



Lean Six Sigma and Evidence Based Practice: An Innovative Approach of Blending two Methodologies to Decrease Hospital Acquired-Pressure Ulcers



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Background

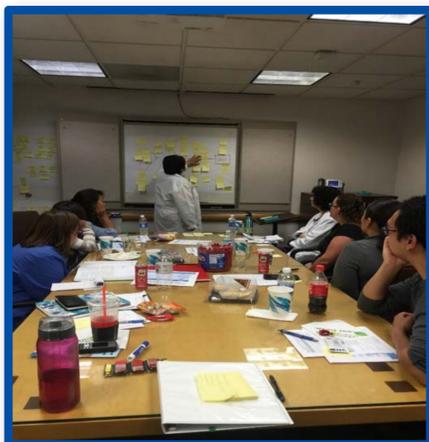
HAPU Incidences: 2.5 million patients per year.
Cost: Pressure ulcers cost \$9.1-\$11.6 billion per year in the US. Cost of individual patient care ranges from \$20,900 to 151,700 per pressure ulcer. Medicare estimated in 2007 that each pressure ulcer added \$43,180 in costs to a hospital stay.
Lawsuits: More than 17,000 lawsuits are related to pressure ulcers annually. It is the second most common claim after wrongful death and greater than falls or emotional distress.
Pain: Pressure ulcers may be associated with severe pain.
Death: About 60,000 patients die as a direct result of a pressure ulcer each year.

After reviewing the Hospital Acquired Pressure Ulcers (HAPU) it was determined that 3 East had a high incidence of HAPUs. The top contributor to skin breakdown was determined to be moisture.

Sharp Grossmont Hospital is the largest and most comprehensive health care facility in East San Diego County.

Recommendations

- Implementation and sustainment hospital-wide- June 2016
- Daily monitoring of high risk patients using the Braden Risk Score
- Debrief after each HAPU fallout
- Creation of the House-wide HAPU taskforce
- Continuous review and transparency of HAPUs
- Tracking of hospital-wide pressure ulcers



Innovative Changes

Using Lean Six Sigma Methodology and Evidence-Based Practice a team was formed to change practice. During two Kaizen events in October 2015, a root cause analysis, process map with swim lanes, and fishbone diagram were created. Three issues were identified. A new program was developed using “Puddles” and the T³ Program (Turn, Touch, Tidy). The T³ program addressed issues such as practice, linen use and documentation to improve the care provided. The program was launched in November 2015.

- Redesign unit into four teams (3 Nurses & 1 aid)
- Initiate Puddles – (Nurse & Nursing assistant meet at the beginning of the shift to schedule when they will meet to turn patient)
- Initiate the T³ Program (Turn, Touch, Tidy)
- Standardize documentation in the electronic medical records

“Puddles”

(After the Huddle, meet at the Puddle)



During the “Puddles” - the T³ Team will briefly meet to receive report and to schedule a set time (an appointment) when the patient in their pod will be turned.

“Check-in”- The Charge Nurse will round to check-in at each Pod. Charge Nurse/Resource Nurse will confirm with each Pod that a schedule time (appointment) has been set to initiate the T³ program on their patients.

“The Three T’s (T³) Program”

Turn, Touch and Tidy

Turn

- T3 team will turn patient at scheduled time
- Primary nurse unavailable? Seek Resource or Charge Nurse

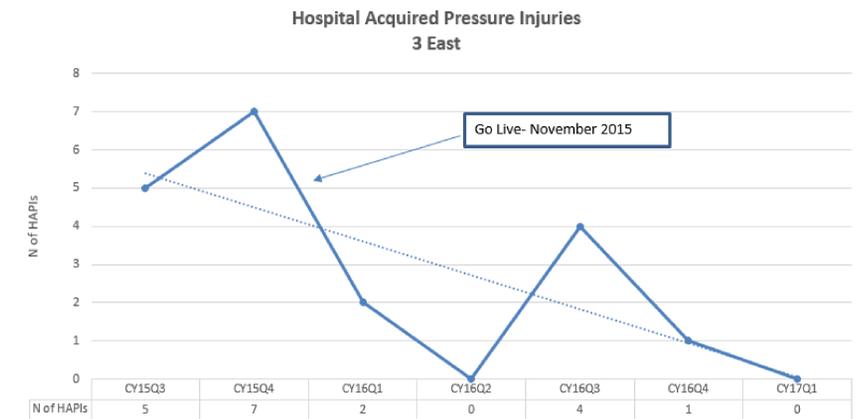
Touch

- Touch patient to assess skin
- Check bony prominences

Tidy

- Clean Patient
- Change Linen
- Tidy up the bed
- Confirm next Turn Time!

Outcomes



Significant reduction of HAPIs and sustainment

Nurse satisfaction for rendering good care and avoidance of personal lawsuit

Comments from the staff

- “Better teamwork and communication”
- “Better relationship with patient”
- “Charge follows up with staff on RN/CNA communication”
- “Extra reminder and push to communicate and update with the CNA”
- “Improves CNA/RN communication”
- “Knowing the statistics of the unit”

| Metric | Baseline (before) | Goal | Actual Result (after) |
|-----------------------------------|--|------|-----------------------|
| Hospital Acquired-Pressure Ulcers | 22 | 0 | 0 |
| Total Rate | \$233,118.00 | 0 | \$379,767.00 |
| Rate per Stage | | | |
| Stage 1 | \$5,255 x 1 = \$5,255 | 0 | 0 |
| Stage 2 | \$8,206 x 2 = \$16,412 | 0 | 0 |
| Stage 3 | \$11,129 x 1 = \$11,129 | 0 | 0 |
| SDTI | \$11,129 x 16 = \$178,064 | 0 | 0 |
| Unstageable | \$11,129 x 2 = \$22,258 | 0 | 0 |
| Legal Fees & Indemnity | (\$180,000 for 2 legal cases in 2014. Average \$90,000 per case) | 0 | \$90,000.00 |

*Cost from National Average. Cost does not include hospital readmission

If 3 East had continued the trend of 3 HAPUs per month, a loss of \$379,767 would have occurred. Implementation of the T³ Program resulted in a cost avoidance savings of **\$379,767**

Hospital Wide Implementation of T3 Program
 > 50% reduction of monthly HAPI Incidence rates by the end of 2016.

Patient

Nurse

Organization