2008 Invasive MRSA ABCs Case Report Form
Instruction Sheet

Revised: April 8, 2008

GENERAL INSTRUCTIONS

Where to look for information necessary to complete case report form:

The *minimum* sources of information that should be used to complete the following form are 1) the admission history and physical (H&P) or Admission Summary, 2) the discharge summary (or DC Summary), 3) the face sheet, and 4) laboratory report. In the H&P, useful information (including underlying or prior illnesses) is often listed under the heading "Past Medical History" (PMH). Other portions of the medical chart, such as radiology reports and nurses notes, will often have useful information; however, reviewing these other sections is not required for the completion of the case report form.

Where to send completed form:

Each site to add information here.

Patient ID: (IS transmitted to CDC – for use only with MRSA cases)
Note: Located in the top left corner of the CRF. Not a personal identifier; links STATEIDs to patient.

Patient ID	MRSA unique patient identifier; assigned at each EIP site. Each individual will be assigned a Patient ID with the INITIAL invasive MRSA culture. The Patient ID number will be unique to the individual so that STATEIDs for subsequent cultures will be linked to the individual. The Patient ID will be 8 characters (numeric or alpha); the first two will identify the EIP site and the remaining 6 will be determined by each site.

Patient identifier information (NOT transmitted to CDC)
Note: information found on patient intake or face sheet in medical chart or hospital computer database

Name	Patient name: Last name, first name, middle initial
Phone	Patient home phone number, including area code
Address	Patient home address, including Number, Street, City, State and ZIP Code (plus four). If "homeless", enter this on the address line
Chart Number	Patient chart of medical record number
Hospital	Name of hospital where patient received initial treatment for this episode of invasive MRSA infection (note, should be the same as 4b)

Information obtained for cases with any invasive ABCs organism identified
Note: Items 1-4 are filled out by ABCs personnel, except as indicated.

1. State	Use 2 letter postal code (e.g., NY) of patient's state of residence (except for California "SF")
2. County	Patient county of residence.
3. State ID	ABCs case unique identifier. Each ABCs site has its own system of assigning a unique ID to each case. In general, the first 2 spaces designate the location and are followed by 5 numbers. This STATEID is assigned by the ABCs personnel. Note that this STATE ID is used for every MRSA isolate from the same illness episode for that case. IMPORTANT: The STATE ID links all information pertaining to this particular isolate including the CRF, the lab form, and forms used for special studies.
4a. Hospital/lab ID where culture identified	ABCs laboratory unique identifier. Each ABCs site has its own system of assigning a unique ID to each hospital or lab. Please note name of hospital or lab on the form; the hospital/lab ID will be assigned by ABCs personnel and will be the same used for all other ABCs pathogens. This field refers to the hospital or reference laboratory where the original patient specimen was identified from primary culture.
4b. Hospital ID where patient treated	Hospital where patient received initial treatment for this episode of invasive MRSA infection; may be different than 4a. Typically the location of specimen collection or hospital of discharge. Please note the name of the hospital; the hospital ID will be assigned by ABCs personnel and will be the same used for all other ABCs pathogens.
5. Patient's residence prior to admission and culture.	***New Variable in 2008*** Indicate where the patient was a resident prior be being admitted to the hospital at the time of first culture. Clarification of Residence Types: *Private Residence*: Select if the patient was living at their private resident before admission and first culture of MRSA. *Long Term Care Facility*: Select this if the patient was a resident of a Nursing Home or Rehabilitation Facility (see Table 1 for further explanation of these terms). *Homeless*: Select if the patient is homeless or resident of a shelter. *Incarcerated*: Select of the patient is admitted from a correctional facility of any kind. *Hospital/acute care facility*: Select if the patient was admitted from another hospital or acute case facility. For example if this patient was transferred.
6. Date of birth	Patient date of birth; use 4 digit year (mm/dd/yyyy).

7a. Age	Patient age at the time of collection of the first positive invasive culture. If patient age is 30 days to 11 months, indicate age in months. If patient is 12 mos or older, indicate age in years. Examples: 34 days of age should be coded as Age=1 and Unit=2 (see 6b); 14 months of age should be coded as Age=1 and Unit=3 (see 6b).
7b. Age units	Indicate if age is in days, months or years (see explanation of Age above).
8a. Sex	Male or female as indicated by lab or medical record. Check genetic sex or sex at birth. Check "unknown" if not available; do not base on first name alone.
8b. Ethnic Origin	Ethnicity of patient as noted in chart or reported by physician or ICP. Check one EVEN IF race already indicated. For example, many whites are also Hispanic or Latino. Do not make assumptions based on name. If not noted or unsure, check "unk." (Some institutions combine race/ethnic coding. For example, they might define a person's race as "Hispanic or Latino". In this case race would be coded "unknown" on the CRF, and ethnicity would be "Hispanic or Latino".)
8c. Race	Race of patient as noted in chart or reported by physician or ICP. Multiple boxes can be checked. If race is unknown, please indicate.
8d. Weight	***Optional: pilot variable (2005)*** Indicate weight in pounds (lbs) and ounces (oz) OR in kilograms (kg)
8e. Height	***Optional: pilot variable (2005)*** Indicate height in feet (ft) and inches (in) OR in centimeters (cm)

8f. Type of Insurance	***Optional: pilot variable (2005)*** Check ALL types of insurance as noted in the hospital chart. If insurance type is not noted in the chart or unknown, please indicate. Clarifications of insurance types: *Medicare*: the national health insurance program for people 65 years and older (also covers some people under the age of 65 with disabilities and people with end-stage renal disease). *Military/VA (Veterans Administration):* patient receives federal medical care due to current or past military status. *Medicaid/state assistance program*: program that pays for medical assistance for certain people with low incomes and resources. State assistance programs are those state programs that provide medical coverage to individuals who are otherwise uninsured or uninsurable. *Other:* includes options such as "private-pay" (i.e., service is not covered by state or federal government; patient generally pays out of pocket at time of service and may or may not be reimbursed later by a private insurance company).
9. Patient hospitalized?	Indicate whether or not the patient was hospitalized during this event. If Yes, indicate dates of admission and discharge. If a case is transferred from another hospital, please use the date of admission from the first hospital and use the date of discharge from the second hospital. Indicate the second hospital ID in the comments section. If the patient is admitted through the ER into an acute care hospital, the date of admission is the date of the ER visit. If patient discharged into a long term rehabilitation unit, please use the date of transfer to the rehabilitation unit as the date of discharge. *Note: ER visits and outpatient visits are not hospitalizations. If the patient is admitted following an ER or outpatient visit then the patient has been hospitalized. *Note: For a patient to be considered hospitalized, culture date should occur no more than 7 days before hospital admission date.
10. MRSA infection indicated as an admission diagnosis?	Check "yes" if an infection related to the initial sterile site culture is indicated as an admission diagnosis or if the physician clearly indicates that infection related to the culture is suspected. For example, if the initial culture is peritoneal fluid and the admission diagnoses include peritonitis check "yes"; however, if the initial culture is blood and the admission diagnosis is heart failure check "no". If the reason for admission is not clearly identified as an infection related to the culture AND is not clearly unrelated to the admission check "unknown".

