

Preview of Twelfth Edition Changes

Sepsis, bacteraemia, neutropenia & bacterial or viral agents as cause of disease

WA Clinical Coding Authority
Purchasing and System Performance Division
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Summary of main changes for sepsis

| | Eleventh Edition | What has changed in Twelfth Edition? |
|---------------------|--|--|
| ACS 0110 | ACS 0110 SIRS, sepsis, severe | ACS Title changed to ACS 0110 Sepsis and septic shock |
| | sepsis and septic shock | , , |
| CIDO | Definitions OIDO to 150 | Major revision of wording and content. |
| SIRS | Definition: SIRS is defined as a systemic inflammatory response which can occur in response to a | SIRS definition and classification instructions have been removed from ACS 0110. |
| | variety of severe clinical insults, both infectious and non- infectious, such as pancreatitis, ischaemia, multi-trauma, haemorrhagic shock, immune- mediated organ injury and infection. | Alphabetic Index entries have had minor revision but general intent of pathways remains unchanged. Assign codes for documented SIRS in accordance with ACS 0001 and ACS 0002. |
| Sepsis | Definition: Sepsis is the body's systemic inflammatory response to an infection (or SIRS to an infection). It is a clinical syndrome | ACS 0110 definition changed to: Sepsis is described as life- threatening organ dysfunction caused by a dysregulated host response to infection. |
| | characterised by signs and symptoms of inflammation. | Revised wording of instructions in ACS 0110 for sepsis in: • newborn; |
| | | infection in pregnancy, childbirth or puerperium; andprocedural complications. |
| | | Clarity around coding of underlying source of infection and acute organ failure with new instructions in ACS 0110 and Tabular List. |
| | | Tabular List: Altered mental state, hypotension and tachypnoea added as an <i>Includes</i> note to sepsis codes. These diagnoses are now inherent in the sepsis code. |
| Severe sepsis | Definition: Severe sepsis is sepsis with organ dysfunction or organ failure, unexplained by | Severe sepsis is now a redundant concept and has been removed from ACS 0110 and the Alphabetic Index. |
| | other causes. | R65.1 Severe sepsis has been added to ACS 0049 Disease codes that must never be assigned. |
| Septic shock | Definition: Septic shock is severe sepsis with circulatory shock with signs of organ dysfunction or hypoperfusion that is refractory to fluid challenge. | ACS 0110 definition changed to: Septic shock is described as sepsis with underlying circulatory and cellular metabolism abnormalities that are profound enough to substantially increase mortality. |
| | Grandingo. | Tabular List: Hyperlactataemia and lactic acidosis added as an Includes note to septic shock code. These diagnoses are now inherent in the septic shock code. |
| Urosepsis | Alphabetic Index directed to assign codes for urinary infection AND sepsis | Alphabetic Index changed to assign code for urinary infection alone. |
| Biliary | When there is documentation of | Instruction changed to: Where there is documentation of vague |
| sepsis and chest | vague diagnostic terms such as 'chest sepsis' or 'biliary sepsis', | diagnostic terms not Indexed under the lead term <i>Sepsis</i> , such as 'chest sepsis' or 'biliary sepsis', assign a code for Infection/by site. |
| sepsis | coders should clarify with the | onest sepais of billary sepais, assign a code for infection/by site. |
| - | treating clinician to determine whether it is a case of sepsis. | |
| Sepsis of newborn | P36 Bacterial sepsis of newborn P36.0 to P36.9: 4 th character digit | P36.0 to P36.9 (4 th character digits) have been deleted with code title changed to P36 <i>Sepsis of newborn</i> . |
| HEWDOILI | representing type of bacterial | This new code is for classification of newborn sepsis due to any |
| | sepsis | organism, including candidiasis. |
| | | An additional code (e.g. A41.2) is assigned with P36 to classify the specific type of sepsis. When 'double-coded' in this way, the P36 code is essentially a flag code reflecting newborn status. |
| | | , |

