Frequently Asked Questions relating to Data- year 2008

Topic	Question	Answer
Start Date	What is the data collection start date?	1/1/08
Forms	Do we have to use the NHSN form?	NO. The website has a form that you can use. The advantage is that it helps you to annotate your project's data. http://www.dhcs.ca.gov/provgovpart/initiatives/nqi/Documents/Datasub3-08.xls
Clinical criteria change in '08	What is the use of clinical criteria in making a dx?	As of 1/1/08, relevancy for criterion 2 or 3 was modified. But, note: there still have to be 2 positive blood cultures
Clinical sepsis not counted	Use of "clinical sepsis" rubric (when there are no blood cultures)?	Consensus was not to include these as "cases" in our reports since we are reporting "laboratory-confirmed" CABSIs; therefore laboratory implies the use of a blood culture.
Temperature criteria for fever and hypothermia	The temperature criteria published by CDC NHSN are not relevant to newborns	1/1/08 CDC/NHSN updated criteria to include measurements other than rectal: **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 and See: http://www.cdc.gov/ncidod/dhqp/pdf/nhsn/NHSN_Manual_PatientSafetyProtocol_CURRENT.pdf But, again, they did not fully satisfy the collaborative. After a survey and consensus process, the following statement was adopted: **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 °C (< 96.8 °F) should be tentatively labeled as "hypothermia"and axillary temperatures > 38.0 °C (>100.4 °F) 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 measurements or one abnormal axillary and one abnormal rectal (or other core) measurement** Email response from M Andrus, RN Consultant to NHSN, CDC 2-08 re this "when we were first asked to create equivalents for rectal temperatures in the neonate. from the information you've sent, it doesn't look like we're any closer to definitive boundaries for hypothermia and fever, but we will take another look at what we've documented in NHSN based on the additional information. We'll also be grateful if you would share the results of your survey when it's complete.
Apnea	What are the apnea criteria (especially if infant already on a ventilator)?	Unresolved issue
Hypotension	What are the hypotension criteria?	No reference values are cited by the CDC. Unresolved issue
Comparability between 2007 and 2008 data	How can we accurately compare data on CABSIs between 2007 and 2008 when our (i.e. CDC/NHSN) definition has changed?	You cannot. We are moving from a looser definition of CABSI (one that includes instances labeled based on one blood culture positive for CONS + a central line being present + antibiotics given) to an era

		when one must have TWO positive blood cultures for CONS. One center re-evaluated their 2007 CABSI events using the 2008 criteria and found that the definition change resulted in a 37% decrease in their CABSI rate!
Counting lines when more than one is in place	What to do when ≥ 1 line is in place?	Count only as if one is in place. If both umbilical and central lines are present, then count it in the umb/cent column.
Counting lines when both umbilical and central lines are in place	In reviewing the definitions re: denominators and the reporting form for 2008, I have a question. The definition states to count concurrent umbilical and PICC line days as 1 line day. I remember discussing this at one of the meetings and the message was to count this as one umbilical line day. So, when reporting on the reporting form for 2008, there is one column for umbilical line days and one for PICC line days. Would I then not count the first 5 days of the PICC line if the umbilical line was still in place, for instance? For instance, if the UAC is in from 1/10 to 1/25 and the PICC line in from 1/15 til 1/30, that would count as 15 umbilical line days and 5 PICC line days?	You have the right answer!!! Please look closely at the heading of the column for umbilical days. It actually says: "umbilical/central". The rule is that if both umbilical and central lines are present on a given day, then place the count for that day in the "umbilical/central" day column. If the umbilical line is not present, then the day is counted in the "central" line column. No matter the number of lines present on any given day, you only count them as ONE line day. In your example, you would place 15 days in the "umbilical/central" column and 5 days in the "central" column.
Counting umbilical and central lines	Should we be separating data as far as umbilical lines versus central lines? Should we be separating umbilical arterial line from umbilical venous line or just count it as one?	Yes, NHSN separates line days by whether they are umbilical or central as of this year. No. Umbilical refers to both ua and uv TOGETHER. They count as one, even if both are present on a single day.
Recording umbilical and central line days when both occur on the same day	If an infant has an ua line and a central line (e.g., PICC) does this mean counting as an umbilical catheter day because it is a separate entry from central line day and then count the remaining days that the PICC line is in place	In the NICU, the number of patients with central lines and those with umbilical catheters is collected daily, at the same time each day, summed and the total for each is reported for the month. If a patient has both an umbilical catheter and a central line, count as an umbilical catheter day. (NHSN Manual)