	*Note: This variable may require the judgment of the Surveillance Officer; check "unknown" if uncertain.
11a. Location of culture collection (See Table 1)	Indicate the type of facility where initial culture specimen was collected. If specimen was collected while hospitalized. *Note: this question was modified n 2007. The "Hospital Inpatient" variable was collapsed. In addition, "Nursing Home", "Rehabilitation Facility" and "Home Health" were all collapsed into "Long Term Care Facility". Lastly, "Prison/Jail" was dropped.
11b. Date of initial culture	Indicate date of <u>collection</u> of the first positive invasive MRSA culture of a normally sterile site, not the date when the culture was first noted to have growth.
12. Outcome	For non-hospitalized patients, who were alive upon leaving the ER or office, checked "survived" even if the patient died shortly after. For hospitalized patients, base outcomes on the patient's status at discharge. If patient died, indicate the date of death and indicated whether MRSA was contributory or causal. Check "yes" is MRSA is **clearly** stated as being contributory or causal in the discharge summary (e.g., patient has MRSA bactermia and sepsis is indicated as the cause of death). Check "no" if the death is **clearly unrelated** to MRSA (e.g. a patient has bursitis and dies from heart failure). Check "unknown" if there is any uncertainty. *Note: This variable may require the judgment of the Surveillance Officer, check "unknown" if uncertain. *Note: This question was modified on the 2007 CRF. Removed where patient was discharged.
13a. At the time of first positive culture, was the patient pregnant or postpartum? ~~Fetal outcome:~~	Indicate whether the patient was pregnant or postpartum at the time of collection of the first positive invasive culture. For this surveillance project, the postpartum period is defined as the **<u>30 days</u>** following a delivery or miscarriage. If case is pregnant or postpartum, indicate ONE of the possible fetal outcomes. If the baby survived but it was unknown if the baby was ill, check #1 (i.e., survived, no apparent illness).
13b. Fetal outcome	*Clarifications of fetal outcomes:* <u>Live birth/neonatal death</u>: infant born alive but died ≤ 30 days of age. <u>Abortion/stillbirth</u>: not born alive, even if death occurred during labor. Specifically, abortion in this instance means death of a fetus *before* 20 weeks of gestation or when < 500 grams in weight from *natural causes*. Stillbirth means fetal death (from natural causes) occurring after 20 weeks of gestation or when the fetus is > 500 grams in weight. <u>Induced abortion</u>: fetal death due to a deliberate medical procedure.
14. Sterile site(s) (See Table 2 and 3)	Cultures designated as "fluid" should be investigated as a potentially sterile site. The specific fluid (i.e., vitreous fluid, pericardial fluid, peritoneal fluid) should be indicated on the case report form. "Body fluid" or "Fluid" is not an acceptable culture site description. These will not be considered sterile sites. Please refer to

	Table 2 for other examples of other commonly recorded non-sterile sites. Cultures designated as "tissue" with no specification should NOT be investigated as potentially sterile sites. Specimens from skin infections such as skin abscesses, perirectal abscesses, boils or furuncles or specimens from middle ear, amniotic fluid, placenta, sinus, wound, lung, gallbladder (including all specimens associated with the gallbladder), appendix, cornea, cord blood or throat are not considered sterile sites for MRSA. Non-sterile culture sites that should not be investigated include urine, eye, ear, sputum, wound, swab, and drainage; information regarding non-sterile site is not longer collected starting in 2007. *Note: When investigating "tissue" isolates, please keep in mind that something labeled as "tissue-hip" or "tissue-clavicle" could actually be a "bone" isolate and should be recorded as such. Deep tissue cultures should be included only if surgically obtained from a normally sterile site. Please indicate such cultures in the "Other sterile site (specify)" field and enter "Deep tissue" as the source. Do not specify the source of the deep tissue in the "Other sterile site (specify)" field. If you would like to indicate the specific tissue, please indicate this in the "Comments" field ONLY. *Note: If uncertain whether a specific culture should be further investigated contact the MRSA Surveillance Coordinator at CDC. Clarifications: *Pleural fluid*: includes "chest fluid", thoracentesis fluid. *Note: "Pleural peel" should be recorded as "Pleural fluid". *Peritoneal fluid*: includes abdominal fluid, ascites. If ruptured appendix or perforated bowel is noted in the medical chart, case should not be counted as contamination of peritoneal fluid is likely. *Joint/Synovial fluid*: includes; fluid, needle aspirate or culture of any specific joint (knee, ankle, elbow, hip, wrist). (There is no need to enter the specific joint in the "Other sterile site (specify)" field. If you would like to indicate the specific joint, do so in "Comments" section ONLY.). *Note: An isolate from unspecified "fluid" should not be considered sterile and not recorded here nor in the "Other sterile site (specify)" field. *Bone:* includes bone marrow (Note: Only include cultures that would be from a normally sterile site. Include cultures surgically obtained UNLESS the bone is exposed due to a wound). Please investigate sites such as "hip internal abscess" or "vertebral disk" to make sure they are not truly bone cultures. *Muscle:* includes muscle tissue or biopsy that is sterilely obtained such

