



**AHRQ Quality Indicators™ (AHRQ QI™)
ICD-9-CM and ICD-10-CM/PCS
Specification Enhanced Version 5.0**

**Patient Safety Indicators #04 (PSI #04)
Death Rate among Surgical Inpatients with
Serious Treatable Complications**

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Provider-Level Indicator
Type of Score: Rate**

Prepared by:

Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
540 Gaither Road
Rockville, MD 20850
www.qualityindicators.ahrq.gov

PSI #04 Death Rate among Surgical Inpatients with Serious Treatable Complications

DESCRIPTION

In-hospital deaths per 1,000 surgical discharges, among patients ages 18 through 89 years or obstetric patients, with serious treatable complications (deep vein thrombosis/ pulmonary embolism, pneumonia, sepsis, shock/cardiac arrest or gastrointestinal hemorrhage/acute ulcer). Includes metrics for the number of discharges for each type of complication. Excludes cases transferred to an acute care facility.

[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report in-hospital deaths per 1,000 hospital discharges.]

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NUMERATOR
OVERALL
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
<i>STRATUM 04A: DEEP VEIN THROMBOSIS/PULMONARY EMBOLISM (DVT/PE)</i>
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
<i>STRATUM 04B: PNEUMONIA</i>
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
<i>STRATUM 04C: SEPSIS</i>
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
<i>STRATUM 04D: SHOCK/CARDIAC ARREST</i>
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
<i>STRATUM 04E: GASTROINTESTINAL (GI) HEMORRHAGE/ACUTE ULCER</i>
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

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NUMERATOR EXCLUSIONS
<i>Not Applicable</i>

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DENOMINATOR OVERALL

Surgical discharges, for patients ages 18 through 89 years or MDC 14 (pregnancy, childbirth, and puerperium), with all of the following:

- any-listed ICD-9-CM or ICD-10-PCS procedure codes for an operating room procedure; and
- the principal procedure occurring within 2 days of admission or an admission type of elective (ATYPE=3); and
- meet the inclusion and exclusion criteria for Stratum A (deep vein thrombosis or pulmonary embolism), Stratum B (pneumonia), Stratum C (sepsis), Stratum D (shock or cardiac arrest), or Stratum E (gastrointestinal hemorrhage or acute ulcer) defined below.

[Appendix A – Operating Room Procedure Codes](#)

[Appendix D - Surgical Discharge DRGs \(for discharges prior to October 1, 2007\)](#)

[Appendix E - Surgical Discharge MS-DRGs \(for discharges on or after October 1, 2007\)](#)

PSI #04 Death Rate among Surgical Inpatients with Serious Treatable Complications

DENOMINATOR OVERALL EXCLUSIONS

Exclude cases:

- transferred to an acute care facility (DISP = 2)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

To ensure that the strata are mutually exclusive within each indicator, the strata were prioritized in order of their relative prevalence in the reference population data. In the event that a discharge record meets the denominator criteria for several strata, the software assigns the record to the one (and only one) candidate stratum whose outcome is most prevalent in the reference population. That is to say that if a record met the criteria to be in the denominator for strata C and D, and if the outcome in D were more prevalent than the one in C in the reference population dataset, then the software would only assign the record to stratum D, and would not assign it to C.

For PSI 04, prioritization to ensure mutual exclusivity for the strata is as follows:

STRATUM D: SHOCK/CARDIAC ARREST

STRATUM C: SEPSIS

STRATUM B: PNEUMONIA

PSI #04 Death Rate among Surgical Inpatients with Serious Treatable Complications

DENOMINATOR STRATUM 04A: DVT/PE

Surgical discharges, for patients ages 18 through 89 years or MDC 14 (pregnancy, childbirth, and puerperium), with all of the following:

- any-listed ICD-9-CM or ICD-10-PCS procedure codes for an operating room procedure; and
- the principal procedure occurring within 2 days of admission or an admission type of elective (ATYPE=3); and
- any secondary ICD-9-CM or ICD-10-CM diagnosis codes for deep vein thrombosis or pulmonary embolism.

Surgical discharges are defined by specific DRG or MS-DRG codes.

[Appendix A – Operating Room Procedure Codes](#)

[Appendix D - Surgical Discharge DRGs \(for discharges prior to October 1, 2007\)](#)

[Appendix E - Surgical Discharge MS-DRGs \(for discharges on or after October 1, 2007\)](#)

Pulmonary embolism or deep vein thrombosis diagnosis codes (for discharges prior to October 1, 2009): (FTR2DX)

ICD-9-CM	Description	ICD-10-CM	Description
4151	PULMONARY EMBOLISM AND INFARCTION (no longer valid)		<i>No equivalent ICD-10-CM codes</i>
41511	IATROGENIC PULMONARY EMBOLISM		
41513	SADDLE EMBOLUS OF PULMONARY ARTERY		
41519	OTHER PULMONARY EMBOLISM AND INFARCTION		
45111	PHLEBITIS AND THORBOPHLEBITIS FEMORAL VEIN (DEEP) (SUPERFICIAL)		

- 45119 PHLEBITIS AND THORBOPHLEBITIS,
OTHER DEEP VESSEL OF LOWER
EXTREMITIES
- 4512 PHLEBITIS AND THORBOPHLEBITIS,
LOWER EXTREMITIES

- 45181 ILIAC VEIN
- 4519 UNSPECIFIED SITE
- 45340 DVT-EMBLSM LOWER EXT NOS
- 45341 DVT-EMB PROX LOWER EXT
- 45342 DVT-EMB DISTAL LOWER EXT
- 4538 OTHER VENOUS EMBOLISM AND
THROMBOSIS OF OTHER SPECIFIED
VEINS (no longer valid)

- 4539 OTHER VENOUS EMBOLISM AND
THROMBOSIS OF UNSPECIFIED SITE

<i>Pulmonary embolism or deep vein thrombosis diagnosis codes (for discharges on or after October 1, 2009): (FTR2DXB)</i>			
ICD-9-CM	Description	ICD-10-CM	Description
4151	PULMONARY EMBOLISM AND INFARCTION (no longer valid)	I2602	Saddle embolus of pulmonary artery with acute cor pulmonale
41511	IATROGENIC PULMONARY EMBOLISM	I2609	Other pulmonary embolism with acute cor pulmonale
41513	SADDLE EMOLUS OF PULMONARY ARTERY	I2692	Saddle embolus of pulmonary artery without acute cor pulmonale
41519	OTHER PULMONARY EMBOLISM AND INFARCTION	I2699	Other pulmonary embolism without acute cor pulmonale

45111	PHLEBITIS AND THORBOPHLEBITIS FEMORAL VEIN (DEEP) (SUPERFICIAL)	I8010	Phlebitis and thrombophlebitis of unspecified femoral vein
45119	PHLEBITIS AND THORBOPHLEBITIS, OTHER DEEP VESSEL OF LOWER EXTREMITIES	I8011	Phlebitis and thrombophlebitis of right femoral vein
45181	ILIAC VEIN	I8012	Phlebitis and thrombophlebitis of left femoral vein
45340	DVT-EMBLSM LOWER EXT NOS	I8013	Phlebitis and thrombophlebitis of femoral vein, bilateral
45341	DVT-EMB PROX LOWER EXT	I80201	Phlebitis and thrombophlebitis of unspecified deep vessels of right lower extremity
45342	DVT-EMB DISTAL LOWER EXT	I80202	Phlebitis and thrombophlebitis of unspecified deep vessels of left lower extremity
		I80203	Phlebitis and thrombophlebitis of unspecified deep vessels of lower extremities, bilateral
		I80209	Phlebitis and thrombophlebitis of unspecified deep vessels of unspecified lower extremity
		I80211	Phlebitis and thrombophlebitis of right iliac vein
		I80212	Phlebitis and thrombophlebitis of left iliac vein
		I80213	Phlebitis and thrombophlebitis of iliac vein, bilateral
		I80219	Phlebitis and thrombophlebitis of unspecified iliac vein
		I80221	Phlebitis and thrombophlebitis of right popliteal vein
		I80222	Phlebitis and thrombophlebitis of left popliteal vein
		I80223	Phlebitis and thrombophlebitis of popliteal vein, bilateral
		I80229	Phlebitis and thrombophlebitis of unspecified popliteal vein

I80231	Phlebitis and thrombophlebitis of right tibial vein
I80232	Phlebitis and thrombophlebitis of left tibial vein
I80233	Phlebitis and thrombophlebitis of tibial vein, bilateral
I80239	Phlebitis and thrombophlebitis of unspecified tibial vein
I80291	Phlebitis and thrombophlebitis of other deep vessels of right lower extremity
I80292	Phlebitis and thrombophlebitis of other deep vessels of left lower extremity
I80293	Phlebitis and thrombophlebitis of other deep vessels of lower extremity, bilateral
I80299	Phlebitis and thrombophlebitis of other deep vessels of unspecified lower extremity
I82401	Acute embolism and thrombosis of unspecified deep veins of right lower extremity
I82402	Acute embolism and thrombosis of unspecified deep veins of left lower extremity
I82403	Acute embolism and thrombosis of unspecified deep veins of lower extremity, bilateral
I82409	Acute embolism and thrombosis of unspecified deep veins of unspecified lower extremity
I82411	Acute embolism and thrombosis of right femoral vein
I82412	Acute embolism and thrombosis of left femoral vein
I82413	Acute embolism and thrombosis of femoral vein, bilateral
I82419	Acute embolism and thrombosis of unspecified femoral vein

