

Legionellosis Active Bacterial Core surveillance (ABCs) Case Report Form Instruction Sheet

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

The minimum sources of information that should be used are 1.) admission history and physical (H&P), 2.) discharge summary (i.e., DC summary) and/or the discharge narrative, 3.) face sheet, 4.) laboratory reports, and 5.) radiology reports. In the H&P, useful information (including underlying causes or prior illnesses) is often listed under the heading “Past Medical History” (PMH).

Where to send completed form:

(Each site to add information here)

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’s name: Last name, first name, middle initial
Phone	Patient’s home phone number, including area code
Address	Patient’s home address, including Number, Street, City, State and ZIP Code. If homeless, enter this on Address line and check off ‘homeless’ in Question 9a. If a resident of a facility enter the facility address on this line, check off facility type as appropriate in Question 9a and enter the name of the facility in Question 9b.
Senior Living Facility	Name of nursing home/long term care facility or assisted living in which patient currently resides (on screen only).
Chart Number	Patient chart number

Information obtained for cases with any positive *Legionella* test

Note: Shaded items 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 which uses “EB” & “SF”).
2. County	Patient’s 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 state ID is assigned by ABCs personnel. A legionellosis STATEID should be unique identifier not duplicated in other ABCs activities (including core surveillance).
4a. Hospital/lab ID where first culture identified or first positive test	ABCs laboratory unique identifier; this field refers to the hospital or reference laboratory where the original primary culture or first positive test was identified from a patient specimen. Each ABCs site has its own system of assigning a unique ID to each hospital or lab. Please write the name of the hospital or lab on the form; the hospital/lab ID will be assigned by ABCs personnel.

4b. Hospital ID where patient treated	Hospital where patient received treatment for legionellosis. This may be different than 4a and most commonly is hospital of discharge. Please write the name of the hospital; the hospital ID will be assigned by ABCs personnel. Note: The patient does not need to be hospitalized in order to have received treatment.
5. State Health Dept. Case No. (from CDC Legionellosis Case Report form for passive surveillance):	This is obtained from the CDC Legionellosis Case Report (http://www.cdc.gov/legionella/files/legionella_case_report.pdf). This field will be completed by ABCs personnel in coordination with the state legionellosis surveillance coordinator. IMPORTANT: This number links this chart review with the patient interview conducted as part of notifiable disease surveillance and is important for gathering additional variables that cannot be determined from chart review. This field is NOT the same as the ABCs unique STATEID.
6. Date of symptom onset of legionellosis	Enter the date of first symptom onset of legionellosis. This information can often be found in the H&P. Symptoms of legionellosis include any of the following: fever, new cough, or shortness of breath. If listed as having symptoms for X number of days prior to admission, use the hospital admission date to calculate onset date. If onset date is not listed and cannot be calculated, leave blank (do NOT use date of admission). NOTE: The number of days between symptom onset and first positive test should be no longer than 30 days.
7a. Was patient hospitalized?	<p>If the patient was hospitalized in an acute care facility, 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. If the patient is admitted through the ER into an acute care hospital, the date of admission is the date of the ER visit.</p> <p>If patient is <i>discharged</i> from the hospital to a long-term care facility or hospice, OR, if the patient was transferred to a long term care unit (e.g., skilled nursing care unit or hospice) within the hospital, use this date of transfer as the date of discharge. In this instance, the discharge date from this type of long-term care facility or hospice should NOT be used. Likewise, if a patient is <i>admitted from</i> a long-term rehabilitation or specialty unit, other long-term care facility or hospice, please use the date of transfer to the acute care facility as the date of admission.</p> <p>For cases that die during hospitalization: if the date of death and the discharge date differ, enter the date of death_for discharge date.</p> <p>Additional notes on hospitalization status:</p> <ul style="list-style-type: none"> • ER visits and outpatient visits are not hospitalizations. If the patient is admitted to an acute care facility following an ER or outpatient visit then the patient has been hospitalized. • A case would not be considered hospitalized for legionellosis if <u>illness onset</u> or first positive test is collected <i>after</i> the hospital discharge date. This may be considered hospitalization in the two weeks before illness onset; enter this hospitalization in question 8.

	<ul style="list-style-type: none"> • If the patient has a positive <i>Legionella</i> test <i>before</i> hospital admission, consider the patient hospitalized for legionellosis if hospital admission occurs within 7 days after the positive test. • A case would not be considered hospitalized if admitted for a <24-hour observation period only.
7b. If patient was hospitalized, was this patient admitted to the ICU?	Indicate if patient was admitted to the intensive care unit (ICU) during <i>this</i> hospitalization. Other specialty units such as MICUs (medical intensive care unit), SICU (surgical ICU), PICU (pediatric ICU), NICU (neonatal ICU) and CCU (cardiac care unit) are considered ICUs. A step-down unit is <i>not</i> considered an ICU for ABCs.
7c. Did the patient require mechanical ventilation?	Indicate if the patient required intubation and mechanical ventilation.
8a. Excluding the current hospitalization, was the patient hospitalized at any time in the 10 days before illness onset?	Indicate whether the patient was hospitalized in an acute care hospital (including a non-medical ward) <u>any time in the 10 days before illness onset</u> . This EXCLUDES the current hospitalization (captured in 7a.) and EXCLUDES transfers (captured in 10a.). This is for patients who were hospitalized during their incubation periods for legionellosis and may indicate healthcare-associated cases, depending on the number of days spent in hospital. This information is often found in the H&P. If yes and specific dates are not listed, calculate from the H&P narrative. Leave dates blank if dates are unknown and cannot be calculated.
8b. Hospital ID for hospitalization in the 10 days before onset	If it is noted in the chart, enter the name of the acute care hospital where the patient was hospitalized in the 10 days before illness onset (see 8a.). Please note the name of the hospital; the hospital ID will be assigned by ABCs personnel.
9a. Where was the patient a resident in the 10 days prior to illness onset?	<p>Indicate ANY residence types during the <u>10 days prior to illness onset</u>. Check all residence types that apply during the 2 week period. If illness onset is unknown, use the 2 weeks prior to hospital admission for legionellosis.</p> <p><i>Clarification of residence types:</i></p> <p><u>Private residence:</u> Select if the patient was living at a private residence in the 10 days prior to illness onset. This does NOT have to be the patient’s private residence, and may refer to a friend or relative’s home. Private residence hospice care is included in this category.</p> <p><u>Long term care facility:</u> Patient is a resident of a nursing home (or long term care facility), rehabilitation facility, or skilled nursing facility. This does <i>not</i> refer to facilities where the patient received daily outpatient therapy, <i>nor</i> does it include group homes, or assisted living facilities. Inpatient hospice care should be categorized as long term care. If the patient resides in a long term care facility, complete Question 9b. Long term care facilities include rehabilitation facilities and skilled nursing facilities (definitions follow).</p>

- Rehabilitation facility: facilities where the patient is admitted for the purpose of receiving rehabilitation following a recent or current hospitalization. These include facilities within hospitals that are designated as rehabilitation units and rehabilitation facilities within nursing homes, even if the patient is scheduled to be discharged home after completion of rehabilitation. Drug rehabilitation facilities are NOT rehabilitation facilities for our surveillance network.
- Skilled Nursing Facility: a nursing facility with the staff and equipment to give skilled nursing care and/or skilled rehabilitation services and other related health services. The level of care provided requires the daily involvement of skilled nursing or rehabilitation staff (e.g., registered nurse or licensed practical nurse), and that, as a practical matter, cannot be provided on an outpatient basis. Examples of skilled nursing care may include intravenous injections and physical therapy.

