



## PSI #4 Death among Surgical Inpatients with Serious Treatable Complications

### Provider-Level Indicator

#### Numerator

All discharges with a disposition of “deceased” (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

#### Denominator

All surgical discharges age 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium) defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure, principal procedure within 2 days of admission OR admission type of elective (ATYPE=3) with potential complications of care listed in Death among Surgical definition (e.g., pneumonia, DVT/PE, sepsis, shock/cardiac arrest, or GI hemorrhage/acute ulcer).

See *Patient Safety Indicators Appendices*:

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

Exclude cases:

- age 90 years and older
- transferred to an acute care facility (DISP = 2)
- missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1 =missing)

**NOTE: Additional exclusion criteria is specific to each diagnosis.**

#### FTR 2 - DVT/PE

A diagnosis of pulmonary embolism or deep vein thrombosis in any secondary diagnosis field

*ICD-9-CM Pulmonary Embolism and Deep Vein Thrombosis diagnosis codes:*

<u>Pulmonary Embolism</u>			
4151	PULMONARY EMBOLISM AND INFARCTION	45119	PHLEBITIS AND THROMBOPHLEBITIS OF DEEP VESSEL OF LOWER EXTREMITIES – OTHER
41511	IATROGENIC PULMONARY EMBOLISM AND INFARCTION	4512	PHLEBITIS AND THROMBOPHLEBITIS OF LOWER EXTREMITIES UNSPECIFIED
41519	PULMONARY EMBOLISM AND INFARCTION, OTHER	45181	PHLEBITIS AND THROMBOPHLEBITIS OF ILIAC VEIN
<u>Deep Vein Thrombosis</u>			
45111	PHLEBITIS AND THROMBOSIS OF FEMORAL VEIN (DEEP) (SUPERFICIAL)	4519	PHLEBITIS AND THROMBOPHLEBITIS OF OTHER SITES - OF UNSPECIFIED SITE
		45340	DVT-EMBLISM LOWER EXT NOS (OCT 04)

45341	DVT-EMB PROX LOWER EXT (OCT 04)	4539	OTHER VENOUS EMBOLISM AND
45342	DVT-EMB DISTAL LOWER EXT (OCT 04)		THROMBOSIS OF UNSPECIFIED SITE
4538	OTHER VENOUS EMBOLISM AND THROMBOSIS OF OTHER SPECIFIED VEINS		

Exclude cases:

- with a diagnosis of pulmonary embolism or deep vein thrombosis in the primary diagnosis field
- with a diagnosis of abortion-related or postpartum obstetric pulmonary embolism in the primary diagnosis field

*ICD-9-CM Abortion-related and Postpartum Obstetric Pulmonary Embolism diagnosis codes:*

63460	SPONTANEOUS ABORTION W/ EMBOLISM - UNSPECIFIED	63762	ABORTION NOS W/ EMBOLISM - COMPLETE
63461	SPONTANEOUS ABORTION W/ EMBOLISM - INCOMPLETE	6386	ATTEMPTED ABORTION W/ EMBOLISM
63462	SPONTANEOUS ABORTION W/ EMBOLISM - COMPLETE	6396	POSTABORTION EMBOLISM
63560	LEGAL ABORTION W/ EMBOLISM - UNSPECIFIED	67320	OBSTETRICAL BLOOD-CLOT EMBOLISM, UNSPECIFIED AS TO EPISODE OF CARE OR NOT APPLICABLE
63561	LEGAL ABORTION W/ EMBOLISM - INCOMPLETE	67321	OBSTETRICAL BLOOD-CLOT EMBOLISM, DELIVERED, W/ OR W/O MENTION OF ANTEPARTUM CONDITION
63562	LEGAL ABORTION W/ EMBOLISM - COMPLETE	67322	OBSTETRICAL BLOOD-CLOT EMBOLISM, DELIVERED, W/ MENTION OF POSTPARTUM COMPLICATION
63660	ILLEGAL ABORTION W/ EMBOLISM - UNSPECIFIED	67323	OBSTETRICAL BLOOD-CLOT EMBOLISM, ANTEPARTUM CONDITION OR COMPLICATION
63661	ILLEGAL ABORTION W/ EMBOLISM - INCOMPLETE	67324	OBSTETRICAL BLOOD-CLOT EMBOLISM, POSTPARTUM CONDITION OR COMPLICATION
63662	ILLEGAL ABORTION W/ EMBOLISM - COMPLETE		
63760	ABORTION NOS W/ EMBOLISM - UNSPECIFIED		
63761	ABORTION NOS W/ EMBOLISM - INCOMPLETE		