I82421	Acute embolism and thrombosis of right iliac vein
I82422	Acute embolism and thrombosis of left iliac vein
I82423	Acute embolism and thrombosis of iliac vein, bilateral
I82429	Acute embolism and thrombosis of unspecified iliac vein
I82431	Acute embolism and thrombosis of right popliteal vein
I82432	Acute embolism and thrombosis of left popliteal vein
I82433	Acute embolism and thrombosis of popliteal vein, bilateral
I82439	Acute embolism and thrombosis of unspecified popliteal vein
I82441	Acute embolism and thrombosis of right tibial vein
I82442	Acute embolism and thrombosis of left tibial vein
I82443	Acute embolism and thrombosis of tibial vein, bilateral
I82449	Acute embolism and thrombosis of unspecified tibial vein
I82491	Acute embolism and thrombosis of other specified deep vein of right lower extremity
I82492	Acute embolism and thrombosis of other specified deep vein of left lower extremity
I82493	Acute embolism and thrombosis of other specified deep vein of lower extremity, bilateral
I82499	Acute embolism and thrombosis of other specified deep vein of unspecified lower extremity

I824Y1	Acute embolism and thrombosis of unspecified deep veins of right proximal lower extremity
I824Y2	Acute embolism and thrombosis of unspecified deep veins of left proximal lower extremity
I824Y3	Acute embolism and thrombosis of unspecified deep veins of proximal lower extremity, bilateral
I824Y9	Acute embolism and thrombosis of unspecified deep veins of unspecified proximal lower extremity
I824Z1	Acute embolism and thrombosis of unspecified deep veins of right distal lower extremity
I824Z2	Acute embolism and thrombosis of unspecified deep veins of left distal lower extremity
I824Z3	Acute embolism and thrombosis of unspecified deep veins of distal lower extremity, bilateral
I824Z9	Acute embolism and thrombosis of unspecified deep veins of unspecified distal lower extremity

Note: New guidelines.

Note: Codes that are no longer valid may be retained for compatibility with historical data. These codes will

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DENOMINATOR EXCLUSIONS STRATUM 04A

Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code for deep vein thrombosis or pulmonary embolism (see above)
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for abortion-related or postpartum obstetric pulmonary embolism
- transferred to an acute care facility (DISP = 2)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

Abortion-related or postpartum obstetric pulmonary embolism diagnosis codes: (OBEMBOL)

ICD-9-CM	Description	ICD-10-CM	Description
63460	SPON ABORT W EMBOL-UNSP	0032	Embolism following incomplete spontaneous abortion
63461	SPON ABORT W EMBOL-INC	0037	Embolism following complete or unspecified spontaneous abortion
63462	SPON ABORT W EMBOL-COMP	0047	Embolism following (induced) termination of pregnancy
63560	LEGAL ABORT W EMBOL-UNSP	0072	Embolism following failed attempted termination of pregnancy
63561	LEGAL ABORT W EMBOL-INC	0082	Embolism following ectopic and molar pregnancy
63562	LEGAL ABORT W EMBOL-COMP	088211	Thromboembolism in pregnancy, first trimester
63660	ILLEG AB W EMBOLISM-UNSP	088212	Thromboembolism in pregnancy, second trimester

63661	ILLEG AB W EMBOLISM-INC	088213	Thromboembolism in pregnancy, third trimester
63662	ILLEG AB W EMBOLISM-COMP	088219	Thromboembolism in pregnancy, unspecified trimester
63760	AB NOS W EMBOLISM-UNSP	08822	Thromboembolism in childbirth
63761	AB NOS W EMBOLISM-INC	08823	Thromboembolism in the puerperium
63762	AB NOS W EMBOLISM-COMP		
6386	ATTEMP ABORT W EMBOLISM		
6396	POSTABORTION EMBOLISM		
67320	OBSTETRICAL BLOOD-CLOT EMBOLISM		
67321	OBSTETRICAL BLOOD-CLOT EMBOLISM		
67322	OBSTETRICAL BLOOD-CLOT EMBOLISM		
67323	OBSTETRICAL BLOOD-CLOT EMBOLISM		
67324	OBSTETRICAL BLOOD-CLOT EMBOLISM		

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DENOMINATOR STRATUM B: PNEUMONIA

Surgical discharges, for patients ages 18 through 89 years or MDC 14 (pregnancy, childbirth, and puerperium), with all of the following:

- any-listed ICD-9-CM or ICD-10-PCS procedure codes for an operating room procedure; and
- the principal procedure occurring within 2 days of admission or an admission type of elective (ATYPE=3); and
- any secondary ICD-9-CM or ICD-10-CM diagnosis codes for pneumonia.

[Appendix A – Operating Room Procedure Codes](#)

[Appendix D - Surgical Discharge DRGs \(for discharges prior to October 1, 2007\)](#)

[Appendix E - Surgical Discharge MS-DRGs \(for discharges on or after October 1, 2007\)](#)

Pneumonia diagnosis codes: (FTR3DX)

ICD-9-CM	Description	ICD-10-CM	Description
4820	K. PNEUMONIAE PNEUMONIA	A481	Legionnaires disease
4821	PSEUDOMONAL PNEUMONIA	J14	Pneumonia due to Hemophilus influenzae
4822	H.INFLUENZAE PNEUMONIA	J150	Pneumonia due to Klebsiella pneumoniae
4823	STREPTOCOCCAL PNEUMONIA	J151	Pneumonia due to Pseudomonas
48230	STREPTOCOCCAL PNEUMN NOS	J1520	Pneumonia due to staphylococcus,
48231	PNEUMONIA STRPTOCOCCUS A	J15211	Pneumonia due to Methicillin susceptible Staphylococcus aureus
48232	PNEUMONIA STRPTOCOCCUS B	J15212	Pneumonia due to Methicillin resistant Staphylococcus aureus
48239	PNEUMONIA OTH STREP	J1529	Pneumonia due to other staphylococcus
4824	STAPHYLOCOCCAL PNEUMONIA	J153	Pneumonia due to streptococcus, group B
48240	STAPHYLOCOCCAL PNEU NOS	J154	Pneumonia due to other streptococci

48241	METH SUS PNEUM D/T STAPH	J155	Pneumonia due to Escherichia coli
48242	METH RES PNEU D/T STAPH	J156	Pneumonia due to other aerobic Gram-negative bacteria
48249	STAPH PNEUMONIA NEC	J158	Pneumonia due to other specified bacteria
4828	BACTERIAL PNEUMONIA NEC	J159	Unspecified bacterial pneumonia
48281	PNEUMONIA ANAEROBES	J180	Bronchopneumonia, unspecified organism
48282	PNEUMONIA E COLI	J182	Hypostatic pneumonia, unspecified organism
48283	PNEUMO OTH GRM-NEG BACT	J188	Other pneumonia, unspecified organism
48284	LEGIONNAIRES DISEASE	J189	Pneumonia, unspecified organism
48289	PNEUMONIA OTH SPCF BACT	J690	Pneumonitis due to inhalation of food and vomit
4829	BACTERIAL PNEUMONIA NOS	J811	Chronic pulmonary edema
485	BRONCHOPNEUMONIA, ORGANISM UNSPECIFIED		
486	PNEUMONIA, ORGANISM UNSPECIFIED		
5070	DUE TO INHALATION OF FOOD OR VOMITUS		
514	PULMONARY CONGESTION AND HYPOSTASIS		

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DENOMINATOR EXCLUSIONS STRATUM B

Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code for pneumonia (see above)
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for respiratory complications
- with any-listed ICD-9-CM or ICD-10-CM diagnosis codes for viral pneumonia or influenza
- with any-listed ICD-9-CM or ICD-10-CM diagnosis codes or any-listed ICD-9-CM or ICD-10-PCS procedure codes for immunocompromised state
- with any-listed ICD-9-CM or ICD-10-PCS procedure codes for lung cancer
- MDC 4 (diseases/disorders of respiratory system)
- transferred to an acute care facility (DISP = 2)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

[Appendix I – Immunocompromised State Diagnosis and Procedure Codes](#)

Respiratory complications diagnosis codes: (FTR3EXA)

ICD-9-CM	Description	ICD-10-CM	Description
9973	RESPIRATORY COMPLICATIONS (end 2008)	J954	Chemical pneumonitis due to anesthesia
99731	VENTL TR ASSOC PNEUMONIA	J95851	Ventilator associated pneumonia
99732	POSTPROC ASPIRATION PNEU	J95859	Other complication of respirator [ventilator]
99739	RESPITORY COMP NEC	J9588	Other intraoperative complications of respiratory system, not elsewhere classified

J9589 Other postprocedural complications and disorders of respiratory system, not elsewhere classified