Summary of main changes for bacteraemia, neutropenia, and bacterial/viral agents as cause of diseases classified to other chapters

| | Eleventh Edition | What has changed in Twelfth Edition? |
|--|--|--|
| ACS 0111 | ACS 0111 Healthcare associated Staphylococcus Aureus bacteraemia | Title changed to: ACS 0111 Healthcare associated Staphylococcus Aureus bloodstream infection |
| | | Major revision of wording and content to align with newer terminology for bacteraemia: "bloodstream infection" and to provide classification clarity. |
| ACS 0111 classification instruction | Instruction: The manifestation of the bacteraemia, such as endocarditis or sepsis, or the bacteraemia if no site is | Classification intent remains the same, however the Instruction has been reworded for clarity: |
| | specified, together with any appropriate external cause codes should be coded and sequenced before U92 Healthcare associated Staphylococcus Aureus bacteraemia. | A code for any documented infection (e.g. endocarditis, sepsis) if applicable OR A49.01 Staphylococcus aureus infection, unspecified site (if the site of infection is only specified as the bloodstream) External cause codes if applicable U92 to identify Healthcare associated Staphylococcus Aureus bacteraemia |
| ACS 0109 Neutropenia | Classification instruction: When sepsis/septicaemia is recorded, • The sepsis/septicaemia code should be sequenced before the neutropenia code If sepsis/septicaemia is not recorded, • Assign code D70 Agranulocytosis (neutropenia) and, if applicable R50 Fever of other and unknown origin (pyrexia) as an additional diagnosis. | ACS 0109 Neutropenia has been deleted and content relocated to Tabular List (D70) and Alphabetic Index. |
| Tabular List change at B95-B97 | BACTERIAL, AND VIRAL AND OTHER INFE | CTIOUS AGENTS AS THE CAUSE OF DISEASES |
| incorporating practice already in effect from national coding rule Q3522 | (B95–B97) Note: A code from these categories must be assigned if it code from these categories if the same agent has been addeduced by the same agent has bee | vides specificity about the infectious agent. |
| (effective Jan 2021) | classified in the same chapter (Chapter 1) e. | identify the specific agent causing a condition g. B34.8 Other viral infections of unspecified site. |
| | National coding rule Q3522 B95–B97 Bacter | rial, viral, and other infectious agents will be retired. |

Clinical criteria from the *Third International Consensus - Definitions for Sepsis and Septic Shock*

Sepsis

- Altered mental state (i.e. Glasgow Coma Scale score less than 15)
- **Hypotension** (i.e. systolic blood pressure less than or equal to 100mmHg)
- **Tachypnoea** (i.e. respiratory rate greater than or equal to 22 breaths per minute)

These clinical criteria have been added as *Includes* notes in the Tabular List for sepsis codes in Chapter 1.

When these diagnoses are documented with sepsis, they are NOT assigned additional diagnosis codes (even if ACS 0002 is met). This is because they are considered inherent in the sepsis code.

Septic shock

The clinical criteria for septic shock is a diagnosis of sepsis with:

Hypotension that is persisting (fluid resistant) and less than or equal to 65 mmHg

and

 Sustained requirement for vasopressors to maintain mean arterial pressure (MAP) above 65mmHg

and

 Hyperlactataemia or lactic acidosis (i.e. serum lactate level greater than 2mmol/L / 18 mg/dL)

Hyperlactataemia and lactic acidosis have been added as *Includes* notes in the Tabular List at R57.2 *Septic shock*.

When hyperlactataemia or lactic acidosis are documented with septic shock, they are NOT assigned additional diagnosis codes (even if ACS 0002 is met). This is because they are considered inherent in the septic shock code.

Classification of sepsis and septic shock

The concept of organ dysfunction is differentiated from organ failure in Twelfth Edition with the creation of new Index entries under lead term 'Dysfunction'.

Dysfunction

• • •

- oesophagostomy (stoma) — see Complication(s)/oesophagostomy

- organ (acute) NEC R68.8

- - with failure — see Failure/by site

There is a continuum from organ dysfunction to organ failure. Organ dysfunction is inherent in sepsis and septic shock, while organ failure is not inherent.

Revised ACS 0110 classification instructions:

Where there is documentation of sepsis or septic shock, assign:

a code from Chapter 1 (A00 – B99)
 e.g. A41.-

(see Alphabetic Index: Sepsis/by type)

Altered mental state, hypotension, tachypnoea and organ dysfunction are inherent in this code.

AND

- a code to identify the underlying source of infection, if known.
- an additional diagnosis code R57.2 Septic shock when septic shock is documented in the episode of care.
- an additional diagnosis code(s) for any documented acute organ failure in accordance with ACS 0002.

Sequence Chapter 1 sepsis code(s) and codes for the underlying source of infection in accordance with guidelines in ACS 0001 and 0002.

