# Clinical Coding Standard Update Proposal

# DChS.I.1: Sepsis, septic shock, severe sepsis and neutropenic sepsis

**This proposed standard is for review and comment and must not be used for coding patient episodes of care.**

**Please review this standard in conjunction with the Guidelines for External Review of Clinical Coding Standards and enter any comments about this proposed standard into the Comments and Feedback area for this consultation on Delen.**

**Please ensure all feedback is entered by Friday 8 December 2017.**

## Background

This is a proposed update to **DChS.I.1: Sepsis, septic shock, severe sepsis and neutropenic sepsis** which was produced using the feedback received from the Coding of Sepsis Consultation which ran July to September 2017.

The results of the consultation and the actions taken are available in the Consultation area on Delen.

| DChS.I.1: Sepsis, septic shock, severe sepsis and neutropenic sepsis |
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| A code that specifically classifies sepsis must always be assigned when a patient is diagnosed with sepsis in the medical record. Where the code assigned to identify the sepsis does not specifically classify sepsis (e.g. **A54.8 Other gonococcal infections**, which includes gonococcal sepsis), in order to describe the condition fully, the code that classifies sepsis must be assigned in any secondary position.<br><br>Where clinicians use terms such as urosepsis, biliary sepsis, chest sepsis, intraocular sepsis and urinary sepsis, to mean that the patient has both sepsis and a localised infection of the organ, then both conditions must be coded. Sepsis must not be coded where a patient only has an infection.<br><br>Where sepsis is confirmed to be due to a device, implant or graft (e.g. sepsis due to total hip replacement, infusion catheter, tracheostomy stoma, vascular line, haemodialysis catheter, etc.) this means that the patient has both sepsis and a localised infection at the site of the device, implant or graft. In these cases, both the sepsis and the site of the localised infection must be coded. |

Sepsis may not always be the main condition treated; therefore sequencing of sepsis with other infections and conditions must follow ***DGCS.1 Primary diagnosis*** (except where a standard states otherwise).

Organ failure must be coded in addition when documented with sepsis: ***see DCS.IX.10: Heart failure (I50), DCS.X.7: Respiratory failure, not elsewhere classified (J96) and DCS.XVIII.10: Multiple organ failure (R68.8)***.

**Septic shock**

Whenever septic shock is documented in the medical record by the responsible consultant, code **R57.2 Septic shock** must be assigned in any secondary position following the code that classifies sepsis.

**Severe sepsis**

The following codes and sequencing must be used for a diagnosis of severe sepsis:

**A41.-** **Other sepsis** (or the specific type of sepsis recorded in the medical record)
**R65.1** **Systemic inflammatory response syndrome of infectious origin with organ failure**
**U82.-** **Resistance to betalactam antibiotics**, **U83.- Resistance to other antibiotics** or **U84.- Resistance to other antimicrobial drugs** (if the severe sepsis is resistant to antibiotics or antimicrobial drugs).

**Neutropenic sepsis**

The following codes and sequence must be used for a documented diagnosis of neutropenic sepsis:

**A41.-** **Other sepsis** (or the specific type of sepsis recorded in the medical record)
**U82.-** **Resistance to betalactam antibiotics**, **U83.- Resistance to other antibiotics** or **U84.- Resistance to other antimicrobial drugs** (if the sepsis is resistant to antibiotics or antimicrobial drugs)
**D70.X** **Agranulocytosis**

If the responsible consultant has documented that the neutropenic sepsis was due to a drug, then an adverse effect code from Chapter XX must be assigned after code **D70.X**, ***see DCS.XX.7: Drugs, medicaments and biological substances causing adverse effects in therapeutic use (Y40-Y59).***

***See also:***

- ***DGCS.6: Infections***
- ***DCS.I.4: Bacterial, viral and other infectious agents (B95-B98)***
- ***DCS.XVI.5: Group B streptococcus (GBS) bacterial infections in babies***
- ***DCS.XIX.7: Postprocedural complications and disorders***

- *DChS.XVIII.1: Signs, symptoms and abnormal laboratory findings*
- *DCS.XXII.2: Resistance to antimicrobial and antineoplastic drugs (U82-U85)*

Sepsis is the reaction to an infection in which the body attacks its own organs and tissues: it is a time-critical life-threatening condition which requires immediate treatment. Sepsis is not an infection in itself.

