

User Guide for ICD-9 Codes Associated with Texas Reportable Conditions

GENERAL NOTES

ICD-9 Codes Associated with Texas Reportable Conditions.xls and *ICD-9 Codes (v27) Associated with Texas Notifiable Conditions.doc* are crosswalks between ICD-9 codes and Texas reportable conditions (see *Notifiable Conditions*, Texas Department of State Health Services, DSHS, publication E59-11364, rev. 1/10) available at <http://www.dshs.state.tx.us/idcu/investigation/conditions/>.) DSHS recommends the use of these and other ICD-9-reportable condition crosswalks be limited to quality assurance review for completeness of reporting by facilities or to augment passive reporting procedures. Required reporting time frames should also be considered in any reporting protocol. Studies comparing identification of reportable conditions by ICD codes to traditional passive reporting systems have shown decreased reporting of some conditions and increased reporting of others.^{i, ii} A more promising approach that is being developed utilizes ICD codes in conjunction with other data sources such as test orders, test results, and medication prescriptions from electronic medical records (EMS).^{iii, iv}

Some Texas reportable conditions have a required electronic submission process. Links to required criteria, data fields, and methods of submission for these conditions are listed below. The ICD-9 crosswalk is not intended to replace these procedures.

Cancer <http://www.dshs.state.tx.us/tcr/reporting.shtm>

EMS/Trauma Registry <http://www.dshs.state.tx.us/injury/>

Texas Birth Defects Registry http://www.dshs.state.tx.us/birthdefects/BD_LawRules.shtm

The reportable conditions cover suspected and confirmed cases of the conditions listed. Some of the reportable conditions may have qualifiers that would require information to define a reportable case (e.g. invasive, drug-resistant, age-specific, mortality) that is not included in ICD-9 diagnosis codes. There is not a direct match between reportable conditions and ICD-9 codes. Variances in ICD-9 coding may occur among facilities and coders. Since ICD-9 codes are not designed to follow the reportable conditions, each reportable condition may not have a directly corresponding ICD-9 code. Reportable condition tags in *ICD-9 Codes Associated with Texas Reportable Conditions.xls* indicate possible notifiable conditions and may also include cases that are not reportable. Condition-specific notes are included below.

FILE STRUCTURE

- ◆ The ICD-9 codes listed in *ICD-9 Codes Associated with Texas Reportable Conditions.xls* cover versions 25 (effective 10/1/2007), 26 (effective 10/1/2008), and 27 (effective 10/1/2009).
- ◆ Codes were downloaded from http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/06_codes.asp at US Department of Health and Human Services CMS (<http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/>)
- ◆ The file includes the following fields. Version fields can be used to coordinate the crosswalk with ICD-9 codes currently used at the facility.

Field	Description
Order Reportable Conditions	Sort on this field to get a list in <i>Texas Notifiable Conditions</i> order
Reportable Condition	Indicates association with this reportable condition
Order ICD-9	Sort on this variable to restore list to ICD-9 order
ICD9_Diagnosis Code	ICD-9 Diagnosis Code
ICD9_Short Description	Abbreviated listing of ICD-9 code
ICD9_Long Description	ICD-9 code long description (taken from version 27)
v25	Y indicates code is in version 25 of the ICD-9 code
v26	Y indicates code is in version 26 of the ICD-9 code
v27	Y indicates code is in version 27 of the ICD-9 code

- ◆ Customized lists can be produced from this data. Sort on *Order Reportable Conditions* and *Order ICD-9*, click on Data, Filter, AutoFilter. In the column corresponding to the agency's current version #, select filter equals Y. Copy rows with associated reportable conditions into a new worksheet. Delete all fields except condition, code, and code description and copy into Word to format for printing.

◆ **CONDITION SPECIFIC NOTES**

Conditions Without Corresponding ICD-9 Codes

- ◆ Hepatitis B identified prenatally or at delivery (acute and chronic) - Although all acute hepatitis B is reportable, chronic hepatitis B is reportable only in cases identified in women who are pregnant or postpartum. All HBV antigen positive pregnant women would meet these criteria, but pregnancy status is not included in diagnosis codes.
- ◆ Hepatitis B, perinatal (HBsAg+ < 24 months old). - There is no ICD-9 code that indicates acute or chronic hepatitis by age.
- ◆ Influenza pediatric mortality – This is a small subset of all influenza. There is no code that specifies age and mortality.
- ◆ Elevated blood lead – Positive lab findings are reportable but ICD-9 diagnosis codes do not cover all positive lab results. Although DSHS would be interested in cases with toxic effects or known accidental poisoning indicated by the tagged ICD-9 codes, these cases would be a small part of all persons with elevated blood lead.
- ◆ *Vancomycin resistant Staphylococcus aureus* (VISA and VRSA) – This is a small subset of *Staphylococcus aureus* infections. There is no code that specifies antibiotic resistance patterns.
- ◆ *Vibrio* infection, including cholera – There are codes for *Vibrio cholera* infection but there are only two other *Vibrio* infection codes, food-poisoning due to *Vibrio parahaemolyticus* or *Vibrio vulnificus*. This would not cover other or undifferentiated species or other routes of exposure.
- ◆ Yersiniosis – Although there are many codes for plague (*Yersinia pestis*), the only code for other *Yersinia* infections is 00844 - Intestinal infection due to *Yersinia enterocolitica*.

