

Sepsis

The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) was published in 2016. In the US, NCHS/CDC, AHA EAB and others have received numerous questions and comments. Similar questions were also raised at the international level regarding the new definitions, the impact on WHO ICD-10 code assignments and the impact on the codes for inclusion in ICD-11.

In ICD-10 sepsis is currently classified as a condition due to bacteria when it can also be due to viruses, fungi or protozoa. Advances in the pathobiology have created the need to reexamine the definitions and classification of sepsis. Previously, it was considered that there was a severity progression of infection from sepsis to septic shock, when, in fact, it is not linear and there may not be a continuum.

New definitions:

- a) Sepsis is a life-threatening organ dysfunction caused by a dysregulated host response to infection.
- b) Septic shock is a subset of sepsis in which profound circulatory, cellular and metabolic abnormalities are associated with a greater risk of mortality than with sepsis alone.

The following points have been considered in the development of the proposal for ICD-10-CM based on prior discussions regarding potential updates to ICD-10 and ICD-11:

- There is international agreement on the definition of sepsis although there are still ongoing discussions related to the clinical criteria and its applicability in low resource countries.
- SIRS is no longer the defining criteria of sepsis as a patient can have a life-threatening condition without SIRS, and a non-life-threatening condition with SIRS.
- SIRS can result from a non-infectious origin so a unique code is needed. Many patients suffer from SIRS after surgery.
- Inconsistent use of terminology in relation to sepsis has created difficulties in coding and inconsistent data has resulted.
- It is not always possible to identify the infectious agent, so there will always be a need to classify sepsis, unspecified.

Discussions and consultations between WHO, international subject matter experts and WHO Collaborating Center representatives (US, Sweden, UK, Japan) began in 2017 to identify steps that could be taken to address changes in ICD-10 and ICD-11, which was in beta at that time. It was noted that the ICD-10 structure and its limited life span could not easily accommodate major changes. Ultimately, no changes were made to ICD-10 before the updating process ended.

As noted during the March 2019 ICD-10 C&M meeting, the definition and the clinical criteria are two distinct functionalities. The definition is a presumed infection with a dysregulated host response and organ dysfunction. In Sepsis 3.0, a definition that has been close to universally accepted in adults

References:

JAMA.2016;315(8):801-810.doi:10.1001/jama.2016.0287

TABULAR MODIFICATIONS

Revise

A41 Other bacterial sepsis

Code first: postprocedural sepsis (T81.4-)

sepsis during labor (O75.3)

sepsis following abortion, ectopic or molar pregnancy (O03-O07, O08.0)

sepsis following immunization (T88.0)

sepsis following infusion, transfusion or therapeutic injection (T80.2-)

Excludes1: bacteremia NOS (R78.81)

neonatal (P36.-)

puerperal sepsis (O85)

streptococcal sepsis (A40.-)

Excludes2: sepsis (due to) (in) actinomycotic (A42.7)

sepsis (due to) (in) anthrax (A22.7)

sepsis (due to) (in) candidal (B37.7)

sepsis (due to) (in) Erysipelothrix (A26.7)

sepsis (due to) (in) extraintestinal yersiniosis (A28.2)

sepsis (due to) (in) gonococcal (A54.86)

sepsis (due to) (in) herpesviral (B00.7)

sepsis(due to) (in) listerial (A32.7)

sepsis (due to) (in) melioidosis (A24.1)

sepsis (due to) (in) meningococcal (A39.2-A39.4)

sepsis (due to) (in) plague (A20.7)

sepsis (due to) (in) tularemia (A21.7)

toxic shock syndrome (A48.3)

A41.0 Sepsis due to Staphylococcus aureus

A41.01 Sepsis due to Methicillin susceptible Staphylococcus aureus

MSSA sepsis

Staphylococcus aureus sepsis NOS

A41.02 Sepsis due to Methicillin resistant Staphylococcus aureus

A41.1 Sepsis due to other specified staphylococcus

Coagulase negative staphylococcus sepsis

A41.2 Sepsis due to unspecified staphylococcus

A41.3 Sepsis due to Hemophilus influenzae

A41.4 Sepsis due to anaerobes

Excludes1: gas gangrene (A48.0)

