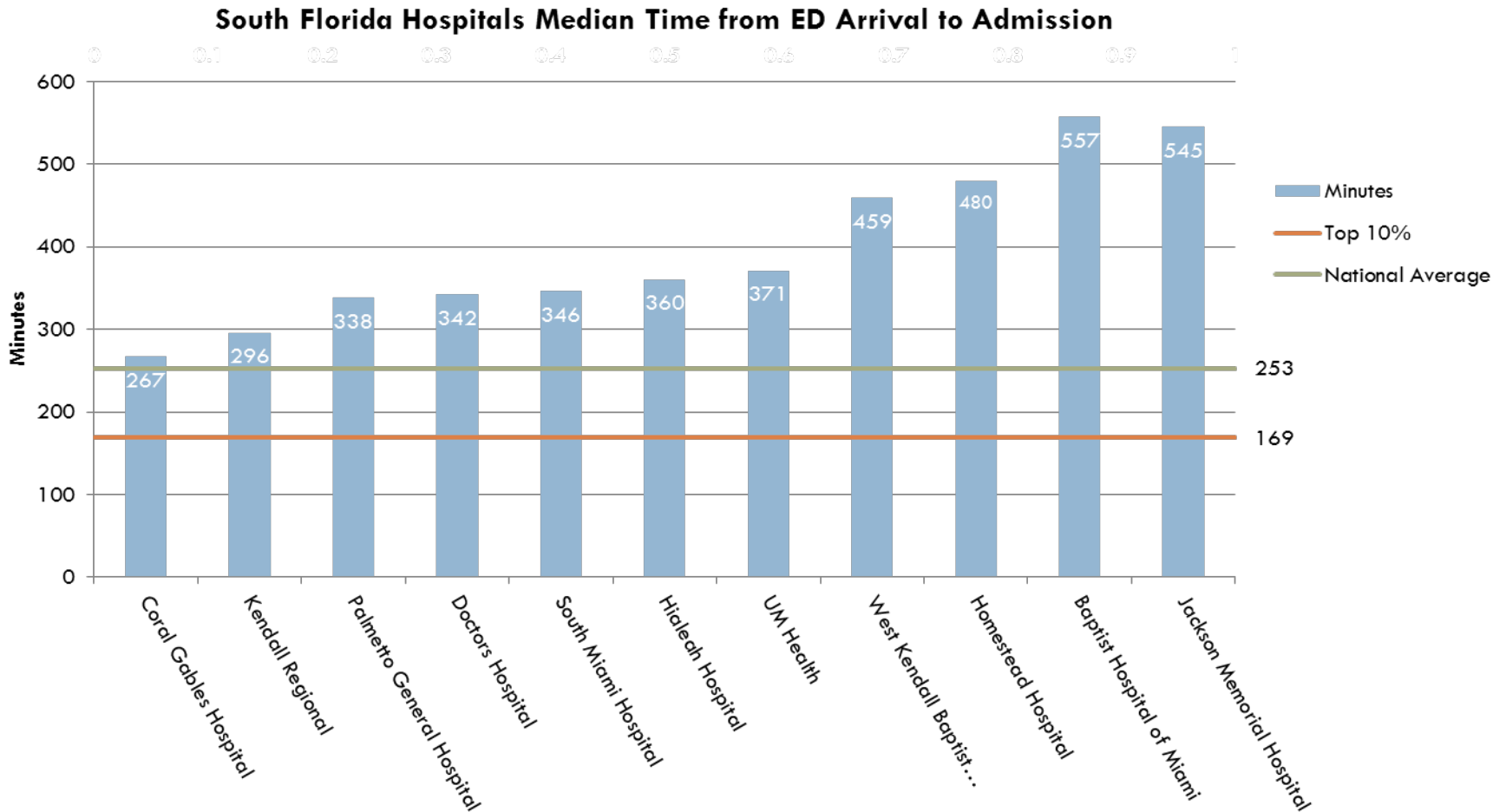
# Significance of the Problem

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- Healthcare Policy
  - Unable to respond to community need
  - Unable to meet government standard
- Healthcare Outcomes
  - Decreased staff morale/patient satisfaction
  - Increases stress to staff
  - Increased costs/Lost revenue



