

## Overview

Florida Hospital Tampa has set new initiatives to improve patient safety, quality of care and patient satisfaction, including Nursing Hourly Rounding, Multi-Disciplinary Rounds and Continuous, Contact-Free Patient Monitoring (EarlySense) designed specifically for the non-ICU environments.

## Setting

The medical-surgical floor 6 Main in Florida Hospital Tampa started using the EarlySense System on April 22nd 2013.

Prior to the EarlySense implementation, in January 2013, Florida Hospital Tampa started implementing several initiatives to improve patient safety and quality of care. The initiatives included leadership rounding, hourly nursing rounds, nursing resident program and daily grand rounds.

## Design

Data regarding clinical outcomes was collected for the time period between January 2012 and January 2013 (pre-implementation). In order to examine the effect of the EarlySense System implementation, the same data regarding clinical outcomes was collected for the time period between May and September 2013 (post-implementation).

## Outcomes

### Effect of Safety Initiatives

**90.9%**



Reduction in cardiac arrest events

**64.8%**



Reduction in ICU transfers via CAT

**45.6%**



Reduction in average LOS in ICU

**84.1%**



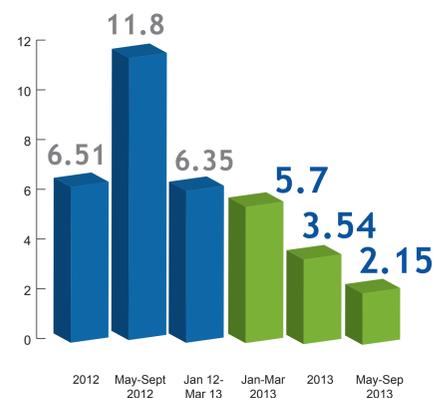
Reduction in mortality due to cardiac arrest

**87.2%**

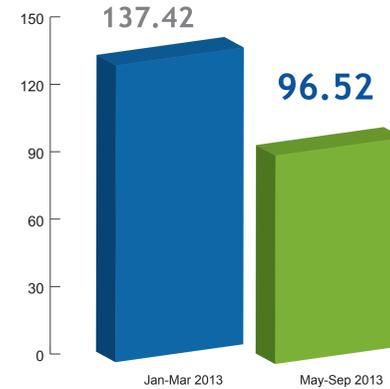


Reduction in falls related to bed exit

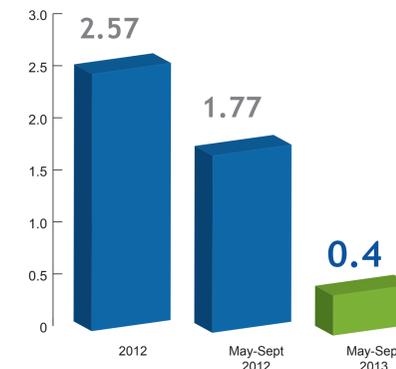
### Average LOS in ICU (patients transferred from 6 Main)



### Patients on Telemetry 1000 pt. days



### Falls Related to Bed Exit 1000 pt. days



### Aspiration Med-Surg. Dep., FL, USA

High RR Alerts Leading to Timely Detection of Aspiration

#### About the Patient:

A 78 year old male with history of GERD, anemia, diabetes, hypotension, hypothyroidism and poor peripheral circulation. Hospitalized due to pneumonia and respiratory failure. The patient had continuous tube feeding.

#### EarlySense Indication:

3:59 PM – High RR alert (32 Br/Min)  
Increased HR (100 BPM)

#### Assessment:

The patient was found to be aspirating.

#### Response:

The nurse suctioned the patient's secretions and repositioned the patient. MD was called. Tube feeding was held until swallowing evaluation was done.

#### Outcome:

Further aspiration was prevented RR and HR returned to normal, as the patient became comfortable.



### GI Bleed Med-Surg. Dep., FL, USA

High RR Alerts Leading to Timely Detection of Gastrointestinal Bleeding

#### About the Patient:

A 72 year old patient, hospitalized with altered mental status and dehydration.

#### EarlySense Indication:

26 hours after the patient admission, at 12:03 AM and throughout the night and the following morning, High RR alerts (32-45 Br/min)

#### Assessment:

Patient with urostomy and colostomy, lethargic. The patient vomited coffee grounds in the morning.

#### Response:

CAT nurse was called. Further assessment revealed GI bleeding.

#### Outcome:

The patient was treated and stabilized on the floor.



## Lessons Learned & Implications

The implementation of Continuous Patient Monitoring specifically designed for the non-ICU environment in conjunction with Safety and Quality Initiatives implemented at 6 Main in 2013 were found to result in significant improvements in clinical outcomes.

- Patient satisfaction score showed significant improvement.
- Daily Grand rounds improved communication between physician and nursing professionals leading to timely initiation of care.
- Hourly Roundings viewed by RN and Patient Technicians as more work instead of proactive process. There were also no variables on the log sheets that clinical leadership or staff could highlight regarding outcome measures that could be tracked for improvement as a result of hourly rounding.
- RN and Patient Technicians favored EarlySense Continuous & Contact Free Patient Monitoring of Heart Rate, Respiratory Rate and Patient Motion
- EarlySense's Turn Counter for HAPU Prevention was viewed by staff as enhancing the workflow:

*"We can be with the patient, when we need to be with the patient, not randomly per hourly rounding process"*

- Continuous Contact Free Monitoring System (EarlySense) allowed for clinical appraisal of evidence from predictive factors, including patient trending data, Respiratory Rate alerts and patients movement; resulting in improved critical thinking skills.
- CAT (Critical Activation Team) shared high remarks for appropriate and engaged calls.
- Reduction in Telemetry also resulted in less alarms.
- More than 32 patient saves were documented as a result of Heart Rate and Respiratory Threshold Alerts, Trend Indication and Bed Exit Alert.

*"Thank you so much for this great tool (EarlySense). I know that this was not a matter of life or death, but it made the difference between my patient suffering in pain to a visible symptom that he was actually in pain. I was able to intervene and make his night more comfortable. As a nurse, my patients' comfort means as much to me as their health."*

- Kelle Whitman, RN

*"I am able to watch the hall monitors to see current HR/RR and know if I need to go check the patient."* - Kilstron Collins, RN