	as central line days?	Please look closely at the heading of the column for umbilical days. It actually says: "umbilical/central". The rule is that if both umbilical and central lines are present on a given day, then place the count for that day in the "umbilical/central" day column. If the umbilical line is not present, then the day is counted in the "central" line column. No matter the number of lines present on any given day, you only count them as ONE line day. For example, i**f the UAC is in from 1/10 to 1/25 and the PICC line in from 1/15 til 1/30, that would count as 15 umbilical line days and 5 PICC line days Thus,** you would place 15 days in the "umbilical/central" column and 5 days in the "central" column.
Blood draw site(s): peripheral vs central	The consensus does not specify the site of blood draw. Can we continue to use central line for one of the two blood draws?	**The National Healthcare Safety Network (NHSN) Manual -**PATIENT SAFETY COMPONENT PROTOCOL See: http://www.cdc.gov/ncidod/dhqp/pdf/nhsn/NHSN_Manual_PatientSafetyProtocol_CURRENT.pdf States the following on page 10: **Specimen Collection Considerations** Ideally, blood specimens for culture should be obtained from two to four blood draws from separate venipuncture sites (e.g., right and left antecubital veins), not through a vascular catheter. These blood draws should be performed simultaneously or over a short period of time (i.e., within a few hours).[1,2] If your facility does not currently obtain specimens using this technique, you may still report BSIs using the criteria and notes above, but you should work with appropriate personnel to facilitate better specimen collection practices for blood cultures. Pg 10 However, practical considerations in the neonate have continued to challenge acceptance of this consideration statement by the NHSN. The CPQCC consensus statement addresses these challenges as follows: "When evaluating an infant for healthcare associated bloodstream infection, we recommend drawing two blood cultures, if feasible (e.g. taking into account vessel accessibility, concerns about pain and the infant's clinical status): The first and primary one should be from a peripheral site; the

		second and simultaneous one could be drawn either from a peripheral site or from a central catheter if available. " CPQCC NI Prevention Toolkit 2006 rev In the group's discussion here to date, there has been no further discussion of this, i.e. many units continue to do one central and one peripheral culture. For instance, see the answers to the recent dialog on cultures through PICC. Perhaps your question will rekindle interest in the question. DW
Two blood cultures drawn from separate sites/separate occasions	Why draw blood cultures from two separate sites? The Central Catheter Bundle states two blood cultures drawn **from separate sites** within 48 hours of each. The CDC NHSN refers to two blood cultures drawn on separate occasions but I cannot find where it states the necessity for separate sites when making the determination of common skin contaminant BSI. In addition, it states ideally that cultures be drawn **peripherally from more than one site** but it does not make it a requirement. The only requirement is that the cultures be drawn on separate occasions.	I have highlighted above the specific verbiage from NHSN which refers to separate sites. I have also included the materials from the CPQCC consensus statement (see above) - both of which I brought together in answering another member's question. Let me know if you think this is responsive or requires additional discussion within our collaborative. DW
Blood draws: peripheral vs central site (s)	In general, what makes a peripheral culture better than a line culture? Even with how much easier it is to get blood peripherally in adults, why would you NOT get blood from a CVL in such a patient (which is the position of the CDC NHSN)? In newborns, my experience has been that peripheral cultures are not only more difficult to obtain but more difficult to interpret given the higher incidence of contaminants.	The general issue of what makes a peripheral better than a central culture gets to the heart of how to differentiate, if possible, what was heretofore described as a catheter-related vs a catheter-associated BSI. CR BSI have historically been based on techniques such as comparing cath tip with peripheral cultures, comparing colony counts (eg 5 fold counts is often stated for adults), time to positivity (eg. in adults , > 2 hours has had some discrminatory power--with > 2hr favoring CR-BSI) or superfical cultures. I believe that the definitive review of this topic is by Bouza et al Clinical Infectious Disease 2007--wherein he reports on three procedures for diagnosing CRBSI. He found no clinical or statistical differences in accuracy of dx using any of the three techniques (time to positivity, quantitative blood cultures, and semi-quantitative superficial cultures). He recommends semi-quantititative superficial cultures and peripheral venous cultures followed by quantitative blood cultures as a confirmatory and more specific technique. To my knowledge, there are no equivalent studies in