Long Term Acute Care Facility: Long term acute care facilities are those that specialize in caring for patients with complex medical problems for extended periods of time (at least 25 days). These facilities may be located within acute care hospitals or may be freestanding. **Patients treated in LTAC facilities will NOT be considered hospitalized.**

Homeless: Patient was homeless or resident of a shelter during the 2 weeks prior to onset of legionellosis.

Incarcerated: Patient was living in a correctional facility of any kind during the 2 weeks prior to onset of legionellosis.

Assisted Living: Patient is a resident of an Assisted Living facility (also called personal care, residential care, board and care, or congregate care). Assisted Living facilities are for persons in need of assistance with dressing, bathing, eating, or other activities of daily living, but do not require skilled nursing like that found at a long term care facility. Assisted Living facilities may be part of a retirement community, nursing home, or senior living facility, or they may stand alone.

Acute care hospital: Patient resided in an acute care hospital for some or all of the 10 days prior to illness onset. Include those who resided in a non-medical ward (e.g., psychiatric ward) in this group. If this box is checked, the answer to 8 should always be YES. This may indicate a healthcare-acquired case of legionellosis.

Other: Patient is a resident of a college dorm or other living situation not listed here.

Unknown: Select if patient's residence in the 2 weeks prior to onset is unknown.

9b. Name of facility	If patient was a resident of any facility (or, if the information is desired by ABCs site, <i>any</i> type of chronic care/senior living facility) prior to or during the ABCs illness, enter the name of the facility here. (These data are not transmitted to CDC.)
10a. Was patient transferred from another hospital?	Indicate if patient was admitted to and transferred <i>from</i> another acute care hospital prior to receiving treatment at the hospital where the chart is being reviewed. (If the patient was admitted from a long-term care facility, see instructions for question 7a above).
10b. Transfer Hospital ID	The acute care hospital <i>from which</i> the patient was transferred. Please note the name of the hospital; the hospital ID will be assigned by ABCs personnel.
11. Date of birth	Patient's date of birth; use 4 digit year
12a. Age	Patient's age <u>at onset of legionellosis symptoms</u> . If onset date is unknown, use date of first positive <i>Legionella</i> test. If patient's age is 30 days to 11 months, indicate age in months. If patient is 12 months or older, indicate age in years. Examples: 34 days of age should be coded as Age=1 and Unit=2; 14 months of age should be coded as Age=1 and Unit=3.
12b. Age units	Indicate if age is in days, months, or years (see explanation above).
13. Sex	Indicate the genetic sex of the case (e.g., male or female).
14a. Ethnicity	Ethnicity of patient as noted in chart or reported by physician or ICP. Check one EVEN IF race is already indicated. Hispanic or Latino ethnicity indicates a person of Cuban, Mexican, Puerto Rican, South or Central American, or some other Hispanic origin, regardless of race. For example, many whites are also Hispanic or Latino. Do not make assumptions based on name. If not noted or unsure, check "Unknown". Note: Some institutions combine race/ethnicity coding. For example, a person's race might be defined as "Hispanic or Latino". In this case, race would be coded "unknown" on the CRF and ethnicity would be "Hispanic or Latino".
14b. Race	Race of patient as noted in the chart or reported by physician or ICP. Multiple boxes can be checked. Do not make assumptions based on name or native language. If race is unknown, please check "Unknown". The minimum categories for the Federal statistics of race data are defined as follows: <u>American Indian or Alaskan Native</u> : A person having origins in any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment. <u>Asian</u> : A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent. Can include the following: Cambodia, China, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. <u>Black or African American</u> : A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black" or "African American".

	<p><u>Native Hawaiian or other Pacific Islander</u>: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.</p> <p><u>White</u>: A person having origins in any of the original peoples of Europe, the Middle East, or North Asia.</p>
15a. Weight	Indicate weight in pounds (lbs) and ounces (oz) OR in kilograms (kg). Please record weight <i>only</i> in pounds OR kilograms, not both. If multiple weights are in chart, use weight recorded at admission.
15b. Height	Indicate height in feet (ft) and inches (in) OR in centimeters (cm).
15c. BMI	Indicate BMI if BMI is the only measure available (i.e., if weight and height are not listed in the chart).
16. Type of insurance	<p>Check ALL types of insurance as noted in the hospital chart. If a patient's insurance status changes during hospitalization, indicate insurance status at admission.</p> <p><i>Resources: Table 1.1 and Table 1.2</i></p> <p><i>Clarification:</i> Some private companies may be found partnered with some form of state assistance program, Medicaid, and/or Medicare. In this case, please check both "private" and additional "public" health insurance type. For example, 'Medi-Gap' would be recorded as both "Medicare" and "Private".</p> <p>Starting 2012, if the chart notes "self pay", check "uninsured".</p> <p>Also starting in 2012, the wording "HMO/PPO/managed care plan" was removed from the 'Private' category as this option can also be a part of a Medicare and/or Medicaid plan.</p> <p>If questions arise in the field on insurance types, please contact CDC for further guidance.</p>
17. Outcome	If the patient was seen in the ER or outpatient office and was alive upon leaving the ER or office, mark "survived" even if they died shortly after. For hospitalized patients, base outcome on the patient's status at discharge.
18. If patient died, was <i>initial</i> culture or first positive test obtained from autopsy?	This question should be answered only for cases who have died or OUTCOME=2.
19. Did the patient have a chest CT or chest X-ray within 72 hours of admission?	Indicate whether the patient had a chest CT and/or chest X-ray within 72 hours (either before or after) of admission. If this is a healthcare-associated case who developed legionellosis while being hospitalized for some other condition, indicate whether the patient had a chest CT or chest X-ray within 72 hours (either before or after) of specimen collection for the first positive <i>Legionella</i> test.