Code first, if applicable to the episode of care:

- A code from Chapter 15 Pregnancy, childbirth and the puerperium to identify infection in pregnancy, childbirth or the puerperium (O03-O07, O08.0, O08.2, O75.3, O85, O98.8) – see Alphabetic Index
- P36 Sepsis of newborn
- T80.2 Infection following infusion, transfusion and other therapeutic injection
- T88.0 Infection following immunisation
- T80-T88 Complications of surgical and medical care NEC, where sepsis or septic shock is **due to a prosthetic device**, **implant or graft** (T82.6, T82.7-, T83.5, T83.6-, T84.5-T84.7-) see Alphabetic Index: Sepsis/due to/device, implant or graft.

In accordance with the *Conventions used in ICD-10-AM Tabular List*, A41.9 Sepsis, unspecified is not assigned with O85 or P36, as it does not add specificity.

Coding conventions do not preclude assignment of A41.9 in the same episode of care if unspecified sepsis occurs that is unrelated to puerperal sepsis.

Systemic inflammatory response syndrome (SIRS)

Classification of SIRS is unchanged in Twelfth Edition and is based on documentation of SIRS in the health care record.

Infectious aetiology

For documented SIRS due to infectious aetiology, follow the Alphabetic Index cross-reference which instructs 'see: Sepsis'.

ACS 0110 Sepsis and septic shock is applicable.

Non-infectious aetiology

For documented SIRS due to non-infectious aetiology, assign:

 A code for the aetiology of SIRS (e.g. pancreatitis) in accordance with Tabular List Code first Instructional note (at R65.2 and R65.3)

followed by either:

• R65.2 SIRS of non-infectious origin without acute organ failure

OR

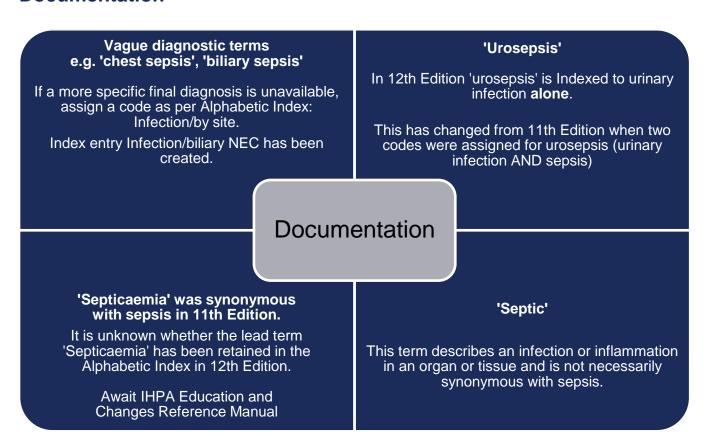
• R65.3 SIRS of non-infectious origin with acute organ failure

Blood culture

IHPA clarified in the ITG process that positive blood culture is not part of the definition of sepsis. For documented sepsis without a positive blood culture, assign the appropriate sepsis code (see ACS 0110/Examples 2 and 3).

National coding rule Q3196 Assignment of specific sepsis codes with or without positive blood culture on pathology will be retired.

Documentation



Bloodstream infection

The Alphabetic Index entry: Infection/bloodstream has changed, and is **no longer synonymous** with sepsis:

Infection, infected (opportunistic) (see also Infestation) B99

Note: Parasitic diseases may be described as either 'infection' or 'infestation'; both lead terms should therefore be consulted. ...

bloodstream — see <u>also Infection/by type</u> Sepsis

This is at odds with the following instruction in ACS 0110 *Sepsis and septic shock,* which describes sepsis and bloodstream infection as **synonymous**:

"Note that codes for terms synonymous with sepsis (e.g. septicaemia, bloodstream infection) are assigned as directed by the ICD-10-AM Alphabetic Index".

WACCA interpret this instruction to mean that if bloodstream infection is documented, and sepsis is not documented or clarified with clinician –the Alphabetic Index entry: Infection/by type is applicable. IHPA Education awaited for further clarification.

ACS 0111 Healthcare associated Staphylococcus aureus bloodstream infection (HA-SABSI)

The revised wording in ACS 0111 *Healthcare associated Staphylococcus aureus bloodstream infection* reflects newer terminology "bloodstream infection" replacing bacteraemia. Bacteraemia and bloodstream infection are synonymous in Twelfth Edition, as per Alphabetic Index update and new *Includes* note at U92.

