WHO Updates Chapter 1 – certain infectious and parasitic diseases

BACKGROUND:
In 2014, the URC of WHO-FIC approved a number of changes to the Tabular List and Alphabetical Index of ICD-10 at the annual meeting in Barcelona. These changes have been included in ICD-10-AM with some modifications.

TABULAR LIST

<table>
<thead>
<tr>
<th>A09</th>
<th>Other gastroenteritis and colitis of infectious and unspecified origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>V 1120</td>
<td>Exclude: due to bacterial, protozoal, viral and other specified infectious agents (A00–A08) noninfective (noninfectious) diarrhoea:</td>
</tr>
<tr>
<td></td>
<td>• neonatal (P78.3)</td>
</tr>
<tr>
<td></td>
<td>• NOS (K52.9)</td>
</tr>
<tr>
<td>A09.0</td>
<td>Other gastroenteritis and colitis of infectious origin</td>
</tr>
<tr>
<td></td>
<td>Catarrh, enteric or intestinal</td>
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<tr>
<td></td>
<td>Diarrhoea:</td>
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<tr>
<td></td>
<td>• acute:</td>
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<td></td>
<td>• bloody</td>
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<td>• haemorrhagic</td>
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<td>• watery</td>
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<td>• dysenteric</td>
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<td>• epidemic</td>
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<td></td>
<td>Infectious:</td>
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<td></td>
<td>• diarrhoea NOS</td>
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<tr>
<td></td>
<td>• or septic:</td>
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<tr>
<td></td>
<td>• colitis</td>
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<tr>
<td></td>
<td>• enteritis</td>
</tr>
<tr>
<td></td>
<td>• gastroenteritis</td>
</tr>
<tr>
<td>A09.9</td>
<td>Gastroenteritis and colitis of unspecified origin</td>
</tr>
<tr>
<td></td>
<td>Neonatal diarrhoea NOS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A40</th>
<th>Streptococcal sepsis</th>
</tr>
</thead>
<tbody>
<tr>
<td>V 0110</td>
<td>Include: streptococcal septicaemia</td>
</tr>
<tr>
<td></td>
<td>Use additional code (R65.1) to identify severe sepsis OR (R57.2) to identify septic shock, if applicable</td>
</tr>
<tr>
<td></td>
<td>Exclude: during labour (O75.3) following:</td>
</tr>
<tr>
<td></td>
<td>• abortion or ectopic or molar pregnancy (O03–O07, O08.0)</td>
</tr>
<tr>
<td></td>
<td>• immunisation (T88.0)</td>
</tr>
<tr>
<td></td>
<td>• transfusion or therapeutic injection (T80.2) neonatal (P36.0–P36.1) puerperal (O85)</td>
</tr>
<tr>
<td>A40.0</td>
<td>Sepsis due to streptococcus, group A</td>
</tr>
<tr>
<td>A40.1</td>
<td>Sepsis due to streptococcus, group B</td>
</tr>
<tr>
<td>A40.2</td>
<td>Sepsis due to streptococcus, group D and enterococcus</td>
</tr>
</tbody>
</table>
A40.3 Sepsis due to \textit{Streptococcus pneumoniae}  
Pneumococcal sepsis

A40.8 Other streptococcal sepsis

A40.9 Streptococcal sepsis, unspecified

**A49**  
Bacterial infection of unspecified site

\textit{Excludes:} bacterial agents as the cause of diseases classified to other chapters (B95–B96)  
chlamydial infection NOS (A74.9)  
meningococcal infection NOS (A39.9)  
rickettsial infection NOS (A79.9)  
spirochaetal infection NOS (A69.9)

**A49.0** Staphylococcal infection, unspecified site

\textit{A49.00} Staphylococcal infection, unspecified site  
Staphylococcus:  
\begin{itemize}
  \item bacteraemia  
  \item infection NOS
\end{itemize}

\textit{A49.01} \textit{Staphylococcus aureus} infection, unspecified site  
\textit{Staphylococcus aureus}:  
\begin{itemize}
  \item bacteraemia  
  \item infection NOS
\end{itemize}

A49.1 Streptococcal and enterococcal infection, unspecified site

A49.2 \textit{Haemophilus influenzae} infection, unspecified site

A49.3 Mycoplasma infection, unspecified site

A49.8 Other bacterial infections of unspecified site  
\textit{Campylobacter} infection of:  
\begin{itemize}
  \item gallbladder  
  \item meninges
\end{itemize}

A49.9 Bacterial infection, unspecified  
Bacteraemia NOS  
\begin{itemize}
  \item Use additional code (Y95) to identify hospital acquired infection.
\end{itemize}

