**Central Line Catheter-Associated Blood Stream Infection (CLABSI) rate for ICU patients**

<table>
<thead>
<tr>
<th>NQF#</th>
<th>0139</th>
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<tbody>
<tr>
<td><strong>Developer:</strong></td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td><strong>Data Source:</strong></td>
<td>Leapfrog Hospital Survey</td>
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<tr>
<td><strong>Secondary Data Source:</strong></td>
<td>CMS Hospital Compare</td>
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</tbody>
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**Description:** Rate of CLABSI acquired during the ICU stay. Percentage of ICU patients, who over a certain amount of days acquired a central line catheter-associated bloodstream infections over a specified amount of line-days.

**Rationale:** An estimated 248,000 bloodstream infections occur in U.S. hospitals each year and a large portion of these are associated with the presence of a central vascular catheter. Bloodstream infections are usually serious infections typically causing a prolongation of hospital stay and increased cost and risk of mortality. CLABSI are largely preventable through proper management of the central line using the CDC’s *Guidelines for the Prevention of Intravascular Catheter-Related Infections*.

**Evidence for Rationale:**

**Numerator:** Number of central line-associated blood stream infections (laboratory-confirmed bloodstream infection or clinical sepsis) x 1,000

**Denominator:** Number of central-line days of ICU patients. Reported by type of ICU (coronary, cardiothoracic, medical, medical-surgical (major teaching and all others), neurosurgical, pediatric, surgical, trauma, burn, and respiratory)

**Impact:** In 2009, there was an estimated number of 18,000 ICU CLABSI, a decrease from 43,000 in 2001. Despite the reduction, there is still opportunity for improvement in reducing the number of ICU CLABSI in the U.S. Furthermore, CLABSI are important and deadly infections, with a reported mortality rate of 12%-25%.

**Evidence of High Impact:**

**Opportunity:** Although the CDC has reported declines in the number of CLABSI between 2001 and 2009, opportunity for improvement still exists. Opportunity for improvement exists, based on the coefficient of variation for the measure.

**Citations for Opportunity:**

**Evidence:**
- Evidence ratings vary from Class A-I to B-II.
  - Class I: Evidence from 1 or more properly randomized, controlled trial.
  - Class II: Evidence from 1 or more well-designed clinical trial without randomization, from cohort or case-controlled analytic studies, from multiple time-series studies, or from dramatic results of uncontrollable experiments.
  - Class III: Evidence from opinions of respected authorities based on clinical experience, descriptive studies, or reports of expert committees.
  - Class A: Good evidence to support a recommendation for use.
  - Class B: Moderate evidence to support a recommendation for use.
  - Class C: Poor evidence to support a recommendation.

**Citations for Evidence:**

http://www.qualityforum.org/.../Draft_Report_for_Commenting_-_Phase_1_-_Revisions.aspx
http://www.jstor.org/stable/10.1086/591059
http://www.shea-online.org/Assets/files/position_papers/hicpac_catheter.pdf
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6008a4.htm