# Hospital Compare-Timely & Effective



# Goal

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- Decrease ED and OBS Length of Stay (LOS)
- Cohort Observation patients
- Efficiently operate a 7 bed Clinical Decision Unit

# Setting

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- South Florida Community Hospital Emergency Department
- 20 adult ED rooms
- 7 Dedicated Observation Beds
- Over 20,000 visits a year

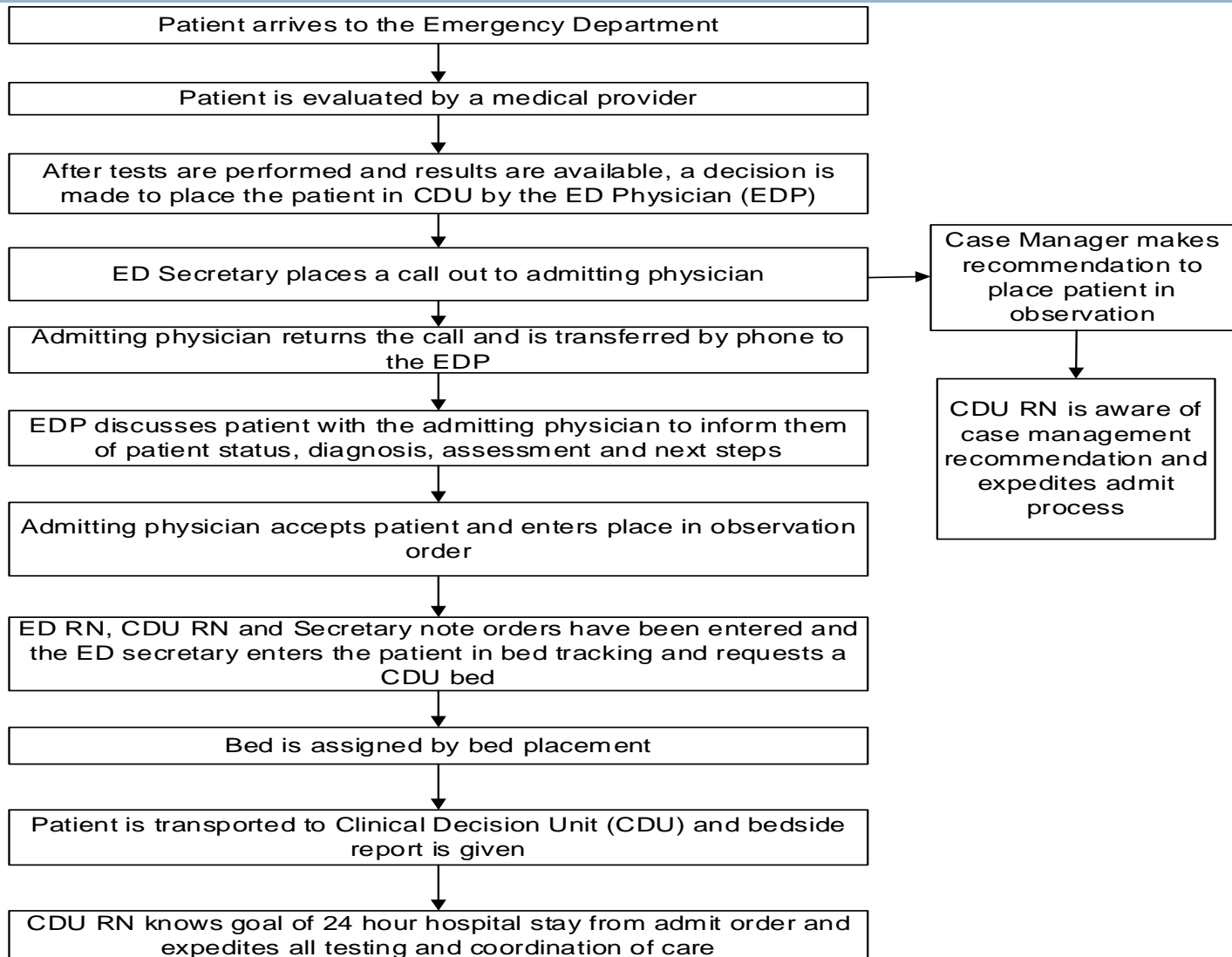
# Participants

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- Executive Leadership
- Medical Leadership
- Department Leadership
- Hospitalists/Attending
- Staff Nurses
- Nursing Administration

# Transitional Care

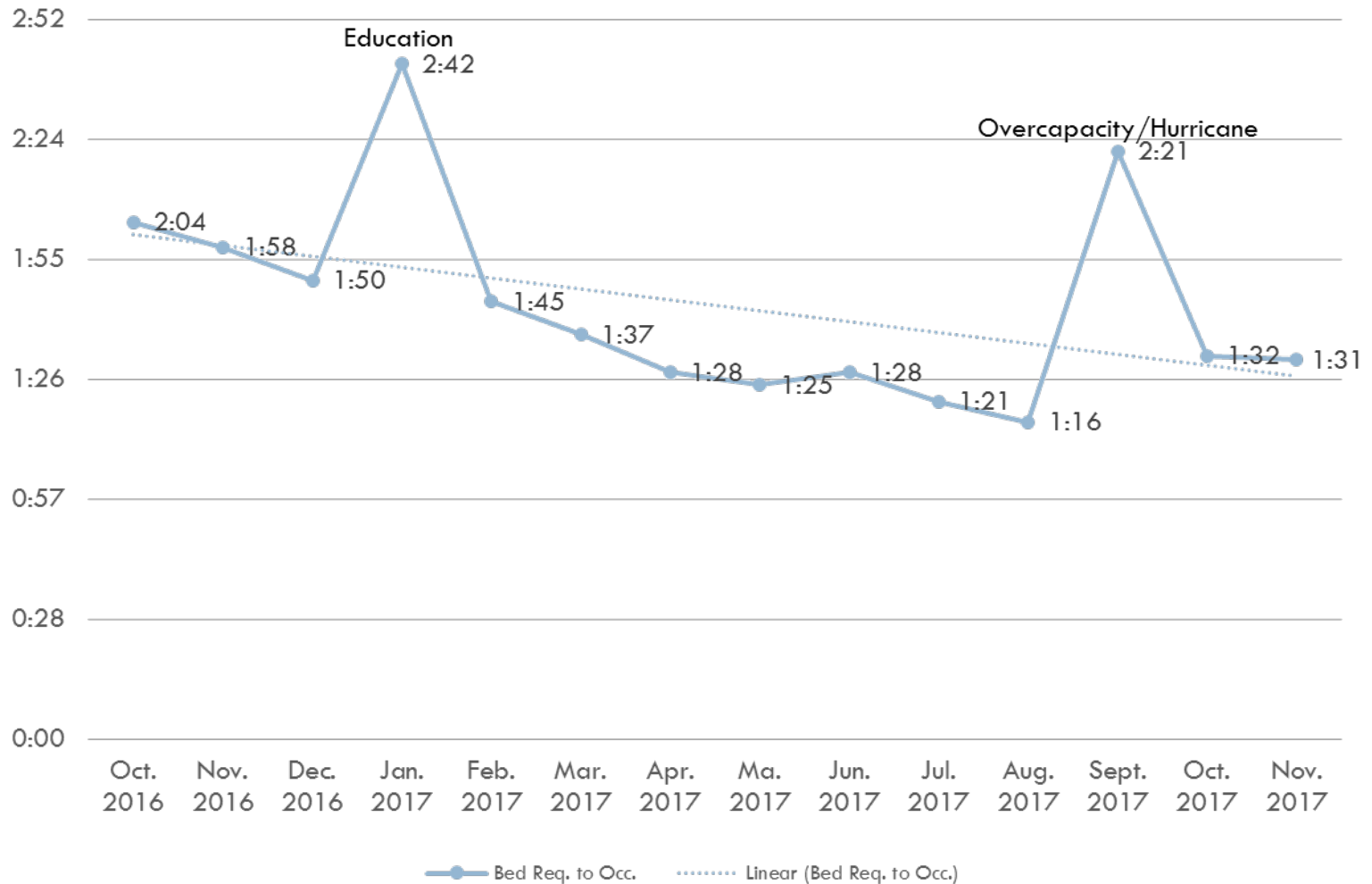
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# ED Throughput Result