**INFECTIONS WITH A PREDOMINANTLY SEXUAL MODE OF TRANSMISSION (A50–A64)**

\textit{Excludes:} human immunodeficiency virus [HIV] disease (B20–B24)  
nonspecific and nongonococcal urethritis (N34.1)  
Reiter's disease (M02.3–)

**A75**  
Typhus fever

\textit{Excludes:} rickettsiosis due to \textit{Neorickettsia sennetsu} \textit{[Ehrlichia sennetsu]} (A79.8)

A75.0 Epidemic louse-borne typhus fever due to \textit{Rickettsia prowazekii}  
Classical typhus (fever)  
Epidemic (louse-borne) typhus

A75.1 Recrudescent typhus [Brill's disease]  
Brill-Zinsser disease
A75.2 Typhus fever due to *Rickettsia typhi*
Murine (flea-borne) typhus

A75.3 Typhus fever due to *Rickettsia tsutsugamushi*
Scrub (mite-borne) typhus
Tsutsugamushi fever

A75.9 Typhus fever, unspecified
Typhus (fever) NOS

A79 Other rickettsioses

A79.0 Trench fever
Quintan fever
Wollynian fever

A79.1 Rickettsialpox due to *Rickettsia akari*
Kew Garden fever
Vesicular rickettsiosis

A79.8 Other specified rickettsioses
Rickettsiosis due to *Neorickettsia sennetsu* [Ehrlichia sennetsu]

A79.9 Rickettsiosis, unspecified
Rickettsial infection NOS

**VIRAL INFECTIONS OF THE CENTRAL NERVOUS SYSTEM**

**(A80–A89)**

*Excludes:* sequelae of:
- poliomyelitis (B91)
- viral encephalitis (B94.1)

A93 Other arthropod-borne viral fevers, not elsewhere classified

A93.0 Oropouche virus disease
Oropouche fever

A93.1 Sandfly fever
Pappataci fever
Phlebotomus fever

A93.2 Colorado tick fever

A93.8 Other specified arthropod-borne viral fevers
Piry virus disease
*Severe fever with thrombocytopenia syndrome* [SFTS]
Vesicular stomatitis virus disease [Indiana fever]

B16 Acute hepatitis B

B16.0 Acute hepatitis B with delta-agent (coinfection) with hepatic coma

B16.1 Acute hepatitis B with delta-agent (coinfection) without hepatic coma

B16.2 Acute hepatitis B without delta-agent with hepatic coma

B16.9 Acute hepatitis B without delta-agent and without hepatic coma
*Acute hepatitis B (viral) NOS*
B17 Other acute viral hepatitis

B17.0 Acute delta (super)infection of hepatitis B carrier

B17.1 Acute hepatitis C

B17.2 Acute hepatitis E

B17.8 Other specified acute viral hepatitis
Hepatitis non-A non-B (acute)(viral) NEC

B17.9 Acute viral hepatitis, unspecified
Acute
• hepatitis NOS
• infectious hepatitis

B18 Chronic viral hepatitis

B18.0 Chronic viral hepatitis B with delta-agent

B18.1 Chronic viral hepatitis B without delta-agent
Chronic (viral) hepatitis B Hepatitis B (viral) NOS

B18.2 Chronic viral hepatitis C

B18.8 Other chronic viral hepatitis

B18.9 Chronic viral hepatitis, unspecified

B35 Dermatophytosis

Includes: favus
infections due to species of
Epidermophyton, Microsporum and Trichophyton

tinea, any type except those in B36.-

B35.0 Tinea barbae and tinea capitis
Beard ringworm
Kerion
Scalp ringworm
Sycosis, mycotic

B35.1 Tinea unguium
Dermatophytic onychia
Dermatophytosis of nail
Onychomycosis
Ringworm of nails

B35.2 Tinea manuum
Dermatophytosis of hand
Hand ringworm

B35.3 Tinea pedis
Athlete's foot
Dermatophytosis of foot
Foot ringworm

B35.4 Tinea corporis
Ringworm of the body

B35.5 Tinea imbricata
Tokelau
B35.6  **Tinea inguinalis** [Tinea cruris]
- Dhobi itch
- Groin ringworm
- Jock itch

B35.8  Other dermatophytoses
- Dermatophytosis:
  - disseminated
  - granulomatous

B35.9  Dermatophytosis, unspecified
- Ringworm NOS

B95  **Streptococcus and staphylococcus as the cause of diseases classified to other chapters**