Viral pneumonia or influenza diagnosis codes: (FTR3EXB)

ICD-9-CM	Description	ICD-10-CM	Description
4800	ADENOVIRAL PNEUMONIA	A221	Pulmonary anthrax
4801	RESP SYNCYT VIRAL PNEUM	A3701	Whooping cough due to Bordetella pertussis with pneumonia
4802	PARAINFLUENZA VIRAL PNEUM	A3711	Whooping cough due to Bordetella parapertussis with pneumonia
4803	PNEUMONIA DUE TO SARS	A3781	Whooping cough due to other Bordetella species with pneumonia
4808	VIRAL PNEUMONIA NEC	A3791	Whooping cough, unspecified species with pneumonia
4809	VIRAL PNEUMONIA NOS	B250	Cytomegaloviral pneumonitis
481	PNEUMOCOCCAL PNEUMONIA	B440	Invasive pulmonary aspergillosis
483	PNEUMONIA ORGANISM NEC (end 1992)	J09X1	Influenza due to identified novel influenza A virus with pneumonia
4830	PNEU MYCPLSM PNEUMONIAE	J09X2	Influenza due to identified novel influenza A virus with other respiratory manifestations
4831	PNEUMONIA D/T CHLAMYDIA	J09X3	Influenza due to identified novel influenza A virus with gastrointestinal manifestations
4838	PNEUMON OTH SPEC ORGNSM	J09X9	Influenza due to identified novel influenza A virus with other manifestations

4841	PNEUM W CYTOMEG INCL DIS	J1000	Influenza due to other identified influenza virus with unspecified type of pneumonia
4843	PNEUMONIA IN WHOOP COUGH	J1001	Influenza due to other identified influenza virus with the same other identified influenza virus pneumonia
4845	PNEUMONIA IN ANTHRAX	J1008	Influenza due to other identified influenza virus with other specified pneumonia
4846	PNEUMONIA IN ASPERGILLOSIS	J101	Influenza due to other identified influenza virus with other respiratory manifestations
4847	PNEUMONIA IN OTH SYS MYCOSES	J102	Influenza due to other identified influenza virus with gastrointestinal manifestations
4848	PNEUMONIA IN INFECT DIS NEC	J1081	Influenza due to other identified influenza virus with encephalopathy
4870	INFLUENZA W/ PNEUMONIA	J1082	Influenza due to other identified influenza virus with myocarditis
4871	FLU W RESP MANIFEST NEC	J1083	Influenza due to other identified influenza virus with otitis media
4878	FLU W MANIFESTATION NEC	J1089	Influenza due to other identified influenza virus with other manifestations
488	FLU D/T AVIAN FLU VIRUS (end 2009)	J1100	Influenza due to unidentified influenza virus with unspecified type of pneumonia
4880	INFLUENZA DUE TO IDENTIFIED AVIAN FLU (end 2010)	J1108	Influenza due to unidentified influenza virus with specified pneumonia
48801	FLU DT IDEN AVIAN W PNEU	J111	Influenza due to unidentified influenza virus with other respiratory manifestations

48802	FLU DT AVIAN W OTH RESP	J112	Influenza due to unidentified influenza virus with gastrointestinal manifestations
48809	FLU DT AVIAN MANFEST NEC	J1181	Influenza due to unidentified influenza virus with encephalopathy
4881	INFLUENZA DUE TO IDENTIFIED NOVEL H1N1 INFLUENZA VIRUS (end 2010)	J1182	Influenza due to unidentified influenza virus with myocarditis
48811	FLU DT 2009 H1N1 W PNEU	J1183	Influenza due to unidentified influenza virus with otitis media
48812	FLU-2009 H1N1 W OTH RESP	J1189	Influenza due to unidentified influenza virus with other manifestations
48819	FLU-2009 H1N1 W OTH MAN	J120	Adenoviral pneumonia
48881	FLU DT NVL A VRS W PNEU	J121	Respiratory syncytial virus pneumonia
48882	FLU DT NVL A W OTH RESP	J122	Parainfluenza virus pneumonia
48889	FLU DT NOVEL A W OTH MAN	J123	Human metapneumovirus pneumonia
		J1281	Pneumonia due to SARS-associated coronavirus
		J1289	Other viral pneumonia
		J129	Viral pneumonia, unspecified
		J13	Pneumonia due to Streptococcus pneumoniae
		J157	Pneumonia due to Mycoplasma pneumoniae
		J160	Chlamydial pneumonia
		J168	Pneumonia due to other specified infectious organisms
		J17	Pneumonia in diseases classified elsewhere

<i>Lung cancer procedure codes: (LUNGCIIP)</i>			
ICD-9-CM	Description	ICD-10-PCS	Description
3230	THORACOSCOPIC SURGERY	0BBC4ZZ	Excision of Right Upper Lung Lobe, Percutaneous Endoscopic Approach
3239	OTH SEG LUNG RESECT NOS	0BBD4ZZ	Excision of Right Middle Lung Lobe, Percutaneous Endoscopic Approach
3241	THORACOSCOPIC SURGERY	0BBF4ZZ	Excision of Right Lower Lung Lobe, Percutaneous Endoscopic Approach
3249	LOBECTOMY OF LUNG NEC	0BBG4ZZ	Excision of Left Upper Lung Lobe, Percutaneous Endoscopic Approach
3250	THORACOSCOPIC SURGERY	0BBH4ZZ	Excision of Lung Lingula, Percutaneous Endoscopic Approach
3259	OTHER PNEUMONECTOMY NOS	0BBJ4ZZ	Excision of Left Lower Lung Lobe,
		0BBK0ZZ	Excision of Right Lung, Open Approach
		0BBK3ZZ	Excision of Right Lung, Percutaneous Approach
		0BBK4ZZ	Excision of Right Lung, Percutaneous Endoscopic Approach
		0BBK7ZZ	Excision of Right Lung, Via Natural or Artificial Opening
		0BBL0ZZ	Excision of Left Lung, Open Approach
		0BBL3ZZ	Excision of Left Lung, Percutaneous Approach
		0BBL4ZZ	Excision of Left Lung, Percutaneous Endoscopic Approach

0BBL7ZZ	Excision of Left Lung, Via Natural or Artificial Opening
0BTC0ZZ	Resection of Right Upper Lung Lobe, Open Approach
0BTC4ZZ	Resection of Right Upper Lung Lobe, Percutaneous Endoscopic Approach
0BTD0ZZ	Resection of Right Middle Lung Lobe, Open Approach
0BTD4ZZ	Resection of Right Middle Lung Lobe, Percutaneous Endoscopic Approach
0BTF0ZZ	Resection of Right Lower Lung Lobe, Open Approach
0BTF4ZZ	Resection of Right Lower Lung Lobe, Percutaneous Endoscopic Approach
0BTG0ZZ	Resection of Left Upper Lung Lobe, Open Approach
0BTG4ZZ	Resection of Left Upper Lung Lobe, Percutaneous Endoscopic Approach
0BTH0ZZ	Resection of Lung Lingula, Open Approach
0BTH4ZZ	Resection of Lung Lingula, Percutaneous Endoscopic Approach
0BTJ0ZZ	Resection of Left Lower Lung Lobe, Open Approach
0BTJ4ZZ	Resection of Left Lower Lung Lobe, Percutaneous Endoscopic Approach
0BTK0ZZ	Resection of Right Lung, Open Approach
0BTK4ZZ	Resection of Right Lung, Percutaneous Endoscopic Approach
0BTL0ZZ	Resection of Left Lung, Open Approach
0BTL4ZZ	Resection of Left Lung, Percutaneous Endoscopic Approach

0BTM0ZZ	Resection of Bilateral Lungs, Open Approach
0BTM4ZZ	Resection of Bilateral Lungs, Percutaneous Endoscopic Approach

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DENOMINATOR STRATUM C: SEPSIS

Surgical discharges, for patients ages 18 through 89 years or MDC 14 (pregnancy, childbirth, and puerperium), with all of the following:

- any-listed ICD-9-CM or ICD-10-PCS procedure codes for an operating room procedure; and
- the principal procedure occurring within 2 days of admission or an admission type of elective (ATYPE=3); and
- any secondary ICD-9-CM or ICD-10-CM diagnosis codes for sepsis.

Surgical discharges are defined by specific DRG or MS-DRG codes.