	<p>NOTE: If the patient had more than one chest CT or chest X-ray in this 72 hour period, use the results from the first one taken. If the patient had BOTH a chest CT AND a chest X-ray within this 72 hour period, use the <u>first chest CT</u> to answer the question about radiology report results.</p> <p>Radiology report: For radiology report checkboxes, select all terms that are <i>specifically</i> found in the radiology report.</p> <p>The lung has 5 lobes—3 on the right side and 2 on the left. The report may refer to multiple lobes on one side (unilateral) or on both sides (bilateral). Alternatively, it may refer to the lobes specifically (RUL=right upper lobe, RML=right middle lobe, RLL=right lower lobe, LUL=left upper lobe, LLL=left lower lobe). If there is a consolidation, infiltrate or pneumonia indicated for one lobe, then please select “single lobar”. If there are multiple lobes indicated from one side (e.g. RUL and RLL) then please select “multiple lobar (unilateral)”. If there are multiple lobes indicated from both sides (e.g. RUL and LUL) then please select “multiple lobar (bilateral)”.</p>
<p>20. Was the patient diagnosed with pneumonia?</p>	<p>Pneumonia is inflammation or infection of the lung. Aspiration pneumonia and community-acquired pneumonia are types of pneumonia. If the patient was diagnosed with clinical pneumonia that was not confirmed by chest CT or chest X-ray, (indicated in discharge diagnosis as pneumonia) check YES to this question.</p> <p>Legionellosis can manifest as either Legionnaires’ disease (with pneumonia) or Pontiac fever (a flu-like illness without pneumonia). Rarely, other conditions may occur such as endocarditis, wound or other extrapulmonary infection.</p>
<p>21. Did this patient have a positive flu test 10 days prior to or following a positive <i>Legionella</i> test or culture?</p>	<p>Indicate if case has a documented positive influenza test of any type (i.e., rapid test, culture, serology or PCR) within 10 days prior to or following a positive <i>Legionella</i> test. Mark ‘yes’ if a documented positive influenza test is noted in the chart ‘no’ if a documented negative influenza test is noted, and ‘unknown’, if an influenza test was performed and documented but the result is unknown OR if no record of an influenza test is found in the chart.</p> <p><i>Data entry screen only:</i> If patient had a positive flu test and was hospitalized, enter the FLU UNIQUE ID into the corresponding space on the data entry screen.</p>
<p>22. Discharge diagnosis</p>	<p>Check all ICD-9 codes that apply. Discharge diagnosis ICD-9 codes are usually found in the discharge or billing sections. If there are ICD-9 codes listed in the chart but none of them are listed in the picklist, check ‘none of these listed’. If there are no ICD-9 codes in the chart, check ‘no ICD-9 codes in chart’.</p>
<p>23. Underlying causes or prior illness (See Tables 2-4)</p>	<p>Check ALL underlying illnesses or prior conditions available in the picklist as noted in hospital chart or by reporting physician or ICP.</p>

At least ONE box should be checked for Question 23. Check “none” if the chart is available and no underlying causes are found. Check “unknown” if no chart is available for review and no underlying diseases are known.

NOTE: if the underlying condition or prior illness is NOT included in the list on the case report form, it is not considered a risk factor for illness and should not be added to “other”. The “other prior illness” variable is only for local ABCs site use.

NOTE: for database entry, “0=no” should only be used if the chart specifically states that the patient did NOT have this condition (e.g., negative HIV test). Otherwise, if the condition is not in the chart, leave blank.

Mark the “AIDS” checkbox if: a) AIDS is listed in the chart, OR, b) 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. If “AIDS” is checked, “HIV Infection” should also be checked.

For current substance abuse questions (i.e., current smoker, alcohol abuse, and IVDU), check “yes” in the checkboxes if the substance abuse is current OR if the timing of the use is unknown (e.g., history of alcohol abuse) and do not check if the substance abuse is clearly indicated as “former” (e.g., “former IV drug user”). There is a separate check box for former smoker.

Indicate gestational age for premature births in number of completed weeks. If gestational age is available as weeks and days, record exact age in weeks only; do not round up. For example, if the infant was 26 weeks, 6 days at delivery (26_6), enter 26 weeks for gestational age. If there are multiple gestational ages in the chart determined by multiple methods, enter the gestational age calculated from last menstrual period (LMP).

NOTE: Starting in 2014, the checkboxes for “Chronic Renal Insufficiency” and “Renal Failure/Dialysis” have changed. There will now only be a “Chronic Kidney Disease” and “Current Chronic Dialysis” checkbox. Please refer to Table 2 for more information.

Any underlying condition listed on the form should be considered an “underlying condition or prior illness”, 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. Types of infections caused by *Legionella* (see Question 20) should NOT be indicated in the specify field for underlying conditions.

Examples:

What is in chart: Underlying illness or prior condition?

h/o heart failure	yes
h/o acute leukemia	yes
h/o smoking	current smoker
h/o smoking, stopped 10 years ago	former smoker
h/o colon cancer	yes
acute renal failure	no
chronic renal failure	yes
h/o chemotherapy	yes
h/o COPD	yes
<p>*If a question remains about classification of past malignancy, contact CDC. Further instructions, definition of terms, and abbreviations are in Tables 2-4 at the end of this document.</p>	

Lab Table

Was this test ordered?	<p>Indicate whether each test was done based on the laboratory reports. If there was more than one test ordered of a certain type (e.g., 2 cultures were ordered), enter the information for the first positive test. If there was no positive test of that type (e.g., both cultures were negative), enter the information for the first negative test.</p> <p>Notes regarding DFA and PCR: Document tests done on direct specimen only. If DFA or PCR is used only to assist with species identification or serogrouping, the answer to “Was this test ordered?” should be NO. Enter species/serogroup in the Species column for the test that was run on direct specimen.</p> <p>Notes regarding serology: <u>Single Serology:</u> This is when only one serology is ordered (i.e., only acute or only convalescent results are available). Single serology is NOT an appropriate test for the diagnosis of legionellosis, and does not fit the laboratory requirements of the surveillance case definition. Do NOT record any information about whether single serology was performed. If there is more than one serology result, see paired serology definition below. <u>Paired Serology:</u> This is when 2 serology tests are ordered to compare the acute and convalescent results for a 4-fold change in titer. Acute draws are within 1 week of symptom onset and convalescent draws are 3-6 weeks after onset. If there are more than 2 serology results that fit these criteria, use the serology results that show the largest change in titer between the acute and convalescent results. <u>Serum specimens which are collected at inappropriate time intervals are not considered paired sera.</u> If the 2 specimens are not appropriately timed (e.g., there are 2 specimens drawn in the 2 weeks the patient is hospitalized) treat this as a single serology and do NOT enter either</p>
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	test result. The answer to “Was this test ordered” for paired sera should be “no” unless the specimens are appropriately timed paired sera.
Date Collected	Enter the date the specimen was collected.
Site	Enter the specimen site.
Result	Indicate whether the test was positive, negative, or unknown/indeterminate.
Species	Indicate the <i>Legionella</i> species (and serogroup if available). Some <i>Legionella</i> tests only differentiate between <i>L. pneumophila</i> and <i>L. non-pneumophila</i> , whereas some tests will give exact species and serogroup. Many serologic tests are for <i>L. pneumophila</i> pooled serogroups (e.g., <i>L. pneumophila</i> serogroups 2-6, 8). For paired serology, make sure to record ALL species and serogroups that the patient was tested for. <u>Positive laboratory results for bacterial species other than <i>Legionella</i> should not be recorded in the lab table.</u>

30. Comments	Use this space to add other information that might not have fit the choices provided or to enhance existing information.
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To be filled out by ABCs personnel only