Screening Tests

Screening tests are not included in the ICD-9 coding crosswalk; however these codes could be an indication of suspected cases that are reportable.

Codes not included

V286	Antenatal screening for Streptococcus B
V730	Screening examination for poliomyelitis
V731	Screening examination for smallpox
V732	Screening examination for measles
V733	Screening examination for rubella
V734	Screening examination for yellow fever
V735	Screening examination for other arthropod-borne viral diseases
V736	Screening examination for trachoma
V7388	Special screening examination for other specified chlamydial diseases
V7389	Special screening examination for other specified viral diseases
V7398	Special screening examination for unspecified chlamydial disease
V7399	Special screening examination for unspecified viral disease
V740	Screening examination for cholera
V741	Screening examination for pulmonary tuberculosis
V742	Screening examination for leprosy (Hansen's disease)
V743	Screening examination for diphtheria
V745	Screening examination for venereal disease
V748	Screening examination for other specified bacterial and spirochetal diseases
V749	Screening examination for unspecified bacterial and spirochetal diseases
V750	Screening examination for rickettsial diseases
V751	Screening examination for malaria
V752	Screening examination for leishmaniasis
V758	Screening examination for other specified parasitic infections
V759	Screening examination for unspecified infectious disease

Botulism

There is no general botulism code; however all suspected cases of botulism are reportable even if the source of infection is unknown.

Codes included

0051	Botulism food poisoning
04041	Infant botulism
04042	Wound botulism

Cancer

Cancer reporting is required by electronic file submission following the *Cancer Reporting Handbook*. See Cancer Reporting Law and Rules at <http://www.dshs.state.tx.us/tcr/lawrules.shtm> and reporting resources including the *Cancer Reporting Handbook* at <http://www.dshs.state.tx.us/tcr/reporting.shtm>. Reportable cancer ICD-9-CM codes can be found in the "Texas Cancer Reporting Handbook" in pp.22-24, <http://www.dshs.state.tx.us/tcr/publications/2008crhb/5-crhb08-casefinding.pdf>. *ICD-9 Codes Associated with Texas Reportable Conditions.xls* includes the codes found in the table at the top of page 6 (page 22 of the *Cancer Reporting Handbook*) and the table on pages 6-7 except for the code 042. - AIDS (review records for AIDS-related malignancies) which is tagged as reportable for HIV/AIDS. The codes in the remaining tables on pages 7-9 are not included because they indicate records that should be screened for possible reportable cancers rather than reportable cancers per se. The *Cancer Reporting Handbook* will be updated as of May 2010, with the inclusion of new and revised ICD-9 codes. In addition, there will be new guidelines for the review of the Supplementary Casefinding Lists of ICD-9 codes.

Chromosomal results (fetus and infant only)

See http://www.dshs.state.tx.us/birthdefects/BD_LawRules.shtm for further reporting instructions

Contaminated Sharps Injury

DSHS required reports include only sharps injuries that occur at governmental agencies.

Controlled Substance Overdose

Overdoses with controlled substances listed in Penalty Group 1 under Section 481.102 are reportable. <http://www.dshs.state.tx.us/epidemiology/epipoison.shtm#rcso>. See reference for penalty 1 codes at http://www.ibt.tamhsc.edu/safety_office/pdf_stuff/Tex_Penalty_groups.pdf. The ICD-9 codes may not find all reportable cases due to coding specificity and usage, and some of the codes would include substances that are not in Penalty Group 1.

Escherichia coli, enterohemorrhagic

All infections of Shiga-toxin producing *Escherichia coli* (STEC) are reportable. ICD codes do not indicate toxicity. Invasive diseases caused by *E. coli* have been included in the crosswalk.

Codes included as probable STEC cases

00801	Intestinal infection due to enteropathogenic <i>E. coli</i>
00802	Intestinal infection due to enterotoxigenic <i>E. coli</i>
00803	Intestinal infection due to enteroinvasive <i>E. coli</i>
00804	Intestinal infection due to enterohemorrhagic <i>E. coli</i>
03842	Septicemia due to escherichia coli [<i>E. coli</i>]
48282	Pneumonia due to escherichia coli [<i>E. coli</i>]

Codes excluded because they are too general. Shiga toxin positive cases with these codes are reportable.

00800	Intestinal infection due to <i>E. coli</i> , unspecified
00809	Intestinal infection due to other intestinal <i>E. coli</i> infections
0414	<i>Escherichia coli</i> [<i>E. coli</i>] infection in conditions classified elsewhere and of unspecified site

Haemophilus influenzae type b infections, invasive

Codes included

03841	Septicemia due to hemophilus influenzae [H. influenzae]
3200	Hemophilus meningitis
4822	Pneumonia due to Hemophilus influenzae [H. influenzae]

These codes indicate invasive disease due to *Haemophilus influenzae*. Other types of invasive cases such as epiglottitis, pericarditis, osteomyelitis, septic arthritis, and cellulitis do not have a specific ICD-9 code and would not be found by these codes. Codes are not specific for type b.