B95.0  Streptococcus, group A, as the cause of diseases classified to other chapters
B95.1  Streptococcus, group B, as the cause of diseases classified to other chapters
B95.2  Streptococcus, group D and enterococcus, as the cause of diseases classified to other chapters
B95.3  **Streptococcus pneumoniae** as the cause of diseases classified to other chapters

P78  **Other perinatal digestive system disorders**

P78.0  Perinatal intestinal perforation
- Meconium peritonitis

P78.1  Other neonatal peritonitis
- Neonatal peritonitis NOS

P78.2  Neonatal haematemesis and melaena due to swallowed maternal blood

P78.3  Noninfective neonatal diarrhoea
- Neonatal diarrhoea NOS

P78.8  Other specified perinatal digestive system disorders
- Congenital cirrhosis (of liver)
- Neonatal oesophageal reflux
- Peptic ulcer of newborn

P78.9  Perinatal digestive system disorder, unspecified

Z22  **Carrier of infectious disease**

Z22.0  Carrier of typhoid
Z22.1  Carrier of other intestinal infectious diseases
Z22.2  Carrier of diphtheria
Z22.3 Carrier of other specified bacterial diseases

Carrier of bacterial disease due to:
• meningococci
• staphylococci
• streptococci

Z22.4 Carrier of infections with a predominantly sexual mode of transmission

Carrier of:
• gonorrhoea
• syphilis

Z22.5 Carrier of viral hepatitis

Z22.6 Carrier of human T-lymphotropic virus type-1 [HTLV-1] infection

Z22.8 Carrier of other infectious diseases

Z22.9 Carrier of infectious disease, unspecified

Appendix C: Unacceptable Principal Diagnoses

... B95.0 Streptococcus, group A, as the cause of diseases classified to other chapters
B95.1 Streptococcus, group B, as the cause of diseases classified to other chapters
B95.2 Streptococcus, group D and enterococcus, as the cause of diseases classified to other chapters
B95.3 Streptococcus pneumoniae as the cause of diseases classified to other chapters
B95.41 Streptococcus, group C, as the cause of diseases classified to other chapters
B95.42 Streptococcus, group G, as the cause of diseases classified to other chapters...

Z06.78 Resistance to other specified antimicrobial drug
Z07 Resistance to antineoplastic drugs
Z22.5 Carrier of viral hepatitis
Z32.0 Pregnancy, not (yet) confirmed
Z32.1 Pregnancy confirmed

Appendix D: CLASSIFICATION OF HOSPITAL ACQUIRED DIAGNOSES (CHADx)

M CHADx 4 Specific infections

4.1 Sepsis

Do not count in this class if the underlying cause of the sepsis (infective process) is indicated and listed in other CHADx classes.

... A400 Sepsis dt streptococcus group A
A401 Sepsis dt streptococcus group B
A402 Sepsis dt streptococcus group D & enteroc
A403 Sepsis dt Streptococcus pneumoniae
A408 Other streptococcal sepsis
A409 Streptococcal sepsis unspecified
4.2 Mycoses

B350 Tinea barbae and tinea capitis
B351 Tinea unguium
B352 Tinea manuum
B353 Tinea pedis
B354 Tinea corporis
B355 Tinea imbricata
B356 Tinea inguinale [Tinea cruris]
B358 Other dermatophytoses
B359 Dermatophytosis unspecified

4.5 Other infectious agents

A022 Localised salmonella infections

Rule: Exclude when combined with N512, count in Class 9.5

... A490 Staphylococcal infection unsp site
A491 Streptococcal & enteroc infection unsp site
A492 Haemophilus influenzae infection unsp site
A493 Mycoplasma infection unsp site
A498 Other bacterial infections of unsp site
A499 Bacterial infection unspecified

ALPHABETIC INDEX

Abscess (embolic) (infective) (metastatic)
(multiple) (pyogenic) (septic) L02.9
- with
  - diverticular disease (intestine) — see Diverticula/Intestine
  - lymphangitis — code by site under Abscess
  - abdomen, abdominal
    - cavity K85.0
    - wall L02.2
  - abdominopelvic K65.0
  - accessory sinus (chronic) (see also Sinusitis) J32.9
  - acute (see also Sinusitis/acute) J01.9
  - alveolar K04.7
  - amoebic A06.4 NEC A06.9
  - brain (and liver or lung abscess) A06.6
  - liver (without mention of brain or lung abscess) A06.5
  - specified site NEC A06.8
  - spleen A06.8† D77*

Carrier (suspected) of

- gonorrhoea Z22.4
- hepatitis, viral — see Hepatitis/viral/chronic by type
  - B surface antigen (HBAg) with acute delta (super) infection B17.8
  - viral Z22.5