	as tissue obtained surgically or through a needle aspirate. Indicate muscle and fascia as "other sterile site" and specify entering "muscle" into this field. If you would like to specify the type of muscle sample further do this in the "Comments" section ONLY. *Bursa:* indicate as "other sterile site" and specify. *Note: Only include cultures that would be from a normally sterile site. In the case of muscle and fascia, a surgically obtained specimen would be included UNLESS from a wound. If a wound such as a decubitus ulcer has exposed the fascia or the muscle then those sites would no longer be considered sterile. If the culture is obtained surgically or through needle aspirate, for example, and the skin was intact over the muscle and fascia when the tissue was obtained this would be considered a sterile site. The culture site must be designated as muscle or fascia; superficial skin cultures obtained surgically (e.g., during debridement) are not considered sterile sites. *Internal Body Site:* specimen obtained from surgery or aspirate from one of the following: lymph node, brain, heart, liver, spleen, vitreous fluid, kidney, pancreas, or ovary. *Note: While skin abscesses do not meet the sterile site criteria, an abscess specimen obtained from a normally sterile body site will be counted as a case for surveillance. The "internal body site" field should be used if the abscess is obtained from one of the organs in the pick list under this field (e.g., a brain abscess should be coded as "internal body site, brain"). If the abscess is obtained from a body site that is not in the pick list, please list the site and note abscess under the "other, specify" field ("abscess" alone is not an acceptable sterile site). In some cases, autopsy specimens *may* be considered sterile sites. The decision of whether or not an autopsy specimen is from a sterile site should be discussed on a case-by-case basis. **Please see Table 3 for a list of other commonly asked about sites that are sterile.**
15. Same site positive 7 to 30 days after initial culture?	Check "yes" if a culture of the SAME sterile site is positive between 7 and 30 days after initial culture. This information can be obtained from lab reports received from the identifying lab or in the medical record. (This time period is specified to exclude follow-up cultures and identify persistent invasive MRSA disease – do not document positive cultures of the same sterile site between 1 and 6 days after the initial culture.) *Note: Chart review should not be required to obtain information; report should be received from the lab. If a culture is >=30 days after the initial culture date a new STATEID must be assigned.
16. Other sterile	Check "yes" if a culture of a DIFFERENT sterile site is positive WITHIN 30 days

sites positive within 30 days of initial culture?	of the initial sterile site culture and specify site(s). If more than 3 other sites are reported, indicate in comments section as "Q15:__________". DO NOT include cultures from non-sterile sites; as of 2007 we are no longer collecting information on non-sterile sites. *Note: Chart review should not be required to obtain information; report should be received from the lab. If a culture is >=30 days after the initial culture date a new STATEID must be assigned.
Non-sterile sites within 72 hours?	*This question was removed from the 2007 CRF.*
17. Types of infection (See Table 4)	Check ALL infections that apply to this episode of infection. Do not include previously existing or chronic infections. Further instructions and definitions of terms are in Table 4 at end of this document. If the final diagnosis of a patient's illness is not the same as the admitting diagnosis, consider only the final (or discharge) diagnosis. Often the admitting diagnosis of a patient's illness is unknown and clarified only in the discharge summary or discharge diagnosis. (For example, a patient may be admitted with the provisional diagnosis of pneumonia but actually is found to have asthma.) If no type of infection is mentioned in the medical record, check NONE. This includes positive blood cultures with no mention of bacteremia. If the type of infection information is missing from the medical record (i.e. incomplete chart, no discharge summary), check UNKNOWN.
18. Underlying conditions or prior illness (See Table 5, 6 and 7)	Check ALL underlying illnesses or prior conditions as noted in hospital chart or by reporting physician or ICP. Exception: As of January 1, 2004, check "AIDS"=1 if a) AIDS is listed in the chart OR b) if HIV+ is indicated AND the CD4 count was EVER less than 200, even if AIDS is not listed in the chart, The lowest CD4 count is often listed in the admission history and physical or discharge summary. Any listed condition should be considered a "prior" condition *except when* it is obvious that the condition no longer exists OR when the condition is a new condition that occurred during the current illness. At least ONE box should be checked. Check "none" if a chart is available and no underlying causes are found. Check "unknown" if no chart was available for review and no underlying diseases are known.

	Clarifications: *Substance Abuse Questions:* For substance abuse questions (current smoker, alcohol abuse, IVDU, and Other Drug Use), check "yes" if the substance abuse is current OR if the timing of the use is unknown (i.e., "history of alcohol abuse") and do not check if the substance abuse is clearly indicated as "former" or never existed. *Examples:* What is in chart: — Underlying illness or prior condition? h/o heart failure — yes h/o acute leukemia — yes h/o smoking — yes h/o smoking, stopped 10 years ago — no h/o colon cancer — yes acute renal failure — no chronic renal failure — yes h/o chemotherapy — yes *If question remains about classification of *past* malignancy, contact CDC. *Other Dermatologic Condition(s):* Dermatologic conditions not listed on the case report form, such as cellulitis, burns or folliculitis should be recorded as "other dermatologic condition(s)" and specified.
19. Classification (See Table 1 and Table 8) (See also Appendix 3)	Check ALL that apply. If the information appears to be missing for all of the risk factors, check UNKNOWN. If none of the risk factors are indicated in the medical record and the information appears to be complete, check NONE. *Previous documented infection or colonization*: check if - Previous MRSA infection or colonization is noted in the chart. If so, indicate the month and year if available. - Patient is already in database (if so, enter the most recent STATEID). *Note: Check yes if a non-sterile culture was positive >72 hours prior to the initial invasive culture. *Culture collected >48 hours*: check if culture was collected more than 48 hours from the time of admission; these times can be found on the face sheet and lab report. *Hospitalized within year*: Prior admissions to a hospital as an inpatient should be included. If patient is in the hospital at the time of the invasive culture, do not include here unless there was a previous admission and discharge. Do not include outpatient or emergency room visits unless admitted as an inpatient; if admitted to an observational unit and not as an inpatient, then do not check. *Surgery*: Check yes if patient had surgery during the period of one year before the

	collection date to 48 hours before the collection date. Do not check if surgery occurred within 48 hours of culture collection. Check if the surgery takes place during a single trip to the operating room where a surgeon makes at least one incision through skin or mucous membrane, including laparoscopic approach. Dialysis: Check yes if patient had dialysis within one year before the culture date, include patients currently receiving dialysis. Include peritoneal and hemodialysis. *Residence in LTC*: Check yes if patient was a resident of a long term care facility within one year before the culture date, include patients that are a resident at the time of culture. Do not check if no indication is made in the medical record or by infection control. **Refer to Table 1 for definition of LTC and Rehabilitation Facilities.** *Note: Type of long-term care facility was removed from this question in 2007. *Central vascular catheter in place at time of admission/evaluation:* check if there is evidence of such a catather at time of admission/evaluation. **Refer to Table 8 and Appendix 3 for definitions of devices.** *****Note: Peripheral IV and AV fistulas are not central vascular catheters. *Note: This choice was modified in 2007. Only collecting information on central vascular catheters.
20. Susceptibility results	Check appropriate box for each antibiotic reported by the lab for the index sterile site culture; not all antibiotics will be reported by each lab. If an antibiotic is not reported, check "U". *Note: If there is more than one index sterile culture, indicate for which results were recorded in comments as "Q19:________".
Polymicrobial	**Note: this question was removed in 2007*
Receiving antibiotics	**Note: this question was removed in 2007*
Prescribed antibiotics	**Note: this question was removed in 2007*
21a-d. Supplemental pneumonia questions.	**Note: These questions were added in 2008* *COMPLETE ONLY IF "Pneumonia" WAS CHECKED FOR QUESTION 17*
21a. Discharge narrative	Review the discharge summary narrative and/or the discharge face/front sheet to determine if any of the following are listed as discharge diagnosis: "MRSA Pneumonia", "Staphylococcal pneumonia", :"Aspiration pneumonia" or "Pneumonia". Please check all that are listed. If none of the phrases indicated on the CRF are listed in the discharge summary please check "No pneumonia specified".
21b. Discharge	Please check all ICD-9 codes indicated at time of discharge for the patient:

ICD9 Codes	"482.40", "482.41", "482.49" or "V09.0". These codes should be found in the discharge summary or the discharge face/front sheet. If none of these specificed codes are indicated please check **"None listed"**. If the ICD-9 codes are not routinely available at the surveillance hospital checks **"N/A".** If ICD-9 codes are routinely available at the surveillance hospital, but are just not in the chart being reviewed, please check **"Unk".** Clarifications: *482.40:* Pneumonia due to *Staphylococcu*s, unspecified *482.41*: Pneumonia due to *S. aureus* *482.49*: Other Staphylococcus pneumonia *V09.0:* Methicillin-resistant *Staphylococcus aureus*
21c. Chest Radiograph Results	Review the x-ray reports from films that were taken **3 days BEFORE up to 3 days AFTER** the initial invasive index culture. Find the film and interpretations *closest* to the index culture. Look for the key terms listed in **the "Final Interpretation" or "Finding"** portion **ONLY** of the x-ray report and check all that apply on the CRF. Choose **"Not Done"** if no x-ray was performed on the case. If a chest x-ray was performed, i.e. it is clearly indicated in the chart, however the interpretation is not available, please choose **"Not available".** *Note: Use the x-ray **closest** to the index culture FIRST to complete this question. *Note: **If the chest x-ray closest to the date of the index culture was taken is normal** (i.e., the interpretation reads "normal x-ray" or "no acute disease") please review the other chest x-rays and use the interpretation from the film that is not interpreted as "normal x-ray" or "no acute disease" and is closest to the date and time the index culture was taken.
21d. Non-sterile site isolate.	Please check this box ONLY if the patient had a positive respiratory non-sterile site isolate of MRSA. This isolate **must have been positive either 3 days BEFORE or 3 days AFTER** the initial invasive index culture of MRSA. The following sites are acceptable "respiratory" sites: "sputum", "bronchoalveolar lavage", "tracheal aspirate" or "lung tissue". *Note: Please contact CDC if you have any questions as to whether or not a site would be considered a respiratory specimen.
22. Audit	Was the case first identified through the audit? Check "Yes" or "No" *Note: Check "No" if case identified through the routine laboratory reports (initially reports will be made through regular "audits"). Check "Yes" only if case identified through audits conducted to identify cases missed in routine laboratory reports.
23. CRF status	What is the current status of the case report form in terms of completion? Check: "Complete" if the case report form is complete and no further changes or chart review are anticipated. "Incomplete" if the case report form is not complete (this is the database default). "Edited and Corrected" if edits received from the CDC MRSA surveillance coordinator are correct values. "Chart unavailable after 3 requests" if the medical record is not available for review after 3 attempts, if the medical record is not able to be located, or if some other event prevented you from gaining access to the medical record.

24. Recurrent disease (Appendix 2)	Indicate whether or not this patient was previously infected by MRSA as in a previous case report. The specimen in this case must have been isolated *30 or more* days after any previous MRSA case. Please see Appendix 2 for further information.
25 Date of report	Indicate the date reported to the ABCs site. This is the date that the ABCs personnel were first notified or made aware of this case.
26. Initials	Initials of Surveillance Officer completing the case report form.
27. Comments	Use this space to add other information that might not have fit the choices provided or to enhance existing information.

Table 1. **Question 11a:**

LOCATION OF CULTURE COLLECTION

Note: This question changed in 2007. The sub categories for "Hospital Inpatient" were collapsed. The "Nursing Home", "Rehabilitation Facility" and "Home Health" options were all collapsed into "Long Term Care Facility".

Location	Definition
Hospital	Culture was collected while an inpatient at a hospital *Note: sub categories for this location were removed in 2007

	*Note: Do not check if culture was collected in ER or outpatient unit (such as outpatient surgery).
Emergency room	Culture collected while in the ER, regardless of admission status.
Outpatient	Culture collected in an outpatient clinic (i.e., outpatient clinic, physician office, minor emergency clinic, community health center, outpatient surgery or procedure).
Long Term Care Facility	Please check if culture was collected while patient was a resident of a Long Term Care Facility, including Nursing Home, Rehabilitation Facility or in the care of Home Health. Do not check if culture collected at another location; for example, if a NH resident is transported to an ER and the culture is collected in the ER, check ER. *Nursing home*: Includes nursing home, long term care facility and other chronic (where the patient has lived for at least 30 days) care facilities where the patient has been living. This does *not* refer to facilities where the patient receives daily outpatient therapy *nor* does it include prisons, group homes, rehabilitation hospitals or assisted living facilities. *Rehabilitation facility*: Includes facilities where the patient is admitted for the purpose of receiving rehabilitation following a hospitalization (includes previous and current hospitalizations). Include facilities within hospitals that are designated as rehabilitation units. Include facilities within nursing homes if the purpose of transfer is to be discharged home after completion of rehabilitation. *Home Health*: Culture collected by home healthcare provider in a private residence or other setting outside a medical facility *Note: The following options for this question were all combined into this choice for 2007; “Nursing Home”, “Rehabilitation Facility” and “Home Health”.
Nursing home	*This specific category was dropped on the 2007 CRF, however still captured in the Long Term Care category.*
Rehabilitation facility	*This specific category was dropped on the 2007 CRF, however still captured in the Long Term Care category.*
Home health	*This specific category was dropped on the 2007 CRF, however still captured in the Long Term Care category.*
Prison/Jail	*This specific category was dropped on the 2007 CRF*
Other	Check if location of culture collection does not fit any of the given definitions and specify.
Unknown	Check if no indication is given as to the location of the culture collection or unclear.