FTR 3 – Pneumonia

A diagnosis of pneumonia in any secondary diagnosis field

*ICD-9-CM Pneumonia diagnosis codes:*

4820	PNEUMONIA DUE TO KLEBSIELLA PNEUMONIAE	48241	METHICILLIN SUSCEPTIBLE PNEUMONIA DUE TO
4821	PNEUMONIA DUE TO PSEUDOMONAS		STAPHYLOCOCCUS AUREUS OCT08-
4822	PNEUMONIA DUE TO HEMOPHILUS INFLUENZAE [H. INFLUENZAE]	48242	METHICILLIN RESISTANT PNEUMONIA DUE TO STAPHYLOCOCCUS AUREUS OCT08-
4823	PNEUMONIA DUE TO STREPTOCOCCUS	48249	PNEUMONIA DUE TO
48230	PNEUMONIA DUE TO STREPTOCOCCUS – STREPTOCOCCUS, UNSPECIFIED		STAPHYLOCOCCUS – OTHER
48231	PNEUMONIA DUE TO STREPTOCOCCUS – GROUP A	4828	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA
48232	PNEUMONIA DUE TO STREPTOCOCCUS – GROUP B	48281	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – ANAEROBES
48239	PNEUMONIA DUE TO STREPTOCOCCUS – OTHER STREPTOCOCCUS	48282	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – EXCHERICHIA COLI [E COLI]
4824	PNEUMONIA DUE TO STAPHYLOCOCCUS	48283	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – OTHER GRAM-NEGATIVE BACTERIA
48240	PNEUMONIA DUE TO STAPHYLOCOCCUS – PNEUMONIA DUE TO STAPHYLOCOCCUS, UNSPECIFIED		

48284	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – LEGIONNAIRES’ DISEASE	486	PNEUMONIA, ORGANISM UNSPECIFIED
48289	PNEUMONIA DUE TO OTHER SPECIFIED BACTERIA – OTHER SPECIFIED BACTERIA	5070	DUE TO INHALATION OF FOOD OR VOMITUS
4829	BACTERIAL PNEUMONIA UNSPECIFIED	514	PULMONARY CONGESTION AND HYPOSTASIS
485	BRONCHOPNEUMONIA, ORGANISM UNSPECIFIED		

Exclude cases:

- with a diagnosis of pneumonia or respiratory complications in the primary diagnosis field
- with any diagnosis code for viral pneumonia
- with any diagnosis of or procedure for immunocompromised state.
- MDC 4 (diseases/disorders of respiratory system)

See *Patient Safety Indicators Appendices*:

- Appendix I – Immunocompromised State Diagnosis and Procedure Codes

*ICD-9-CM Respiratory Complications diagnosis code:*

9973 RESPIRATORY COMPLICATIONS

*ICD-9-CM Viral Pneumonia diagnosis codes:*

4800	ADENOVIRAL PNEUMONIA	4845	PNEUMONIA IN ANTHRAX
4801	RESPIRATORY SYNCYTIAL VIRAL PNEUMONIA	4846	PNEUMONIA IN ASPERGILLOSIS
4802	PARAINFLUENZA VIRAL PNEUMONIA	4847	PNEUMONIA IN OTHER SYSTEMIC MYCOSES
4803	PNEUMONIA DUE TO SARS OCT03-	4848	PNEUMONIA IN INFECTIOUS DISEASE NOT ELSEWHERE CLASSIFIED
4808	VIRAL PNEUMONIA NOT ELSEWHERE CLASSIFIED	4870	INFLUENZA W/ PNEUMONIA
4809	VIRAL PNEUMONIA UNSPECIFIED	4871	FLU W/ RESPIRATORY MANIFEST NOT ELSEWHERE CLASSIFIED
481	PNEUMOCOCCAL PNEUMONIA	4878	FLU W/ MANIFESTATION NOT ELSEWHERE CLASSIFIED
4830	PNEUMONIA DUE TO MYCOPLASMA PNEUMONIAE	488	FLU D/T AVIAN FLU VIRUS
4831	PNEUMONIA DUE TO CHLAMYDIA	4880	INFLUENZA DUE TO IDENTIFIED AVIAN INFLUENZA VIRUS OCT09-
4838	PNEUMONIA DUE TO OTHER SPECIFIED ORGANISM	4881	INFLUENZA DUE TO IDENTIFIED NOVEL H1N1 INFLUENZA VIRUS OCT09-
4841	PNEUMONIA IN CYTOMEGALIC INCLUSION DISEASE		
4843	PNEUMONIA IN WHOOPING COUGH		

