Journey to Zero: Redesigning Infection Control

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OPPORTUNITIES IDENTIFIED

- Improvement required in device related infections identified by Quality and Safety Dashboard
- Lack of standardized data collection and management practices
- Demand for process improvement in infection prevention

APPROACH

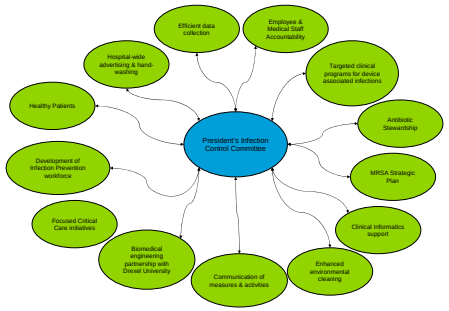
- Created multi-component charter to lead multi-disciplinary redesign of Infection Prevention and Control
- Prioritized charter components to optimize improvement
- and results realization
- Sustained process change through communication, individual accountability and feedback

Lankenau Medical Center Performance Improvement Model

Superior Patient Experience =

Best Process + Best Communication & Culture
(Robust Feedback & Accountability)$^{-1}$

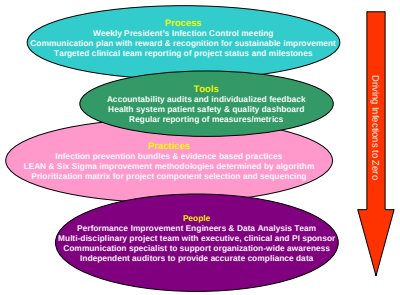
Opportunities Identified



Performance Improvement Process Steps

- ❑ Plan
  1. See/Hear/Touch
  2. Prioritize
  3. Measures
- ❑ Learn and Do
  4. Eliminate Waste
  5. Determine and Standardize Key Processes
  6. Select Optimal Operational Engineering Performance
  7. Improvement Model for Prioritized Improvements
  8. Evaluate Technology Solutions
  9. Build Accountability
  10. Continual People, Process, and Outcome Measurement
- ❑ Sustain
  11. Adherence
  12. Perseverance

Approach



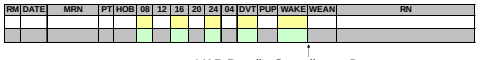
Ventilator Associated Pneumonia

Clinical Improvements

- *ZAP VAP 12 in 24* program (oral care)
  - Nursing continues to perform oral care every 4 hours
  - Respiratory therapy team initiated oral care program every 4 hours, alternating with nursing
  - Result is ventilator patients receiving oral care every 2 hours
- Use of CHG (chlorhexidine gluconate) toothpaste
- Wash – glove – wash policy implemented in critical care units
- Continuous subglottic suctioning initiated

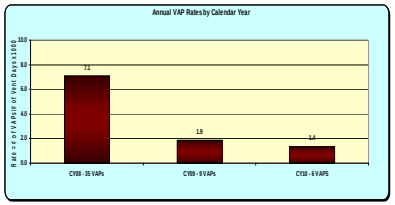
Bundle Communication & Feedback Process

- Staff re-education on importance of compliance fact sheets provided
- Increased VAP bundle compliance monitoring from 2 days/month to every day
  - Individualized feedback to specific practitioners
  - Managers also received compliance for follow-up
- Department level results posted for staff education

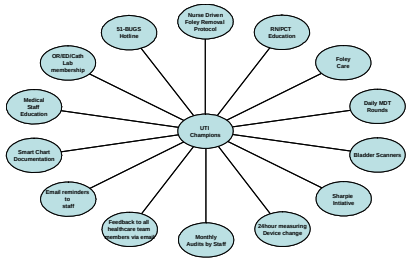


VAP Bundle Compliance Data Collection Tool

Bundle Compliance Results



Urinary Tract Infections
Clinical Improvements



UTI Prevention = Reduce the Use!

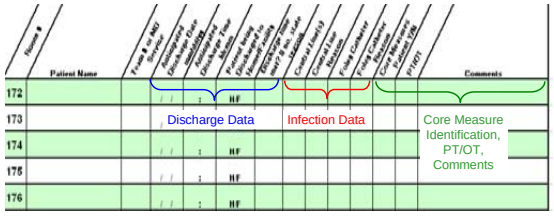
- Decrease the use of Urinary Catheters
- Decrease the duration of catheterization when catheters must be used
  - •Mark insertion Date & Time with a Sharpie
  - •Document and Date in Electronic System
- Conduct a daily assessment of need on Multidisciplinary Rounds
- Discard measuring device every 24 ours with last I&O
- Utilize Bladder Scanner – straight cath as needed
- Use multipurpose Tube Holder to secure catheter
- Ensure bag is kept below bladder during transport and ambulation
- Make every attempt not to break system
  - •Reinsert as opposed to changing bag
  - •Preinsertion questions regarding
  - •Urometers

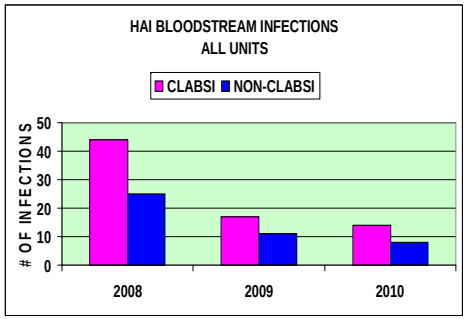
OUTCOMES

• Reduced Monthly Foley Days by 200-400/month

Decreased UTIs
- 9.46 UTIs/1,000 Foley Days
- 1.29/1,000 Foley Days
- ~ 85% Reduction

Multi-Disciplinary Care Team Rounding Tool





Lessons Learned

- Buy-in is required right from the beginning
- A multidisciplinary approach is necessary
- Front line staff must be involved
- Change is easier to swallow when it is shown in a positive light

Results

Rate/1000 Device Days	Apr 08 – March 09 (Baseline)	Apr 09 – Jan 11
CA-UTI (symptomatic only) ↓	4.9	1.7 *
BSI ↓	2.8	.6 *
VAP ↓	14.1	1.2 *

* Statistically Significant at 95% Confidence Interval
Direction signifies an improvement in that category