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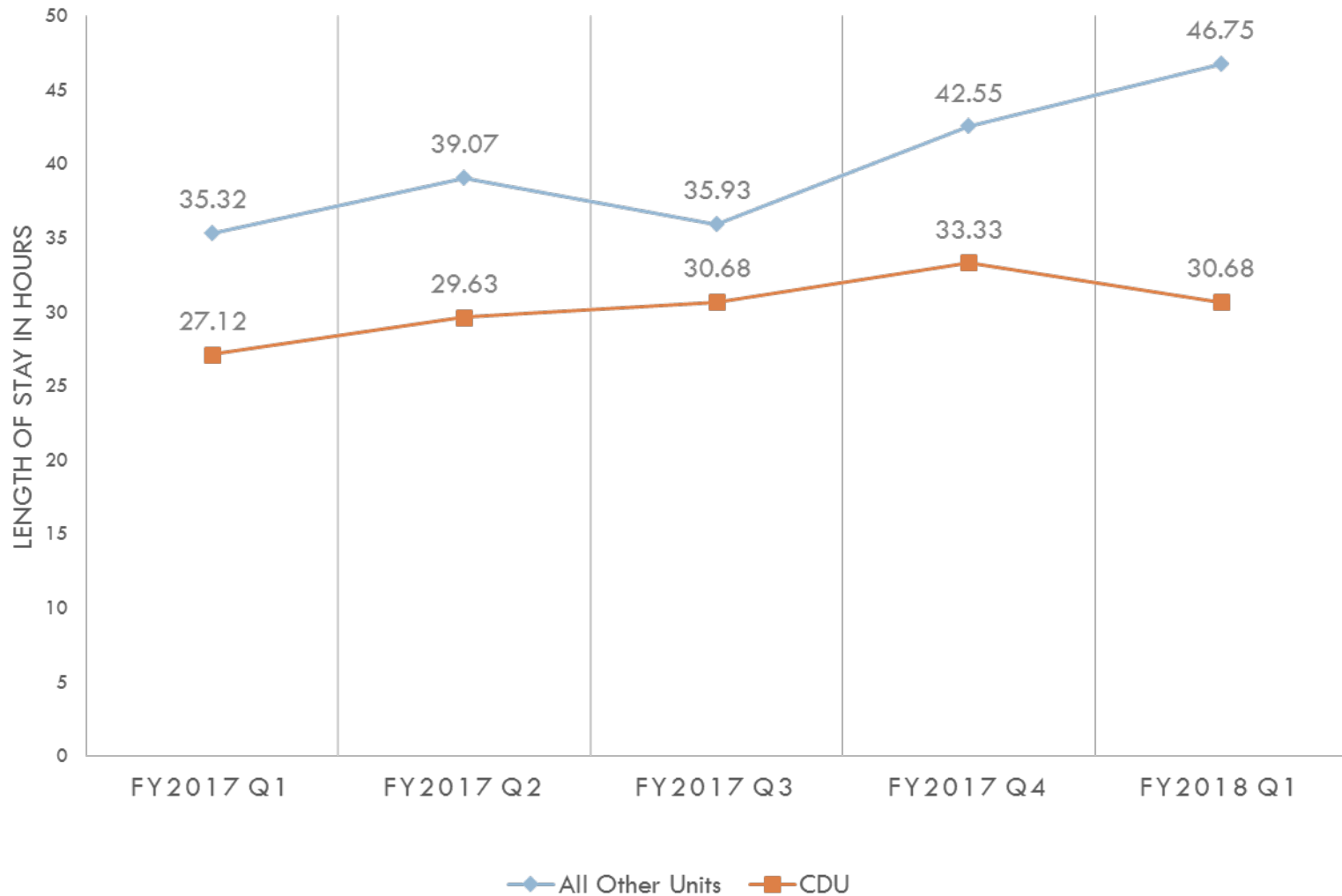
Bed Request to Bed Occupied for CDU



