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Melioidosis (Burkholderia pseudomallei) 2023 Case Definition | CDC  
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Explore Topics  
Search  
Search  
Clear Input  
For Everyone  
About About National Notifiable Diseases Surveillance System  
What is Case Surveillance?  
Case Surveillance Modernization  
Infectious Disease Tables  
Non-Infectious Disease Data  
Technical Resource Center  
Case Surveillance in Action  
Contact Us  
View all  
Related Topics:  
NDC Application  
View All  
search  
close search  
search  
National Notifiable Diseases Surveillance System (NNDSS)  
Menu  
Close  
search  
For Everyone  
About About National Notifiable Diseases Surveillance System  
What is Case Surveillance?  
Case Surveillance Modernization  
Infectious Disease Tables  
Non-Infectious Disease Data  
Technical Resource Center  
Case Surveillance in Action  
Contact Us  
View All  
Related Topics  
NDC Application  
View All  
National Notifiable Diseases Surveillance System (NNDSS)  
About About National Notifiable Diseases Surveillance System  
What is Case Surveillance?  
Case Surveillance Modernization  
Infectious Disease Tables  
Non-Infectious Disease Data  
Technical Resource Center  
Case Surveillance in Action  
Contact Us  
View All  
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Case Definitions  
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Supporting Documents for Implementation  
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Melioidosis (  
Burkholderia pseudomallei  
)  
2023 Case Definition  
Melioidosis (  
Burkholderia pseudomallei  
)  
Case Definition  
NOTE:  
A surveillance case definition is a set of uniform criteria used to define a disease for public health surveillance. Surveillance case definitions enable public health officials to classify and count cases consistently across reporting jurisdictions. Surveillance case definitions are not intended to be used by healthcare providers for making a clinical diagnosis or determining how to meet an individual patient’s health needs.  
CSTE Position Statement(s)  
22-ID-08  
Background  
Melioidosis is caused by the environmental bacterium  
Burkholderia pseudomallei (B. pseudomallei)  
. Infection typically occurs through direct contact with contaminated soil or water via subcutaneous inoculation, ingestion, or inhalation. Person-to-person transmission is extremely rare.  
B. pseudomallei  
infection has been identified in humans and multiple animal species. The median incubation period is 9 days but ranges from a few hours to decades after exposure. There is no vaccine, and even with treatment, case fatality rates range from 10-50%.  
1  
Melioidosis may present as a localized infection, pneumonia, bacteremia, or disseminated infection. Patients generally present with acute illness, but 15% present with chronic infection, with symptoms lasting over two months.  
2  
Clinical presentation may overlap with other diseases, complicating the diagnosis.  
3  
Clinical Criteria  
In the absence of a more likely diagnosis, at least one of the following signs or symptoms:  
Fever (temperature > 38.0°C [100.4°F])  
Muscle aches  
Ulcer  
Nodule  
Skin abscess  
Pneumonia  
Headache  
Chest pain  
Anorexia  
Respiratory distress  
Abdominal discomfort  
Joint pain  
Disorientation  
Weight loss  
Seizure  
Organ abscess (liver, lung, spleen, prostate, or brain)  
Encephalomyelitis/meningitis/extra-meningeal disease  
Laboratory Criteria  
Confirmatory laboratory evidence:  
Isolation of  
B. pseudomallei  
from a clinical specimen  
Presumptive laboratory evidence:  
Evidence of a fourfold or greater rise in  
B. pseudomallei  
antibody titer by indirect hemagglutination assay (IHA) between acute- and convalescent-phase serum specimens obtained at least two weeks apart,  
OR  
Evidence of  
B. pseudomallei  
deoxyribonucleic acid  
(  
DNA) (for example, by Laboratory Response Network [LRN]-validated nucleic acid amplification test) in a clinical specimen  
Supportive laboratory evidence:  
Single  
B. pseudomallei  
total antibody titer of greater than or equal to 1:40 by serology in one or more serum specimens  
Note: The categorical labels used here to stratify laboratory evidence are intended to support the standardization of case classifications for public health surveillance. The categorical labels should not be used to interpret the utility or validity of any laboratory test methodology.  
Epidemiologic Linkage  
A person with at least one of the following findings:  
History of travel to or residence in a region endemic for melioidosis,  
OR  
Known exposure to  
B. pseudomallei  
as a result of intentional release or known product/source exposure (outside of laboratory),  
OR  
Known exposure to  
B. pseudomallei  
as a result of an occupational risk (i.e., laboratory exposure)  
Criteria to Distinguish a New Case from an Existing Case  
An infection would be counted as a new infection if a person is culture-positive within an 18-month time period with an isolate that is distinct from the previous infection by whole genome sequencing.  
Note: Recurrent melioidosis can be defined as a re-presentation with  
B. pseudomallei  
culture-positive clinical disease occurring <18 months following initial diagnosis and after the time designated for treatment completion (both intravenous and oral phases) for the previous episode, irrespective of whether the patient was adherent to the therapy or initially lost to follow-up. Recurrent cases will not be counted as a new case for surveillance purposes. Epidemiological and exposure information can be used to determine if it is a new or recurrent infection, as can whole genome sequencing, if an isolate is available.  
Case Classification  
Suspect  
Meets clinical criteria  
AND  
supportive laboratory evidence  
AND  
epidemiologic linkage.  
Meets vital records criteria  
AND  
supportive laboratory evidence  
AND  
epidemiologic linkage.  
Meets other criteria  
AND  
supportive laboratory evidence  
AND  
epidemiologic linkage.  
Probable  
Meets clinical criteria  
AND  
presumptive laboratory evidence  
AND  
epidemiologic linkage.  
Meets vital records criteria  
AND  
presumptive laboratory evidence  
AND  
epidemiologic linkage.  
Meets other criteria  
AND  
presumptive laboratory evidence  
AND  
epidemiologic linkage.  
Confirmed  
Meets confirmatory laboratory evidence.  
Other Criteria  
A person whose healthcare record contains a recent diagnosis of melioidosis  
Vital Records Criteria  
A person whose death certificate lists melioidosis as a cause of death or a significant condition contributing to death  
References  
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View All  
About About National Notifiable Diseases Surveillance System  
What is Case Surveillance?  
Case Surveillance Modernization  
Infectious Disease Tables  
Non-Infectious Disease Data  
Technical Resource Center  
Case Surveillance in Action  
Contact Us  
View All  
Sign up for Email Updates  
Contact CDC  
Organization  
Policies  
Web Policies  
Languages  
Languages  
Español  
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Policies  
Web Policies  
Languages  
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