Diarrhoea, diarrhoeal (disease) (infantile)
(summer) A09.9
... neonatal (noninfectious) P78.3 NEC A09.9
- infectious A09.0
- noninfectious P78.3

Fever R50.9

- haemorrhagic (arthropod-borne) NEC A94
... epidemic A98.5† N08.0*
  - Haemaphysalis longicornis A93.8
  - Junin (virus) A96.0
  - septic — see Sepsis
  - seven-day (autumnal) (Japanese) (leptospirosis) A27.8
  - dengue A97.-
  - severe, with thrombocytopenia syndrome (SFTS) A93.8
  - shin bone A79.0
  - tick-borne A93.8
  - American mountain A93.2
  - Colorado A93.2
  - Haemaphysalis longicornis A93.8
  - Kemerovo A93.8
  - Quaranfil A93.8
  - specified NEC A93.8
Hepatitis K75.9

- infectious, infective
  - acute (subacute) B17.9
  - chronic NEC B18.9

- viral, virus B19.9
  - with hepatic coma B19.0
  - acute NEC B17.9
  - specified NEC B17.8
- type
  - A B15.9
  - with hepatic coma B15.0
  - with delta-agent (coinfection) (hepatitis D) without hepatic coma B16.1
  - hepatic coma without delta-agent coinfection B16.2
  - C B17.1
  - D (coinfection) (hepatitis B with delta-agent) without hepatic coma B16.1
  - with hepatic coma B16.0
  - E B17.2
  - chronic NEC B18.9
  - specified NEC B18.8
- type
  - B B18.1
  - with delta-agent (hepatitis D) B18.0
  - C B18.2
  - D (hepatitis B with delta-agent) B18.0
  - E B18.8
- complicating pregnancy, childbirth or puerperium O98.4
  - congenital P35.3
  - coxsackie B33.8† K77.0*
  - cytomegalic inclusion B25.1
  - non-A, non-B B17.8
  - specified type (with or without coma) NEC B17.8
  - type
  - A B15.9
  - B (chronic) (without delta-agent) B18.1
  - with delta-agent (hepatitis D) B18.0
  - acute — see Hepatitis/viral/acute/type/B
    - with delta-agent (coinfection) (hepatitis D) without hepatic coma B16.1
    - hepatic coma (without delta-agent coinfection) B16.2
    - chronic B18.4
    - with delta-agent (hepatitis D) B18.0
  - C (chronic) B18.2
  - acute B17.1
  - chronic B18.2
  - D (hepatitis B with delta-agent) B18.0 with hepatitis B — see Hepatitis/viral/type/B
    - acute (coinfection) (without hepatic coma) B16.1
    - with hepatic coma B16.0
    - chronic B18.0

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

- cytomegalovirus, cytomegaloviral B25.9
  - congenital P35.1
  - maternal, maternal care for (suspected) damage to fetus O35.3
  - mononucleosis B27.1
  - resulting from HIV disease B20
  - specified NEC B25.8
  - delta-agent (acute), in hepatitis B carrier B17.0
  - dental K04.7
  - Deuteromycetes B47.0

- Enterobius vermicularis B80
  - Enterococcus, enterococcal (faecalis) NEC A49.1, as cause of disease classified elsewhere B95.2
  - as cause of disease classified elsewhere B95.2
  - entero virus NEC B34.1

Rickettsiosis NEC A79.9
- due to
  - Ehrlichia sennetsu A79.8
  - Neorickettsia sennetsu A79.8
  - Rickettsia akari (rickettsialpox) A79.1
  - specified type A79.8
  - tick-borne A77.9
  - vesicular A79.1

Syndrome — see also Disease

- septicemic adrenal haemorrhage A39.1† E35.1*
- severe acute respiratory syndrome (SARS) U04.9
  - acute respiratory (SARS) U04.9
  - fever with thrombocytopenia (SFTS) A93.8
  - Sézary (M9701/3) C84.1

Thrombocytopenia, thrombocytopenic D69.6
- with absent radius (TAR) Q87.26
  - absent radius (TAR) Q87.26
  - severe fever (syndrome) A93.8
- congenital D69.4
- dilutional D69.5

Tinea (intersecta) (tarsi) B35.9

- cruris B35.6
- flava B36.0
- foot B35.3
- imbricata (Tokelau) B35.5
- inguinalis B35.6
- kerion B35.0
0049 DISEASE CODES THAT MUST NEVER BE ASSIGNED

The following ICD-10-AM codes must never be assigned for inpatient morbidity coding:

- G26* Extrapyramidal and movement disorders in diseases classified elsewhere
- L14* Bullous disorders in diseases classified elsewhere
- L45* Papulosquamous disorders in diseases classified elsewhere
- M09.8-* Juvenile arthritis in other diseases classified elsewhere
- M15.9 Polyarthrosis, unspecified
- M16.9 Coxarthrosis, unspecified
- M17.9 Gonarthrosis, unspecified
- M18.9 Arthrosis of first carpometacarpal joint, unspecified
- M19.9- Arthrosis, unspecified – classify osteoarthitis/arthrosis/osteoarthrosis NOS as primary osteoarthritis
- M99.- Biomechanical lesions, not elsewhere classified
- R65.0 Systemic inflammatory response syndrome [SIRS] of infectious origin without acute organ failure
- Y90.9 Presence of alcohol in blood, level not specified – see also ACS 0503 Drug, alcohol and tobacco use disorders
- Y91.- Evidence of alcohol involvement determined by level of intoxication – see also ACS 0503 Drug, alcohol and tobacco use disorders

- Z22.5 Carrier of viral hepatitis — see also ACS 0104 Viral hepatitis
- Z50.2 Alcohol rehabilitation
- Z50.3 Drug rehabilitation
- Z58.7 Exposure to tobacco smoke
- Z81.- Family history of mental and behavioural disorders — see also ACS 0520 Family history of mental illness
0104 VIRAL HEPATITIS

1. Past history of hepatitis

- A past history code may be assigned for hepatitis A or hepatitis E when the history meets ACS 2112 Personal history.

- When a past history of hepatitis B, hepatitis C or hepatitis D is documented, assign:
  - hepatitis B: B18.1 *Chronic viral hepatitis B without delta-agent*
  - hepatitis C: B18.2 *Chronic viral hepatitis C* (except when documented with terms such as 'cured', 'cleared' or 'with SVR’ – see 4. Cured/cleared hepatitis C below)
  - hepatitis D: B18.0 *Chronic viral hepatitis B with delta-agent*

The concept of ‘carrier (state) of viral hepatitis’ is no longer clinically correct; therefore, Z22.5 *Carrier of viral hepatitis* should never be assigned.

2. Hepatitis complicating pregnancy, childbirth or the puerperium

When viral hepatitis complicates pregnancy, childbirth or the puerperium, assign O98.4 *Viral hepatitis complicating pregnancy, childbirth and the puerperium* and a code for the specific type of hepatitis.

The following table summarises general classification guidelines for hepatitis A, B, C, D and E (see also 3. Manifestations of hepatitis and 4. Cured/cleared hepatitis C below):