Code excluded

0415	Hemophilus influenzae [H. influenzae] infection in conditions classified elsewhere and of unspecified site
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This code was not included due to the large volume of non-invasive cases that are not reportable (e.g. otitis media, conjunctivitis, and sinusitis). However this may be the only *Haemophilus*-specific code that occurs in a reportable invasive case of invasive *H. influenzae*, type b.

Hepatitis

Acute viral hepatitis is reportable. ICD-9 codes may not distinguish well between all acute and chronic cases.

Codes included

0700	Viral hepatitis A with hepatic coma
0701	Viral hepatitis A without mention of hepatic coma
07020	Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta
07021	Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta
07030	Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta
07031	Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta
07041	Acute hepatitis C with hepatic coma
07042	Hepatitis delta without mention of active hepatitis B disease with hepatic coma
07043	Hepatitis E with hepatic coma
07051	Acute hepatitis C without mention of hepatic coma
07052	Hepatitis delta without mention of active hepatitis B disease or hepatic coma
07053	Hepatitis E without mention of hepatic coma

Codes excluded*

07022	Chronic viral hepatitis B with hepatic coma without hepatitis delta
07023	Chronic viral hepatitis B with hepatic coma with hepatitis delta
07032	Chronic viral hepatitis B without mention of hepatic coma without mention of hepatitis delta
07033	Chronic viral hepatitis B without mention of hepatic coma with hepatitis delta
07044	Chronic hepatitis C with hepatic coma
07049	Other specified viral hepatitis with hepatic coma
07054	Chronic hepatitis C without mention of hepatic coma
07059	Other specified viral hepatitis without mention of hepatic coma
0706	Unspecified viral hepatitis with hepatic coma
07070	Unspecified viral hepatitis C without hepatic coma
07071	Unspecified viral hepatitis C with hepatic coma
0709	Unspecified viral hepatitis without mention of hepatic coma

*Chronic hepatitis is reportable in pregnant women.

Streptococcus

For *Streptococcus*, only invasive infections of *Streptococcus pneumoniae*, *Streptococcus pyogenes* (Group A), and *Streptococcus agalactiae* (Group B) are reportable. Codes that indicate an invasive disease or reportable species are included.

Codes included

These codes indicate invasive disease but may include non-reportable species.

0380	Streptococcal septicemia
0382	Pneumococcal septicemia [Streptococcus pneumoniae septicemia]
3201	Pneumococcal meningitis*
481	Pneumococcal pneumonia [Streptococcus pneumoniae pneumonia]
48230	Pneumonia due to Streptococcus, unspecified
48231	Pneumonia due to Streptococcus, group A
48232	Pneumonia due to Streptococcus, group B

*Included under meningitis, bacterial/other since all meningitis is reportable and not all strep is reportable.

These codes indicate a reportable species but may not indicate invasive disease.

04101	Streptococcus infection in conditions classified elsewhere and of unspecified site, streptococcus, group A
04102	Streptococcus infection in conditions classified elsewhere and of unspecified site, streptococcus, group B
0412	Pneumococcus infection in conditions classified elsewhere and of unspecified site

Codes not included

These codes were not included due to the lack of specificity of species and site of infection. However one of these may be the only code that occurs in a reportable invasive case of invasive *Streptococcus*.

0261	Streptobacillary fever
0340	Streptococcal sore throat
04100	Streptococcus infection in conditions classified elsewhere and of unspecified site, streptococcus, unspecified
04109	Streptococcus infection in conditions classified elsewhere and of unspecified site, other streptococcus
48239	Pneumonia due to other Streptococcus

These species are not reportable.

04103	Streptococcus infection in conditions classified elsewhere and of unspecified site, streptococcus, group C
04104	Streptococcus infection in conditions classified elsewhere and of unspecified site, streptococcus, group D
04105	Streptococcus infection in conditions classified elsewhere and of unspecified site, streptococcus, group G

ⁱ Watkins, Margaret, Sandra Lapham, and Wendy Hoy. "Use of a Medical Center's Computerized Health Care Database for Notifiable Disease Surveillance" *American Journal of Public Health* 1991;81(5):637-639.

ⁱⁱ Campos-Outcalt, Doug E. "Accuracy of ICD-9-CM Codes in Identifying Reportable Communicable Diseases." *American Journal of Medical Quality* 1990;5(3):86-89.

ⁱⁱⁱCenters for Disease Control and Prevention. "Automated detection and reporting of notifiable diseases using electronic medical records versus passive surveillance—Massachusetts, June 2006–July 2007". *MMWR Morbidity and Mortality Weekly Report* 2008;57(14):373–376.

^{iv} Klompas M, Haney G, Church D, Lazarus R, Hou X, et al. "Automated Identification of Acute Hepatitis B Using Electronic Medical Record Data to Facilitate Public Health Surveillance" *PLoS ONE* 3(7) (2008): e2626. doi:10.1371/journal.pone.0002626 (accessed 3/10/10)