

Death Rate among Surgical Inpatients with Serious Treatable Complications Technical Specifications

Patient Safety Indicators #4 (PSI #4)
AHRQ Quality Indicators™, Version 4.5, May 2013
Provider-Level Indicator
Type of Score: Rate

Description

In-hospital deaths per 1,000 surgical discharges, among patients ages 18 through 89 years or obstetric patients, with serious treatable complications (pneumonia, pulmonary embolism/deep vein thrombosis, 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.]

Numerator

Overall:

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

[NOTE: Overall numerator may not match the sum of the strata numerators because the strata may not be mutually exclusive.]

Stratum A:

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

Stratum B:

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

Stratum C:

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

Stratum D:

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

Stratum E:

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

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 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 (pneumonia), Stratum B (pulmonary embolism or deep vein thrombosis), Stratum C (sepsis), Stratum D (shock or cardiac arrest), or Stratum E (gastrointestinal hemorrhage or acute ulcer) defined below.

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

See *Patient Safety Indicators Appendices*:

- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

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)

[NOTE: Overall denominator may not match the sum of the strata denominators because the strata may not be mutually exclusive. Additional exclusion criteria apply that are specific to each stratum.]

Stratum A:

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 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 diagnosis codes for pneumonia.

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

See *Patient Safety Indicators Appendices*:

- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

ICD-9-CM Pneumonia diagnosis codes¹:

4820	K. PNEUMONIAE PNEUMONIA	48249	STAPH PNEUMONIA NEC
4821	PSEUDOMONAL PNEUMONIA	4828	<i>PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA</i>
4822	H. INFLUENZA PNEUMONIA		
4823	<i>PNEUMONIA DUE TO STREPTOCOCCUS</i>	48281	PNEUMONIA ANAEROBES
48230	STREPTOCOCCAL PNEUMM NOS	48282	PNEUMONIA E COLI
48231	PNEUMONIA STRPTOCOCCUS A	48283	PNEUMO OTH DRM-NEG BACT
48232	PNEUMONIA STRPTOCOCCUS B	48284	LEGIONNAIRES' DISEASE
48239	PNEUMONIA OTH STREP	48289	PNEUMONIA OTH SPCF BACT
4824	<i>PNEUMONIA DUE TO STAPHYLOCOCCUS</i>	4829	BACTERIAL PNEUMONIA NOS
48240	STAPHYLOCOCCAL PNEU NOS	485	BRONCHOPNEUMONIA ORG NOS
48241	METH SUS PNEU D/T STAPH	486	PNEUMONIA, ORGANISM NOS
48242	METH RES PNEU D/T STAPH	5070	FOOD/VOMIT PNEUMONITIS
		514	PULM CONGEST/HYPOSTASIS

¹ The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are not active in Fiscal Year 2013.

Exclude cases:

- with a principal ICD-9-CM diagnosis code for pneumonia (see above)
- with a principal ICD-9-CM diagnosis code for respiratory complications
- with any-listed ICD-9-CM diagnosis codes for viral pneumonia or influenza
- with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM procedure codes for immunocompromised state
- with any-listed ICD-9-CM 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)

See *Patient Safety Indicators Appendices*:

- Appendix I – Immunocompromised State Diagnosis and Procedure Codes

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ICD-9-CM Respiratory complications diagnosis codes¹:

9973	<i>RESPIRATORY COMPLICATIONS</i>	99732	POSTPROC ASPIRATION PNEU
99731	VENTLTR ASSOC PNEUMONIA	99739	RESPIRATORY COMP NEC

¹The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are not active in Fiscal Year 2013.

ICD-9-CM Viral pneumonia or influenza diagnosis codes¹:

4800	ADENOVIRAL PNEUMONIA	4870	INFLUENZA W/ PNEUMONIA
4801	RESP SYNCYT VIRAL PNEUM	4871	FLU W RESP MANIFEST NEC
4802	PARAINFLUENZA VIRAL PNEUM	4878	FLU W MANIFESTATION NEC
4803	PNEUMONIA DUE TO SARS	488	<i>FLU D/T AVIAN FLU VIRUS</i>
4808	VIRAL PNEUMONIA NEC	4880	<i>INFLUENZA DUE TO IDENTIFIED AVIAN INFLUENZA VIRUS</i>
4809	VIRAL PNEUMONIA NOS	48801	FLU DT IDEN AVIAN W PNEU
481	PNEUMOCOCCAL PNEUMONIA	48802	FLU DT AVIAN W OTH RESP
483	<i>PNEUMONIA ORGANISM NEC</i>	48809	FLU DT AVIAN MANIFEST NEC
4830	PNEU MYCPLSM PNEUMONIAE	4881	<i>INFLUENZA DUE TO IDENTIFIED NOVEL H1N1 INFLUENZA VIRUS</i>
4831	PNEUMONIA D/T CHLAMYDIA	48811	FLU DT 2009 H1N1 W PNEU
4838	PNEUMON OTH SPEC ORGNISM	48812	FLU-2009 H1N1 W OTH RESP
4841	PNEUM W CYTOMEG INCL DIS	48819	FLU-2009 H1N1 W OTH MAN
4843	PNEUMONIA IN WHOOP COUGH	48881	FLU DT NVL A VRS W PNEU
4845	PNEUMONIA IN ANTHRAX	48882	FLU DT NVL A W OTH RESP
4846	PNEUMONIA IN ASPERGILLOSIS	48889	FLU DT NOVEL A W OTH MAN
4847	PNEUMONIA IN OTH SYS MYCOSES		
4848	PNEUMONIA IN INFECT DIS NEC		

¹The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are not active in Fiscal Year 2013.

ICD-9-CM Lung cancer procedure codes:

3239	OTH SEG LUNG RESECT NOS	3259	OTHER PNEUMONECTOMY NOS
3249	LOBECTOMY OF LUNG NEC		

Stratum B:

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 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 diagnosis codes for pulmonary embolism or deep vein thrombosis.

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

See *Patient Safety Indicators Appendices*:

- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

ICD-9-CM Pulmonary embolism or deep vein thrombosis diagnosis codes¹:

4151	<i>PULMON EMBOLISM/INFARCT</i>	4512	THROMBOPHLEBITIS LEG NOS
41511	IATROGEN PILM EMB/INFARC	45181	ILIAC THROMBOPHLEBITIS
41513	SADDLE EMBOL PULMON ART	4519	<i>THROMBOPHLEBITIS NOS</i>
41519	PULM EMBOL/INFARCT NEC	45340	AC DVT/EMBL LOW EXT NOS
45111	FEMORAL VEIN PHLEBITIS	45341	AC DVT/EMB PROX LOW EXT
45119	DEEP PHLEBITIS-LEG NEC	45342	AC DVT/EMB DISTL LOW EXT

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4538 *VENOUS THROMBOSIS NEC*

4539 *VENOUS THROMBOSIS NOS*

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Exclude cases:

- with a principal ICD-9-CM diagnosis code for pulmonary embolism or deep vein thrombosis (see above)
- with a principal ICD-9-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)

ICD-9-CM Abortion-related or postpartum obstetric pulmonary embolism diagnosis codes:

63460	SPON ABORT W EMBOL-UNSP	63761	AB NOS W EMBOLISM-INC
63461	SPON ABORT W EMBOL-INC	63762	AB NOS W EMBOLISM-COMP
63462	SPON ABOT W EMBOL-COMP	6386	ATTEMP ABORT W EMBOLISM
63560	LEGAL ABORT W EMBOL-UNSP	6396	POSTABORTION EMBOLISM
63561	LEGAL ABORT W EMBOL-INC	67320	OB PULM EMBOL NOS-UNSPEC
63562	LEGAL AMOT W EMBOL-COMP	67321	PULM EMBOL NOS-DELIVERED
63660	ILLEG AB W EMBOLISM-UNSP	67322	PULM EMBOL NOS-DEL W P/P
63661	ILLEG AB W EMBOLISM-INC	67323	PULM EMBOL NOS-ANTEPART
63662	ILLEG AB W EMBOLISM-COMP	67324	PULM EMBOL NOS-POSTPART
63760	AB NOS W EMBOLISM-UNSP		

Stratum C:

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 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 diagnosis codes for sepsis.

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

See *Patient Safety Indicators Appendices*:

- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

ICD-9-CM Sepsis diagnosis codes¹:

0380	STREPTOCOCCAL SEPTICEMIA	03841	H. INFLUENAE SEPTICEMIA
0381	STAPHYLOCOCCAL SEPTICEMIA	03842	E. COLI SEPTICEMIA
03810	STAPHYLOCOCCAL SEPTICEM NOS	03843	PSEUDOMONAS SEPTICEMIA
03811	METH SUSC STAPH AUR SEPT	03844	SERRATIA SEPTICEMIA
03812	MRSA SEPTCEMIA	03849	GRAM-NEG SEPTICEMIA NEC
03819	STAPHYLOCOCC SEPTICEM NEC	0388	SEPTICEMIA NEC
0382	PNEUMOCOCCAL SEPTICEMIA	0389	SEPTICEMIA NOS
0383	ANAEROBIC SEPTICEMIA	78552	SEPTIC SHOCK
03840	GRAM-NEG SEPTICEMIA NOS	99591	SEPSIS