ACS 0111 Classification instruction intent remains unchanged, but has been reworded for clarity:

HA-SABSI must be documented in the health care record by a clinician and meet the criteria in ACS 0001 or 0002. Assign:

- a code for any documented infection (e.g. endocarditis, sepsis), if applicable
 <u>OR</u> A49.01 Staphylococcus aureus infection, unspecified site (if the site of infection is only specified as the bloodstream)
- external cause codes if applicable
- U92 Healthcare associated SABSI to identify/flag HA-SABSI

EXAMPLE 1:

A 64 year old woman was readmitted with a diagnosis of septic arthritis due to a previous internal fixation of bimalleolar left ankle fracture (performed at this facility). Clinical documentation and cultures from joint aspiration and blood samples during this admissions confirmed healthcare associated *Staphylococcus auraus* bacteraemia. Vancomycin was started and the patient received treatment for 6 weeks.

A patient was admitted with septic arthritis due to a previous internal fixation of bimalleolar left ankle fracture (performed at the same facility). Cultures obtained during the current admission identified *Staphylococcus aureus* in the joint and bloodstream. Clinical documentation confirmed HA-SABSI. A six week course of Vancomycin was administered to treat the infections.

Codes: T84.6 Infection and inflammatory reaction due to internal fixation device [any site]

M00.07 Staphylococcus arthritis and polyarthritis, ankle and foot

A49.01 Staphylococcus aureus infection, unspecified site

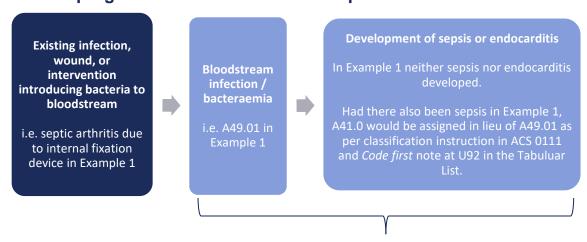
Y83.1 Surgical operation with implant of artificial internal device

Y92.24 Place of occurrence, health service area, this facility

U92 Healthcare associated Staphylococcus aureus bacteraemia bloodstream infection [HA-SABSI]

Note: In this example, T84.6, M00.07, Y83.1 and Y92.24 are assigned in accordance with ACS 0001 and ACS 1904. A49.01 is assigned in accordance with ACS 0002 to identify the *S. aureus* bloodstream infection and U92 is assigned as a supplementary code to flag that it is a HA-SABSI.

Clinical progression of HA-SABSI - Example 1



ACS 0111 classification instructions

Coding Examples

Example 1 – Biliary sepsis or chest sepsis

| 11th Edition | 12th Edition |
|---|--|
| When there is documentation of vague diagnostic terms such as 'chest sepsis' or 'biliary sepsis', coders should clarify with the treating clinician to determine whether it | If there is documentation of nonspecific sites (e.g. chest sepsis or biliary sepsis), seek clinician clarification. |
| is a case of sepsis. | If a more specific final diagnosis is unavailable, assign a code as per Alphabetic Index: Infection/by site. |
| | An Index entry for Infection/biliary NEC K83.8 has been created in 12 th Edition (Index entries already exist for Infection/chest and Infection/respiratory). |

Example 2 – Severe sepsis

Patient presented with altered mental state (GCS 11) due to opioid toxicity, hypotension (SBP 90), fever and rigors. Documented severe sepsis due to urosepsis. Blood culture and MSU grew ESBL producing Klebsiella pneumoniae. Microbiology report states resistant to cephalexin. Treated with IV antibiotics for Klebsiella pneumoniae and metaraminol (vasopressor support) to stabilise BP. Conscious state improved with administration of naloxone. Principal diagnosis: Sepsis