FTR 4 – Sepsis

A diagnosis of sepsis in any secondary diagnosis field

*Include ICD-9-CM Sepsis diagnosis codes:*

0380	STREPTOCOCCAL SEPTICEMIA	03819	OTHER STAPHYLOCOCCAL SEPTICEMIA
0381	STAPHYLOCOCCAL SEPTICEMIA	0382	PNEUMOCOCCAL SEPTICEMIA (STREPTOCOCCUS PNEUMONIAE SEPTICEMIA)
03810	STAPHYLOCOCCAL SEPTICEMIA, UNSPECIFIED	0383	SEPTICEMIA DUE TO ANAEROBES
03811	METHICILLIN SUSCEPTIBLE STAPHYLOCOCCUS AUREUS SEPTICEMIA OCT08-	03840	GRAM-NEGATIVE ORGANISM, UNSPECIFIED
03812	METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS SEPTICEMIA OCT08-	03841	HEMOPHILUS INFLUENZAE
		03842	ESCHERICHIA COLI

03843	PSEUDOMONAS	99591	SYSTEMIC INFLAMMATORY RESPONSE SYNDROME DUE TO INFECTIOUS PROCESS W/O ORGAN DYSFUNCTION
03844	SERRATIA		
03849	SEPTICEMIA DUE TO OTHER GRAM-NEGATIVE ORGANISMS	99592	SYSTEMIC INFLAMMATORY RESPONSE SYNDROME DUE TO INFECTIOUS PROCESS W/ ORGAN DYSFUNCTION
0388	OTHER SPECIFIED SEPTICEMIAS		
0389	UNSPECIFIED SEPTICEMIA	9980	POSTOPERATIVE SHOCK
78552	SEPTIC SHOCK OCT03-		
78559*	SHOCK W/O MENTION OF TRAUMA-OTHER		

\*No longer valid in FY2005

Exclude cases:

- with a diagnosis of sepsis in the principal diagnosis field
- with any diagnosis of infection
- with any diagnosis of or procedure for immunocompromised state
- with a length of stay of less than 4 days

See *Patient Safety Indicators Appendices*:

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

FTR 5 - Shock or Cardiac Arrest

A diagnosis of shock or cardiac arrest in any secondary field or any procedure for shock or cardiac arrest

*Include ICD-9-CM Shock or Cardiac Arrest diagnosis codes:*

4275	CARDIAC ARREST	66913	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – ANTEPARTUM CONDITION OR COMPLICATION
6395	COMPLICATIONS FOLLOWING ABORTION AND ECTOPIC AND MOLAR PREGNANCIES, SHOCK	66914	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – POSTPARTUM CONDITION OR COMPLICATION
66910	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – UNSPECIFIED AS TO EPISODE OF CARE OR NOT APPLICABLE	7855	SHOCK NOS
66911	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – DELIVERED, W/ OR W/O MENTION OF ANTEPARTUM CONDITION	78550	SHOCK, UNSPECIFIED
66912	SHOCK DURING OR FOLLOWING LABOR AND DELIVERY – DELIVERED, W/ MENTION OF POSTPARTUM COMPLICATION	78551	CARDIOGENIC SHOCK
		78552	SEPTIC SHOCK OCT03-
		78559	SHOCK W/O MENTION OF TRAUMA-OTHER
		7991	RESPIRATORY ARREST
		9950	OTHER ANAPHYLACTIC SHOCK
		9954	SHOCK DUE TO ANESTHESIA
		9980	POSTOPERATIVE SHOCK
		9994	ANAPHYLACTIC SHOCK DUE TO SERUM

