**Streptococcus pneumoniae Invasive Disease**

Merlin disease code=04823 *S. pneumoniae* Invasive Disease, Drug-Resistant
Merlin disease code=04830 *S. pneumoniae* Invasive Disease, Drug-Susceptible
Case report form (CRF): *S. pneumoniae* Surveillance Worksheet
MERLIN EXTENDED DATA REQUIRED (for cases <6 years old)

### Background

*Streptococcus pneumoniae* causes many clinical syndromes, depending on the site of infection (e.g., acute otitis media, pneumonia, bacteremia, or meningitis).

### Clinical criteria for case classification

Not applicable.

### Laboratory criteria for case classification

**Confirmatory:**
- Isolation of *S. pneumoniae* from a normally sterile site (e.g., blood, cerebrospinal fluid, joint fluid, pleural fluid, pericardial fluid) and
- For resistant isolates: intermediate- or high-level resistance of the *S. pneumoniae* isolate to at least one antimicrobial agent currently approved for use in treating pneumococcal infection.*

**Presumptive:**
Identification of *S. pneumoniae* from a normally sterile body site by a culture-independent diagnostic test.

### Epidemiological criteria for case classification

Not applicable.

### Case classification

**Confirmed:**
A person with confirmatory laboratory evidence.

**Probable:**
A person with presumptive laboratory evidence.

### Criteria to distinguish a new case from previous reports

A new case should be created when a positive laboratory result is received on a specimen collected more than 30 days after the most recently collected positive specimen associated with a previously reported case in the same individual.

### Comments

Report both resistant and non-resistant isolates. *S. pneumoniae* invasive diseases cases in people ≥6 years old are only reportable for laboratories participating in electronic laboratory reporting (ELR). Cases in people ≥6 years old will be automatically created and reported in Merlin based on ELR results. For people ≥6 years old, case reports received from health care providers or via paper laboratory results do not need to be investigated or entered into Merlin; however, county health departments can choose to enter and report these cases.
All cases in children <6 years old are reportable for all laboratories and health care providers. All cases in children <6 years old need to be investigated and reported, regardless of the method through which the case reports were received. **Extended data in Merlin is only required for those cases in people <6 years old.**

*Resistance defined by Clinical and Laboratory Standards Institute (CLSI) approved methods and CLSI-approved interpretive minimum inhibitory concentration (MIC) standards (μg/mL) for *S. pneumoniae*. CLSI recommends that all invasive *S. pneumoniae* isolates found to be “possibly resistant” to beta-lactams (i.e., an oxacillin zone size of <20 mm) by oxacillin screening should undergo further susceptibility testing by using a quantitative MIC method acceptable for penicillin, extended-spectrum cephalosporins, and other drugs as clinically indicated.

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