31. Audit	Was the case first identified through audit? Check “yes” or “no”
32. Was this case also identified through routine passive notifiable disease surveillance?	This field will be completed by ABCs personnel in coordination with the state legionellosis surveillance coordinator. This refers to whether the case was also picked up by the state’s routine passive notifiable disease surveillance (something that existed before adding legionellosis to the ABCs program, and still exists since it is a notifiable disease). This is not to be confused with question 31, “Was case first identified through audit?”, which refers to the manner in which ABCs personnel collect information while conducting active surveillance as part of the ABCs program.
33. CRF status	What is the current status of the case report form in terms of completion? This variable refers to the status of the <u>CRF ONLY</u> , not the status of any local investigation.
34. Recurrent disease	Indicate if this is a recurrent case. A <u>recurrent case</u> of legionellosis is defined as a positive urine antigen test at least 180 days following a previous positive urine antigen test or culture. A new CRF should be filled out for recurrent cases and the previous STATEID should be indicated.
35. Case Status	Only confirmed or suspect cases should have a Legionellosis ABCs Surveillance Case Report completed. (This excludes patients with a single high titer as the only evidence of <i>Legionella</i> infection.) A <u>confirmed case</u> of legionellosis meets one or more of the following laboratory criteria: <ul style="list-style-type: none"> • Culture: isolation of any <i>Legionella</i> organism from respiratory secretions (e.g., sputum, BAL, bronchial washing), lung tissue, pleural fluid, or other normally sterile fluid.

	<ul style="list-style-type: none"> • Urine antigen: detection of <i>Legionella pneumophila</i> serogroup 1 antigen in urine. • Seroconversion (Lp1): fourfold or greater rise in specific serum antibody titer between acute and convalescent serologies to <i>Legionella pneumophila</i> serogroup 1. <p>A <u>suspect case</u> of legionellosis meets one or more of the following laboratory criteria:</p> <ul style="list-style-type: none"> • Seroconversion (non-Lp1): fourfold or greater rise in antibody titer between acute and convalescent serologies to specific species or serogroups of <i>Legionella</i> other than <i>L. pneumophila</i> serogroup 1 (e.g., <i>L. micdadei</i>, <i>L. pneumophila</i> serogroup 6). • Seroconversion (pooled): fourfold or greater rise in antibody titer between acute and convalescent serologies to multiple species or serogroups of <i>Legionella</i> using pooled antigen (e.g., <i>L. pneumophila</i> serogroups 2-6). • DFA or IHC: detection of specific <i>Legionella</i> antigen or staining of the organism in respiratory secretions, lung tissue, or pleural fluid by direct fluorescent antibody (DFA) staining, immunohistochemistry (IHC), or other similar method. • PCR: detection of <i>Legionella</i> species by a nucleic acid assay (e.g., PCR).
36. Date of report	Date reported to the ABCs site. This is the date that the ABCs personnel were first notified or made aware of this case.
37. Initials of S.O.	Enter the initials of the surveillance officer (SO) completing the CRF

Table 1.1: TYPES OF INSURANCE

Type of Insurance	Inclusions	Examples
Private	Includes any commercial carriers (i.e. Blue Cross), fee-for-service company as well as managed care (HMOs, PPOs,) supplemental insurance, flexible spending accounts (FSAs), Health/Medical Savings Accounts (HSAs), and Health Reimbursement Accounts (HRAs). Excludes plans paid that are paid through public payers (Medicaid, Medicare and other public payers listed in row below) and excludes plans for only one type of service, such as accidents or dental care.	The following are a list of private commercial carriers (NOTE: list is <i>not</i> exhaustive of all carriers). <u>A</u> ARP Aetna Aflac American Postal Workers Union (APWU) Health Plan AmeriChoice (subsidiary of UnitedHealth Group), Anthem <u>B</u> lue Cross Blue Shield <u>C</u> DPHP (also counts as state program in NY state) Cariten Senior Healthcare, Cigna

Type of Insurance	Inclusions	Examples
		<p> <u>F</u>ederal Employees Health Benefits (FEHB) <u>F</u>irst Choice Health <u>G</u>overnment Employees Hospital Association (GEHA) <u>H</u>ealth Partners <u>H</u>ealthSprings <u>H</u>ighMark <u>H</u>umana & Humana Gold <u>J</u>ohn Deere Health Care (subsidiary of UnitedHealth Group) <u>L</u>aborCare (PPO option of Medica) <u>M</u>MSI <u>M</u>P Health Plans <u>M</u>edica (subsidiary of Aetna and UnitedHealth Group) <u>M</u>ega Life and Health Insurance Company <u>N</u>ational Association of Letter Carriers (NALC) Health Benefit Plan <u>P</u>atient Choice Healthcare Inc. <u>P</u>hysicians Mutual <u>P</u>referredOne <u>R</u>eliant Standard Life, BasicMed Plan <u>S</u>electCare (PPO option of Medica) <u>T</u>otal Longterm Care for Seniors (Supplemental Healthcare for Seniors) <u>T</u>ower Life <u>U</u>MR (subsidiary of UnitedHealth Care) <u>U</u>niCare <u>U</u>nited American Insurance Company <u>U</u>nitedHealth Group, United American Healthcare Corporation (UAHC) <u>V</u>HP Community Care <u>The following are NOT Health Insurance Companies</u> </p>

Type of Insurance	Inclusions	Examples
		<p>Farm Family Life (this is a life and assets insurance company) GTL (this is a life insurance company) OmniCare (this is solely a prescription/pharmaceutical care company for Seniors) Sompo Japan Insurance Company of America (this is solely an auto, home, boat, airplane, and/or business insurance company) **Be careful with companies that are designated as “life insurance”; some are basic life, no health insurance and others offer a Medicare supplement which is considered “Private”.</p> <p><i>Note: Some of these private companies may be found partnered with some form of state assistance program, Medicaid, and/or Medicare. In this case, please check both “private” and additional “public” health insurance type.</i></p>
Public	<p>Not a category on the ABCs CRF. Public insurance includes Medicaid, Medicare, any state assistance program, State Children’s Health Insurance Program (S-CHIP), Indian Health Services (IHS), federal/state/local incarcerated prisoners, or other government plan (e.g. Ryan White Act). Note: both Medicaid and Medicare can have plans that include fee-for-service as well as managed care (i.e. HMOs, PPOs).</p>	

Type of Insurance	Inclusions	Examples
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).	<p><i>Medicare Advantage Plans</i> A Medicare Advantage (MA) Plan is another Medicare health plan choice one can have as part of Medicare. They are sometimes called “Part C” or “MA Plans” and are offered by private companies approved by Medicare.</p> <p>Common names of private companies that serve as MA: AmeriGroup, HealthSprings, Humana Gold</p> <p><i>*Note: AmeriGroup can be either a Medicare Advantage Plan or a Medicaid Assistance Plan.</i></p>
Medicaid/state assistance program	A 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 insured, uninsurable, or those with special health care needs. Some Medicaid programs are called “Medical Assistance Program”, “Title 19”, or “{State} Medicaid, such as “California Medicaid”. CHIP or S-CHIP programs can also be under “Title XXI Program” or “{State} Chip, such Maryland Children’s Health Program.	<p>Table 1.2 below offers additional names for the public health insurance programs of each ABCs state.</p> <p><i>Medicaid Assistance Plans</i> A Medicaid Assistance (MA) Plan In addition to common names of MA Plans by state in Table 1.2, there are several private companies that provide MA plans to the public: Prepaid Medical Assistance Program (PMAP), AmeriGroup</p> <p><i>*Note: AmeriGroup can be either a Medicare Advantage Plan or a Medicaid Assistance Plan.</i></p>
Military	Covers patients that receive federal medical care due to current or past military status.	Includes VA (Veterans Administration), Tricare, CHAMPUS, CHAMPVA.
Indian Health Service	IHS provides health services to American Indians and Alaska Natives	