[Appendix A – Operating Room Procedure](#)

[Appendix D - Surgical Discharge DRGs \(for discharges prior to October 1, 2007\)](#)

[Appendix E - Surgical Discharge MS-DRGs \(for discharges on or after October 1, 2007\)](#)

Sepsis diagnosis codes: (FTR4DX)

ICD-9-CM	Description	ICD-10-CM	Description
0380	STREPTOCOCCAL SEPTICEMIA	A021	Salmonella sepsis
0381	STAPHYLOCOCCAL SEPTICEMIA (end 2000)	A227	Anthrax sepsis
03810	STAPHYLOCOCCAL SEPTICEMIA, UNSPECIFIED	A267	Erysipelothrix sepsis
03811	METH SUSC STAPH AUR SEPT	A327	Listerial sepsis
03812	MRSA SEPTICEMIA	A400	Sepsis due to streptococcus, group A
03819	OTHER STAPHYLOCOCCAL SEPTICEMIA	A401	Sepsis due to streptococcus, group B

0382	PNEUMOCOCCAL SEPTICEMIA (STREPTOCOCCUS PNEUMONIAE SEPTICEMIA)	A403	Sepsis due to Streptococcus pneumoniae
0383	SEPTICEMIA DUE TO ANAEROBES	A408	Other streptococcal sepsis
03840	GRAM-NEGATIVE ORGANISM, UNSPECIFIED	A409	Streptococcal sepsis, unspecified
03841	HEMOPHILUS INFLUENZAE	A4101	Sepsis due to Methicillin susceptible Staphylococcus aureus
03842	ESCHERICHIA COLI	A4102	Sepsis due to Methicillin resistant Staphylococcus aureus
03843	PSEUDOMONAS	A411	Sepsis due to other specified staphylococcus
03844	SERRATIA	A412	Sepsis due to unspecified staphylococcus
03849	SEPTICEMIA DUE TO OTHER GRAM- NEGATIVE ORGANISMS	A413	Sepsis due to Hemophilus influenzae
0388	OTHER SPECIFIED SEPTICEMIAS	A414	Sepsis due to anaerobes
0389	UNSPECIFIED SEPTICEMIA	A4150	Gram-negative sepsis, unspecified
78552	SEPTIC SHOCK	A4151	Sepsis due to Escherichia coli [E. coli]
99591	SYSTEMIC INFLAMMATORY RESPONSE SYNDROME DUE TO INFECTIOUS PROCESS WITHOUT ORGAN DYSFUNCTION	A4152	Sepsis due to Pseudomonas
99592	SYSTEMIC INFLAMMATORY RESPONSE SYNDROME DUE TO INFECTIOUS PROCESS WITH ORGAN DYSFUNCTION	A4153	Sepsis due to Serratia
99802	POSTOPERATIVE SHOCK, SEPTIC	A4159	Other Gram-negative sepsis
		A4181	Sepsis due to Enterococcus
		A4189	Other specified sepsis
		A419	Sepsis, unspecified organism
		A427	Actinomycotic sepsis
		A5486	Gonococcal sepsis

B377	Candidal sepsis
R6520	Severe sepsis without septic shock
R6521	Severe sepsis with septic shock
T8112XA	Postprocedural septic shock, initial encounter

PSI #04 Death Rate among Surgical Inpatients with Serious Treatable Complications

DENOMINATOR EXCLUSIONS STRATUM C

Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code for sepsis (see above)
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for infection
- with any-listed ICD-9-CM or ICD-10-CM diagnosis codes or any-listed ICD-9-CM or ICD-10-PCS procedure codes for immunocompromised state
- with a length of stay of less than 4 days
- transferred to an acute care facility (DISP = 2)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

[Appendix F – Infection Diagnosis Codes](#)

[Appendix I – Immunocompromised State Diagnosis and Procedure Codes](#)

Pressure ulcer codes (for discharges prior to 2008): DECUBID

ICD-9-CM	Description	ICD-10-CM	Description
7070	DECUBITUS ULCER		<i>No equivalent ICD-10 codes</i>
70700	PRESSURE ULCER, SITE NOS		
70701	PRESSURE ULCER, ELBOW		
70702	PRESSURE ULCER, UPR BACK		
70703	PRESSURE ULCER, LOW BACK		
70704	PRESSURE ULCER, HIP		
70705	PRESSURE ULCER, BUTTOCK		
70706	PRESSURE ULCER, ANKLE		
70707	PRESSURE ULCER, HEEL		

70709 PRESSURE ULCER, SITE NEC

PSI #04 Death Rate among Surgical Inpatients with Serious Treatable Complications

DENOMINATOR STRATUM D: CARDIAC ARREST	
Surgical discharges, for patients ages 18 through 89 years or MDC 14 (pregnancy, childbirth, and puerperium), with all of the following:	
<ul style="list-style-type: none"> • any-listed ICD-9-CM or ICD-10-PCS procedure codes for an operating room procedure; and • the principal procedure occurring within 2 days of admission or an admission type of elective (ATYPE=3); and • any secondary ICD-9-CM or ICD-10-CM diagnosis codes or any-listed ICD-9-CM or ICD-10-PCS procedure codes for shock or cardiac arrest. 	
Surgical discharges are defined by specific DRG or MS-DRG codes.	
<u>Appendix A – Operating Room Procedure</u>	
<u>Appendix D - Surgical Discharge DRGs (for discharges prior to October 1, 2007)</u>	
<u>Appendix E - Surgical Discharge MS-DRGs (for discharges on or after October 1, 2007)</u>	

Shock or cardiac arrest diagnosis codes: (FTR5DX)			
ICD-9-CM	Description	ICD-10-CM	Description
4275	CARDIAC ARREST	I46.2	Cardiac arrest due to underlying cardiac condition
63450	SPONTANEOUS ABORTION UNSPECIFIED COMPLICATED BY SHOCK	I46.8	Cardiac arrest due to other underlying condition
63451	SPONTANEOUS ABORTION UNSPECIFIED COMPLICATED BY SHOCK	I46.9	Cardiac arrest, cause unspecified
63452	SPONTANEOUS ABORTION UNSPECIFIED COMPLICATED BY SHOCK	O03.31	Shock following incomplete spontaneous abortion
63550	LEGALLY INDUCED ABORTION UNSPECIFIED COMPLICATED BY SHOCK	O03.81	Shock following complete or unspecified spontaneous abortion

63551	LEGALLY INDUCED ABORTION UNSPECIFIED COMPLICATED BY SHOCK	O04.81	Shock following (induced) termination of pregnancy
63552	LEGALLY INDUCED ABORTION UNSPECIFIED COMPLICATED BY SHOCK	O07.31	Shock following failed attempted termination of pregnancy
63650	ILLEGAL ABORTION UNSPECIFIED COMPLICATED BY SHOCK	O08.3	Shock following ectopic and molar pregnancy
63651	ILLEGAL ABORTION UNSPECIFIED COMPLICATED BY SHOCK	O75.1	Shock during or following labor and delivery
63652	ILLEGAL ABORTION UNSPECIFIED COMPLICATED BY SHOCK	R09.2	Respiratory arrest
63750	LEGALLY UNSPECIFIED TYPE OF ABORTION UNSPECIFIED COMPLICATED BY SHOCK	R57.0	Cardiogenic shock
63751	LEGALLY UNSPECIFIED ABORTION INCOMPLETE COMPLICATED BY SHOCK	R57.1	Hypovolemic shock
63752	LEGALLY UNSPECIFIED ABORTION COMPLETE COMPLICATED BY SHOCK	R57.8	Other shock
6385	FAILED ATTEMPTED ABORTION COMPLICATED	R57.9	Shock, unspecified
6395	COMPLICATIONS FOLLOWING ABORTION AND ECTOPIC AND MOLAR PREGNANCIES, SHOCK	T78.2XXA	Anaphylactic shock, unspecified, initial encounter
66910	OBSTETRIC SHOCK-UNSPEC	T80.51XA	Anaphylactic reaction due to administration of blood and blood products, initial encounter
66911	OBSTETRIC SHOCK-DELIVER	T80.52XA	Anaphylactic reaction due to vaccination, initial encounter
66912	OBSTET SHOCK-DELIV W P/P	T80.59XA	Anaphylactic reaction due to other serum, initial encounter
66913	OBSTETRIC SHOCK-ANTEPAR	T81.10XA	Postprocedural shock unspecified, initial
66914	OBSTETRIC SHOCK-POSTPART	T81.11XA	Postprocedural cardiogenic shock, initial
7855	SHOCK NOS	T81.19XA	Other postprocedural shock, initial encounter
78550	SHOCK, UNSPECIFIED	T88.2XXA	Shock due to anesthesia, initial encounter

78551	CARDIOGENIC SHOCK	T88.6XXA	Anaphylactic reaction due to adverse effect of correct drug or medicament properly administered, initial encounter
78559	SHOCK WITHOUT MENTION OF TRAUMA,		
7991	RESPIRATORY ARREST		
9950	OTHER ANAPHYLACTIC SHOCK		
9954	SHOCK DUE TO ANESTHESIA		
9980	POSTOPERATIVE SHOCK /** Not valid after October 1, 2011		
99800	POSTOPERATIVE SHOCK, UNSPECIFIED		
99801	POSTOPERATIVE SHOCK, CARDIOGENIC		
99809	POSTOPERATIVE SHOCK, OTHER		
9994	ANAPHYLACTIC SHOCK DUE TO SERUM		
99941	ANAPHYLACTIC REACTION DUE TO ADMINISTRATION OF BLOOD AND BLOOD PARTICLES		
99942	ANAPHYLACTIC REACTION DUE TO VACCINATION		
99949	ANAPHYLACTIC REACTION DUE TO OTHER SERUM		