| 11th Edition | 12th Edition |
|---|---|
| A41.58 Sepsis due to other Gram-negative organisms | A41.58 Sepsis due to other Gram-negative organisms |
| R65.1 Severe sepsis | - |
| N39.0 Urinary tract infection, site not specified | N39.0 Urinary tract infection, site not specified |
| B96.1 Klebsiella pneumoniae [K. pneumoniae] as the cause of diseases classified to other chapters | B96.1 Klebsiella pneumoniae [K. pneumoniae] as the cause of diseases classified to other chapters |
| Z06.53 Extended spectrum beta-lactamase (ESBL) resistance. | Z14.21 Resistance to first generation cephalosporins |
| - | U93 Extended spectrum beta-lactamase [ESBL] producing organism |
| I95.9 Hypotension, unspecified | - |
| R40.1 Stupor (GCS score 9–12) Y45.0 Opioids and related analgesics causing adverse effects in therapeutic use Y92.23 Place of occurrence, health service area, not specified as this facility U73.8 Other specified activity • Z06.53 assigned for Extended spectrum betalactamase (ESBL) resistance as per IHPA rule Q3171. | R40.1 Stupor (GCS score 9–12) Y45.0 Opioids and related analgesics causing adverse effects in therapeutic use Y92.23 Place of occurrence, health service area, not specified as this facility U73.8 Other specified activity R65.1 Severe sepsis is redundant in 12th Edition and is not assigned. Documentation confirms that the patient has 'sepsis' (i.e. not urosepsis alone). B96.1 is assigned for the infectious agent causing the separate clinical concept UTI, not for sepsis. Z14.21 is a new code assigned to identify resistance to cephalexin U93 is a new code assigned to flag ESBL producing organism I95.9 Hypotension, unspecified is not assigned as it is interest in the capacia code. |
| | it is inherent in the sepsis code. R40.1 Stupor is assigned for altered mental state as it is documented as a separate clinical concept of opioid toxicity, hence the <i>Includes</i> note at A41 is not applicable. |

Example 3 – Hypotension

Patient presented with tachypnoea (RR 44) and fever due to aspiration pneumonia. IV antibiotics commenced. Developed septic shock and T1 respiratory failure. Hypotension (SBP 75) was treated with metaraminol. Continued to be haemodynamically unstable with multiple MET calls for management of hypotension (added IV fluids and dopamine). Blood Cultures negative.

| 11th Edition | 12th Edition |
|--|---|
| J69.0 Pneumonitis due to food and vomit | J69.0 Pneumonitis due to food and vomit |
| A41.9 Sepsis, unspecified | A41.9 Sepsis, unspecified |
| R57.2 Septic shock | R57.2 Septic shock |
| I95.9 Hypotension, unspecified | - |
| J96.90 Respiratory failure, unspecified, Type I [hypoxic] | J96.90 Respiratory failure, unspecified, Type I [hypoxic] |
| J96.90 assigned following the instructional note at R57.2 Use additional code(s) to identify specific acute organ failure. | Hypotension is not coded as it is inherent in the sepsis code. |
| | J96.90 assigned as additional diagnosis code for acute respiratory failure in accordance with ACS 0002 Additional diagnoses, as directed by ACS 0110 Sepsis and septic shock. |

Example 4 – Puerperal infection without sepsis

Post-partum pelvic peritonitis - Pseudomonas

| 12th Edition |
|---|
| O85 Puerperal sepsis |
| N73.3 Female acute pelvic peritonitis |
| B96.5 Pseudomonas as the cause of diseases classified to other chapters |
| |

- Classification is unchanged in 12th Edition, however some *Instructional* notes at O85 have been reworded.
- The concept of 'local' puerperal infection (e.g. endometritis, peritonitis) has not been disaggregated from O85 *Puerperal sepsis* for consistency with ICD-11.

Example 5 – Sepsis due to puerperal infection

Sepsis due to post-partum pelvic peritonitis - Pseudomonas

| 11th Edition | 12th Edition |
|---|---|
| O85 Puerperal sepsis | O85 Puerperal sepsis |
| A41.52 Sepsis due to Pseudomonas | A41.52 Sepsis due to Pseudomonas |
| N73.3 Female acute pelvic peritonitis | N73.3 Female acute pelvic peritonitis |
| B96.5 Pseudomonas as the cause of diseases classified to other chapters | B96.5 Pseudomonas as the cause of diseases classified to other chapters |

- Classification is unchanged in 12th Edition, however there has been re-wording of some *Instructional* notes at O85 and the classification instructions in ACS 0110.
- The concept of 'local' puerperal infection (e.g. endometritis, peritonitis) has not been disaggregated from O85 *Puerperal sepsis* for consistency with ICD-11.

Example 6 - Puerperal infection with unrelated sepsis

Patient admitted with post-partum endometritis due to Staph aureus. While an inpatient, developed cellulitis of toe with fever/rigors. Diagnosed with sepsis secondary to cellulitis.

| 11th Edition | 12th Edition |
|---|---|
| O85 Puerperal sepsis | O85 Puerperal sepsis |
| N71.0 Acute inflammatory disease of uterus | N71.0 Acute inflammatory disease of uterus |
| B95.6 Staphylococcus aureus as the cause of diseases classified to other chapters | B95.6 Staphylococcus aureus as the cause of diseases classified to other chapters |
| A41.9 Sepsis, unspecified | A41.9 Sepsis, unspecified |
| L03.02 Cellulitis of toe | L03.02 Cellulitis of toe |

- Classification is unchanged in 12th Edition, however there has been re-wording of some *Instructional* notes at O85.
- New instruction added in ACS 0110: "...in accordance with the Conventions used in the ICD-10-AM Tabular List, A41.9 Sepsis, unspecified is not assigned with O85 or P36, as it does not add specificity".
- The Conventions do not preclude assignment of a separate sepsis code in the same episode of care for sepsis unrelated to puerperal sepsis. Therefore, A41.9 is assigned for sepsis secondary to cellulitis.