# Observation LOS Result

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## OBSERVATION HOURS CDU V. OTHER UNITS



# References

- Arslanian-Engoren, C., Laskowski-Jones, L., Bressler, T., Kolanowski, A. M., Perez, A., Popejoy, L. L., & Caceres, B. A. (2016). Article: Admit to observation status: Policy brief. *Nursing Outlook*, 64604-606. doi:10.1016/j.outlook.2016.09.002
- Fogarty, E., Saunders, J., & Cummins, F. (2013). The effect of boarders on emergency department process flow. *Administration of Emergency Medicine*, 46 (5), 706-709.
- Hing, E. H. & Bhuiya, F. (2012). Wait time for treatment in hospital emergency departments: 2009. NCHS Data Brief, No. 102. Hyattsville, MD: National Center for Health Statistics.
- Huang, Q., Thind, A., Dreyer, J. F., & Zaric, G. S. (2010). The impact of delays to admission from the emergency department on inpatient outcomes. *BMC Emergency Medicine*, 16.
- Patel, P. B., Combs, M. A., & Vinson, D. R. (2014). Reduction of admit wait times: The effect of a leadership-based program. *Academic Emergency Medicine*, 21 (3), 266-273.



# References

- Singer, A. J., Thode, H. C., Viccellio, P., & Pines, J. M. (2011). The association between length of emergency department boarding and mortality. *Academic Emergency Medicine*, 18 (12), 1324-1329.
- Viccellio, P., Zito, J. A., Sayage, V., Chohan, J., Garra, G., Santora, C., & Singer, A. J. (2013). Patients overwhelmingly prefer inpatient boarding to emergency department boarding. *The Journal of Emergency Medicine*, 45 (6), 942-946.
- White, B. A., Biddinger, P. D., Chang, Y., Grabowski, B., Carignan, S., & Brown, D. (2013). Boarding inpatients in the emergency department increases discharged patient length of stay. *The Journal of Emergency Medicine*, 44 (1), 230-235.

# Questions

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# Review of Literature

Author/Date	Design/Purpose	Subjects	Key Findings	Clinical Recommendations
Hing, E. H. & Bhuiya, F. (2012). Wait time for treatment in hospital emergency departments: 2009. NCHS Data Brief, No. 102. Hyattsville, MD: National Center for Health Statistics.	The purpose is to answer the following questions: Has wait time for treatment in EDs increased? Does ED crowding affect wait time? How does hospital location and ED crowding affect wait time? How does ED visit volume and ED crowding affect wait time? Does patient acuity affect wait time for treatment in EDs? Does ED crowding affect wait time for treatment when patient acuity is controlled for?	Hospitals that responded to US Department of Health and Human Services.	From 2003-2009 ED wait times increased by 25%. Wait times increased for hospitals that went on diversion or boarded admit patients. Wait time increased as volume increased from 33.8 min. with less than 20,000 annual visits to 69.8 min. in EDs with 50,000 visits or more. The more ambulance diversions the longer the wait time. ED wait times were longer when patients were boarding than not boarding. Wait time longer in urban EDs than nonurban EDs. .	Implement statewide practices where patients are not boarded. This study does not include all hospitals in the country. There was not a 100% response rate from EDs.