<table>
<thead>
<tr>
<th>Viral Hepatitis/Type</th>
<th>Code/Description</th>
<th>General Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hepatitis A</strong></td>
<td></td>
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<tr>
<td>B15.0</td>
<td>Hepatitis A with hepatic coma</td>
<td>- A past history of hepatitis A may be assigned when the history meets ACS 2112 Personal history.</td>
</tr>
<tr>
<td>B15.9</td>
<td>Hepatitis A without hepatic coma</td>
<td>- Where hepatitis A complicates the pregnancy, childbirth or puerperium, assign O98.4 and an additional code of B15.0 or B15.9.</td>
</tr>
<tr>
<td>O98.4</td>
<td>Viral hepatitis complicating pregnancy, childbirth and the puerperium</td>
<td></td>
</tr>
<tr>
<td>Z86.18</td>
<td>Personal history of other infectious and parasitic disease</td>
<td></td>
</tr>
<tr>
<td><strong>Hepatitis B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B16.-</td>
<td>Acute hepatitis B</td>
<td>- When documentation is unclear or ambiguous terms such as 'hepatitis B', 'hepatitis B positive' or 'past history of hepatitis B' are documented, verify with the clinician if the disease is at the acute or chronic stage. Where consultation is not possible, assign the code for chronic viral hepatitis B (B18.1).</td>
</tr>
<tr>
<td>B18.0</td>
<td>Chronic viral hepatitis B with delta-agent</td>
<td>- <em>Concept of ‘carrier (state) of viral hepatitis’ is no longer clinically correct; therefore, Z22.5 Carrier of viral hepatitis should never be assigned.</em></td>
</tr>
<tr>
<td>B18.1</td>
<td>Chronic viral hepatitis B without delta-agent</td>
<td>- Where hepatitis B complicates the pregnancy, childbirth or</td>
</tr>
<tr>
<td>Viral Hepatitis/type</td>
<td>Code/description</td>
<td>General guidelines</td>
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<tr>
<td>Hepatitis C</td>
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<td></td>
<td>B17.1 Acute hepatitis C</td>
<td>When documentation is unclear or ambiguous terms such as 'hepatitis C' or 'hepatitis C positive' are documented, verify with the clinician if the disease is at the acute or chronic stage. Where consultation is not possible, assign the code for chronic viral hepatitis C (B18.2).</td>
</tr>
<tr>
<td></td>
<td>B18.2 Chronic viral hepatitis C</td>
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<td></td>
<td>O98.4 Viral hepatitis complicating pregnancy, childbirth and the puerperium</td>
<td></td>
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<tr>
<td></td>
<td>Z22.5 Carrier of viral hepatitis</td>
<td>• Where documentation is unclear or ambiguous terms such as 'hepatitis C' or 'hepatitis C positive' are documented, verify with the clinician if the disease is at the acute or chronic stage. Where consultation is not possible, assign the code for chronic viral hepatitis C (B18.2).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• When 'past history of hepatitis C' is documented, assign the code for chronic viral hepatitis C (B18.2) except when documented with terms such as 'cured', 'cleared' or 'with SVR' – see 4. Cured/cleared hepatitis C below.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Concept of 'carrier (state) of viral hepatitis' is no longer clinically correct; therefore, Z22.5 Carrier of viral hepatitis should never be assigned.</td>
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<tr>
<td></td>
<td></td>
<td>• Where hepatitis C complicates the pregnancy, childbirth or puerperium, assign O98.4 and an additional code of B17.1 or B18.2.</td>
</tr>
<tr>
<td>Hepatitis D</td>
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<td>(with acute HBV)</td>
<td>B16.0 Acute hepatitis B with delta-agent (coinfection) with hepatic coma</td>
<td>• When documentation is unclear or ambiguous terms such as 'hepatitis D', 'hepatitis D positive' or 'past history of hepatitis D' are documented, verify with the clinician if the disease is at the acute or chronic stage. Where consultation is not possible, assign the code for chronic viral hepatitis B with delta-agent (B18.0).</td>
</tr>
<tr>
<td>(with chronic HBV)</td>
<td>B16.1 Acute hepatitis B with delta-agent (coinfection) without hepatic coma</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B18.0 Chronic viral hepatitis B with delta-agent</td>
<td></td>
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<tr>
<td></td>
<td>B17.0 Acute delta-(super)infection of hepatitis B carrier</td>
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<tr>
<td></td>
<td>O98.4 Viral hepatitis complicating pregnancy, childbirth and the puerperium</td>
<td>• Where hepatitis D complicates the pregnancy, childbirth or puerperium, assign O98.4 and an additional code from B16, B17 or B18.</td>
</tr>
<tr>
<td></td>
<td>Z22.5 Carrier of viral hepatitis</td>
<td>• Concept of 'carrier (state) of viral hepatitis' is no longer clinically correct; therefore, Z22.5 Carrier of viral hepatitis should never be assigned.</td>
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<tr>
<td>Hepatitis E</td>
<td></td>
<td>• A past history of hepatitis E may be assigned when the history meets ACS 2112 Personal history.</td>
</tr>
<tr>
<td></td>
<td>B17.2 Acute hepatitis E</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B18.8 Other chronic viral hepatitis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O98.4 Viral hepatitis complicating pregnancy, childbirth and the puerperium</td>
<td>• Where hepatitis E complicates the pregnancy, childbirth or puerperium, assign O98.4 and an additional code of B17.2 or B18.8.</td>
</tr>
<tr>
<td></td>
<td>Z86.18 Personal history of other infectious and parasitic disease</td>
<td></td>
</tr>
</tbody>
</table>
0112 INFECTION WITH DRUG RESISTANT MICROORGANISMS

DEFINITION

Resistance to a drug can be identified in most organisms. This standard deals with the coding of antibiotic or antimicrobial drug resistant organisms that have caused an infection in the patient.

It is important to distinguish between 'infection' caused by an organism and 'colonisation' with an organism. A patient may be colonised with an organism but have no signs or symptoms of infection caused by that organism. Thus microbiology reports may indicate the presence of MRSA (Methicillin Resistant or Multi-Resistant \textit{Staphylococcus aureus}), VRE (Vancomycin Resistant Enterococcus) or any other organism, but the patient may not have an infection caused by that organism. In this case, no infection or drug resistant microorganism codes should be assigned.

\textbf{MRSA (Methicillin Resistant or Multi-Resistant \textit{Staphylococcus aureus})}

Traditionally the M refers to methicillin and this is still the commonest use of the term MRSA. It is also used to mean multi-resistant.

\textit{Staphylococcus aureus} is a common bacterium found on the skin, but it may be the cause of a number of diseases and conditions ranging from minor to life threatening. The degree of infection varies from stitch abscesses to septic phlebitis, chronic osteomyelitis, pneumonia, meningitis, endocarditis and sepsis.