Shock or cardiac arrest (resuscitation) procedure codes: : (FTR5PR)			
ICD-9-CM	Description	ICD-10-PCS	Description
9393	NONMECHANICAL METHODS OF RESUSCITATION	5A12012	Performance of Cardiac Output, Single, Manual
9960	CARDIOPULMONARY RESUSCITATION, NOS	5A19054	Respiratory Ventilation, Single, Nonmechanical
9963	CLOSED CHEST CARDIAC MASSAGE		

PSI #04 Death Rate among Surgical Inpatients with Serious Treatable Complications

DENOMINATOR EXCLUSIONS STRATUM D

Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code for shock or cardiac arrest (see above)
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for trauma
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for hemorrhage
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for gastrointestinal hemorrhage
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for abortion-related shock
- with any-listed ICD-9-CM or ICD-10-PCS procedure codes for lung cancer resection
- MDC 4 (diseases/disorders of respiratory system)
- MDC 5 (diseases/disorders of circulatory system)
- transferred to an acute care facility (DISP = 2)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

[Appendix G – Trauma Diagnosis Codes](#)

Hemorrhage diagnosis codes: (HEMORID)

ICD-9-CM	Description	ICD-10-CM	Description
2851	ACUTE POSTHEMORRHAGIC ANEMIA	D62	Acute posthemorrhagic anemia
4590	OTHER DISORDERS OF CIRCULATORY SYSTEM, HEMORRHAGE, UNSPECIFIED	D7801	Intraoperative hemorrhage and hematoma of the spleen complicating a procedure on the spleen
56881	HEMOPERITONEUM	D7802	Intraoperative hemorrhage and hematoma of the spleen complicating other procedure

9582	CERTAIN EARLY COMPLICATIONS OF TRAUMA, SECONDARY AND RECURRENT HEMORRHAGE	D7821	Postprocedural hemorrhage and hematoma of the spleen following a procedure on the spleen
99811	HEMORRHAGE COMPLICATING A PROCEDURE	D7822	Postprocedural hemorrhage and hematoma of the spleen following other procedure
		E3601	Intraoperative hemorrhage and hematoma of an endocrine system organ or structure complicating an endocrine system procedure
		E3602	Intraoperative hemorrhage and hematoma of an endocrine system organ or structure complicating other procedure
		G9731	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system procedure
		G9732	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other procedure
		G9751	Postprocedural hemorrhage and hematoma of a nervous system organ or structure following a nervous system procedure
		G9752	Postprocedural hemorrhage and hematoma of a
		H59111	Intraoperative hemorrhage and hematoma of right eye and adnexa complicating an ophthalmic procedure
		H59112	Intraoperative hemorrhage and hematoma of left eye and adnexa complicating an ophthalmic procedure

- H59113 Intraoperative hemorrhage and hematoma of eye and adnexa complicating an ophthalmic procedure, bilateral
- H59119 Intraoperative hemorrhage and hematoma of unspecified eye and adnexa complicating an
- H59121 Intraoperative hemorrhage and hematoma of right eye and adnexa complicating other procedure
- H59122 Intraoperative hemorrhage and hematoma of left eye and adnexa complicating other procedure
- H59123 Intraoperative hemorrhage and hematoma of eye and adnexa complicating other procedure, bilateral
- H59129 Intraoperative hemorrhage and hematoma of unspecified eye and adnexa complicating other procedure
- H59311 Postprocedural hemorrhage and hematoma of right eye and adnexa following an ophthalmic procedure
- H59312 Postprocedural hemorrhage and hematoma of left eye and adnexa following an ophthalmic procedure
- H59313 Postprocedural hemorrhage and hematoma of eye and adnexa following an ophthalmic procedure, bilateral
- H59319 Postprocedural hemorrhage and hematoma of unspecified eye and adnexa following an ophthalmic procedure

H59321	Postprocedural hemorrhage and hematoma of right eye and adnexa following other procedure
H59322	Postprocedural hemorrhage and hematoma of left eye and adnexa following other procedure
H59323	Postprocedural hemorrhage and hematoma of eye and adnexa following other procedure, bilateral
H59329	Postprocedural hemorrhage and hematoma of unspecified eye and adnexa following other procedure
H9521	Intraoperative hemorrhage and hematoma of ear and mastoid process complicating a procedure on the ear and mastoid process
H9522	Intraoperative hemorrhage and hematoma of ear and mastoid process complicating other procedure
H9541	Postprocedural hemorrhage and hematoma of ear and mastoid process following a procedure on the ear and mastoid process
H9542	Postprocedural hemorrhage and hematoma of ear and mastoid process following other procedure
I97410	Intraoperative hemorrhage and hematoma of a circulatory system organ or structure complicating a cardiac catheterization

I97411	Intraoperative hemorrhage and hematoma of a circulatory system organ or structure complicating a cardiac bypass
I97418	Intraoperative hemorrhage and hematoma of a circulatory system organ or structure complicating other circulatory system procedure
I9742	Intraoperative hemorrhage and hematoma of a circulatory system organ or structure complicating other procedure
I97610	Postprocedural hemorrhage and hematoma of a circulatory system organ or structure following a cardiac catheterization
I97611	Postprocedural hemorrhage and hematoma of a circulatory system organ or structure following cardiac bypass
I97618	Postprocedural hemorrhage and hematoma of a circulatory system organ or structure following other circulatory system procedure
I9762	Postprocedural hemorrhage and hematoma of a circulatory system organ or structure following other procedure
J9561	Intraoperative hemorrhage and hematoma of a respiratory system organ or structure complicating a respiratory system procedure
J9562	Intraoperative hemorrhage and hematoma of a respiratory system organ or structure complicating other procedure

J95830	Postprocedural hemorrhage and hematoma of a respiratory system organ or structure following a respiratory system procedure
J95831	Postprocedural hemorrhage and hematoma of a respiratory system organ or structure following other procedure
K661	Hemoperitoneum
K9161	Intraoperative hemorrhage and hematoma of a digestive system organ or structure complicating a digestive system procedure
K9162	Intraoperative hemorrhage and hematoma of a digestive system organ or structure complicating
K91840	Postprocedural hemorrhage and hematoma of a digestive system organ or structure following a digestive system procedure
K91841	Postprocedural hemorrhage and hematoma of a digestive system organ or structure following
L7601	Intraoperative hemorrhage and hematoma of skin and subcutaneous tissue complicating a dermatologic procedure
L7602	Intraoperative hemorrhage and hematoma of skin and subcutaneous tissue complicating other procedure
L7621	Postprocedural hemorrhage and hematoma of skin and subcutaneous tissue following a

L7622	Postprocedural hemorrhage and hematoma of skin and subcutaneous tissue following other procedure
M96810	Intraoperative hemorrhage and hematoma of a musculoskeletal structure complicating a musculoskeletal system procedure
M96811	Intraoperative hemorrhage and hematoma of a musculoskeletal structure complicating other procedure
M96830	Postprocedural hemorrhage and hematoma of a musculoskeletal structure following a musculoskeletal system procedure
M96831	Postprocedural hemorrhage and hematoma of a musculoskeletal structure following other procedure
N9961	Intraoperative hemorrhage and hematoma of a genitourinary system organ or structure complicating a genitourinary system procedure
N9962	Intraoperative hemorrhage and hematoma of a genitourinary system organ or structure complicating other procedure
N99820	Postprocedural hemorrhage and hematoma of a genitourinary system organ or structure following a genitourinary system procedure

N99821 Postprocedural hemorrhage and hematoma of a genitourinary system organ or structure following other procedure

R58 Hemorrhage, not elsewhere classified

T792XXA Traumatic secondary and recurrent hemorrhage and seroma, initial encounter

Gastrointestinal hemorrhage diagnosis codes: (GASTRID)

ICD-9-CM	Description	ICD-10-CM	Description
4560	ESOPHAGEAL VARICES WITH BLEEDING	I8501	Esophageal varices with bleeding
45620	ESOPHAGEAL VARICES IN DISEASES CLASSIFIED ELSEWHERE WITH BLEEDING	I8511	Secondary esophageal varices with bleeding
5307	GASTROESOPHAGEAL LACERATION-HEMORRHAGE SYNDROME	K2211	Ulcer of esophagus with bleeding
53021	ULCER OF ESOPHAGUS WITH BLEEDING	K226	Gastro-esophageal laceration-hemorrhage syndrome
53082	ESOPHAGEAL HEMORRHAGE	K250	Acute gastric ulcer with hemorrhage
53100	GASTRIC ULCER ACUTE WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K252	Acute gastric ulcer with both hemorrhage and perforation
53101	GASTRIC ULCER ACUTE WITH HEMORRHAGE - WITH OBSTRUCTION	K254	Chronic or unspecified gastric ulcer with hemorrhage
53120	GASTRIC ULCER ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K256	Chronic or unspecified gastric ulcer with both hemorrhage and perforation
53121	GASTRIC ULCER, ACUTE WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K260	Acute duodenal ulcer with hemorrhage

