

# CONTINUOUS QUALITY IMPROVEMENT PROGRAM

## AN ICU MANAGEMENT STRATEGY TO REDUCE RBS\*

### 1 ANALYSIS

- ▶ Measure historic Retained Blood Syndrome (RBS) reintervention and reoperation rates using ICD-9 and CPT codes (the average US rate is 17%<sup>1</sup>)
- ▶ Calculate the total cost of Retained Blood Syndrome (RBS) reinterventions to your hospital (the average US cost per RBS reintervention is \$28,814<sup>1</sup>)
- ▶ Fact-check the peer-reviewed evidence of Retained Blood Syndrome (RBS) in the literature<sup>2</sup> to understand the root cause of it for your hospital

### 2 PLANNING

- ▶ Develop a comprehensive Retained Blood Syndrome (RBS) prevention plan. A typical plan may include the following components:
  - ▶ Standard utilization of PleuraFlow<sup>®</sup> Active Clearance Technology<sup>®</sup> (ACT) in all cardiothoracic surgery patients
  - ▶ Implementation of Best Practice standards that requires chest drain patency to be actively monitored and maintained during the first 24 hours post surgery
- ▶ Develop a training curriculum and implementation plan as part of your hospital Continuous Quality Improvement strategy
- ▶ Establish baseline hospital metrics and improvement goals



### 4 REPORTING

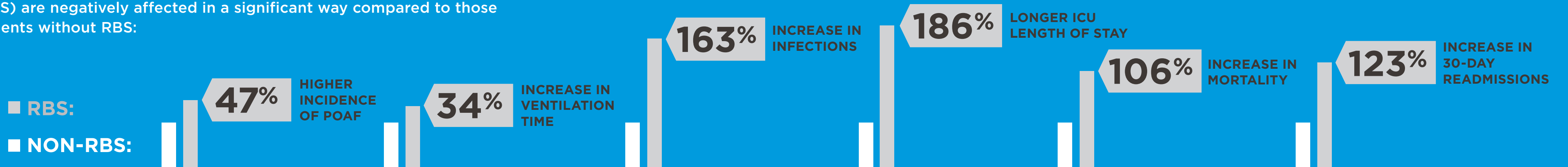
- ▶ Analyze all collected data and calculate the new Retained Blood Syndrome (RBS) reinterventions rate and cost
- ▶ Compare the new RBS rate and cost to historic baseline
- ▶ Implement any corrective actions and continue with CQI process
- ▶ Establish semi-annual management review protocol

### 3 ACTION

- ▶ Introduce the Retained Blood Syndrome (RBS) prevention plan to all cardiothoracic OR and ICU units
- ▶ Communicate established baseline hospital metrics and improvement goals
- ▶ Measure progress and consistently track cardiothoracic procedure codes and 30 day ICD-9 reinterventions
- ▶ Offer active support and leadership during rollout period and beyond
- ▶ Repeat training until desired proficiency levels are achieved

## \*THE HEAVY BURDEN OF RETAINED BLOOD SYNDROME (RBS)<sup>3</sup>

Cardiothoracic surgery patients who suffer Retained Blood Syndrome (RBS) are negatively affected in a significant way compared to those patients without RBS:



1. Based on over 313,000 US adult heart surgery patients. Data extracted using ICD-9 codes from the 2010 Nationwide Inpatient Sample (NIS), from the DHHS Agency for Healthcare Research and Quality (AHRQ) Healthcare Cost and Utilization Project (HCUP).

2. Available at [www.clearflow.com/resources/](http://www.clearflow.com/resources/)

3. Data from MarketScan<sup>®</sup> PDB and Commercial Medicare Databases July 1, 2012 - June 30, 2013.

Implementing the ClearFlow Continuous Quality Improvement (CQI) Program can help reduce the incidence of Retained Blood Syndrome (RBS) in your hospital.