

## **TITLE**

### **Decreasing Patients Who Leave Without Being Seen (LWBS) from the Emergency Medicine Department**

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## **INTRODUCTION**

The purpose of the Emergency Medicine Department (EMD) is to provide emergent care that is safe, quality driven, effective, patient-centered, and efficient. This is a difficult task under normal circumstances but even more challenging given the time constraints, overcrowding and a decrease in the numbers of EMDs. There are approximately 119 million patients who visit EMDs in the United States annually<sup>1</sup>. Press Ganey scores generated in 2010 indicate an increase of 31 minutes in ED wait times since 2002<sup>2</sup>. As wait times to see an Emergency Physician (EP) increase, thousands of patients are leaving the EMD prior to a physician evaluation or receiving proper care. In San Diego County, an average of 1.7 percent of these patients leaves before they are evaluated by an EP. The fact that these patients may be severely ill or injured is not only a patient safety concern but a potential source of liability for the hospital. High rates of LWBS reflect lower patient satisfaction and loss of revenue as well. This is a dominant trend at Naval Hospital Camp Pendleton (NHCP), as well as, the civilian sector.

<sup>1</sup>Pitts S, Niska R, Xu J, et al. National Hospital Ambulatory Medical Care Survey: 2006 emergency department summary. National Health Statistics Reports, No. 7. Hyattsville, MD: National Center for Health Statistics; 2008

<sup>2</sup> 2010 Emergency Department Pulse Report by Press Ganey Associates, Inc.

## **Objective**

To reduce the number of patients who LWBS from Naval Hospital Camp Pendleton's EMD while encompassing the command's 2011 annual goals of: 1) customer satisfaction (internal and external), 2) Medical Homeport and 3) patient safety.

## **Methods**

A multitude of process improvements were implemented via EMD input, throughput and output to reduce LWBS's. The process improvements were in direct alignment with the command strategic goals for 2011 and are delineated below:

1) Coordination of EMD appointment booking capability with family practice: Medical screening exam followed by referral appointment with family practice primary care provider to provide continuity of care in support of the medical homeport model.

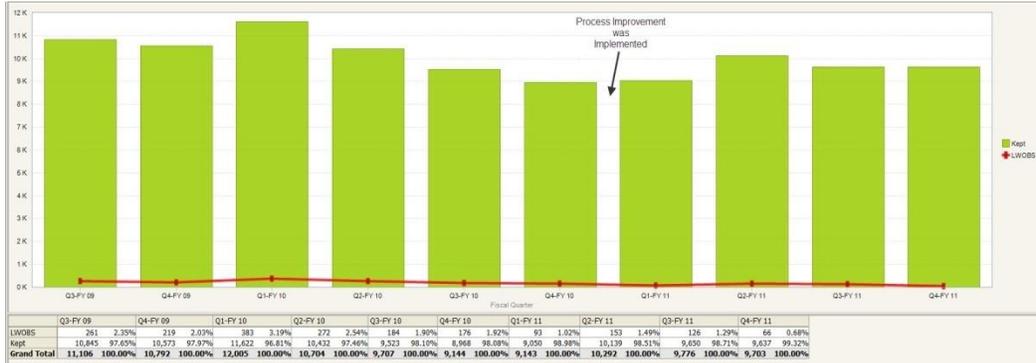
- 2) Patient instructional video (\$15K project by NMSC) is played hourly in the EMD waiting area: This video educates patients in waiting area on triage and EMD process to establish expectations of care.
- 3) Immediate bed occupation (decreased door to bed time) when a bed is available resulting in improved patient satisfaction in relation to wait times.
- 4) New room/additional bed established in EMD; The increase in the number of rooms/beds in main ED to 14 results in improved patient satisfaction in relation to wait time.
- 5) Extended Physician double coverage during high census times: Improves patient experience of care and improved provider experience of work.
- 6) Extended and double Fast Track provider coverage (0900-1200): Improves patient experience of care and improved provider experience of work.
- 7) Charge Nurse/Physician notification when LWBS in progress: ED clerk presents patient's ID card to charge RN/ physician and patient is given immediate access to evaluation and treatment.
- 8) Increased OB-GYN Bed Capability (2 to 5 beds): Addresses population based need
- 9) Nurse Protocols (triage protocols): Diagnostic testing is performed prior to waiting room disposition leading to improved patient experience of care and improved provider experience of work.
- 10) EMD consultant improvement process: Decreases disposition to floor time to less than 2 hours from start of consultation.