53140	GASTRIC ULCER CHRONIC OR UNSPECIFIED WITH HEMORRHAGE -WITHOUT MENTION OF OBSTRUCTION	K262	Acute duodenal ulcer with both hemorrhage and perforation
53141	GASTRIC ULCER CHRONIC OR UNSPECIFIED WITH HEMORRHAGE - WITH OBSTRUCTION	K264	Chronic or unspecified duodenal ulcer with hemorrhage
53160	GASTRIC ULCER CHRONIC OR UNSPECIFIED WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K266	Chronic or unspecified duodenal ulcer with both hemorrhage and perforation
53161	GASTRIC ULCER CHRONIC OR UNSPECIFIED WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K270	Acute peptic ulcer, site unspecified, with hemorrhage
53200	DUODENAL ULCER ACUTE WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K272	Acute peptic ulcer, site unspecified, with both hemorrhage and perforation
53201	DUODENAL ULCER ACUTE WITH HEMORRHAGE - WITH OBSTRUCTION	K274	Chronic or unspecified peptic ulcer, site unspecified, with hemorrhage
53220	DUODENAL ULCER ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K276	Chronic or unspecified peptic ulcer, site unspecified, with both hemorrhage and perforation
53221	DUODENAL ULCER ACUTE WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K280	Acute gastrojejunal ulcer with hemorrhage
53240	DUODENAL ULCER CHRONIC OR UNSPECIFIED WITH HEMORRHAGE -	K282	Acute gastrojejunal ulcer with both hemorrhage and perforation
53241	DUODENAL ULCER CHRONIC OR UNSPECIFIED WITH HEMORRHAGE - WITH OBSTRUCTION	K284	Chronic or unspecified gastrojejunal ulcer with hemorrhage

53260	DUODENAL ULCER CHRONIC OR UNSPECIFIED WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K286	Chronic or unspecified gastrojejunal ulcer with both hemorrhage and perforation
53261	DUODENAL ULCER CHRONIC OR UNSPECIFIED WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K2901	Acute gastritis with bleeding
53300	PEPTIC ULCER, SITE UNSPECIFIED ACUTE WITH HEMORRHAGE - WITHOUT MENTION	K2921	Alcoholic gastritis with bleeding
53301	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE WITH HEMORRHAGE - WITH OBSTRUCTION	K2931	Chronic superficial gastritis with bleeding
53320	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K2941	Chronic atrophic gastritis with bleeding
53321	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K2951	Unspecified chronic gastritis with bleeding
53340	PEPTIC ULCER, SITE UNSPECIFIED CHRONIC OR UNSPECIFIED WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K2961	Other gastritis with bleeding
53341	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED WITH HEMORRHAGE - WITH OBSTRUCTION	K2971	Gastritis, unspecified, with bleeding
53360	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED WITH HEMORRHAGE AND PERFORATION -WITHOUT MENTION OF OBSTRUCTION	K2981	Duodenitis with bleeding

53361	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K2991	Gastroduodenitis, unspecified, with bleeding
53400	GASTROJEJUNAL ULCER, ACUTE WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K31811	Angiodysplasia of stomach and duodenum with bleeding
53401	GASTROJEJUNAL ULCER, ACUTE WITH HEMORRHAGE - WITH OBSTRUCTION	K3182	Dieulafoy lesion (hemorrhagic) of stomach and duodenum
53420	GASTROJEJUNAL ULCER, ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K5521	Angiodysplasia of colon with hemorrhage
53421	GASTROJEJUNAL ULCER, ACUTE WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K5701	Diverticulitis of small intestine with perforation and abscess with bleeding
53440	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K5711	Diverticulosis of small intestine without perforation or abscess with bleeding
53441	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED WITH HEMORRHAGE - WITH OBSTRUCTION	K5713	Diverticulitis of small intestine without perforation or abscess with bleeding
53460	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K5721	Diverticulitis of large intestine with perforation and abscess with bleeding
53461	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K5731	Diverticulosis of large intestine without perforation or abscess with bleeding
53501	GASTRITIS AND DUODENITIS, ACUTE GASTRITIS WITH HEMORRHAGE	K5733	Diverticulitis of large intestine without perforation or abscess with bleeding

53511	GASTRITIS AND DUODENITIS, ATROPHIC GASTRITIS WITH HEMORRHAGE	K5741	Diverticulitis of both small and large intestine with perforation and abscess with bleeding
53521	GASTRITIS AND DUODENITIS, GASTRIC MUCOSAL HYPERTROPHY, WITH HEMORRHAGE	K5751	Diverticulosis of both small and large intestine without perforation or abscess with bleeding
53531	GASTRITIS AND DUODENITIS, ALCOHOLIC GASTRITIS, WITH HEMORRHAGE	K5753	Diverticulitis of both small and large intestine without perforation or abscess with bleeding
53541	GASTRITIS AND DUODENITIS, OTHER SPECIFIED GASTRITIS - WITH HEMORRHAGE	K5781	Diverticulitis of intestine, part unspecified, with perforation and abscess with bleeding
53551	GASTRITIS AND DUODENITIS, UNSPECIFIED GASTRITIS AND GASTRODUODENITIS - WITH HEMORRHAGE	K5791	Diverticulosis of intestine, part unspecified, without perforation or abscess with bleeding
53561	GASTRITIS AND DUODENITIS, DUODENITIS - WITH HEMORRHAGE	K5793	Diverticulitis of intestine, part unspecified, without perforation or abscess with bleeding
53783	OTHER SPECIFIED DISORDERS OF STOMACH AND DUODENUM, ANGIODYSPLASIA OF STOMACH AND DUODENUM - WITH HEMORRHAGE	K625	Hemorrhage of anus and rectum
53784	DIEULAFOY LESION (HEMORRHAGIC) OF STOMACH AND DUODENUM	K6381	Dieulafoy lesion of intestine
56202	DIVERTICULOSIS OF SMALL INTESTINE -WITH HEMORRHAGE	K920	Hematemesis
56203	DIVERTICULITIS OF SMALL INTESTINE -WITH HEMORRHAGE	K921	Melena
56212	DIVERTICULOSIS OF COLON - WITH HEMORRHAGE	K922	Gastrointestinal hemorrhage, unspecified

56213 DIVERTICULITIS OF COLON - WITH
 HEMORRHAGE
 5693 HEMORRHAGE OF RECTUM AND ANUS
 56985 ANGIODYSPLASIA OF INTESTINE - WITH
 HEMORRHAGE
 56986 DIEULAFOY LESION (HEMORRHAGIC) OF
 INTESTINE
 5780 GASTROINTESTINAL HEMORRHAGE,
 HEMATEMESIS
 5781 GASTROINTESTINAL HEMORRHAGE, BLOOD
 IN STOOL
 5789 GASTROINTESTINAL HEMORRHAGE,
 HEMORRHAGE OF GASTROINTESTINAL
 TRACT, UNSPECIFIED

<i>Abortion-related shock diagnosis codes: (FTR5EX)</i>			
ICD-9-CM	Description	ICD-10-CM	Description
63450	SPON ABORT W SHOCK-UNSP	00331	Shock following incomplete spontaneous abortion
63451	SPON ABORT W SHOCK-INC	00381	Shock following complete or unspecified spontaneous abortion
63452	SPON ABORT W SHOCK-COMP	00481	Shock following (induced) termination of pregnancy
63550	LEGAL ABORT W SHOCK-UNSP	00731	Shock following failed attempted termination of pregnancy
63551	LEGAL ABORT W SHOCK-INC		
63552	LEGAL ABORT W SHOCK-COMP		
63650	ILLEG ABORT W SHOCK-UNSP		
63651	ILLEG ABORT W SHOCK-INC		
63652	ILLEG ABORT W SHOCK-COMP		

63750 ABORT NOS W SHOCK-UNSP
 63751 ABORT NOS W SHOCK-INC
 63752 ABORT NOS W SHOCK-COMP
 6385 ATTEM ABORTION W SHOCK

<i>Lung cancer resection procedure codes: (LUNGCIIP)</i>			
ICD-9-CM	Description	ICD-10-PCS	Description
3230	THORACOSCOPIC SURGERY	0BBC4ZZ	Excision of Right Upper Lung Lobe, Percutaneous Endoscopic Approach
3239	OTH SEG LUNG RESECT NOS	0BBD4ZZ	Excision of Right Middle Lung Lobe, Percutaneous Endoscopic Approach
3241	THORACOSCOPIC SURGERY	0BBF4ZZ	Excision of Right Lower Lung Lobe, Percutaneous Endoscopic Approach
3249	LOBECTOMY OF LUNG NEC	0BBG4ZZ	Excision of Left Upper Lung Lobe, Percutaneous Endoscopic Approach
3250	THORACOSCOPIC SURGERY	0BBH4ZZ	Excision of Lung Lingula, Percutaneous Endoscopic Approach
3259	OTHER PNEUMONECTOMY NOS	0BBJ4ZZ	Excision of Left Lower Lung Lobe, Percutaneous Endoscopic Approach
		0BBK0ZZ	Excision of Right Lung, Open Approach
		0BBK3ZZ	Excision of Right Lung, Percutaneous Approach
		0BBK4ZZ	Excision of Right Lung, Percutaneous Endoscopic Approach
		0BBK7ZZ	Excision of Right Lung, Via Natural or Artificial Opening
		0BBL0ZZ	Excision of Left Lung, Open Approach
		0BBL3ZZ	Excision of Left Lung, Percutaneous Approach
		0BBL4ZZ	Excision of Left Lung, Percutaneous Endoscopic