Table 2

Question 14:
COMMONLY QUESTIONED NORMALLY STERILE SITES

Sterile Site	How to enter onto CRF
Blood clot	Enter as “blood”
Blood from blood line	Enter as “blood”
Abscess on parotid gland	Enter as “other sterile site”, “specify” as “parotid gland”
Parotid gland or any isolate relating to it.	Enter as “other sterile site”, specify as “parotid gland”
Pleural peel	Enter as “pleural fluid”
Pericolic space	Enter as “peritoneal fluid”
Fluid from a scalp plate take during surgery	Enter as “other sterile site”, specify as “scalp plate fluid”
Peritoneal dialysate or effulent	Enter as “peritoneal fluid”
Hemodialysis dialysate	NOT at sterile site
Dialysate	Determine what type of “dialysate” and enter accordingly
Dialysate effulent	Enter as “other sterile site” and specify as “dialysate effulent”

Table 3

Question 14:
COMMONLY QUESTIONED NON STERILE SITES

Non-sterile Site
Gallbladder
Tissue culture from a vein that recently had a line removed
Catheter/skin site
Catheter tip
Hemodialysis dialysate
Bile

Table 4.

Question 17:
TYPES OF INFECTIONS CAUSED BY ORGANISM, DEFINITIONS

Term	**Definition**
Bacteremia	**<u>*Note: This question was changed in 2007. Removed the categories "Primary bacteremia", "Secondary bacteremia" and "Not Specified". "Bacteremia" will be selected for any of these categories.</u>** <u>*Primary bacteremia*</u>: bloodstream infection without any other type of infection indicated. Check if: ▪ primary MRSA bacteremia is indicated in the discharge diagnoses or discharge summary ▪ primary bacteremia is indicated in the discharge summary and MRSA is isolated from a blood culture ▪ bacteremia is indicated in the discharge summary, the only MRSA culture is from blood and no other MRSA infection type is indicated in the discharge summary ▪ bacteremia is indicated in the discharge summary, MRSA isolated from blood and the patient had a central line in place at the time of culture <u>*Secondary bacteremia*</u>: bloodstream infection associated with another type of infection. For example, MRSA pneumonia could progress to MRSA bacteremia. Check if: ▪ secondary MRSA bacteremia is indicated in the discharge summary or diagnoses ▪ secondary bacteremia is indicated in the discharge summary and there is an MRSA blood culture ▪ bacteremia is indicated in the discharge summary and another type of MRSA infection occurred before the bacteremia or the culture associated with the other type of MRSA infection was collected >=1 day before the blood culture ▪ bacteremia is indicated in the discharge summary and there is another type of MRSA culture and there is no central line in place. <u>*Not specified*</u>: Bacteremia not specified as primary or secondary in discharge summary or diagnoses. Check if: ▪ MRSA bacteremia is indicated but it is unclear whether it is primary or secondary ▪ bacteremia is indicated in discharge summary or diagnosis, MRSA isolated from blood and no indication of central line in place at time of culture bacteremia is indicated and there is an MRSA blood culture and one or more MRSA cultures from additional sites but no infection related to other sites is indicated in discharge summary or diagnoses
Empyema	The presence of pus in a body cavity. Empyema usually refers to collections of

	pus in the space around the lungs (pleural cavity) (*Added 2005*)
Meningitis	Inflammation of the membranes of the brain or spinal cord. (To list this as the type of infection caused by MRSA, "meningitis" must be isolated from CSF, or a CSF gram stain must be positive. The following CSF abnormalities alone are <u>not</u> acceptable: any abnormal protein level or an increase in white blood cells (WBC).
Peritonitis	Inflammation of the lining of the abdominal cavity
Pneumonia	Inflammation or infection of the lung. Aspiration pneumonia and community-acquired pneumonia are acceptable types of pneumonia. Please choose this category if the clinical team treating the patient documents the patients MRSA isolate represents this syndrome. If reviewing radiology reports (which is *not* required), radiographic findings that indicate pneumonia include the following: bronchopneumonia, consolidation, and infiltrate. Atelectasis, pulmonary edema and pleural effusion alone should *not* be considered evidence of pneumonia. ***Note: For 2008 we have added supplemental pneumonia questions. If this infection is selected, complete Question 21 a-d completely.**
Pericarditis	*Inflammation of the membrane around the heart. NOTE: Enter as "other" (removed from CRF in 2005)*
Osteomyelitis	Inflammation of bone marrow and adjacent bone (does not include mastoiditis)
Urinary Tract	urinary tract infection (UTI) (*Added 2005*)
Endocarditis	Inflammation or infection of the endocardium Check only if <u>MRSA</u> endocarditis and is indicated by the clinical team treating the patient documents the patients MRSA isolate represents this syndrome. ***Note: This questions was changed in 2007, removed "Native valve" and "Prosthetic valve". Please check this if either type of infection is indicated or if the infection type is not specified.** <u>Native valve:</u> Endocarditis involving a native (normal or abnormal valve). Check if endocarditis is indicated in the discharge summary and is not specified as prosthetic valvular endocarditis. <u>Prosthetic valve</u>: Endocarditis involving a prosthetic valve. Check ONLY if prosthetic valve is indicated in H&P or discharge summary *Note: Do not check if non-infective endocarditis is indicated or if there is no association with the MRSA culture
Abscess (not skin)	Circumscribed collection of pus; this can be a collection of pus in an organ (i.e., liver) or within deeper tissues under the skin. Check <u>only</u> if specific internal site is indicated.
Skin Abscess *(Added 2007)*	Localized collections of pus causing fluctuant soft tissue swelling surrounded by erythema; includes abscess, boil, furuncle, carbuncle, acne, pustule, cyst. Common body sites include, but not limited to, trunk, extremities, axillae, head and neck, inguinal, vaginal, buttock, and perirectal. Acceptable syndromes include, **but are not limited to the following**: - decubitus ulcer - gangrene