Penicillins, cephalosporins, carbapenems and monobactams contain a beta-lactam ring in their chemical structure and are known as beta-lactam antibiotics. Methicillin is a semisynthetic penicillin used in the laboratory to identify resistance although no longer used in clinical practice. Generally there are two strains of MRSA:

- Nosocomial (or hospital acquired) strains of MRSA are usually resistant to multiple antibiotics, not just methicillin and penicillin. \textit{Staphylococcus aureus} resistant to methicillin is typically resistant to multiple antibiotics.
- Community acquired strains of MRSA are typically resistant to only methicillin and penicillin (with a small percentage also resistant to erythromycin or ciprofloxacin).

\textbf{VRE (Vancomycin Resistant Enterococcus)}

Enterococcus is a gram positive organism that normally colonises the lower gastrointestinal tract and genital tract of healthy individuals. Enterococcus is also known as \textit{Streptococcus Group D}. This organism may be pathogenic in certain circumstances, causing urinary tract infections, wound infections, septicemia and endocarditis.

Vancomycin is a strong antibiotic that is used in hospitals as the main treatment for resistant staphylococcal infections (MRSA).

Vancomycin resistant enterococcus is a strain of enterococcus that has developed resistance to vancomycin and many other commonly used antibiotics.
CLASSIFICATION

The presence of an infection (wound infection, urinary tract infection, pneumonia, etc) must be documented and coded in accordance with ACS 0002 Additional diagnoses before additional codes can be assigned for the organism, or the condition coded as being due to the organism. If the clinician has documented in the record that the organism causing the infection is resistant to an antibiotic or other antimicrobial drugs, then the appropriate code from Z06. - Resistance to antimicrobial drugs must be assigned as an additional code to identify the antibiotic or other antimicrobial agent to which the organism is resistant.

MRSA – MRSA infections would have codes assigned as follows:

- A code for the infection
- B95.6 Staphylococcus aureus as the cause of diseases classified to other chapters (if the organism is not included in the infection code)
- Z06.52 Resistance to methicillin

Note that Z06.52 is assigned for MRSA when it means Methicillin Resistant (see also Resistance to multiple antibiotics or antimicrobials).

VRE – An infection resistant to vancomycin would be coded as follows:

- A code for the infection
- B95.2 Streptococcus, group D and enterococcus, as the cause of diseases classified to other chapters (if the organism is not already included in the infection code)
- Z06.61 Resistance to vancomycin

RESISTANCE TO MULTIPLE ANTIBIOTICS OR ANTIMICROBIALS

Z06.67 Resistance to multiple antibiotics and Z06.77 Resistance to multiple antimicrobial drugs are assigned when an agent is resistant to two or more types of antibiotics or antimicrobial drugs, but the type of antibiotics or antimicrobial drugs are not specified. Where multiple resistant antibiotics or antimicrobial drugs are specified, code each resistant drug type separately.

Note: the following examples refer to Z06 Resistance to antimicrobial drugs only. A code for the infection and infective organism must be coded first.

EXAMPLE 1:
Clinical documentation of multi-resistance to antibiotics – no microbiology report available or mention of the specific type(s) of antibiotics:

Codes Z06.67 Resistance to multiple antibiotics
### EXAMPLE 2:
Clinical documentation of resistance to antibiotics – microbiology report specifies resistance to ampicillin, amoxicillin and flucloxacillin:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z06.51</td>
<td>Resistance to penicillin</td>
</tr>
<tr>
<td>Z06.52</td>
<td>Resistance to methicillin</td>
</tr>
</tbody>
</table>

In this example, Z06.51 is assigned once as resistance to both ampicillin and amoxicillin are classified to this code (see also ACS 0025 Double coding). Z06.67 is NOT assigned as the types of antibiotics are specified.

### EXAMPLE 3:
Clinical documentation of resistance to antibiotics – microbiology report specifies resistance to gentamicin and tobramycin:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z06.69</td>
<td>Resistance to other specified antibiotics</td>
</tr>
</tbody>
</table>

In this example, Z06.69 is assigned once as resistance to both gentamicin and tobramycin are classified to this code (see also ACS 0025 Double coding). Z06.67 is NOT assigned as the types of antibiotics are specified.
Adenovirus, enterovirus and coronavirus

**BACKGROUND:**

Following receipt of a public submission, amendments were made to ICD-10-AM Alphabetic Index to promote code assignment for adenovirus, enterovirus and coronavirus.