Type of Insurance	Inclusions	Examples
Incarcerated	All prisoners are afforded health care while incarcerated. Insurance is paid for by the prison in which they are incarcerated, which is ultimately a publically funded source. For example, if a person is incarcerated in a state prison, health care is paid through the state's bureau of prison's budget.	Includes the following company that contracts with various Bureau of Prisons to provide healthcare at a reduced cost to the payer: Prison Health Services (PHS) Correctional Healthcare
Other	Includes individuals reported as having organ donation and/or workman's compensation as well as private pay (i.e. service that is not covered by state or federal government).	
Uninsured	Includes individuals reported as having self paid (i.e. pays out of pocket); no charge, charity, indigent care (separate from a previously noted state-sponsored program for indigent care in the above table), and/or pending insurance. Persons are considered uninsured if they do not have private health insurance, Medicare, Medicaid, State Children's Health Insurance Program coverage, state-sponsored or other government-sponsored health plan, or military health-care plan. Persons with only a private plan that pays for only one type of service (e.g. unintentional injuries or dental care) will also be considered uninsured. If there is no record of insurance in the chart, check for uninsured status in the social service assessment, which in some hospitals, is included in the discharge planning document.	Please note the change in instructions starting in 2012 for self pay.
Unknown	Includes individuals in which insurance type is unable to be determined in the medical record.	

Table 1.2: MEDICAID AND PUBLIC HEALTH INSURANCE PROGRAMS BY ABCs STATE

This table offers additional names for the public health insurance programs of each ABCs state.

State	Medicaid	CHIP	State/Other program
CA	Medi-Cal; Health Insurance Premium Payment Program (HIPP)	Healthy Families Program (HFP)	Access for Infants & Mothers (AIM); County Medical Services Program (CMSP); California Children's Services (CCS); Major Risk Medical Insurance Program (MRMIP); CARE Health Insurance Premium Payment Program; California Major Risk Medical Insurance Program; Healthy Kids Program
CO	Primary Care Physician Program (PCPP); Baby Care/Kids Care; Health Colorado	Child Health Plan Plus (CHP +); Children's Basic Health Plan	Health Care Program for Children with Special Needs (HCP); CUHIP – Colorado Uninsurable Health Insurance Plan; CoverColorado; Colorado Indigent Care Program (CICP)
CT	Medical Assistance Program; Husky Part A	The HUSKY Plan; HUKSY Plus; HUSKY Part B	Refugee Medical Assistance; Children with Special Health Care Needs; Connecticut Health Reinsurance Association (HRA); Connecticut Insurance Assistance Program for AIDS Patients (CIAPAP); State-Administered General Assistance Medical Aid (SAGA); Family Health Services Division (BCH)
GA	Right from the Start (RSM); Health Insurance Premium Payment Program (HIPP); Katie Beckett/TEFRE; Georgia Healthy Families	PeachCare for Kids; Georgia Healthy Families	Children's Medical Services (CMS); Indigent Care Trust Fund (ICTF)
MD	Medical Assistance Program; HealthChoice; REM Program	Maryland Children's Health Program (MCHP); HealthChoice	AIDS Insurance Assistance Program (MAIAP); Children's Medical Services (CMS); Primary Adult Care (PAC)
MN	Medical Assistance (MA)	Children's Health Insurance Program	Minnesota Care; Minnesota General Assistance Medical Care Program (GAMC); HIV/AIDS Insurance Continuation Program; Minnesota Children with Special Health Care Needs (MCSHN); Minnesota Comprehensive Health Association (MCHA)
NM	SALUD!	New MexiKids; New MexiTeens	Insurance Assistance Program; Children's Medical Services (CMS); New Mexico Medical Insurance Pool (NMMIP); New Mexico Health Insurance Alliance (NMHIA); New Mexico State Coverage Insurance (NMSCI); State Coverage Insurance (SCI); Premium Assistance for Kids (PAK); UNM Care Program
NY	The Partnership Plan; Medicaid	Child Health Plus	Family Health Plus; FHPlus; Health New York; Physically Handicapped Children's Program; Children with Special Health Care Needs

State	Medicaid	CHIP	State/Other program
			Program (CSHCN); ADAP Plus Insurance Continuation Program (APIC); CDPHP (a combination commercial and state-based program); Fidelis Care
OR	Oregon Health Plan (OHP)	Oregon SCHIP	CareAssist; Oregon Services for Children with Special Health Needs; Oregon Medical Insurance Pool (OMIP); Family Health Insurance Assistance Program (FHIAP); Insurance Purchasing Cooperative; Children Development and Rehabilitation Center
TN	TennCare	Cover Kids	Children’s Special Services (CSS); CoverTN; Access TN

Table 2: SPECIFIC UNDERLYING DISEASES: DEFINITIONS, ABBREVIATIONS, AND CLARIFICATIONS

Underlying cause/ prior illness	Definitions, abbreviations, clarifications
AIDS or CD4 count <200	This includes patients 1.) diagnosed with AIDS and 2.) those who are HIV+ and whose CD4 count was <i>ever</i> <200, even if AIDS is not a diagnosis noted in the chart. (The CD4 count from the <i>current</i> 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).
Alcohol abuse	Includes ETOHA (ethanol abuse) as well as the phrases alcohol dependency, alcoholism, and alcoholic. From 2011-2012, the CRF only asked about Alcohol Abuse, in general. In 2013, two checkboxes were added to the CRF to record both current and past alcohol abuse. Current: abuse of alcohol within the past 12 months or timing unknown. Past: abuse of alcohol beyond 12 months or clearly noted as “former” in the chart.
Asthma	Chronic lung disease in which the airways become narrowed and inflamed.
Atherosclerotic cardiovascular disease (ASCVD)/CAD	This is also described as Arteriosclerotic Heart Disease, CAD (coronary artery disease), and CHD (coronary heart disease).
Bone marrow transplant/BMT	May be indicated as ‘bone marrow transplant’, ‘BMT’ ‘hematopoietic stem cell transplantation’ or ‘HSCT’, ‘peripheral blood stem cell transplantation’ or ‘PBSCT’.