	- epidural abscess - facial abscess - fistula infection - graft infection
Surgical site (internal)	Infection of a deep tissue surgically removed. Do NOT check if only incision/post-operative incision infection.
Septic arthritis	*Note: *This questions was changed in 2007*, removed "Native Joint" and "Prosthetic Joint". Please check this if either type of infection is indicated or if the infection type is not specific. Infection of joint (i.e., wrist, knee, ankle, etc); also infectious arthritis; not rheumatoid arthritis. Clarifications: *Native joint:* either acute or chronic infection of the synovial or periarticular tissue involving a native joint. Check is not indication of a prosthetic joint. *Prosthetic joint:* either acute or chronic infection involving a prosthetic joint. For example, septic arthritis of a knee replacement. Check ONLY if prosthesis is mentioned in the H&P or discharge summary.
Bursitis	Acute or chronic inflammation of a bursa NOTE: Do not check if non-infective bursitis is indicated or if there is no association with the MRSA culture.
Septic Shock	Shock due to circulatory insufficiency associated with an infection with a micro-organism. *(Added 2005)* *Note: Please check this box is "septic shock" or symptoms associated with septic shock are clearly stated in the chart.
Cellulitis	Diffuse, spreading, acute inflammation within solid tissues. Check if cellulitis is indicated in the discharge summary and is associated with an MRSA culture (usually a skin, wound or tissue culture)
Traumatic wound	Infection of a wound that was caused by trauma to the skin (i.e., accident, cut, puncture, insect bite, etc.).
Surgical incision	Infection of a surgical wound, post-operative wound infection, etc.
Pressure ulcer	Ulcer involving tissues overlying a bony prominence that has been subjected to prolonged pressure against an external object such as a bed or wheelchair; includes bed sores, decubitus ulcers, trophic ulcers, pressure sore. Usually seen in diabetic and bed ridden or immobile patients
Septic Emboli *(new 2008)*	The presence of an embolism that is infected with bacteria. Most commonly originated form an extrapulmonary location. *(Added in 2008)*
Other	Other infections caused by MRSA Specify type. Acceptable syndromes include, **but are not limited to:** - kidney infection (pyelonephritis) - epiglottitis (inflammation of the epiglottis) - sinusitis - pharyngitis - necrotizing faciitis - Toxic Shock Syndrome (not streptococcal) - puerperal sepsis (condition in which a woman has a fever for more than

	two consecutive days, exclusive of the first postpartum day, within the first 10 postpartum days) - endometritis - gangrene - mastoiditis - abscess at a site that does not meet the "Abscess (not skin)" definition or the "Skin Abscess" definition (please see above) - infection following and amputation - infected AV Fistula or AV Graft - bronchitis - diskitits - empyema - endophthalmitis - eye infection - fascititis of any kind - line sepsis or any other type of line/device associated infection - myositis - pancreatits - parotitis - pericarditis - pleural effusion - septic thrombophlebitis - sepsis - septicemia **(septicemia may be coded as bacteremia IF the organism is isolated from the blood only)** ***Note: In 2007 added "Skin Abscess" as a choice, please check this box for patient's with skin abscesses and do not enter here.** ***Note: "septic shock" should NOT be entered here, it should be entered under the "Septic Shock" category- this choice was added to the CRF in 2005.** ***Note: "UTI" should NOT be entered here, it should be entered under the "UTI" category- this choice was added to the CRF in 2005.**

Table 5.

Question 18:

SPECIFIC UNDERLYING DISEASES: DEFINITIONS, ABBREVIATIONS, AND

CLARIFICATIONS

Current smoker	Includes a smoker of cigarettes or cigars, but does not include smoking crack or other illicit drugs. Smoking crack or other illicit drugs should be listed under ”other drug use” (If a person quit smoking *within the past 12 months*, consider this person a current smoker.)
Alcohol abuse	Includes ETOHA (ethanol abuse).
IVDU	Intravenous drug user. *Note: starting in 2007 record other drug use in that category. Prior to 2007, other drug use was classified under “other” and then specified
Other Drug Use	Any illicit drug use other than intravenous drug use. *(this category was added to CRF in 2007)*
HIV/AIDS	If the case is HIV+ and the case=s CD4 count was ever <200, then mark AAIDS@ as an underlying cause, even if AIDS is not a diagnosis noted in the chart. (The CD4 count from the *current* illness/admission being investigated may be used to determine if the person has AIDS and is most often listed in the admission history and physical or discharge summary; prior charts do not need to be reviewed.)
Solid Organ Malignancy	Malignancy of any solid organ, such as lung, bladder, kidney, etc.; includes skin.
Hematologic Malignancy	Malignancy of the hematopoietic system; includes leukemia, Hodgkin’s Disease, multiple myeloma.
Peripheral Vascular Disease (PVD)	Diseases of blood vessels outside the heart and brain. PVD, Peripheral Artery Disease (PAD), Arteriosclerosis obliterans (*Added 2005*)
Heart failure/CHF	Congestive heart failure, including cardiomyopathy.
Atherosclerotic cardiovascular disease (ASCVD/CAD)	This is also described as Arteriosclerotic Heart Disease, CAD (coronary artery disease), and CHD (coronary heart disease).
CVA/Stroke (Not TIA)	Cerebral Vascular Accident or stroke. Includes any history of CVA/stroke.
Emphysema/COPD	COPD=chronic obstructive pulmonary disease. Includes chronic bronchitis.
Asthma	Asthma, Bronchial Asthma
Systemic Lupus Erythematosus	SLE, lupus
Sickle Cell Anemia	Includes persons with HbSS, HbSC or HbS-beta thalassemia. Common abbreviations: SCD, SS disease, SC disease.
Diabetes mellitus	Includes either type I *or* type II (both “insulin-dependent” and “adult-onset”). Also includes glucose intolerance and new-onset diabetes. Do not include patients noted as “pre-diabetic”. It is not necessary to look at the results of glucose tolerance test in laboratory results section of the chart for an indication of diabetes. Common abbreviations: DM, AODM, IDDM,

	NIDDM.
Chronic Renal Insufficiency	Chronic renal failure. Includes end stage renal disease. This does not include *acute* renal failure or *acute* renal insufficiency. For MRSA, dialysis is indicated in Question 19.
Chronic liver disease	Cirrhosis, chronic liver failure. This does *not* include hepatitis A, hepatitis B, hepatitis C infection *without* liver failure and does not include *acute* liver failure.
Rheumatoid arthritis	RA, *not* osteo arthritis
Obesity	The condition of being significantly overweight. It is usually applied to a condition of 30 percent or more over ideal body weight OR to individuals with a body mass index (BMI) of 30 or more. (*Added 2005*)
Premature Birth	Birth of a baby before the 37th week of pregnancy according to last menstrual period (LMP). This condition will be selected if in the chart there is an indication for that the patient for fills the criteria of being pretem **and** they are under the age of 2 years old. *(Added 2008)*
Immunosuppressive therapy	If the chemotherapy is ongoing, if patient is between cycles, or if within 2 weeks of completion, this should be checked. Use of steroids is considered an underlying disease or condition only if they are long-term systemic steroids (this does NOT include topical creams, steroids used only for short course treatment such as one week, and inhaled steroids used for asthma).
Decubituis Ulcer	A skin ulcer that has developed due to prolonged pressure. Check this category if a history of this type of ulcer is indicated in the chart. *(This is a new choice for 2007)*
Eczema	Acute or chronic inflammatory skin inflammation; dermatitis
Influenza (within 10 days of initial culture)	Clinical or laboratory diagnosis within 10 days before or after initial sterile site culture date. **Check only if influenza is specifically noted as suspected or confirmed in the discharge diagnosis**. Do not check if "cold", flu-like illness, influenza-like illness (ILI) is only indication.
Spider/Insect Bite	Includes suspected or confirmed spider or insect bites (spider, brown recluse, insect, mosquito, bug, arthropod) as reported in medical record, usually in H&P. If another source of bite is indicated (human, animal, unknown), enter as "Other Dermatological Condition" and specify type. NOTE: Bites are typically reported by the patient. Source of the bite may or may not have been visually confirmed; check if any bite is confirmed or suspected. Record any relevant descriptive information in the comments. (*This variable was removed in 2007*).
Abscess/Boil	Localized collections of pus causing fluctuant soft tissue swelling surrounded by erythema; includes abscess, boil, furuncle, carbuncle, acne, pustule, cyst. Common body sites include, but not limited to, trunk, extremities, axillae, head and neck, inguinal, vaginal, buttock, and perirectal. Breast abscesses or mastitis should be specified as "Other dermatological condition".
Psoriasis	Skin condition; eruption of maculopapules on the skin.