Example 7 – Sepsis in neonate due to underlying infection

Sepsis in neonate due to Staphylococcus aureus umbilical infection

| 11th Edition | 12th Edition |
|--|--|
| P36.2 Sepsis of newborn due to Staph aureus | P36 Sepsis of newborn |
| - | A41.0 Sepsis due to Staph aureus |
| P38 Omphalitis of newborn with or without mild haemorrhage | P38 Omphalitis of newborn with or without mild haemorrhage |
| B95.6 Staphylococcus aureus as the cause of diseases classified to other chapters | B95.6 Staphylococcus aureus as the cause of diseases classified to other chapters |
| P36.2 is assigned for sepsis as per ACS 0110 instruction: For documented sepsis, assign: An appropriate code for sepsis from Chapter 1 (A00-B99) OR an appropriate code from P36 Bacterial sepsis of newborn OR P37.52 Invasive neonatal candidiasis. P38 is assigned as per ACS 0002, as umbilical infection is the documented underlying cause of sepsis. | Both P36 and A41.0 are assigned for sepsis as per: ACS 0110 which instructs: Code first, if applicable to the episode: P36 Sepsis of newborn and Instructional note in Tabular List at P36: |

Example 8 – sepsis in neonate without documented underlying infection

Candida sepsis in neonate

| 11th Edition | 12th Edition |
|--|--|
| P37.52 Invasive neonatal candidiasis | P36 Sepsis of newborn |
| - | B37.7 Sepsis due to candida |
| P37.52 is assigned for sepsis as per ACS 0110 instruction: For documented sepsis, assign: An appropriate code for sepsis from Chapter 1 (A00-B99) OR an appropriate code from P36 Bacterial sepsis of newborn OR P37.52 Invasive neonatal candidiasis. | Both P36 and A41.0 are assigned for sepsis as per: ACS 0110 which instructs: Code first, if applicable to the episode: P36 |

Example 9 – causative agent of condition from Chapter 1

Sepsis due to Proteus mirabilis

| 11th Edition | 12th Edition |
|---|---|
| A41.8 Sepsis due to other Gram-negative organisms | A41.8 Sepsis due to other Gram-negative organisms |
| B96.41 Proteus (mirabilis) as the cause of diseases classified to other chapters is NOT assigned as per Q3522 B95-B97 Bacterial, viral and other infectious agents | B96.41 Proteus (mirabilis) as the cause of diseases classified to other chapters is NOT assigned as per logic in Instructional note at B95-B97: Code first disease classified to other chapter which indicates B95-B97 cannot be assigned with a Chapter 1 condition such as A41.8. |

Example 10 – causative agent of condition from Chapter 1

Viral infection due to Respiratory Syncytial Virus

| 11th Edition | 12th Edition |
|---|--|
| B34.8 Other viral infections of unspecified site | B34.8 Other viral infections of unspecified site |
| via Index: Infection, infected (opportunistic) B99 - virus NEC B34.9 | via Index: Infection, infected (opportunistic) B99 - virus NEC B34.9 |
| respiratory syncytial, as cause of disease classified to other chapters B97.4 | respiratory syncytial, as cause of disease classified to other chapters B97.4 |
| specified type NEC B33.8 | specified type NEC B33.8 |
| unspecified site B34.8 | unspecified site B34.8 |
| B97.4 Respiratory syncytial virus as the cause of diseases classified to other chapters is NOT assigned as per Q3522 B95-B97 Bacterial, viral and other infectious agents | B97.4 Respiratory syncytial virus as the cause of diseases classified to other chapters is NOT assigned as per logic in Instructional note at B95-B97: Code first disease classified to other chapter |
| WACCA have previously submitted a query to IHPA about the loss of specificity resulting from this coding practice. | which indicates B95-B97 cannot be assigned with a Chapter 1 condition such as B34.8. |