## **Results**

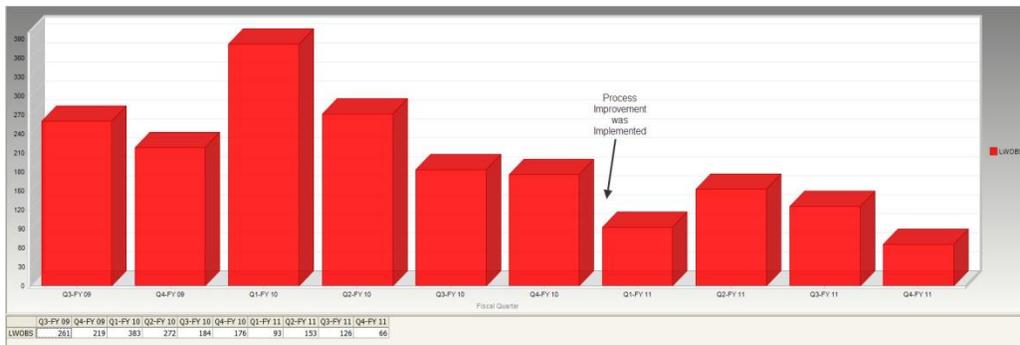
NHCP Emergency Department LWBS percentages decreased significantly after project implementation in September 2010. LWBS rate for fiscal year 2010 prior to process improvement was 1015 LWBS/40,541 encounters ~2.50 %. LWBS for fiscal year 2011 after process initiative 428 LWBS/37,274 encounters ~1.1%. This resulted in a 57.8% decrease in those patients who LWBS since project implementation. The LWBS rate continued to significantly improve with the addition of the instructional video in the fourth quarter of fiscal year 2011 with an LWBS percentage of 0.7%, reflecting a 72% decrease in LWBS when compared to fiscal year 2010. The LWBS numbers were shown to lower in the face of sustained ED population numbers in 2011. Please see graph 1, 2 and 3.

One hundred and twelve patients were surveyed to evaluate the effectiveness of an educational video in the waiting area; this video described the EMD process of triage and established expectations for patient care. The Lichert scale was used to evaluate patient responses (5 being excellent and 1 being very poor). The survey consisted of six questions, four of which addressed the patients understanding of triage, the order in which patients are seen, the function of fast track versus emergency department and the discharge process. The final two questions were pertinent to the video with the following results:

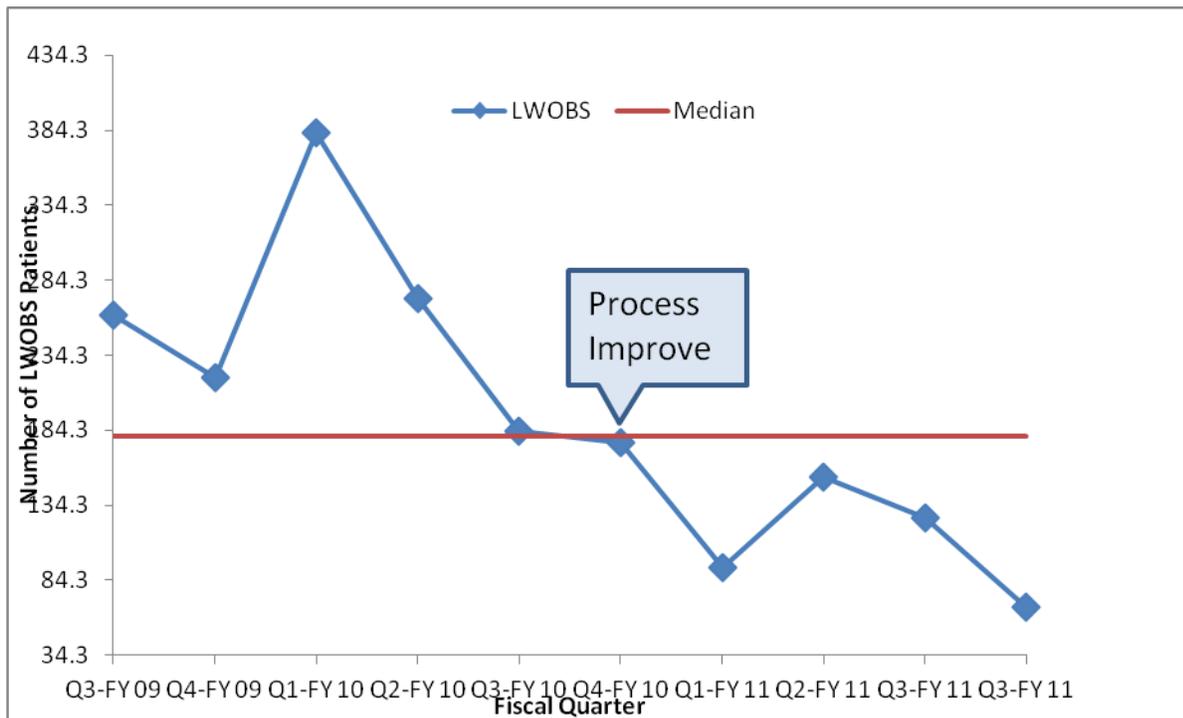
1. Did you find the video helpful overall? 105 of 112 respondents responding excellent or good.
2. Would you recommend continued use of this video in the waiting area (once an hour)? 95 of 112 responding excellent or good.