99592 SEVERE SEPSIS

99802 POSTOP SHOCK, SEPTIC

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Exclude cases:

- with a principal ICD-9-CM diagnosis code for sepsis (see above)
- with a principal ICD-9-CM diagnosis code for infection
- with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM 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)

See *Patient Safety Indicators Appendices*:

- Appendix F – Infection Diagnosis Codes
- Appendix I – Immunocompromised State Diagnosis and Procedure Codes

Stratum D:

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 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 diagnosis codes or any-listed ICD-9-CM procedure codes for shock or cardiac arrest.

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

See *Patient Safety Indicators Appendices*:

- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

ICD-9-CM Shock or cardiac arrest diagnosis codes¹:

4275	CARDIAC ARREST	7991	RESPIRATORY ARREST
6395	POSTABORTION SHOCK	9950	OTHER ANAPHYLACTIC SHOCK
66910	OBSTETRIC SHOCK-UNSPEC	9954	SHOCK DUE TO ANESTHESIA
66911	OBSTETRIC SHOCK-DELIVER	<i>9980</i>	<i>POSTOPERATIVE SHOCK</i>
66912	OBSTET SHOCK-DELIV W P/P	99800	POSTOPERATIVE SHOCK, NOS
66913	OBSTETRIC SHOCK-ANTEPAR	99801	POSTOP SHOCK, CARDIOGENIC
66914	OBSTETRIC SHOCK-POSTPART	99809	POSTOP SHOCK, OTHER
<i>7855</i>	<i>SHOCK NOS</i>	<i>9994</i>	<i>ANAPHYLACTIC SHOCK DUE TO SERUM</i>
78550	SHOCK NOS	99941	ANAPHYL D/T ADM BLD/PROD
78551	CARDIOGENIC SHOCK	99942	ANAPHYL REACT D/T VACCIN
<i>78559</i>	<i>SHOCK W/O TRAUMA NEC</i>	99949	ANAPH REACT D/T OT SERUM

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ICD-9-CM Shock or cardiac arrest procedure codes:

9393	NONMECHAN RESUSCITATION	9963	CLOSED CHEST CARD MASSAG
9960	CARDIOPULM RESUSCITA NOS		

Exclude cases:

- with a principal ICD-9-CM diagnosis code for shock or cardiac arrest (see above)
- with a principal ICD-9-CM diagnosis code for trauma
- with a principal ICD-9-CM diagnosis code for hemorrhage
- with a principal ICD-9-CM diagnosis code for gastrointestinal hemorrhage
- with a principal ICD-9-CM diagnosis code for abortion-related shock
- with any-listed ICD-9-CM procedure codes for lung cancer
- 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)

See *Patient Safety Indicators Appendices*:

- Appendix G – Trauma Diagnosis Codes

ICD-9-CM Hemorrhage diagnosis codes:

2851	AC POSTHEMORRHAG ANEMIA	9582	SECONDARY/RECUR HEMORR
4590	HEMORRHAGE NOS	99811	HEMORHAGE COMPLIC PROC
56881	HEMOPERITONEUM		

ICD-9-CM Gastrointestinal hemorrhage diagnosis codes:

4560	ESOPHAG VARICES W BLEED	53361	CHR PEPT ULC HEM/PERF-OB
45620	BLEED ESOPH VAR OTH DIS	53400	AC MARGINAL ULCER W HEM
5307	MALLORY-WEISS SYNDROME	53401	AC MARGIN ULC W HEM-OBST
53082	ESOPHAGEAL HEMORRHAGE	53420	AC MARGIN ULC W HEM/PERF
53100	AC STOMACH ULCER W HEM	53421	AC MARG ULC HEM/PERF-OBS
53101	AC STOMAC ULC W HEM-OBST	53440	CHR MARGINAL ULCER W HEM
53120	AC STOMAC ULC W HEM/PERF	53441	CHR MARGIN ULC W HEM-OBS
53121	AC STOM ULC HEM/PERF-OBS	53460	CHR MARGIN ULC HEM/PERF
53140	CHR STOMACH ULC W HEM	53461	CHR MARG ULC HEM/PERF-OB
53141	CHR STOM ULC W HEM-OBSTR	53501	ACUTE GASTRTIS W/O HMRHG
53160	CHR STOMACH ULC HEM/PERF	53511	ATRPH GASTRITIS W HMRHG
53161	CHR STOM ULC HEM/PERF-OBST	53521	GSTR MCSL HYPRT W HMRG
53200	AC DUODENAL ULVER W HEM	53531	ALCHL GSTRITIS W/O HMRHG
53201	AC DUODEN ULC W HEM-OBST	53541	OTH SPF GASTRT W HMRHG
53220	AC DUODEN ULC W HEM/PERF	53551	GSTR/DDNTS NOS W H,RHG
53221	AC DUOD ULC HEM/PERF-OBS	53561	DUODENITIS W HMRHG
53240	CHR DUODEN ULCER W HEM	53783	ANGIO STM/DUDN W HMRHG
53241	CHR DUODEN ULC HEM-OBSTR	53784	DIEULAFOY LES,STOM&DUOD
53260	CHR DUODEN ULC HEM/PERF	56202	DVRTCLO SML INT W HMHRG
53261	CHR DIOD ULC HEM/PERF-OB	56203	DVRTCLI SML INT W HMRHG
53300	AC PEPTIC ULVER W HEMORR	56212	DVRTCLI COLON W HMRHG
53301	AC PEPTIC ULCER W HEM-OBST	56213	DVRTLCLI COLON W HMRG
53320	AC PEPTIC ULC W HEM/PERF	5693	RECTAL & ANAL HEMORRHAGE
53321	AC PEPT ULC HEM/PERF-OBS	56985	ANGIO INTES W HMRHG
53340	CHR PEPTIC ULCER W HEM	56986	DIEULAFOY LES, INTESTING
53341	CHR PEPTIC ULC W HEM-OBS	5780	HEMATEMESIS
53360	CHR PEPT ULC W HEM/PERF	5781	BLOOD IN STOOL

5789 GASTROINTEST HEMORR NOS

ICD-9-CM Abortion-related shock diagnosis codes:

63450	SPON ABORT W SHOCK-UNSP	63651	ILLEG ABORT W SHOCK-INC
63451	SPON ABORT W SHOCK-INC	63652	ILLEG ABORT W SHOCK-COMP
63452	SPON ABORT W SHOCK-COMP	63750	ABORT NOS W SHOCK-UNSO
63550	LEGAL ABORT W SHOCK-UNSO	63751	ABORT NOS W SHOCK-INC
63551	LEGAL ABORT W SHOCK-INC	63752	ABORT NOS W SHOCK-COMP
63552	LEGAL ABORT W SHOCK-COMP	6385	ATTEM ABORTION W SHOCK
63650	ILLEG AB W SHOCK-UNSO		

ICD-9-CM Lung cancer procedure codes:

3239	OTH SEG LUNG RESECT NOS	3259	OTHER PNEUMONECTOMY NOS
3249	LOBECTOMY OF LUNG NEC		

Stratum E:

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 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 diagnosis codes for gastrointestinal hemorrhage or acute ulcer.

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

See *Patient Safety Indicators Appendices*:

- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
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ICD-9-CM Gastrointestinal hemorrhage or acute ulcer diagnosis codes:

4560	ESOPHAG VARICES W BLEEDING	53300	AC PEPTIC ULCER W HEMORR
45620	BLEED ESOPH VAR OTH DIS	53301	AC EPTIC ULC W HEM-OBST
5307	MALLORY-WEISS SYNDROME	53310	AC PEPTIC ULCER W PERFOR
53082	ESOPHAGEAL HEMORRHAGE	53311	AC PEPTIC ULC W PERF-OBS
53100	AC STOMACH ULCER W HEM	53320	AC PEPTIC ULC W HEM/PERF
53101	AC STOMAC ULC W HEM-OBST	53321	AC PEPT ULC HEM/PERF-OBS
53110	AC STOMACH ULCER W PERF	53330	ACUTE PEPTIC ULCER W HEM
53111	AC STOM ULC W PERF-OBST	53331	AC PEPTIC ULCER NOS-OBST
53120	AC STOMAC ULC W HEM/PERF	53390	PEPTIC ULCER NOS
53121	AC STOM ULC HEM/PERF-OBS	53391	PEPTIC ULCER NOS-OBSTRUCT
53130	ACUTE STOMACH ULCER NOS	53400	AC MARGINAL ULCER W HEM
53131	AC STOMACH ULC NOS-OBSTR	53401	AC MARIN ULC W HEM-OBST
53190	STOMACH ULCER NOS	53410	AC MARGINAL ULCER W PERF
53191	STOMACH ULCER NOS-OBSTR	53411	AC MARGIN ULC W PERF-OBS
53200	AC DUODENAL ULCER W HEM	53420	AC MARGIN ULC W HEM/PERF
53201	AC DIODEN ULC W HEM-OBST	53421	AC MARG ULC HEM/PERF-OBS
53210	AC DIODENAL ULCER W PERF	53430	AC MARGINAL ULCER NOS
53211	AC DIODEN ULC PERF-OBSTR	53431	AC MARGINAL ULC NOS-OBST
53220	AC DIODEN ULC W HEM/PERF	53490	GASTROJEJUNAL ULCER NOS
53221	AC DIOD ULC HEM/PERF-OBS	53491	GASTROJEJUN ULC NOS-OBST
53230	ACUTE DUODENAL ULCER NOS	53501	ACUTE GASTRITS W HMRHG
53231	AC DIODENAL ULC NOS-OBST	53511	ATRPH GASTRITIS W HMRHG
53290	DUIDENAL ULCER NOS	53521	GSTR MCSL HYPRT W HMRG
53291	DUODENAL ULCER NOS-OBSTR	53531	ALCHL GSTRITIS W HMRHG

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53541	OTH SPF GASTRT W HMRHG	56213	DVRTCLI COLON W HMRHG
53551	GSTR/DDNTS NOS W HMRHG	5693	RECTAL & ANAL HEMORRHAGE
53561	DUIDENITIS W HMRHG	56985	ANGIO INTES W HMRHG
53783	ANGIO STM/DUDN W HMRHG	56986	DIEULAFOY LES, INTESTINE
53784	DIEULAFOY LES,STOM&DUOD	5780	HEMATEMESIS
56202	DVRTCLO SML INT W HMRHG	5781	BLOOD IN STOOL
56203	DVRTCLI SML IN W HMRHG	5789	GASTROINTEST HEMORR NOS
56212	DVRTCLO COLON W HMRHG		

Exclude cases:

- with a principal ICD-9-CM diagnosis code for gastrointestinal hemorrhage or acute ulcer (see above)
- with a principal ICD-9-CM diagnosis code for trauma
- with a principal ICD-9-CM diagnosis code for alcoholism
- with a principal ICD-9-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)

See *Patient Safety Indicators Appendices*:

- Appendix G – Trauma Diagnosis Codes

ICD-9-CM Alcoholism diagnosis codes:

2910	DELERIUM TREMENS	30392	ALCOH DEP NEC/NOS-EPISOD
2911	ALCOHOL AMNESTIC DISORDR	30393	ALCOH DEP NEC/NOS-REMISS
2912	ALCOHOL PERSIST DEMENTIA	30500	ALCOHOL ABUSE-UNSPEC
2913	ALCOH PSY DIS W HALLUCIN	30501	ALCOHOL ABUSE-CONTINUOUS
2914	PATHOLOGIC ALCOHOL INTOX	30502	ALCOHOL ABUSE-EPISODIC
2915	ALCOH PSYCH DIS W DELUS	30503	ALCOHOL ABUSE-IN REMISS
29181	ALCOHOL WITHDRAWAL	4255	ALCOHOLIC CARDIOMYOPATHY
29182	ALCOH INDUCE SLEEP DISOR	53530	ALCHL GASTRTIS W/O HMRHG
29189	ALCOHOL MENTAL DISOR NEC	53531	ALCHL GSTRITIS W HMRHG
2919	ALCOHOL MENTAL DISOR NOS	5710	ALCOHOLIC FATTY LIVER
30300	AC ALCOHOL INTOX-UNSPEC	5711	AC ALCOHOLIC HEPATITIS
30301	AC ALCOHOL INTOX-CONTIN	5712	ALCOHOL CIRRHOSIS LIVER
30302	AC ALCOHOL INTOX-EPISOD	5713	ALCOHOL LIVER DAMAGE NOS
30303	AC ALCOHOL INTOX-REMISS	9800	TOXIC EFF EHTYL ALCOHOL
30390	ALCOH DEP NEX/NOS-UNSPEC	9809	TOXIC EFFECT ALCOHOL NOS
30391	ALCOH DEP NEC/NOS-CONTIN		

ICD-9-CM Anemia diagnosis codes:

2800	CHR BLOOD LOSS ANEMIA	2851	AC POSTHEMORRHAG ANEMIA
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