Cerebral vascular accident (CVA)/Stroke	Includes any history of CVA or stroke. This does <i>not</i> include a history of a TIA (transient ischemic attack).
Chronic kidney disease (2014)	Chronic renal disease; a progressive loss in renal function over time. This is a new checkbox in 2014 replacing “Chronic renal insufficiency”. Does not include patients with acute renal failure. Also, not all persons with CKD will be on dialysis. See Table 3 for further clarification.
Current chronic dialysis (2014)	Dialysis is a treatment that does some of the things done by healthy kidneys. It is needed when a person’s kidneys can no longer take care of the body's needs. For this question, the interest is in whether a patient was on “chronic dialysis” before their infection with the ABCs pathogen. They may have received “chronic dialysis” either as in inpatient or outpatient. They may have received either “hemodialysis” or “peritoneal dialysis”. If the patient was placed on dialysis as a result of their infection, DO NOT check this box. NOTE: “Chronic kidney disease” and “current chronic dialysis” are overlapping variables (either or both may be checked). Indicate whatever is noted in the chart based on the instructions provided. See Table 3 for further clarification.
Cirrhosis/liver failure	This does <i>not</i> include hepatitis A, hepatitis B, hepatitis C infection <i>without</i> liver failure and does not include <i>acute</i> liver failure.
Complement deficiency	Complement deficiencies are a group of disorders in which there is a reduced level of specific proteins that are needed for a normal immune response (“complement”). (Examples of specific complement deficiencies are: C1 qrs deficiency, C3 deficiency, C2-C4 deficiency, C5-9 deficiency.)
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”. (If a person quit smoking <i>within the past 12 months</i> , consider this person a current smoker.)
Dementia	Significant loss of intellectual abilities such as memory capacity, severe enough to interfere with social or occupational functioning. Alzheimer's disease is the most common cause of dementia. Also includes senile dementia, vascular dementia,

	multi-infarct dementia, AIDS dementia complex, MELAS, and CADASIL.
Diabetes mellitus	Includes either type I <i>or</i> 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.
Dysphagia	Inability to swallow or difficulty in swallowing. Patients are at a higher risk of aspiration and aspiration pneumonia. Chart documentation of dysphagia can be found in the ICD-9 codes or H&P and includes the following terms: “dysphagia”, “aspiration”, “swallowing study”, or evidence that a special diet is required due to difficulty swallowing. Do not make assumptions about dysphagia based on other chronic conditions such as stroke or dementia.
Emphysema/COPD	COPD=chronic obstructive pulmonary disease. Includes chronic bronchitis.
Former 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”. Former smokers are those who quit smoking more than 1 year ago. Otherwise, they are current smokers.
Heart failure/CHF	Congestive heart failure, including cardiomyopathy
HIV Infection	Not everyone who develops an HIV infection will have AIDS.
Hodgkin’s disease/Lymphoma	This cancer of the lymph system results in “immunocompromised for life” so should be marked if any history.
Immunoglobulin deficiency	Includes syndromes such as SCID (severe combined immunodeficiency), agammaglobulinemia, Ig, IgM, or IgG deficiencies, Wiskott-Aldrich Syndrome.
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).
IVDU	Intravenous drug user

	<p>From 2011-2012, the CRF only asked about IVDU, in general. In 2013, two checkboxes were added to the CRF to record both current and past IVDU use.</p> <p>Current: intravenous drug user within the past 12 months or timing unknown.</p> <p>Past: intravenous drug user beyond 12 months or clearly noted as “former” in the chart.</p>
Leukemia	<p>This cancer of the hematopoietic system results in an "immunocompromised" condition. Includes CML (chronic myelogenous leukemia), CLL (chronic lymphocytic leukemia), AML (acute myelogenous leukemia), ALL (acute lymphocytic leukemia).</p>
Multiple myeloma	<p>This cancer of the hematopoietic system results in "immunocompromised for life" so should be marked if any history.</p>
Multiple Sclerosis	<p>A disease of the central nervous system marked by numbness, weakness, loss of muscle coordination, and problems with vision, speech, and bladder control. MS is an autoimmune disease in which the body's immune system attacks myelin, a key substance that serves as a nerve insulator and helps in the transmission of nerve signals.</p>
Nephrotic syndrome	<p>Kidney disorder characterized by excessive loss of protein in urine.</p>
Neuromuscular disorder	<p>Nerves that control voluntary muscles become unhealthy/die leading to muscle atrophy and breakdown. Includes myasthenia gravis and muscular dystrophies.</p>
Obesity	<p>The condition of being significantly overweight. The obesity variable should not be checked in the underlying conditions section if there is no mention of obesity in the chart. (Calculating an obese BMI value using the height and weight data should not be used to complete this variable.)</p>
Other Drug Use	<p>Please include patients treated with or noted to have used “medical marijuana” or methadone in this group.</p> <p>Any illicit drug use other than intravenous drug use.</p> <p>Current: any illicit drug use within the past 12 months or timing unknown.</p> <p>Past: any illicit drug use beyond 12 months or clearly noted as “former” in the chart.</p> <p>These two checkboxes were added to the CRF in 2013.</p>

Parkinson's disease	Degenerative disorder of CNS; neurons that makes dopamine die & leads to impaired muscle movement; main symptom is "trembling" of hands, arms, legs, etc.
Peripheral neuropathy	Disorder of nerve(s) apart from the brain and spinal cord. Patients with peripheral neuropathy may have tingling, numbness, unusual sensations, weakness, or burning pain.
Plegias/paralysis	Quadra/paraplegia or paralysis. Includes ALS.
Premature birth	Birth of infant prior to 37 weeks gestation
Renal failure/dialysis	This does not include <i>acute</i> renal failure or renal insufficiency. Includes end stage renal disease.
Seizure/seizure disorder	Disruption of the brain's electrical activity. Includes epilepsy.
Sickle cell anemia	Includes persons with HbSS, HbSC or HbS-beta thalassemia. Common abbreviations: SCD, SS disease, SC disease.
Solid organ malignancy	Malignancy of a solid organ such as liver, kidney, pancreas, heart, lung, or of other organs such as colon, bladder, and skin.
Solid organ transplant	Transplant of a solid organ such as liver, kidney, pancreas, heart, or lung.
Splenectomy/Asplenia	Refers to absence of spleen or absence of spleen function.
Systemic Lupus Erythematosis (SLE)	Includes SLE or lupus. This does NOT include discoid lupus erythematosis (DLE).