*ICD-9-CM Shock or Cardiac Arrest procedure codes:*

9393	NONMECHANICAL METHODS OF RESUSCITATION	9963	CLOSED CHEST CARDIAC MASSAGE
9960	CARDIOPULMONARY RESUSCITATION, NOS		

Exclude cases

- with a primary diagnosis of shock or cardiac arrest
- with a primary diagnosis of trauma
- with a primary diagnosis of hemorrhage or GI hemorrhage

- with a primary diagnosis of abortion-related shock
- MDC 4 (diseases/disorders of respiratory system)
- MDC 5 (diseases/disorders of circulatory system)

See *Patient Safety Indicators Appendices*:

- Appendix G – Trauma Diagnosis Codes

*ICD-9-CM Hemorrhage diagnosis codes:*

2851	ACUTE POSTHEMORRHAGIC ANEMIA	9582	CERTAIN EARLY COMPLICATIONS OF TRAUMA, SECONDARY AND RECURRENT HEMORRHAGE
4590	OTHER DISORDERS OF CIRCULATORY SYSTEM, HEMORRHAGE, UNSPECIFIED	99811	HEMORRHAGE COMPLICATING A PROCEDURE
56881	HEMOPERITONEUM (NONTRAUMATIC)		

*ICD-9-CM Gastrointestinal (GI) Hemorrhage diagnosis codes:*

4560	ESOPHAGEAL VARICES W/ BLEEDING	53240	DUODENAL ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION
45620	ESOPHAGEAL VARICES IN DISEASES CLASSIFIED ELSEWHERE W/ BLEEDING	53241	DUODENAL ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/ OBSTRUCTION
5307	GASTROESOPHAGEAL LACERATION – HEMORRHAGE SYNDROME	53260	DUODENAL ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53082	ESOPHAGEAL HEMORRHAGE	53261	DUODENAL ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53100	GASTRIC ULCER ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53300	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION
53101	GASTRIC ULCER ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53301	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION
53120	GASTRIC ULCER ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53320	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53121	GASTRIC ULCER ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53321	PEPTIC ULCER, SITE UNSPECIFIED, ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53140	GASTRIC ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53340	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION
53141	GASTRIC ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/ OBSTRUCTION	53341	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/ OBSTRUCTION
53160	GASTRIC ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53360	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53161	GASTRIC ULCER CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53361	PEPTIC ULCER, SITE UNSPECIFIED, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53200	DUODENAL ULCER ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION		
53201	DUODENAL ULCER ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION		
53220	DUODENAL ULCER ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION		
53221	DUODENAL ULCER ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION		

53400	GASTROJEJUNAL ULCER, ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53541	GASTRITIS AND DUODENITIS, OTHER SPECIFIED GASTRITIS – W/ HEMORRHAGE
53401	GASTROJEJUNAL ULCER, ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53551	GASTRITIS AND DUODENITIS, UNSPECIFIED GASTRITIS AND GASTRODUODENITIS – W/ HEMORRHAGE
53420	GASTROJEJUNAL ULCER, ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53561	GASTRITIS AND DUODENITIS, DUODENITIS – W/ HEMORRHAGE
53421	GASTROJEJUNAL ULCER, ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53783	OTHER SPECIFIED DISORDERS OF STOMACH AND DUODENUM, ANGIODYSPLASIA OF STOMACH AND DUODENUM – W/ HEMORRHAGE
53440	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53784	DIEULAFOY LESION (HEMORRHAGIC) OF STOMACH AND DUODENUM
53441	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE – W/ OBSTRUCTION	56202	DIVERTICULOSIS OF SMALL INTESTINE – W/ HEMORRHAGE
53460	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	56203	DIVERTICULITIS OF SMALL INTESTINE – W/ HEMORRHAGE
53461	GASTROJEJUNAL ULCER, CHRONIC OR UNSPECIFIED W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	56212	DIVERTICULOSIS OF COLON – W/ HEMORRHAGE
53501	GASTRITIS AND DUODENITIS, ACUTE GASTRITIS W/ HEMORRHAGE	56213	DIVERTICULITIS OF COLON – W/ HEMORRHAGE
53511	GASTRITIS AND DUODENITIS, ATROPHIC GASTRITIS W/ HEMORRHAGE	5693	HEMORRHAGE OF RECTUM AND ANUS
53521	GASTRITIS AND DUODENITIS, GASTRIC MUCOSAL HYPERTROPHY, W/ HEMORRHAGE	56985	ANGIODYSPLASIA OF INTESTINE - W/ HEMORRHAGE
53531	GASTRITIS AND DUODENITIS, ALCOHOLIC GASTRITIS, W/ 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