The clinical guidelines for the identification/diagnosis and management/treatment of sepsis have changed over time and continue to change. There is variation throughout the country in the understanding, awareness and documenting of sepsis.

Sepsis is difficult to diagnose: there is no published evidence of any specific laboratory test that would quickly and reliably confirm or exclude a diagnosis of sepsis in the timeframe within which treatment should be started for sick patients.

There are a number of different toolkits, scoring systems, early warning screening tools and guidelines used for the identification of patients who are very ill with possible sepsis, and who require immediate treatment.

For example, the UK Sepsis Trust and National Institute for Health and Care Excellence (NICE) introduced the concepts of red flag / high risk sepsis which are a set of criteria to facilitate rapid initiation of care.

Where a patient has a high risk or red flag sepsis criterion, they will be presumed to have sepsis and appropriate treatment for sepsis will commence. However, different Trusts have implemented these flags differently and modified the guidelines on their use. In addition, in a proportion of cases, after further investigations, it may be identified that the patient has an alternative diagnosis such as pancreatitis or poisoning, and it may be unclear whether the patient had sepsis or not.

There are no specific clinical guidelines on the documenting or recording of sepsis in the medical record, and local guidelines will differ between clinicians and hospitals. Clinicians should not use the term “sepsis” to refer to an infection only: however, this is not universally understood. Some clinicians may use terms such as urosepsis, chest sepsis, urinary sepsis, intraocular sepsis and biliary sepsis to indicate the presence of localised infection and sepsis, while others may use these terms to indicate localised infection alone.

These factors combined can make it difficult for the coder to know which patients do actually have sepsis, and it is not possible for a clinical coding standard to compensate for deficiencies in the documentation, recording or coding process.

As well as being a clinical governance issue, inconsistencies and inaccuracies in the recording of sepsis within the medical record will have a negative effect on the reliability of the coded data which in turn will have a statistical and financial impact.

Therefore, in order to ensure patients with sepsis are coded accurately, Trust coding departments should work with their clinical teams and Medical Directors to agree an internal process to clearly identify which patients have sepsis.

An agreed process should also help to reduce the burden of seeking clarification from the responsible consultant for individual patients. (A number of Trusts already have a dedicated Sepsis Team that works alongside the coders as part of their internal data assurance process.) Any such process should be documented in the Coding Department Policy and Procedure manual for reference and clinical coding audit purposes. Where recurring recording issues are evident, the coding manager should refer to local information and clinical governance routes.

See '**Coding of Sepsis at SUHNFT**' in the Resource Library on Delen, which describes the processes that have been put in place at Southend University Hospital NHS Foundation Trust to ensure sepsis is recorded and coded correctly. This document illustrates the importance and benefits of engaging with clinical teams when coding sepsis.

The clinical guidelines, terminology and tools used for the identification of patients with sepsis are likely to continue to change as further work is done to improve the identification, treatment and outcomes for patients with possible sepsis. Continual clinical engagement is important to ensure that coding departments continue to be able to collect sepsis data correctly.

**Example(s):**

*Sepsis following missed miscarriage*

**O02.1 Missed abortion**
**O08.0 Genital tract and pelvic infection following abortion and ectopic and molar pregnancy**
**A41.9 Sepsis, unspecified**

*Bowel resection performed to treat malignant neoplasm of descending colon. During the same episode, the patient developed sepsis secondary to a leaking anastomosis*

**C18.6 Malignant neoplasm: Descending colon**
**A41.9 Sepsis, unspecified**

**K91.8** **Other postprocedural disorders of digestive system, not elsewhere classified**
**Y83.2** **Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure, surgical operation with anastomosis, bypass or graft**