Other dermatological conditions	Include any other skin or soft tissue condition or infection. Includes mastitis or breast abscess, hydradenitis supperitiva, lymphadenitis (inflammation of the lymph nodes), necrotizing faciitis or cellulitis, Fournier's disease, Scalded Skin Syndrome, paronychia, erythrasma, ichthyosis,
Other condition	Other underlying illness that are not already listed in Question 17.

Table 6.

Question 18:

GLOSSARY FOR COMMONLY NOTED UNDERLYING ACRONYMS AND SYNDROMES, AND ASSOCIATED ABCS UNDERLYING DISEASE OR ILLNESS

Acronyms/Symptoms/Syndromes/ Treatments	**Associated ABCs underlying disease or illness**
Agammaglobulinemia	Immunoglobulin deficiency
ALL (**A**cute **L**ymphocytic **L**eukemia)	Leukemia
AML (**A**cute **M**yelogenous **L**eukemia)	Leukemia
AODM (**A**dult **O**nset **D**iabetes **M**ellitus)	Diabetes mellitus
ASCVD	Atherosclerotic cardiovascular disease
CAD (**C**oronary **A**rtery **D**isease)	Atherosclerotic cardiovascular disease
Cardiomyopathy	Heart failure/CHF
Cerebrospinal fluid leak	CSF leak
CHD (**C**hronic **H**eart **D**isease)	Atherosclerotic cardiovascular disease
CHF (**C**ongestive **H**eart **F**ailure)	Heart failure/CHF
CVA (**C**erebral **V**ascular **A**ccident)	Stroke/CVA
Chronic Bronchitis	Emphysema/COPD
Cigarettes	Current smoker
Cigars	Current smoker
CLL (**C**hronic **L**ymphocytic **L**eukemia)	Leukemia
CML (**C**hronic **M**yelogenous **L**eukemia)	Leukemia
COPD (**C**hronic **O**bstructive **P**ulmonary **D**isease)	Emphysema/COPD
Cortisone (steroid)*	Immunosuppressive therapy
Cortone (steroid)*	Immunosuppressive therapy
Decadron (steroid)*	Immunosuppressive therapy
Dexamethasone (steroid)*	Immunosuppressive therapy
DM	Diabetes mellitus
ETOHA (Ethanol abuse)	Alcohol abuse
HbS-beta thalassemia	Sickle Cell Anemia
HbSC	Sickle Cell Anemia
HbSS	Sickle Cell Anemia
Hydrocortisone (steroid)*	Immunosuppressive therapy
IDDM (**I**nsulin-**D**ependent **D**iabetes **M**ellitus)	Diabetes mellitus

Ig deficiency	Immunoglobulin deficiency
IgG deficiency	Immunoglobulin deficiency
IgM deficiency	Immunoglobulin deficiency
IVDU	Intravenous drug user
Kenacort (steroid)*	Immunosuppressive therapy
Kenalog (steroid)*	Immunosuppressive therapy
Liver failure	Cirrhosis
Methylprednisolone (steroid)*	Immunosuppressive therapy
NIDDM (**N**on **I**nsulin **D**ependent **DM**)	Diabetes mellitus
Pediapred (steroid)*	Immunosuppressive therapy
Prednisolone (steroid)*	Immunosuppressive therapy
Prednisone (steroid)*	Immunosuppressive therapy
Prelone (steroid)*	Immunosuppressive therapy
SCD (**S**ickle **C**ell **D**isease)	Sickle Cell Anemia
SC disease	Sickle Cell Anemia
SCID (**S**evere **C**ombined **I**mmuno**d**eficiency)	Immunoglobulin deficiency
Solu-Cortef (steroid)*	Immunosuppressive therapy
SoluMedrol (steroid)*	Immunosuppressive therapy
SS disease	Sickle Cell Anemia
Steroids*	Immunosuppressive therapy
Triamicinalone (steroid)*	Immunosuppressive therapy
Wiskott-Aldrich Syndrome	Immunoglobulin deficiency

* Use of steroids are considered an underlying disease or condition ONLY if they are long-term systemic steroids (inhaled steroids are typically not considered an underlying disease or condition

Table 7.

Question 18:

Commonly noted diseases or syndromes that are
NOT
considered an Invasive MRSA ABCs underlying disease or syndrome

Acute Liver Failure
Acute Renal Failure
Alzheimer=s Disease
Anemia
Atrial fibrillation
Gastroesophageal Reflux Disease (GERD)
Hepatitis A without liver failure
Hepatitis B without liver failure
Hepatitis C without liver failure
HTN (hypertension)
Inhaled steroids
Mental Illness
Organic Brain Syndrome
Senile dementia
Steroid Topical Creams
Steroid Short term Therapy (<8 days)
UTI (Urinary Tract Infection)

Table 8.

Question 19:

TYPES OF DEVICES

Type	**Common names**
Urinary	Foley catheter, Suprapubic catheter, urostomy
Respiratory	Ventilator, tracheostomy
Gastrointestinal	G-tube, PEG tube, colostomy, ileostomy, gastrostomy
Central vascular catheter	Single, double or triple lumen, Shiley (dialysis), Broviac, Hickman, PICC, Swan Ganz catheter, Pulmonary artery catheter, Port-a-cath, passport, Vas cath, perm cath. Does not include peripheral IV.
Other	Other device; specify. Include peripheral IV, AV fistula

***See Appendix 3 for detailed descriptions**

Appendix 1.