0BBL7ZZ	Excision of Left Lung, Via Natural or Artificial Opening
0BTC0ZZ	Resection of Right Upper Lung Lobe, Open Approach
0BTC4ZZ	Resection of Right Upper Lung Lobe, Percutaneous Endoscopic Approach
0BTD0ZZ	Resection of Right Middle Lung Lobe, Open Approach
0BTD4ZZ	Resection of Right Middle Lung Lobe, Percutaneous Endoscopic Approach
0BTF0ZZ	Resection of Right Lower Lung Lobe, Open Approach
0BTF4ZZ	Resection of Right Lower Lung Lobe, Percutaneous Endoscopic Approach
0BTG0ZZ	Resection of Left Upper Lung Lobe, Open Approach
0BTG4ZZ	Resection of Left Upper Lung Lobe, Percutaneous Endoscopic Approach
0BTH0ZZ	Resection of Lung Lingula, Open Approach
0BTH4ZZ	Resection of Lung Lingula, Percutaneous Endoscopic Approach
0BTJ0ZZ	Resection of Left Lower Lung Lobe, Open Approach
0BTJ4ZZ	Resection of Left Lower Lung Lobe, Percutaneous Endoscopic Approach
0BTK0ZZ	Resection of Right Lung, Open Approach
0BTK4ZZ	Resection of Right Lung, Percutaneous Endoscopic Approach
0BTL0ZZ	Resection of Left Lung, Open Approach
0BTL4ZZ	Resection of Left Lung, Percutaneous Endoscopic Approach

0BTM0ZZ Resection of Bilateral Lungs, Open Approach

0BTM4ZZ Resection of Bilateral Lungs, Percutaneous
Endoscopic Approach

PSI #04 Death Rate among Surgical Inpatients with Serious Treatable Complications

DENOMINATOR STRATUM 04E: GI HEMORRHAGE/ACUTE ULCER
Surgical discharges, for patients ages 18 through 89 years or MDC 14 (pregnancy, childbirth, and puerperium), with all of the following: <ul style="list-style-type: none"> • any-listed ICD-9-CM or ICD-10-PCS procedure codes for an operating room procedure; and • the principal procedure occurring within 2 days of admission or an admission type of elective (ATYPE=3); and • any secondary ICD-9-CM or ICD-10-CM diagnosis codes for gastrointestinal hemorrhage or acute ulcer.
<i>Appendix A – Operating Room Procedure Codes</i>
<i>Appendix D - Surgical Discharge DRGs (for discharges prior to October 1, 2007)</i>
<i>Appendix E - Surgical Discharge MS-DRGs (for discharges on or after October 1, 2007)</i>

<i>Gastrointestinal hemorrhage or acute ulcer diagnosis codes: (FTR6DX)</i>			
ICD-9-CM	Description	ICD-10-CM	Description
4560	ESOPHAGEAL VARICES WITH BLEEDING	I8501	Esophageal varices with bleeding
45620	ESOPHAGEAL VARICES IN DISEASES CLASSIFIED ELSEWHERE WITH BLEEDING	I8511	Secondary esophageal varices with bleeding
5307	GASTROESOPHAGEAL LACERATION-HEMORRHAGE SYNDROME	K226	Gastro-esophageal laceration-hemorrhage syndrome
53082	ESOPHAGEAL HEMORRHAGE	K250	Acute gastric ulcer with hemorrhage
53100	ACUTE WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K251	Acute gastric ulcer with perforation
53101	ACUTE WITH HEMORRHAGE - WITH	K252	Acute gastric ulcer with both hemorrhage and

53110	ACUTE WITH PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K253	Acute gastric ulcer without hemorrhage or perforation
53111	ACUTE WITH PERFORATION - WITH OBSTRUCTION	K259	Gastric ulcer, unspecified as acute or chronic, without hemorrhage or perforation
53120	ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K260	Acute duodenal ulcer with hemorrhage
53121	ACUTE WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K261	Acute duodenal ulcer with perforation
53130	ACUTE WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K262	Acute duodenal ulcer with both hemorrhage and perforation
53131	ACUTE WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITH OBSTRUCTION	K263	Acute duodenal ulcer without hemorrhage or perforation
53190	UNSPECIFIED AS ACUTE OR CHRONIC, WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K269	Duodenal ulcer, unspecified as acute or chronic, without hemorrhage or perforation
53191	UNSPECIFIED AS ACUTE OR CHRONIC, WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITH OBSTRUCTION	K270	Acute peptic ulcer, site unspecified, with hemorrhage
53200	ACUTE WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K271	Acute peptic ulcer, site unspecified, with perforation
53201	ACUTE WITH HEMORRHAGE - WITH OBSTRUCTION	K272	Acute peptic ulcer, site unspecified, with both hemorrhage and perforation

53210	ACUTE WITH PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K273	Acute peptic ulcer, site unspecified, without hemorrhage or perforation
53211	ACUTE WITH PERFORATION - WITH OBSTRUCTION	K279	Peptic ulcer, site unspecified, unspecified as acute or chronic, without hemorrhage or perforation
53220	ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K280	Acute gastrojejunal ulcer with hemorrhage
53221	ACUTE WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K281	Acute gastrojejunal ulcer with perforation
53230	ACUTE WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K282	Acute gastrojejunal ulcer with both hemorrhage and perforation
53231	ACUTE WITHOUT MENTION OF	K283	Acute gastrojejunal ulcer without hemorrhage or
53290	UNSPECIFIED AS ACUTE OR CHRONIC, WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K289	Gastrojejunal ulcer, unspecified as acute or chronic, without hemorrhage or perforation
53291	UNSPECIFIED AS ACUTE OR CHRONIC, WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITH OBSTRUCTION	K2901	Acute gastritis with bleeding
53300	SITE UNSPECIFIED ACUTE WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K2921	Alcoholic gastritis with bleeding
53301	SITE UNSPECIFIED ACUTE WITH HEMORRHAGE - WITH OBSTRUCTION	K2931	Chronic superficial gastritis with bleeding
53310	SITE UNSPECIFIED ACUTE WITH PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K2941	Chronic atrophic gastritis with bleeding

53311	SITE UNSPECIFIED ACUTE WITH - PERFORATION WITH OBSTRUCTION	K2951	Unspecified chronic gastritis with bleeding
53320	SITE UNSPECIFIED ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K2961	Other gastritis with bleeding
53321	SITE UNSPECIFIED ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K2971	Gastritis, unspecified, with bleeding
53330	SITE UNSPECIFIED ACUTE WITHOUT MENTION OF HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K2981	Duodenitis with bleeding
53331	SITE UNSPECIFIED ACUTE WITHOUT MENTION OF HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K2991	Gastroduodenitis, unspecified, with bleeding
53390	SITE UNSPECIFIED UNSPECIFIED AS ACUTE OR CHRONIC, WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K31811	Angiodysplasia of stomach and duodenum with bleeding
53391	SITE UNSPECIFIED UNSPECIFIED AS ACUTE OR CHRONIC, WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITH OBSTRUCTION	K3182	Dieulafoy lesion (hemorrhagic) of stomach and duodenum
53400	ACUTE WITH HEMORRHAGE - WITHOUT MENTION OF OBSTRUCTION	K5521	Angiodysplasia of colon with hemorrhage
53401	ACUTE WITH HEMORRHAGE - WITH OBSTRUCTION	K5701	Diverticulitis of small intestine with perforation and abscess with bleeding

53410	ACUTE WITH PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K5711	Diverticulosis of small intestine without perforation or abscess with bleeding
53411	ACUTE WITH PERFORATION - WITH OBSTRUCTION	K5713	Diverticulitis of small intestine without perforation or abscess with bleeding
53420	ACUTE WITH HEMORRHAGE AND PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K5721	Diverticulitis of large intestine with perforation and abscess with bleeding
53421	ACUTE WITH HEMORRHAGE AND PERFORATION - WITH OBSTRUCTION	K5731	Diverticulosis of large intestine without perforation or abscess with bleeding
53430	ACUTE WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K5733	Diverticulitis of large intestine without perforation or abscess with bleeding
53431	ACUTE WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITH OBSTRUCTION	K5741	Diverticulitis of both small and large intestine with perforation and abscess with bleeding
53490	UNSPECIFIED AS ACUTE OR CHRONIC, WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITHOUT MENTION OF OBSTRUCTION	K5751	Diverticulosis of both small and large intestine without perforation or abscess with bleeding
53491	UNSPECIFIED AS ACUTE OR CHRONIC, WITHOUT MENTION OF HEMORRHAGE OR PERFORATION - WITH OBSTRUCTION	K5753	Diverticulitis of both small and large intestine without perforation or abscess with bleeding
53501	ACUTE GASTRITIS - WITH HEMORRHAGE	K5781	Diverticulitis of intestine, part unspecified, with perforation and abscess with bleeding
53511	ATROPHIC GASTRITIS - WITH HEMORRHAGE	K5791	Diverticulosis of intestine, part unspecified, without perforation or abscess with bleeding

