

## CASE DEFINITION for invasive streptococcal diseases

National referent laboratory for Streptococcus

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Agent/Disease	Case definition - criteria			Case classification		
	CLINICAL CRITERIA	LABORATORY CRITERIA	EPIDEMIOLOGIC	POSSIBLE	PROBABLE	CONFIRMED
<b><i>Streptococcus pneumoniae</i></b> / Invasive pneumococcal disease (meningitis, bacteremia, sepsis, bacteriemic pneumonia)	Not relevant for surveillance purposes	Isolation of <i>S. pneumoniae</i> from a normally sterile site (blood, CSF, peritoneal, pleural, pericardial fluids, joint fluid, etc.)  Detection of <i>S. pneumoniae</i> nucleic acid from a normally sterile site  Detection of <i>S. pneumoniae</i> antigen from a normally sterile sites	NA	NA	NA	Any person meeting the laboratory criteria for case confirmation
<b><i>Streptococcus pyogenes</i></b> / Streptococcal Scock Syndrome (STSS)	<p><u>Clinical criteria:</u></p> <ul style="list-style-type: none"> <li>• hypotension <math>\leq 90</math>mmHg,</li> <li>• multi-organ failure: <ul style="list-style-type: none"> <li>○ renal impairment (creatinine <math>\geq 177</math> <math>\mu</math>mol/L),</li> <li>○ coagulopathy (Tr <math>&lt; 100,000</math>/mm<sup>3</sup>),</li> <li>○ liver involvement (ALT, AST, total bilirubin levels greater than or equal to twice the upper limit),</li> <li>○ acute respiratory distress syndrome,</li> <li>○ a generalized erythematous macular rash,</li> <li>○ soft-tissue necrosis, including necrotizing fasciitis or myositis, or gangrene)</li> </ul> </li> </ul>	Isolation of group A Streptococcus from normally sterile sites (blood, CSF, aspirates, etc.) and from non sterile in clinical confirmed STSS	NA	NA	STSS -a case that meets the clinical case definition in the absence of another identified etiology for the illness and with isolation of group A Streptococcus from a non-sterile site	STSS - a case that meets the clinical case definition and with isolation of group A Streptococcus from a normally sterile site (e.g., blood or cerebrospinal fluid or, less commonly, joint, pleural, or pericardial fluid)
<b>Beta hemolytic streptococci groups A, B, C, F ,G</b> / Invasive streptococcal disease	Invasive beta hemolytic streptococcal infections may manifest as any of several clinical syndromes, including pneumonia, bacteremia in association with cutaneous infection (e.g., cellulitis, erysipelas, or infection of a surgical or nonsurgical wound), deep soft-tissue infection (e.g., myositis or necrotizing fasciitis), meningitis, peritonitis, osteomyelitis, septic arthritis, postpartum sepsis (i.e., puerperal fever), neonatal sepsis, and nonfocal bacteremia.	Isolation of beta hemolytic streptococci by culture from a normally sterile site (e.g., blood or cerebrospinal fluid, or joint, pleural, or pericardial fluid)  Isolation of group A/C Streptococcus from soft tissue in the clinical confirmed case of necrotizing fasciitis.  Isolation of group B Streptococcus ( <i>S. agalactiae</i> ) from non sterile sites (placenta/amniotic fluid) in clinical confirmed neonatal meningitis.	NA	NA	Any person meeting the clinical criteria for meningitis, sepsis, necrotizing fasciitis or myositis along with isolation of streptococci from non sterile sites	Any person meeting the laboratory criteria for case confirmation

Source: <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2012:262:SOM:EN:HTML>

<http://www.ecdc.europa.eu/en/publications/publications/invasive-pneumococcal-disease-surveillance-2010.pdf>

<http://www.cdc.gov/abcs/reports-findings/survreports/gas12.html>