

# Improve Infusion Safety and Reduce Alarm Fatigue in the ICU

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## Objective

Our objective was to improve medication safety and reduce alarm fatigue through wireless integration of smart pumps, real-time monitoring and new data on dosing trends and practices.

## Methodology

We implemented B.Braun Outlook® 400ES wireless smart pumps across a 4 hospital system including:

- A single, uniform drug library
- DoseTrac® real time monitoring & retrospective reporting
- DoseTrac® Analysis Service



A 2012 DoseTrac Analysis identified our top drugs associated with 51% of our override alerts at Beth Israel Hospital. We made modifications in dosing limits and practices, resulting in an overall 70% reduction in these alerts (Phase 1).

In 2013 a second DoseTrac Analysis was conducted comparing trends across the system, identifying our top drugs associated with 67% of system alerts. Additional improvements were made across the 4 hospital system (Phase 2).

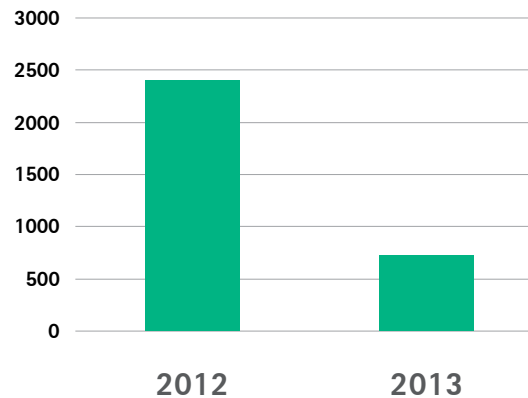
## Results Phase 1

### 2012 Beth Israel Analysis

- 100% drug library utilization in ICUs
- Only 7% corrections and only 3 insulin alerts
- 51% of overrides associated with key drugs
- Drug library adjustments made
- Practice issues identified and addressed

### 2013 Results

**70% REDUCTION  
IN BETH ISRAEL ALERTS**



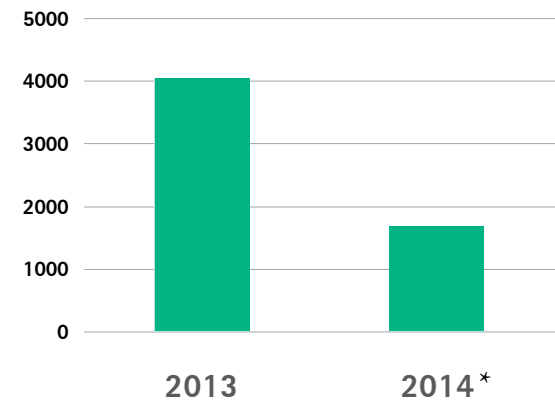
## Results Phase 2

### 2013 System Wide Analysis

- Only 7% corrections across system
- 67% of system overrides associated with key drugs
- System wide drug library adjustments made
- System practice deviations (bolus dosing) identified and adjusted to enhance patient safety

### 2014 Results

**58% REDUCTION  
IN SYSTEM ALERTS**



\* Through April 2014

## Conclusion

We significantly reduced our alerts and improved safety across our health system through the unique insight of the DoseTrac real-time monitoring, reporting and analysis service. We maintain our gold standard of care through scheduled reports, ongoing monitoring & routine data reviews with our vendor.