53521	GASTRIC MUCOSAL HYPERTROPHY -WITH HEMORRHAGE	K5793	Diverticulitis of intestine, part unspecified, without perforation or abscess with bleeding
53531	ALCOHOLIC GASTRITIS - WITH HEMORRHAGE	K625	Hemorrhage of anus and rectum
53541	OTHER SPECIFIED GASTRITIS - WITH HEMORRHAGE	K6381	Dieulafoy lesion of intestine
53551	UNSPECIFIED GASTRITIS AND GASTRODUODENITIS - WITH HEMORRHAGE	K920	Hematemesis
53561	DUODENITIS - WITH HEMORRHAGE	K921	Melena
53783	ANGIODYSPLASIA OF STOMACH AND DUODENUM WITH HEMORRHAGE	K922	Gastrointestinal hemorrhage, unspecified
53784	DIEULAFOY LESION (HEMORRHAGIC) OF STOMACH AND DUODENUM		
56202	DIVERTICULOSIS OF SMALL INTESTINE WITH HEMORRHAGE		
56203	DIVERTICULITIS OF SMALL INTESTINE WITH HEMORRHAGE		
56212	DIVERTICULOSIS OF COLON WITH HEMORRHAGE		
56213	DIVERICULITIS OF COLON WITH HEMORRHAGE		
5693	HEMORRHAGE OF RECTUM AND ANUS		
56985	ANGIODYSPLASIA OF INTESTINE WITH HEMORRHAGE		
56986	DIEULAFOY LESION (HEMORRHAGIC) OF INTESTINE		
5780	HEMATEMESIS		
5781	BLOOD IN STOOL		

5789 HEMORRHAGE OF GASTROINTESTINAL
TRACT, UNSPECIFIED

PSI #04 Death Rate among Surgical Inpatients with Serious Treatable Complications

DENOMINATOR EXCLUSIONS STRATUM 04E: GI HEMORRHAGE/ACUTE ULCER

Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code for gastrointestinal hemorrhage or acute ulcer (see above)
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for trauma
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for alcoholism
- with a principal ICD-9-CM or ICD-10-CM diagnosis code for anemia
- MDC 6 (diseases and disorders of the digestive system)
- MDC 7 (diseases and disorders of the hepatobiliary system and pancreas)
- transferred to an acute care facility (DISP = 2)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

[Appendix G – Trauma Diagnosis Codes](#)

Alcoholism diagnosis codes: (ALCHLSM)

ICD-9-CM	Description	ICD-10-CM	Description
2910	ALCOHOL WITHDRAWAL DELIRIUM	F1010	Alcohol abuse, uncomplicated
2911	ALCOHOL AMNESTIC SYNDROME	F10120	Alcohol abuse with intoxication, uncomplicated
2912	OTHER ALCOHOLIC DEMENTIA	F10121	Alcohol abuse with intoxication delirium
2913	ALCOHOL WITHDRAWAL HALLUCINOSIS	F10129	Alcohol abuse with intoxication, unspecified
2914	IDIOSYNCRATIC ALCOHOL INTOXICATION	F1014	Alcohol abuse with alcohol-induced mood disorder

2915	ALCOHOLIC JEALOUSY	F10150	Alcohol abuse with alcohol-induced psychotic disorder with delusions
29181	OTHER SPECIFIED ALCOHOLIC PSYCHOSES, ALCOHOL WITHDRAWAL	F10151	Alcohol abuse with alcohol-induced psychotic disorder with hallucinations
29182	ALCOH INDUCE SLEEP DISOR	F10159	Alcohol abuse with alcohol-induced psychotic disorder, unspecified
29189	OTHER SPECIFIED ALCOHOLIC PSYCHOSES, OTHER	F10180	Alcohol abuse with alcohol-induced anxiety disorder
2919	UNSPECIFIED ALCOHOLIC PSYCHOSIS	F10181	Alcohol abuse with alcohol-induced sexual dysfunction
30300	ACUTE ALCOHOL INTOXICATION	F10182	Alcohol abuse with alcohol-induced sleep disorder
30301	ACUTE ALCOHOLIC INTOXICATION	F10188	Alcohol abuse with other alcohol-induced disorder
30302	ACUTE ALCOHOLIC INTOXICATION	F1019	Alcohol abuse with unspecified alcohol-induced disorder
30303	ACUTE ALCOHOLIC INTOXICATION	F1020	Alcohol dependence, uncomplicated
30390	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE	F1021	Alcohol dependence, in remission
30391	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE	F10220	Alcohol dependence with intoxication, uncomplicated
30392	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE	F10221	Alcohol dependence with intoxication delirium
30393	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE	F10229	Alcohol dependence with intoxication, unspecified
30500	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE	F10230	Alcohol dependence with withdrawal, uncomplicated
30501	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE	F10231	Alcohol dependence with withdrawal delirium
30502	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE	F10232	Alcohol dependence with withdrawal with perceptual disturbance

30503	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE	F10239	Alcohol dependence with withdrawal, unspecified
4255	ALCOHOLIC CARDIOMYOPATHY	F1024	Alcohol dependence with alcohol-induced mood disorder
5710	ALCOHOLIC FATTY LIVER	F10250	Alcohol dependence with alcohol-induced psychotic disorder with delusions
5711	ACUTE ALCOHOLIC HEPATITIS	F10251	Alcohol dependence with alcohol-induced psychotic disorder with hallucinations
5712	ALCOHOLIC CIRRHOSIS OF LIVER	F10259	Alcohol dependence with alcohol-induced psychotic disorder, unspecified
5713	ALCOHOLIC LIVER DAMAGE, UNSPECIFIED	F1026	Alcohol dependence with alcohol-induced persisting amnestic disorder
53530	ALCOHOLIC GASTRITIS, WITHOUT MENTION OF HEMORRHAGE	F1027	Alcohol dependence with alcohol-induced persisting dementia
53531	ALCOHOLIC GASTRITIS, WITH HEMORRHAGE	F10280	Alcohol dependence with alcohol-induced anxiety disorder
9800	TOXIC EFFECT OF ALCOHOL, ETHYL ALCOHOL	F10281	Alcohol dependence with alcohol-induced sexual dysfunction
9809	TOXIC EFFECT OF ALCOHOL, UNSPECIFIED ALCOHOL	F10282	Alcohol dependence with alcohol-induced sleep disorder
		F10288	Alcohol dependence with other alcohol-induced disorder
		F1029	Alcohol dependence with unspecified alcohol-induced disorder
		F10920	Alcohol use, unspecified with intoxication, uncomplicated
		F10921	Alcohol use, unspecified with intoxication delirium
		F10929	Alcohol use, unspecified with intoxication, unspecified
		F1094	Alcohol use, unspecified with alcohol-induced mood disorder

- F10950 Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions
- F10951 Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations

- F10959 Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified
- F1096 Alcohol use, unspecified with alcohol-induced persisting amnesic disorder
- F1097 Alcohol use, unspecified with alcohol-induced persisting dementia
- F10980 Alcohol use, unspecified with alcohol-induced anxiety disorder
- F10981 Alcohol use, unspecified with alcohol-induced sexual dysfunction
- F10982 Alcohol use, unspecified with alcohol-induced sleep disorder
- F10988 Alcohol use, unspecified with other alcohol-induced disorder
- F1099 Alcohol use, unspecified with unspecified alcohol-induced disorder

- I426 Alcoholic cardiomyopathy
- K2920 Alcoholic gastritis without bleeding
- K2921 Alcoholic gastritis with bleeding
- K700 Alcoholic fatty liver
- K7010 Alcoholic hepatitis without ascites
- K7011 Alcoholic hepatitis with ascites
- K702 Alcoholic fibrosis and sclerosis of liver
- K7030 Alcoholic cirrhosis of liver without ascites
- K7031 Alcoholic cirrhosis of liver with ascites
- K7040 Alcoholic hepatic failure without coma
- K7041 Alcoholic hepatic failure with coma

- K709 Alcoholic liver disease, unspecified
- T510X1A Toxic effect of ethanol, accidental (unintentional), initial encounter
- T510X2A Toxic effect of ethanol, intentional self-harm, initial encounter
- T510X3A Toxic effect of ethanol, assault, initial encounter

- T510X4A Toxic effect of ethanol, undetermined, initial encounter
- T5191XA Toxic effect of unspecified alcohol, accidental (unintentional), initial encounter
- T5192XA Toxic effect of unspecified alcohol, intentional self-harm, initial encounter
- T5193XA Toxic effect of unspecified alcohol, assault, initial encounter
- T5194XA Toxic effect of unspecified alcohol, undetermined, initial encounter

Anemia diagnosis codes: (FTR6EX)

ICD-9-CM	Description	ICD-10-CM	Description
2800	SECONDARY TO BLOOD LOSS [CHRONIC]	D500	Iron deficiency anemia secondary to blood loss (chronic)
2851	ACUTE POSTHEMORRHAGIC ANEMIA	D62	Acute posthemorrhagic anemia