# Review of Literature

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Author/Date	Design/Purpose	Subjects	Key Findings	Clinical Recommendations
Huang, Q., Thind, A., Dreyer, J. F., & Zaric, G. S. (2010). The impact of delays to admission from the emergency department on inpatient outcomes. BMC Emergency Medicine, 16.	To determine the impact of delays to admission from the emergency department has on inpatient length of stay and inpatient cost. Retrospective analysis of 13,460 adult ED visits. ED admission delay was described as ED arrival time to decision to admit longer than 12 hours.	Patients 18 years of age and older who presented to the ED between April 1, 2006-March 30, 2007 who were admitted.	Patients who experienced delays (>12 hours) in being admitted from the ED had a 12.4% longer inpatient length of stay and 11% higher inpatient cost than those that did not experience delays. This study also found that delays resulted in 2,183 extra hospital days per year, which resulted in additional hospital costs of more than \$2 million.	The biggest limitation of this study is that the precise amount of time the patient was delayed might not be exact as the study was retrospective and not in real time. We also do not know what exactly caused the delay. This study shows that improving the flow in the emergency department by reducing admission delays saves the hospital additional and unnecessary costs.

# Review of Literature

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Author/Date	Design/Purpose	Subjects	Key Findings	Clinical Recommendations
Singer, A. J., Thode, H. C., Viccellio, P., & Pines, J. M. (2011). The association between length of emergency department boarding and mortality. <i>Academic Emergency Medicine</i> , 18 (12), 1324-1329.	Retrospective cohort study to explore the association between length of stay of ED boarding and outcomes of boarded ED patients in one hospital.	Suburban, academic hospital with 90,000 ED visits. Admitted patients between 10/05-09/08. 41,256 admitted patients included in study. Mean age 53.1, 52% male, mean hospital LOS was 6 days.	Mortality increased with ED boarding from 2.5% in patients boarding less than 2 hours to 4.5% in patients boarding 12 hours or more. Hospital LOS increased from 5.6 days for those boarded for 2 hours or less to 8.7 days for those boarding 24 hours or more.	Ensure patients are not boarded for more than 2 hours or poor patient outcomes will ensue. What happens to those boarded less than 2 hours? Is there no negative effect? In addition, what is the mortality and LOS for those boarded specifically by each hour over 2 hours? How does prolonged boarding influence outcomes by hour? This study does not identify a specific theoretical framework.

# Review of Literature

Author/Date	Design/Purpose	Subjects	Key Findings	Clinical Recommendations
<p>White, B. A., Biddinger, P. D., Chang, Y., Grabowski, B., Carignan, S., &amp; Brown, D. (2013). Boarding inpatients in the emergency department increases discharged patient length of stay. <i>The Journal of Emergency Medicine</i>, 44 (1), 230-235.</p>	<p>Retrospective, Observational, Cohort study investigated the association between ED boarder burden and discharge patients LOS over 3 years in order to determine the bottleneck effects.</p>	<p>Urban, Academic, Tertiary hospital with 179,840 discharged patients (October, 2007-September, 2010). Border was anyone in the ED after 2 hours of an admit decision. Annual census of 90,000 ED visits. Total ED visits during research period was 266,934 with 179,840 being discharged.</p>	<p>-4.9 patients boarding=1<sup>st</sup> quartile, 205 min.                      5-8 patients boarding=2<sup>nd</sup> quartile, 215 min.                      8.1-11.9 patients boarding=3<sup>rd</sup> quartile, 221 min.                      12-36 patients boarding=4<sup>th</sup> quartile, 221 min. The higher the quartile the higher the ED LOS.                      11a-11p LOS increased based on boarders                      Q1 252 min                      Q2 271 min                      Q3 285 min                      Q4 309 min                      ED LOS increased by 10% as the boarder burden increased. 57min longer LOS.</p>	<p>There is a correlation but not causality. Administrators must take into account boarders, as it will affect throughput and ED LOS for both admit and discharged patients. We must also keep in mind that it was a 3 year study and many things could have changed.</p>