*ICD-9-CM Abortion-related Shock diagnosis codes:*

63450	SPONTANEOUS ABORTION W/ SHOCK - UNSPECIFIED	63650	ILLEGAL ABORTION W/ SHOCK - UNSPECIFIED
63451	SPONTANEOUS ABORTION W/ SHOCK - INCOMPLETE	63651	ILLEGAL ABORTION W/ SHOCK - INCOMPLETE
63452	SPONTANEOUS ABORTION W/ SHOCK - COMPLETE	63652	ILLEGAL ABORTION W/ SHOCK - COMPLETE
63550	LEGAL ABORTION W/ SHOCK - UNSPECIFIED	63750	ABORTION NOS W/ SHOCK - UNSPECIFIED
63551	LEGAL ABORTION W/ SHOCK - INCOMPLETE	63751	ABORTION NOS W/ SHOCK - INCOMPLETE
63552	LEGAL ABORTION W/ SHOCK - COMPLETE	63752	ABORTION NOS W/ SHOCK - COMPLETE
		6385	ATTEMPTED ABORTION W/ SHOCK

FTR 6 - GI Hemorrhage/Acute Ulcer

A diagnosis of hemorrhage or acute ulcer in any secondary field

*ICD-9-CM GI Hemorrhage/Acute Ulcer diagnosis codes:*

4560	ESOPHAGEAL VARICES W/ BLEEDING	<u>53082</u>	<u>ESOPHAGEAL HEMORRHAGE</u>
45620	ESOPHAGEAL VARICES IN DISEASES CLASSIFIED ELSEWHERE W/ BLEEDING		<u>Gastric ulcer</u>
5307	GASTROESOPHAGEAL LACERATION- HEMORRHAGE SYNDROME	53100	ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION

53101	ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53320	SITE UNSPECIFIED ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53110	ACUTE W/ PERFORATION – W/O MENTION OF OBSTRUCTION	53321	SITE UNSPECIFIED ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53111	ACUTE W/ PERFORATION – W/ OBSTRUCTION	53330	SITE UNSPECIFIED ACUTE W/O MENTION OF HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53120	ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53331	SITE UNSPECIFIED ACUTE W/O MENTION OF HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53121	ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53390	SITE UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION
53130	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION	53391	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION
53131	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION		
53190	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION		
53191	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION		
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<u>Duodenal ulcer</u>		<u>Gastrojejunal ulcer</u>	
53200	ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53400	ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION
53201	ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53401	ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION
53210	ACUTE W/ PERFORATION – W/O MENTION OF OBSTRUCTION	53410	ACUTE W/ PERFORATION – W/O MENTION OF OBSTRUCTION
53211	ACUTE W/ PERFORATION – W/ OBSTRUCTION	53411	ACUTE W/ PERFORATION – W/ OBSTRUCTION
53220	ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION	53420	ACUTE W/ HEMORRHAGE AND PERFORATION – W/O MENTION OF OBSTRUCTION
53221	ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION	53421	ACUTE W/ HEMORRHAGE AND PERFORATION – W/ OBSTRUCTION
53230	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION	53430	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION
53231	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION	53431	ACUTE W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION
53290	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION	53490	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/O MENTION OF OBSTRUCTION
53291	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION	53491	UNSPECIFIED AS ACUTE OR CHRONIC, W/O MENTION OF HEMORRHAGE OR PERFORATION – W/ OBSTRUCTION
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<u>Peptic ulcer</u>		<u>Gastritis and duodenitis:</u>	
53300	SITE UNSPECIFIED ACUTE W/ HEMORRHAGE – W/O MENTION OF OBSTRUCTION	53501	ACUTE GASTRITIS – W/ HEMORRHAGE
53301	SITE UNSPECIFIED ACUTE W/ HEMORRHAGE – W/ OBSTRUCTION	53511	ATROPHIC GASTRITIS – W/ HEMORRHAGE
53310	SITE UNSPECIFIED ACUTE W/ PERFORATION – W/O MENTION OF OBSTRUCTION	53521	GASTRIC MUCOSAL HYPERTROPHY – W/ HEMORRHAGE
53311	SITE UNSPECIFIED ACUTE W/ PERFORATION – W/ OBSTRUCTION	53531	ALCOHOLIC GASTRITIS – W/ HEMORRHAGE
		53541	OTHER SPECIFIED GASTRITIS – W/ HEMORRHAGE
		53551	UNSPECIFIED GASTRITIS AND GASTRODUODENITIS – W/ HEMORRHAGE
		53561	DUODENITIS – W/ HEMORRHAGE

