**Conference Call: November 6, 2006**

**Amended by Call: February 25, 2008**

**FINAL REPORTING CONSENSUS for 2008**

**HOSPITAL-ACQUIRED CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS**

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**REPORTING PROCESS FOR CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTION (CLABSI) EVENTS:**

The California Children’s Hospital-CCS Nosocomial Infection Prevention Initiative has adopted the CDC-NHSN conventions for defining and reporting events with several exceptions as noted below (*italized and underlined)*.

**NUMERATOR (DIAGNOSIS):**

CDC National Nosocomial Infection Surveillance (NNIS) Definition of Primary Bacteremia (Garner Am J Infect Control 1988) updated/incorporated into the CDC’s revamped National Healthcare Safety Network (NHSN)-Patient Safety Protocol/Patient Safety Monthly Reporting Plan/Device Associated Module (release date 5/17/2006).

* NHSN Home page: <http://www.cdc.gov/ncidod/hip/nhsn/members/members.htm>
* NHSN device safety document (in which CLABSI is described in detail): <http://www.cdc.gov/ncidod/hip/nhsn/members/PSProtocolsMay06.pdf>
* NHSN Dec 2007 Newsletter (in which 2008 changes to LC-CABSI described):

<http://www.cdc.gov/ncidod/dhqp/nhsn_newsletters.html>

* NHSN Patient Protocol Manual January 2008 (in which the 5/2006 reporting manual is updated and revised: <http://www.cdc.gov/ncidod/dhqp/pdf/nhsn/NHSN_Manual_PatientSafetyProtocol_CURRENT.pdf>

**Central Line-Associated Bloodstream Infection (CLABSI) Event**

* **Definition of applicable lines: “Central line: An intravascular catheter that terminates at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring. The following are considered great vessels for the purpose of reporting central-line infections and counting central-line days in the NHSN system: Aorta, pulmonary artery, superior vena cava, inferior vena cava, brachiocephalic veins, internal jugular veins, subclavian veins, external iliac veins, and common femoral veins….NOTE: In neonates, the umbilical artery/vein is considered a great vessel.”**
* **Definition of reporting time:** A device-associated infection is one that has occurred within the 48 hour period before the onset of infection (pg 65 op cit). Report BSIs that are central line-associated (i.e., a central line or umbilical catheter was in place at the time of, or within 48 hours before, onset of the event. NOTE: There is no minimum period of time that the central line must be in place in order for the BSI to be considered central line-associated.
* **Definition of two or more blood cultures drawn on separate occasions:**

In criteria 2 and 3, the phrase “two or more blood cultures drawn on separate occasions” means 1) that blood from at least two blood draws were collected within two days of each other. (Note: Collaborative defines two days as < 48 hrs.)

* **CLABSI events are defined solely by using Laboratory-confirmed.**

**Laboratory-confirmed bloodstream infection (LCBI)**

* **LCBI diagnostic criteria may be used for all (NICU) patients.**
* **LCBI must meet one of the following three criteria:**
  + **Criterion 1: Patient has a recognized pathogen See Note 1 cultured from one or more blood cultures and organism cultured from blood is not related to an infection at another site.**
  + **Criterion 2: Patient has signs of generalized infection:**
    - **Elevated temperature (> 38 oC rectal) See Note 2 and 3 or chills or hypotension (at least one) AND**
    - **No other infectious focus (“and signs and symptoms and positive laboratory tests not related to an infection at another site”) AND**
    - **Common skin contaminant See Note 1 cultured from two or more blood cultures on separate occasions. See Note 4**
  + **Criterion 3: Patient is < 1 year of age AND**
    - **Patient has signs of generalized infection** 
      * **Elevated temperature ( >38 oCrectal) See Note 2 and 3 or hypothermia (temperature < 37 oC rectal) See Note 2 and 3 OR**
      * **apnea or bradycardia (at least one)**

**AND**

* + - **No other infectious focus (“and signs and symptoms and positive laboratory tests not related to an infection at another site”) AND**
    - **Common skin contaminant See Note 1 cultured from two or more blood cultures drawn on separate occasions. See Note 4**

**Note 1: Common skin contaminants defined: e.g.** diphtheroids [*Corynebacterium* spp.], *Bacillus* [not *B. anthracis*] spp., *Propionibacterium* spp., coagulase-negative staphylococci [including *S. epidermidis*], viridans group streptococci, *Aerococcus* spp., *Micrococcus* spp.) NHSN Newsletter 12-07

**Note 2: Temperature equivalents defined for infants *<* 1 year of age:**

“For patients < 1 year of age, the following temperature equivalents for fever and hypothermia may be used:

**Fever:** 38°C rectal/tympanic/temporal artery = 37°C oral = 36°C axillary

**Hypothermia:** 37°C rectal/tympanic/temporal artery = 36°C oral = 35°C axillary.” NHSN Newsletter 12-07

**Note 3:**1. While the CDC’s NHSN specifies rectal temperatures, none of the collaborating NICUs routinely perform these measurements in neonates for a variety of good reasons; 2. in their place, axillary or equivalent measurements are used, but the collaborating members do not believe the temperature equivalencies currently specified by NHSN realistically reflect their neonatal populations’ temperature data;3. instead the collaborative recommends that **axillary temperatures should be considered a screening method; axillary temperatures < 36.0 oC (< 96.8 oF) should be tentatively labeled as “hypothermia” and axillary temperatures > 38.0 oC (>100.4 oF) should be tentatively labeled as “fever”;** and 4. because of the variability in axillary temperature readings, the presence of an elevated or hypothermic temperature will only be termed **confirmed** if there have been **at least two consecutive abnormal axillary measurements or one abnormal axillary and one abnormal rectal (or other core) measurement.**

**Note 4:** In criteria 2 and 3, the phrase “two or more blood cultures drawn on separate occasions” means 1) that blood from at least two blood draws were collected within two days of each other and 2) that at least one bottle from each blood draw is reported by the laboratory as having grown the same common skin contaminant organism (i.e., is a positive blood culture). NHSN Newsletter 12-07

**ELIMINATE “CLINICAL SEPSIS” FROM OUR SELF-REPORTS OF PRIMARY BACTEREMIA FOR THE PURPOSE OF THIS INITIATIVE.** (Therefore the CSEP definition has not been included above.)

**DENOMINATOR:**

All line days (be they umbilical, PICC, Broviac, Hickman—but not PIVs or Peripheral Arterial Lines; note multiple lines in a patient simultaneously count only as *one* line day) enumerated once daily, broken down by whether they are umbilical (artery or venous) or central line days.

Stratify by birth weight categories in accordance with the NHSN reporting conventions:

<750 gm;

751-1000 gm;

1001-1500 gm

1501-2500 gm

> 2500 gm

ADOPT THE NEW NHSN REPORTING CONVENTION that commenced January 1, 2007 THAT RECOMMENDS DIFFERENTIATING UMBILICAL LINE DAYS FROM OTHER DEEP LINE DAYS

**BASELINE REPORTING PERIOD:**

New hospitals joining the collaborative: 1/1/2007 through 12/31/2007