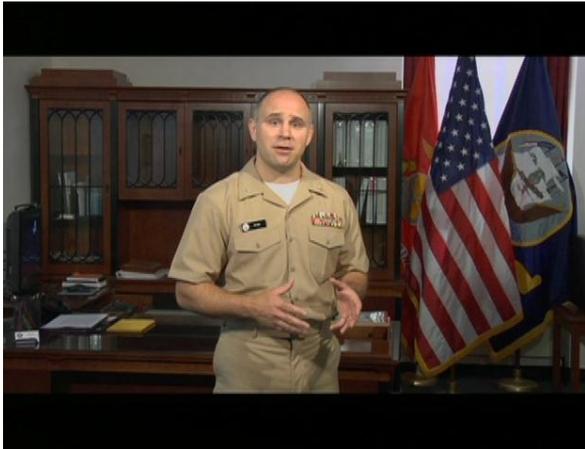
**Graph 1 demonstrating decreased in LWBS despite sustained population numbers**



**Graph 2 demonstrating patient LWBS over since project implementation**



### Graph 3 demonstrating average patient number of LWBS Patient per Fiscal Quarter



**Figure 1 Single shot of NHCP ED scripted video describing the ED process**

#### **Conclusions:**

A patient's ability to receive emergent treatment for illness and injury is a major factor in a patient-centered health care system where the key element is patient safety. In FY2010, approximately 2.5% of patients who presented to the NHCP Emergency Department left after initial triage. Following implementation of this process improvement, the number of LWBS decreased to 1.1 % translating to approximately 500 fewer patients leaving the ED compared to the previous year. The number of LWBS has now decreased to 0.6% as of November 1. Overall patient satisfaction by the Navy Monitor website detected a 2% increase in both quality of encounter (85.44% to 87.12%) and access to care (77.78% to 79.91%) from fiscal year 2010 to 2011.

Customer Service Video Data gathered from patient and staff evaluations reflected an improvement in both customer and provider experiences resulting in an improved experience of care for both the patient and the front desk clerks (command goal #1). The patients reported a better understanding of the triage process, why patients were seen before others despite presentation time, a better understanding of the fast track patient care area, and a better understanding of the discharge process and follow-up. One patient commented: "It was great to understand why some patients may go before me even when I have been here longer." Although initially thought cumbersome and perhaps unlikely to be sustainable, video start up every hour in the waiting area was not only feasible but the front desk clerks found the benefit greatly outweighed the effort in 9 out of 10 staff respondents. The front desk reported fewer patient status inquiries, a decrease in time spent answering patient questions regarding family members and wait times and more time to focus on checking in patients.

Not all patients seeking care in an ED need urgent care. The use of the ED for non-urgent care leads to longer waiting times. In order to support the Medical Homeport Model and to provide the patient with a better overall patient experience, non-urgent family practice enrolled patients were referred to the family practice clinic with an appointment time. Approximately 10% of presenting patients have undergone this referral process since implementation. We foresee the

potential to expand the appointment booking capability to other clinic areas such as Internal Medicine and Pediatrics.

The average enhanced RVU per encounter at NHCP EMD for the fiscal year 2011 was 2.73 with a Prospective Payment System earning of \$330 per relative value unit. Based on the number of reduced patients LWBS since project implementation (504 patients) compared to fiscal year 2010 the command roughly recaptured approximately \$454,053 in revenue.

While several options were used to address the LWBS challenge, this project resulted in an improvement in LWBS percentages to less than 1%, increased patient satisfaction, and increased safety for patients, while meeting each command goal at no net cost to our emergency department.