53783	ANGIODYSPLASIA OF STOMACH AND DUODENUM – W/ HEMORRHAGE	5693	HEMORRHAGE OF RECTUM AND ANUS
53784	DIEULAFOY LESION (HEMORRHAGIC) OF STOMACH AND DUODENUM	56985	ANGIODYSPLASIA OF INTESTINE – W/ HEMORRHAGE
56202	DIVERTICULOSIS OF SMALL INTESTINE – W/ HEMORRHAGE	56986	DIEULAFOY LESION (HEMORRHAGIC) OF INTESTINE
56203	DIVERTICULITIS OF SMALL INTESTINE – W/ HEMORRHAGE	5780	HEMATEMESIS
56212	DIVERTICULOSIS OF COLON – W/ HEMORRHAGE	5781	BLOOD IN STOOL
56213	DIVERTICULITIS OF COLON – W/ HEMORRHAGE	5789	HEMORRHAGE OF GASTROINTESTINAL TRACT, UNSPECIFIED

Exclude cases:

- with a primary diagnosis of hemorrhage or acute ulcer
- with a primary diagnosis of trauma
- with a primary diagnosis of alcoholism
- with a primary diagnosis of anemia
- MDC 6 (diseases and disorders of the digestive system)
- MDC 7 (diseases and disorders of the hepatobiliary system and pancreas)

See *Patient Safety Indicators Appendices*:

- Appendix G – Trauma Diagnosis Codes

*ICD-9-CM Alcoholism diagnosis codes:*

2910	ALCOHOL WITHDRAWAL DELIRIUM	30392	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE - EPISODIC
2911	ALCOHOL AMNESTIC SYNDROME	30393	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE - IN REMISSION
2912	OTHER ALCOHOLIC DEMENTIA	30500	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE - UNSPECIFIED
2913	ALCOHOL WITHDRAWAL HALLUCINOSIS	30501	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE - CONTINUOUS
2914	IDIOSYNCRATIC ALCOHOL INTOXICATION	30502	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE - EPISODIC
2915	ALCOHOLIC JEALOUSY	30503	NONDEPENDENT ABUSE OF DRUGS, ALCOHOL ABUSE – IN REMISSION
29181	OTHER SPECIFIED ALCOHOLIC PSYCHOSES, ALCOHOL WITHDRAWAL	4255	ALCOHOLIC CARDIOMYOPATHY
29182	ALCOHOL INDUCED SLEEP DISORDERS OCT05-	53530	ALCOHOLIC GASTRITIS, W/O MENTION OF HEMORRHAGE
29189	OTHER SPECIFIED ALCOHOLIC PSYCHOSES, OTHER	53531	ALCOHOLIC GASTRITIS, W/ HEMORRHAGE
2919	UNSPECIFIED ALCOHOLIC PSYCHOSIS	5710	ALCOHOLIC FATTY LIVER
30300	ACUTE ALCOHOLIC INTOXICATION - UNSPECIFIED	5711	ACUTE ALCOHOLIC HEPATITIS
30301	ACUTE ALCOHOLIC INTOXICATION - CONTINUOUS	5712	ALCOHOLIC CIRRHOSIS OF LIVER
30302	ACUTE ALCOHOLIC INTOXICATION - EPISODIC	5713	ALCOHOLIC LIVER DAMAGE, UNSPECIFIED
30303	ACUTE ALCOHOLIC INTOXICATION - IN REMISSION	9800	TOXIC EFFECT OF ALCOHOL, ETHYL ALCOHOL
30390	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE - UNSPECIFIED	9809	TOXIC EFFECT OF ALCOHOL, UNSPECIFIED ALCOHOL
30391	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE - CONTINUOUS		

*ICD-9-CM Anemia diagnosis codes:*

2800	SECONDARY TO BLOOD LOSS [CHRONIC]	2851	ACUTE POSTHEMORRHAGIC ANEMIA
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