Table 3: SPECIAL NOTES AND INSTRUCTIONS FOR CERTAIN UNDERLYING CONDITIONS

Underlying Condition	Instruction														
<p>History of Cancer and Other Malignancies</p>	<p>Any history of cancer or other malignancies should be recorded. Secondary effects from treatments place persons at increased risk for infections in both the short and long term. Thus, a maximum time limit for risk cannot be established. If a question remains about the classification of any <i>past</i> malignancies (including those where a time period is noted, previous chemotherapy treatments, etc.), contact CDC.</p> <p>Examples:</p> <table border="1" data-bbox="540 554 1552 772"> <thead> <tr> <th data-bbox="540 554 1024 581">Chart Notes</th> <th data-bbox="1024 554 1552 581">Underlying illness/condition</th> </tr> </thead> <tbody> <tr> <td data-bbox="540 581 1024 609">H/o heart failure</td> <td data-bbox="1024 581 1552 609">Yes</td> </tr> <tr> <td data-bbox="540 609 1024 636">H/o acute leukemia</td> <td data-bbox="1024 609 1552 636">Yes</td> </tr> <tr> <td data-bbox="540 636 1024 663">H/o colon cancer</td> <td data-bbox="1024 636 1552 663">Yes</td> </tr> <tr> <td data-bbox="540 663 1024 690">H/o chemotherapy</td> <td data-bbox="1024 663 1552 690">Yes</td> </tr> <tr> <td data-bbox="540 690 1024 718">H/o chemotherapy, 10 years ago</td> <td data-bbox="1024 690 1552 718">Yes</td> </tr> <tr> <td data-bbox="540 718 1024 772">H/o breast cancer</td> <td data-bbox="1024 718 1552 772">Yes</td> </tr> </tbody> </table>	Chart Notes	Underlying illness/condition	H/o heart failure	Yes	H/o acute leukemia	Yes	H/o colon cancer	Yes	H/o chemotherapy	Yes	H/o chemotherapy, 10 years ago	Yes	H/o breast cancer	Yes
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H/o heart failure	Yes														
H/o acute leukemia	Yes														
H/o colon cancer	Yes														
H/o chemotherapy	Yes														
H/o chemotherapy, 10 years ago	Yes														
H/o breast cancer	Yes														
<p>Immunosuppressive Therapy Agents</p>	<p>There are numerous brand and generic drug names for immunosuppressive agents. Understanding which conditions persons may be prescribed may help identify the agents.</p> <p>In addition to glucocorticoids (i.e., steroids, including Prednisone, Prednisolone, Methyprednisolone), there are antibodies or binding proteins (i.e., generic drugs often ending in “ab”, such as Rituximab (Brand name: Rituxan), Muroonab, Daclizumab, Infliximab (Brand name: Remicade), Adalimumab (Brand name: Humira), Certolizumab (Brand name: Cimzia), Etanercept (Enbrel)); drugs that inhibit cell division (i.e., Cyclophosphamide, Methotrexate, Azathioprine (Brand name: Imuran), Mercaptopurine (Brand name: Puinethol) and Dactinomycin); and other classes of immunosuppressants (i.e., Tacrolimus (Brand name: Prograf), Sirolimus, Interferons (Brand name: Betarseron), Mycophenolic Acid (Brand names: CellCept or Myfortic), Cyclosporine (Brand names: Neoral, Sandimmune, or Gengraf).</p> <p>If you are uncertain whether the drug should be considered an immunosuppressive agent, especially if the person has one of the conditions listed previously, please contact CDC.</p>														

Underlying Condition	Instruction																				
Kidney Disorders (2014 forward)	<p>The “chronic kidney disease” and “current chronic dialysis” variables are overlapping variables. If the chart notes a person had “chronic kidney disease” but does not note a person was on chronic dialysis before their infection, then only “chronic kidney disease” should be checked. If the chart indicates a person was undergoing chronic dialysis treatment before they had their infection without mention of additional renal conditions, check the “current chronic dialysis” checkbox only. In this instance, “chronic kidney disease” does not need to be indicated. If both “chronic kidney disease” and “current chronic dialysis” are noted, then check both boxes.</p> <p>Examples:</p> <table border="1" data-bbox="540 527 1550 978"> <thead> <tr> <th data-bbox="540 527 1024 564">Chart Notes</th> <th data-bbox="1024 527 1550 564">ABCs SO Records</th> </tr> </thead> <tbody> <tr> <td data-bbox="540 564 1024 602">Acute Renal Failure</td> <td data-bbox="1024 564 1550 602">Neither</td> </tr> <tr> <td data-bbox="540 602 1024 640">Chronic Kidney Disease</td> <td data-bbox="1024 602 1550 640">Chronic Kidney Disease</td> </tr> <tr> <td data-bbox="540 640 1024 678">Dialysis</td> <td data-bbox="1024 640 1550 678">Dialysis (only if “chronic”)</td> </tr> <tr> <td data-bbox="540 678 1024 751">Renal Failure</td> <td data-bbox="1024 678 1550 751">Neither (does not specify that it is a “chronic” condition)</td> </tr> <tr> <td data-bbox="540 751 1024 825">End Stage Renal Disease (without mention of dialysis)</td> <td data-bbox="1024 751 1550 825">Chronic Kidney Disease</td> </tr> <tr> <td data-bbox="540 825 1024 863">Chronic Renal Insufficiency</td> <td data-bbox="1024 825 1550 863">Chronic Kidney Disease</td> </tr> <tr> <td data-bbox="540 863 1024 900">Chronic Kidney Disease + Dialysis</td> <td data-bbox="1024 863 1550 900">Chronic Kidney Disease + Dialysis</td> </tr> <tr> <td data-bbox="540 900 1024 938">Chronic Renal Insufficiency + Dialysis</td> <td data-bbox="1024 900 1550 938">Chronic Kidney Disease + Dialysis</td> </tr> <tr> <td data-bbox="540 938 1024 978">End Stage Renal Disease + Dialysis</td> <td data-bbox="1024 938 1550 978">Chronic Kidney Disease + Dialysis</td> </tr> </tbody> </table>	Chart Notes	ABCs SO Records	Acute Renal Failure	Neither	Chronic Kidney Disease	Chronic Kidney Disease	Dialysis	Dialysis (only if “chronic”)	Renal Failure	Neither (does not specify that it is a “chronic” condition)	End Stage Renal Disease (without mention of dialysis)	Chronic Kidney Disease	Chronic Renal Insufficiency	Chronic Kidney Disease	Chronic Kidney Disease + Dialysis	Chronic Kidney Disease + Dialysis	Chronic Renal Insufficiency + Dialysis	Chronic Kidney Disease + Dialysis	End Stage Renal Disease + Dialysis	Chronic Kidney Disease + Dialysis
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Chronic Renal Insufficiency + Dialysis	Chronic Kidney Disease + Dialysis																				
End Stage Renal Disease + Dialysis	Chronic Kidney Disease + Dialysis																				
Kidney Disorders (up until 2014)	<p>The “chronic renal insufficiency” and “renal failure/dialysis” variables were independent of each other. If the chart noted a person had “chronic kidney disease” but didn’t note a person had renal failure or dialysis, then only “chronic renal insufficiency” was checked. If the chart indicated a person was undergoing dialysis treatment without mention of additional renal conditions, then just the “renal failure/dialysis” checkbox was checked and “chronic renal insufficiency” was not indicated.</p> <p>Examples:</p> <table border="1" data-bbox="540 1224 1550 1507"> <thead> <tr> <th data-bbox="540 1224 1024 1262">Chart Notes</th> <th data-bbox="1024 1224 1550 1262">ABCs SO Records</th> </tr> </thead> <tbody> <tr> <td data-bbox="540 1262 1024 1299">Acute Renal Failure</td> <td data-bbox="1024 1262 1550 1299">Neither</td> </tr> <tr> <td data-bbox="540 1299 1024 1337">Chronic Kidney Disease</td> <td data-bbox="1024 1299 1550 1337">Chronic Renal Insufficiency</td> </tr> <tr> <td data-bbox="540 1337 1024 1375">Dialysis</td> <td data-bbox="1024 1337 1550 1375">Renal Failure/Dialysis</td> </tr> <tr> <td data-bbox="540 1375 1024 1413">Renal Failure</td> <td data-bbox="1024 1375 1550 1413">Renal Failure/Dialysis</td> </tr> <tr> <td data-bbox="540 1413 1024 1451">End Stage Renal Disease</td> <td data-bbox="1024 1413 1550 1451">Renal Failure/Dialysis</td> </tr> <tr> <td data-bbox="540 1451 1024 1488">Chronic Renal Insufficiency</td> <td data-bbox="1024 1451 1550 1488">Chronic Renal Insufficiency</td> </tr> <tr> <td data-bbox="540 1488 1024 1507">Chronic Renal Insufficiency + Dialysis</td> <td data-bbox="1024 1488 1550 1507">Chronic Renal Insufficiency + Renal Failure/Dialysis</td> </tr> </tbody> </table> <p>Note: core MRSA has different directions for the chronic renal insufficiency and renal failure/dialysis underlying infections</p>	Chart Notes	ABCs SO Records	Acute Renal Failure	Neither	Chronic Kidney Disease	Chronic Renal Insufficiency	Dialysis	Renal Failure/Dialysis	Renal Failure	Renal Failure/Dialysis	End Stage Renal Disease	Renal Failure/Dialysis	Chronic Renal Insufficiency	Chronic Renal Insufficiency	Chronic Renal Insufficiency + Dialysis	Chronic Renal Insufficiency + Renal Failure/Dialysis				
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Chronic Renal Insufficiency + Dialysis	Chronic Renal Insufficiency + Renal Failure/Dialysis																				