**ALPHABETIC INDEX**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenosis (sclerosing) breast</td>
<td>N60.2</td>
</tr>
<tr>
<td>Adenovirus, as cause of disease classified elsewhere</td>
<td>B97.0 NEC</td>
</tr>
<tr>
<td>- as cause of disease classified elsewhere B97.0</td>
<td>B34.0</td>
</tr>
<tr>
<td>Adherent — see also Adhesions</td>
<td></td>
</tr>
<tr>
<td>Coronary (artery) — see condition</td>
<td></td>
</tr>
<tr>
<td>Coronavirus, as cause of disease classified elsewhere</td>
<td>B97.2 NEC</td>
</tr>
<tr>
<td>- as cause of disease classified elsewhere B97.2</td>
<td>B34.2</td>
</tr>
<tr>
<td>Corpora — see also condition</td>
<td></td>
</tr>
<tr>
<td>Disease, diseased — see also Syndrome</td>
<td></td>
</tr>
<tr>
<td>- adenoids (and tonsils) J35.9</td>
<td></td>
</tr>
<tr>
<td>- adenoviral, adenovirus NEC B34.0</td>
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</tr>
<tr>
<td>- - as cause of disease classified elsewhere B97.0</td>
<td></td>
</tr>
<tr>
<td>- adrenal (capsule) (cortex) (gland) (medullary) E27.9</td>
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</tr>
<tr>
<td>- - specified NEC E27.8</td>
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<tr>
<td>- coronary (artery) — see also Disease/arteriosclerotic/coronary</td>
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<tr>
<td>- - congenital Q24.5</td>
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</tr>
<tr>
<td>- - ostial, syphilitic A52.0</td>
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</tr>
<tr>
<td>- - - aortic A52.0† I39.1*</td>
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</tr>
<tr>
<td>- - - mitral A52.0† I39.0*</td>
<td></td>
</tr>
<tr>
<td>- - - pulmonary A52.0† I39.3*</td>
<td></td>
</tr>
<tr>
<td>- coronavirus, coronavirus NEC B34.2</td>
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</tr>
<tr>
<td>- - as cause of disease classified elsewhere B97.2</td>
<td></td>
</tr>
<tr>
<td>- - specified NEC B48.9</td>
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</tr>
<tr>
<td>- corpus cavernosum N48.9</td>
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<tr>
<td>Enterostomy, malfunctioning K91.4</td>
<td></td>
</tr>
<tr>
<td>Enterovirus, as cause of disease classified elsewhere</td>
<td>B97.1 NEC</td>
</tr>
<tr>
<td>- as cause of disease classified elsewhere B97.1</td>
<td>B34.1</td>
</tr>
<tr>
<td>Enthesopathy M77.9</td>
<td></td>
</tr>
<tr>
<td>Infection, infected (opportunistic) (see also Infestation) B99</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> Parasitic diseases may be described as either 'infection' or 'infestation'; both lead terms should therefore be consulted.</td>
<td></td>
</tr>
<tr>
<td>- adenovirus NEC B34.0</td>
<td></td>
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<tr>
<td>- - as cause of disease classified elsewhere B97.0</td>
<td></td>
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<tr>
<td>- - unspecified nature or site B34.0</td>
<td></td>
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<tr>
<td>- alimentary canal NEC (see also Enteritis/infectious) A09.0</td>
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</tr>
<tr>
<td>- Conidiobolus B46.8</td>
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<tr>
<td>- coronavirus NEC B34.2</td>
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<tr>
<td>- - as cause of disease classified elsewhere B97.2</td>
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<tr>
<td>- - SARS U04.9</td>
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<tr>
<td>- virus NEC B34.9</td>
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<tr>
<td>- - as cause of disease classified elsewhere B97.8</td>
<td></td>
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<tr>
<td>- - coronavirus NEC B34.0</td>
<td></td>
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<tr>
<td>- - - as cause of disease classified elsewhere B97.0</td>
<td></td>
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<tr>
<td>- - - unspecified nature or site B34.0</td>
<td></td>
</tr>
<tr>
<td>- - arborvirus, arbovirus (arthropod-borne) A94</td>
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</tr>
<tr>
<td>- - chest J98.8</td>
<td></td>
</tr>
<tr>
<td>- - coronavirus NEC B34.2</td>
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<tr>
<td>- - - as cause of disease classified elsewhere B97.2</td>
<td></td>
</tr>
<tr>
<td>- - coxsackie(virus) NEC (see also Infection/coxsackie(virus)) B34.1</td>
<td></td>
</tr>
<tr>
<td>- - - as cause of disease classified elsewhere B97.1</td>
<td></td>
</tr>
</tbody>
</table>