		the newborn. The only mention of time to positivity in the newborn is in abstract in Critical Care this last fall; it is not available in full article mode, and frankly I thought the results were very equivocal. Interestingly enough, the 2008 NHSN manual, in contrast to prior editions, makes absolutely no mention of the rubric: catheter-related BSI. My interpretation is that the topic is dead for the time being. I know of no specific study looking at yields from arterial sources vs venous sources per se. So, in summary. I hope you see why we (and everyone else in this field) got to peripheral cultures--believing that line contamination was far more likely than true bloodstream contamination. As to specific rates of contamination, I know already from discussions at the presentations, that at least two other collaborating centers routinely generate a list of cultures judged to be contaminated. I am sure that they would be pleased to join with you in compiling and comparing these data. It would be an important benchmarking piece of our diagnosis fishbone work.
True perinatal infections diagnosed from an umbilical line culture during the birth admission and CABSI	What about true perinatal infections? For example, newborn born with clinical sepsis and the first blood culture drawn from the umbilical artery on admission (at 20 minutes of postnatal age). Does this infection still have to be classified as a CLABSI	**Email response from M Andrus, RN Consultant to NHSN, 2-08** **No -- it may be classified as an HAI (maternally acquired), but if the specimen is drawn at roughly the same time the line is inserted, then the patient did not have the central line prior to the infection, so it would not be central line-associated.**
PICC line position and CABSI	What should determine the classification of a PICC line infection as a reportable CLABSI: the position of the PICC line confirmed by xray at the time of its insertion (say, for argument sake, it is in the superior vena cava) or at the time of diagnosis of the infection (say, for argument sake, it has migrated up the internal jugular OR flipped back on itself , with its tip in the distal subclavian). Note: these lines are quite mobile in neonates. Should	Email response from M Andrus, RN Consultant to NHSN 2-08 I don't think we would suggest that the infant should be routinely exposed to unnecessary amounts of radiation. Our job here is to look at the population at risk (patients with central lines) and, within that population, to identify those patients with a bloodstream infection. While we do understand that these lines tend to be more mobile in the neonate, I would suggest that, for surveillance purposes, you take the most obvious location of the tip of the catheter. If the physician states that it's been pulled back to the distal subclavian or if you happen to have radiologic evidence to

	an xray be done at the time of diagnosis to make certain its location? And what about PICCs that have been in, found to wander say up the IJ and then pulled back to the brachial vein?	demonstrate the location of the tip of the catheter then, by all means, use it. If you don't have that information, I don't think it's necessary to initiate additional procedures to identify the location exactly. Surveillance is meant to be a tool to identify trends in the population, not to diagnose or treat -- we may call a few by mistake that are not exactly in the central system and we may miss one from time to time that is, but it will come out very close in the long haul. In terms of "when" did it need to be located in the central vessel, the rule is that, when the BSI is identified (culture drawn, etc.), that the patient had a central line in place within the previous 48 hours. So, look back 48 hours from the time the specimen was drawn or the criteria were identified, and if, at any time during that 48 hours, the line met the definition of a central line, then include it as a CLABSI.
BSI within 48 hrs of line insertion	Am I correct to declare a positive blood culture taken only 24 hrs after a line's insertion as indicative of a catheter-related infection if no other source is apparent?	See above: "if, at any time during that 48 hours, the line met the definition of a central line, then include it as a CLABSI"
Transfers- if culture positive at transferring hospital	We received an infant from another hospital. Just prior to transfer, they did a blood culture and started treatment. The blood culture was positive for CONS. Do we report that as our CABSI.	No. Infant's infection is clearly attributable to the transferring hospital. There is no reason to count it once at the transferring hospital and once in your receiving facility. There are complex rules about attribution—see page 6 NHSN Manual: quoted here: See the yellow highlighted areas for the most relevant passage that could be applied to your question: (Material put in small font to save space. Simply increase font to improve readability) **Definitions:** Primary bloodstream infections are classified according to the criteria used, either as laboratory-confirmed bloodstream infection (LCBI) or clinical sepsis (CSEP). CSEP may be used to report only a primary BSI in neonates (≤30 days old) and infants (≤1 year old). • 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. • Location of attribution: The location where

		the patient was assigned on the date the BSI was identified. • ○ Example: Patient has a central line inserted in the Emergency Department and then is admitted to the MICU. Within 24 hours of admission to the MICU, patient meets criteria for BSI. This is reported to NHSN as a CLABSI for the MICU, because the Emergency Department is not an inpatient location and no denominator data are collected there. • ○ Example: Patient on the urology ward of Hospital A had the central line removed and is discharged home a few hours later. The ICP from Hospital B calls the next day to report that this patient has been admitted to Hospital B with a BSI. This CLABSI should be reported to NHSN for Hospital A and attributed to the urology ward. No additional catheter days are reported. • ○ EXCEPTION: If a CLABSI develops within 48 hours of transfer from one inpatient location to another in the same facility, the infection is attributed to the transferring location. This is called the **Transfer Rule**.
"Daily line assessment", documentation, and enforcement	Does "daily line assessment" require documentation? And who will be enforcing the documentation criterion?	The daily review of line necessity, that is mandated, will not be formally reported to CDPH and does not belong on the CLIP form as it is ongoing. Enforcement of this requirement will be by L&C surveyors who can ask to see evidence of compliance for this requirement. This requirement can be met by presenting at multidisciplinary ICU rounds, or the assessment can be left up to individual clinicians. The decision must be made by someone with the authority to order a line, meaning the RNs cannot fulfill this requirement. If the decision is made during multidisciplinary rounds, evidence of it must be retrievable for that surveyor, and it must occur every day that line is in place – no weekends off. Sue Chen Healthcare-Associated Infections Program Coordinator (510) 620-3424 Sue.Chen@cdph.ca.gov http://www.cdph.ca.gov/services/boards/Pages/HAI_AC.aspx
Determining a line day	If a line is inserted at 11PM, is that still one line day?	**A line day** is defined as "**a day when a line is in at midnight**".