*Patient with sepsis due to streptococcus A and E.coli, diagnosed with diverticular disease of the colon with perforated abscess (E.coli confirmed as infective organism). Following initial drainage of the abscess the patient underwent bowel resection. The patient developed a post-operative haemorrhage and a post-operative MRSA wound infection.*

**K57.2** **Diverticular disease of large intestine with perforation and abscess**
**B96.2** **_Escherichia coli_ [_E. coli_] as the cause of diseases classified to other chapters**
**A40.0** **Sepsis due to _Streptococcus_, group A**
**A41.5** **Sepsis due to other Gram-negative organisms**
**T81.0** **Haemorrhage and haematoma complicating a procedure, not elsewhere classified**
**Y83.6** **Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure, removal of other organ (partial) (total)**
**T81.4** **Infection following a procedure, not elsewhere classified**
**B95.6** **_Staphylococcus aureus_ as the cause of diseases classified to other chapters**
**U82.1** **Resistance to methicillin**
**Y83.6** **Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure, removal of other organ (partial) (total)**

*Patient with streptococcal urinary tract infection that progresses to severe sepsis due to streptococcus. Acute renal failure, hepatic failure and septic shock.*

**A40.9** **Streptococcal sepsis, unspecified**
**R65.1** **Systemic inflammatory response syndrome of infectious origin with organ failure**
**N39.0** **Urinary tract infection, site not specified**
**B95.5** **Unspecified _Streptococcus_ as the cause of diseases classified to other chapters**
**N17.9** **Acute renal failure, unspecified**
**K72.9** **Hepatic failure, unspecified**
**R57.2** **Septic shock**

*Post-operative coagulase-negative staphylococcus sepsis due to haemodialysis catheter.*

**A41.1** **Sepsis due to other specified _Staphylococcus_**

**T82.7** **Infection and inflammatory reaction due to other cardiac and vascular devices, implants and grafts**
**Y83.1** **Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure, surgical operation with implant of artificial internal device**

*Urinary sepsis (responsible consultant confirms sepsis and urinary tract infection) due to streptococcus group A, with septic shock and kidney and liver failure*

**A40.0** **Sepsis due to *Streptococcus,* group A**
**N39.0** **Urinary tract infection, site not specified**
**B95.0** ***Streptococcus*, group A, as the cause of diseases classified to other chapters**
**R57.2** **Septic shock**
**N19.X** **Unspecified kidney failure**
**K72.9** **Hepatic failure, unspecified**

*Urinary sepsis and biliary sepsis (responsible consultant confirms UTI and cholangitis without sepsis)*

**N39.0** **Urinary tract infection, site not specified**
**K83.0** **Cholangitis**

*Severe gonococcal sepsis resistant to ceftriaxone*

**A54.8** **Other gonococcal infections**
**A41.9** **Sepsis, unspecified**
**R65.1** **Systemic inflammatory response syndrome of infectious origin with organ failure**
**U82.8** **Resistance to other betalactam antibiotics**

*Severe MRSA sepsis with septic shock*

**A41.0** **Sepsis due to *Staphylococcus aureus***
**R65.1** **Systemic inflammatory response syndrome of infectious origin with organ failure**
**U82.1** **Resistance to methicillin**
**R57.2** **Septic shock**

*Patient with postoperative methicillin resistant staphylococcus aureus (MRSA) wound infection developed severe MRSA sepsis following gastrectomy 2 weeks ago*

**A41.0** **Sepsis due to *Staphylococcus aureus***
**R65.1** **Systemic inflammatory response syndrome of infectious origin with organ failure**
**U82.1** **Resistance to methicillin**
**T81.4** **Infection following a procedure, not elsewhere classified**

**B95.6** ***Staphylococcus aureus*** **as the cause of diseases classified to other chapters**
**U82.1** **Resistance to methicillin**
**Y83.6** **Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure, removal of other organ (partial) (total)**

*Sepsis due to urinary tract infection in pregnancy*

**O98.8** **Other maternal infectious and parasitic diseases complicating pregnancy, childbirth and the puerperium**
**A41.9** **Sepsis, unspecified**
**O23.4** **Unspecified infection of urinary tract in pregnancy**