Antibiotic generic name, trade name and code.

Generic	Trade	Database Code
Amikacin	Amiken	AKN
Amoxacillin/Clavulanate	Augmentin	AMXCL
Amoxacillin	Amoxil, Polymox	AMX
Amphotericin	Amphotec	AMT
Amphotericin - Topical		AMTT
Ampicillin/Sublactam	Unasyn	SAM
Ampicillin	Omnipen, Polycillin, Principen	AMP
Azithromycin	Zithromax, Z-Pak	AZT
Aztreonam	Azactam	ZAC
Bacitracin		BAC
Cefaclor	Ceclor	CEC
Cefadroxil	Duricef, Ultracef	CFR
Cefazolin	Ancef, Kefzol, Zolicef	CZ
Cefdinir	Omnicef	CDR
Cefepime	Maxipime	CPM
Cefixime	Suprax	FIX
Cefmetazole		CMT
Cefoperazone	Cefobid	CFP
Cefotaxime	Claforan	CTX
Cefotetan	Cefotan	CTT
Cefoxitin	Mefoxin	FOX
Cefpodoxime proxetil	Vantin	CPD
Cefprozil	Cefzil	CPR
Ceftazidime	Fortaz, Tazicef, Tazidime	CAZ
Ceftibuten	Cedax	CDN
Ceftizoxime	Cefizox	ZOX
Ceftriaxone	Rocephin	CRO
Cefuroxime	Ceftin	CXM
Cephalexin	Keflex	LEX
Cephalothin		CF
Ciprofloxacin	Cipro, Ciloxan	CIP
Chloramphenicol	Chloromycetin	CHL
Clarithromycin	Biaxin	CLR

Clindamycin	Cleocin	CC
Cloxacillin	Tegopen	CLOX
Dapsone	4,4’-diaminodiphenyl sulfone (DDS)	DPN
Daptomycin	Cubicin	DAPT
Dicloxacillin	Dycill, Dynapen, Pathocil	DICLOX
Diphenylsulfone		DPS
Doxycycline	Vibramycin	DOX
Enoxacin	Penetrex	ENOX
Ertapenem	Invanz	INV
Erythromycin	E-mycin, Erythrocin, Ilosone, EryPed, Pediazole, EES, EryTab	ERY
Erythromycin – topical		ERYT
Ethambutol	Myambutol	EBL
Fluconazole	Diflucan	FZL
Gatifloxacin	Tequin, Zymar	GAT
Gentamicin	Garamycin, Genopic	GM
Gentamicin - topical		GMT
Grepafloxacin		GREP
Imipenem	Primaxin	IPM
Itraconazole	Sporanox	ITR
Ketoconazole	Nizoral	KTO
Levofloxacin	Levaquin, Quixin	LEVO
Linezolid	Zyvox	LINEZ
Meropenem	Merrem IV	MER
Methicillin	Staphcillin	MET
Metronidazole	Flagyl	MAZOL
Mezlocillin		MZ
Minocycline	Minocin, Dynacin	MIN
Moxifloxacin	Avelox, Vigamox	MXF
Mupirocin	Bactroban	MUP
Nafcillin	Unipen	NAF
Neomycin	Mycifradin	NMY
Neosporin		NEO
Nitrofurantoin	Furadantin, Microdantin, Macrobid	NIT
Norfloxacin	Noroxin	NOR
Nystatin	Mycostatin, Nilstat, Nystop	NYS
Ofloxacin	Floxin, Ocuflox	OFL
Oxacillin	Prostaphlin	OX
Penicillin	Bicillin, Pfizerpen	PEN

Pentamidine	Pentam, Nebupent	PNT
Piperacillin/Tazobactam	Zosyn	ZOS
Piperacillin	Pipracil	PIP
Polysporin		POLY
Primaquine		PMQ
Quinupristin/Dalfopristin	Synercid	QD
Rifampin	Rifadin, Rimactane, Rifater, Rifamate	RA
Rifaxamin	Xifaxan	RFX
Silver Sulfadiazine	Silvadene	SIL
Sparfloxacin		SPAR
Telithromycin	Ketek	TEL
Tetracycline	Achromycin V, Tetracyn, Tetrex	TET
Ticarcillin/Clavulanate	Timentin	TICCL
Ticarcillin	Ticar	TIC
Tigeocycline	Tygacil	TIG
Trimethoprim/Sulfamethoxazole	Bactrim, Septra	SXT
Tobramycin	Nebcin, Tobrex	TOB
Tobramycin – Topical		TOBT
Trovofloxacin		TROV
Vancomycin	Vancocin	VA
Vancomycin – Topical		VATOP
Voriconazole	VFEND	VZL
Unknown/Not Specified		UNK
Antibiotic Beads		BEADS

Appendix 2.

Recurrent and Persistent Disease

Indicate whether or not this patient was previously infected by MRSA as in a previous

case report. The specimen in this case must have been isolated *30 or more* days after any previous MRSA case.

Recurrent disease is defined as a patient with invasive MRSA disease who has already been assigned a state ID and has a culture that was collected more than 30 days after the initial index culture; a new case report form will be completed as a new state ID will be assigned. Recurrent disease (Q24) will be marked 'yes" on the new CRF and the original state ID will be filled in. If the culture date is less that 30 days after the index culture the case will be considered ***persistent disease*** and indicated on the original CRF; a new CRF will not be filled out and a new state ID will not be assigned.

New culture	Days after index culture	Q15	Q16	Q24	New CRF?
Sterile, same	1 to 6	N	N	N	**No**
Sterile, same	7 to 29	**Y**	N	N	**No**
Sterile, same	30+	N	N	**Y**	**Yes**
Sterile, other	1 to 29	N	**Y**	N	**No**
Sterile, other	30+	N	N	**Y**	**Yes**

New culture: Subsequent culture in question (i.e., CRF already started for index sterile site culture)

Days after index culture: Number of days after index sterile site culture that the new culture was collected.

Q15-Q24: Answers to questions referenced on case report form given the criteria of the new culture; if more than one culture, any "Y" should supercede an "N".

New CRF: Indicates if a new case report should be complete and a new STATEID assigned given the criteria of the new culture; if more than one culture, if a new case report form is indicated for either, a new case report form should be completed for the new culture and a new STATEID assigned. If a new case report form is required, all of the above criteria apply with the new culture collection date as the index culture.

NOTE: If there are any questions regarding whether or not a case is recurrent or persistent disease, please contact CDC directly.