Underlying Condition	Instruction																		
Substance Abuse Questions	<p>For substance abuse questions (i.e., current smoker, current alcohol abuse, current IVDU, current IVDU), check “yes” to the “current” checkboxes if the substance abuse is current (within the past 12 months) OR if the timing of the use is unknown (e.g., history of alcohol abuse). If the substance abuse is notes as “former” or beyond 12 months from the culture date, check “yes” to the “past” checkboxes. If the chart notes a person has used or is using “medical marijuana”, check “no” for current smoker and “no” for IVDU, but “yes” to Other Drug Use, Current or Past, depending on the timing.</p> <p>Examples:</p> <table border="1"> <thead> <tr> <th>Chart Notes</th> <th>Underlying illness/condition checkbox</th> </tr> </thead> <tbody> <tr> <td>H/o smoking</td> <td>Current Smoker</td> </tr> <tr> <td>H/o smoking, stopped 10 years ago</td> <td>No checkbox</td> </tr> <tr> <td>H/o alcohol abuse</td> <td>Yes, Current Alcohol Abuse</td> </tr> <tr> <td>H/o alcohol abuse, stopped 10 years ago</td> <td>Yes, Past Alcohol Abuse</td> </tr> <tr> <td>H/o IVDU, 5 months ago</td> <td>Yes, Current IVDU</td> </tr> <tr> <td>IVDU use on and off 10 years</td> <td>Yes, Current IVDU</td> </tr> <tr> <td>Medical marijuana use</td> <td>Yes, Current Other Drug Use</td> </tr> <tr> <td>H/o prescription drug use</td> <td>Yes, Current Other Drug Use</td> </tr> </tbody> </table>	Chart Notes	Underlying illness/condition checkbox	H/o smoking	Current Smoker	H/o smoking, stopped 10 years ago	No checkbox	H/o alcohol abuse	Yes, Current Alcohol Abuse	H/o alcohol abuse, stopped 10 years ago	Yes, Past Alcohol Abuse	H/o IVDU, 5 months ago	Yes, Current IVDU	IVDU use on and off 10 years	Yes, Current IVDU	Medical marijuana use	Yes, Current Other Drug Use	H/o prescription drug use	Yes, Current Other Drug Use
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H/o prescription drug use	Yes, Current Other Drug Use																		

Table 4: GLOSSARY FOR COMMONLY NOTED ACRONYMS, SYMPTOMS, SYNDROMES, OR TREATMENTS FOR ASSOCIATED ABCS UNDERLYING CAUSES OR PRIOR ILLNESS

Acronyms/Symptoms/ Syndromes/Treatments	Associated ABCs underlying causes or prior illness
Agammaglobulinemia	Immunoglobulin deficiency
ALL (Acute Lymphocytic Leukemia)	Leukemia
ALS (Amyotrophic Lateral Sclerosis or Lou Gehrig’s disease)	Plegias/paralysis
AML (Acute Myelogenous Leukemia)	Leukemia
AODM (Adult Onset Diabetes Mellitus)	Diabetes mellitus
ASCVD	Atherosclerotic cardiovascular disease
CAD (Coronary Artery Disease)	Atherosclerotic cardiovascular disease
CADASIL (Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy)	Dementia (hereditary multi-infarct dementia)
Cardiomyopathy	Heart failure/CHF
Cerebrospinal fluid leak	CSF leak
CHD (Chronic Heart Disease)	Atherosclerotic cardiovascular disease
CHF (Congestive Heart Failure)	Heart failure/CHF
CKD (Chronic Kidney Disease)	Chronic renal insufficiency
CVA (Cerebral Vascular Accident)	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
ETOH (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
MELAS (M itochondrial E ncephalopathy, L actic A cidosis, and S trokelike episodes)	Dementia
MS	Multiple Sclerosis
Methylprednisolone (steroid)*	Immunosuppressive therapy
NIDDM (N on I nsulin D ependent D M)	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 mmunodeficiency)	Immunoglobulin deficiency
Solu-Cortef (steroid)*	Immunosuppressive therapy
SoluMedrol (steroid)*	Immunosuppressive therapy
SS disease	Sickle Cell Anemia
Steroids*	Immunosuppressive therapy
Triamcinolone (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 5: Commonly noted diseases or syndromes that are *NOT* considered an ABCs underlying cause, prior illness or syndrome

NOTE: if the underlying condition or prior illness is NOT included among those listed on the case report form (Question 23), it is not considered a risk factor for an ABCs infection, is not collected systematically, and should not be considered an “other prior illness”. The “other prior illness” variable is only for local ABCs site use.

Abscess
Acute Liver Failure
Acute Kidney Failure
Amputation
Anemia
Atrial fibrillation
Chronic Cellulitis
Deep Vein Thrombosis (DVT)
Gastroesophageal Reflux Disease (GERD)
Gout
Hepatitis A without liver failure
Hepatitis B without liver failure
Hepatitis C without liver failure
Hypertension (HTN)
Inhaled steroids
Joint replacements (e.g., wrist, knee, hip)
Mental illness
Organic Brain Syndrome
Peripheral Vascular Disease (PVD)
Steroid Topical Creams
Steroid Short Term Therapy (< 8 days)
Urinary Tract Infection (UTI)