A41.5 Sepsis due to other Gram-negative organisms

A41.50 Gram-negative sepsis, unspecified
Gram-negative sepsis NOS

A41.51 Sepsis due to Escherichia coli [E. coli]

A41.52 Sepsis due to Pseudomonas
Pseudomonas aeruginosa

A41.53 Sepsis due to Serratia

A41.59 Other Gram-negative sepsis

A41.8 Other specified sepsis

A41.81 Sepsis due to Enterococcus

A41.89 Other specified sepsis

A41.9 Sepsis, unspecified organism

Add

Systems inflammatory Response Syndrome (SIRS) of infectious
origin NOS

R57 Shock, not elsewhere classified

Excludes1: anaphylactic shock NOS (T78.2)

anaphylactic reaction or shock due to adverse food reaction (T78.0-)

anaphylactic shock due to adverse effect of correct drug or

medicament properly administered (T88.6)

anaphylactic shock due to serum (T80.5-)

anesthetic shock (T88.3)

electric shock (T75.4)

obstetric shock (O75.1)

postprocedural shock (T81.1-)

psychic shock (F43.0)

shock complicating or following ectopic or molar pregnancy (O00-
O07, O08.3)

shock due to lightning (T75.01)

traumatic shock (T79.4)

toxic shock syndrome (A48.3)

	R57.0 Cardiogenic shock Excludes2: septic shock (R65.21)
	R57.1 Hypovolemic shock
New Code	R57.2 Septic shock Code first underlying condition Use additional code to identify infectious organism
	R57.8 Other shock
	R57.9 Shock, unspecified Failure of peripheral circulation NOS
	R65 Symptoms and signs specifically associated with systemic inflammation and infection
	R65.1 Systemic inflammatory response syndrome (SIRS) of non-infectious origin Code first underlying condition, such as: heatstroke (T67.0) injury and trauma (S00-T88)
Delete	Excludes1: sepsis- code to infection severe sepsis (R65.2) R65.10 Systemic inflammatory response syndrome (SIRS) of non-infectious origin without acute organ dysfunction Systemic inflammatory response syndrome (SIRS) NOS
Delete	R65.11 Systemic inflammatory response syndrome (SIRS) of non-infectious origin with acute organ dysfunction Use additional code to identify specific acute organ dysfunction, such as: acute kidney failure (N17.-) acute respiratory failure (J96.0-) critical illness myopathy (G72.81) critical illness polyneuropathy (G62.81) disseminated intravascular coagulopathy [DIC] (D65) encephalopathy (metabolic) (septic) (G93.41) hepatic failure (K72.0-)
Delete	R65.2 Severe sepsis Infection with associated acute organ dysfunction Sepsis with acute organ dysfunction Sepsis with multiple organ dysfunction Systemic inflammatory response syndrome due to infectious process with acute organ dysfunction Code first underlying infection, such as:

~~infection following a procedure (T81.4)
infections following infusion, transfusion and therapeutic injection (T80.2)
puerperal sepsis (O85)
sepsis following complete or unspecified spontaneous abortion (O03.87)
sepsis following ectopic and molar pregnancy (O08.82)
sepsis following incomplete spontaneous abortion (O03.37)
sepsis following (induced) termination of pregnancy (O04.87)
sepsis NOS (A41.9)~~

Delete

~~Use additional code to identify specific acute organ dysfunction, such as:
acute kidney failure (N17.-)
acute respiratory failure (J96.0)
critical illness myopathy (G72.81)
critical illness polyneuropathy (G62.81)
disseminated intravascular coagulopathy [DIC] (D65)
encephalopathy (metabolic) (septic) (G93.41)
hepatic failure (K72.0)~~

Delete

~~R65.20 Severe sepsis without septic shock
Severe sepsis NOS~~

Delete

~~R65.21 Severe sepsis with septic shock~~