

Perioperative Hemorrhage or Hematoma Rate Technical Specifications

Patient Safety Indicators #9 (PSI #9)
AHRQ Quality Indicators™, Version 4.5, May 2013
Provider-Level Indicator
Type of Score: Rate

Description

Perioperative hemorrhage or hematoma cases with control of perioperative hemorrhage, drainage of hematoma, or a miscellaneous hemorrhage- or hematoma-related procedure following surgery per 1,000 surgical discharges for patients ages 18 years and older. Excludes cases with a diagnosis of coagulation disorder; cases with a principal diagnosis of perioperative hemorrhage or hematoma; cases with a secondary diagnosis of perioperative hemorrhage or hematoma present on admission; cases where the only operating room procedure is control of perioperative hemorrhage, drainage of hematoma, or a miscellaneous hemorrhage- or hematoma-related procedure; and obstetric cases.

[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 events per 1,000 hospital discharges.]

Numerator

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with either:

- any secondary ICD-9-CM diagnosis codes for perioperative hemorrhage and any-listed ICD-9-CM procedure codes for control of perioperative hemorrhage; or
- any secondary ICD-9-CM diagnosis codes for perioperative hemorrhage and any-listed ICD-9-CM procedure codes for drainage of hematoma; or
- any secondary ICD-9-CM diagnosis codes for perioperative hemorrhage and any-listed ICD-9-CM procedure codes for miscellaneous hemorrhage- or hematoma-related procedure; or
- any secondary ICD-9-CM diagnosis codes for perioperative hematoma and any-listed ICD-9-CM procedure codes for control of perioperative hemorrhage; or
- any secondary ICD-9-CM diagnosis codes for perioperative hematoma and any-listed ICD-9-CM procedure codes for drainage of hematoma; or
- any secondary ICD-9-CM diagnosis codes for perioperative hematoma and any-listed ICD-9-CM procedure codes for miscellaneous hemorrhage or hematoma-related procedure

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ICD-9-CM Perioperative hemorrhage diagnosis code:

99811 HEMORRHAGE COMPLIC PROC

ICD-9-CM Perioperative hematoma diagnosis code:

99812 HEMATOMA COMPLIC PROC

ICD-9-CM Control of perioperative hemorrhage procedure codes:

287	HEMORR CONTROL POST T & A	3887	OCCLUDE ABD VEIN NEC
3880	SURG VESSEL OCCLUS NEC	3888	OCCLUDE LEG ARTERY NEC
3881	OCCLUS INTRACRAN VES NEC	3889	OCCLUDE LEG VEIN NEC
3882	OCCLUS HEAD/NECK VES NEC	3941	POSTOP VASC OP HEM CONTR
3883	OCCLUDE ARM VESSEL NEC	3998	HEMORRHAGE CONTROL NOS
3884	OCCLUDE AORTA NEC	4995	CONTROL ANAL HEMORRHAGE
3885	OCCLUDE THORACIC VES NEC	5793	CONTROL BLADD HEMORRHAGE
3886	OCCLUDE ABD ARTERY NEC	6094	CONTROL PROSTATE HEMORR

ICD-9-CM Drainage of hematoma procedure codes:

1809	EXTERNAL EAR INCIS NEC	7014	VAGINOTOMY NEC
540	ABDOMINAL WALL INCIS	7109	INCIS CULCA/PERINEUM NEC
5412	REOPEN RECENT LAP SITE	7591	EVAC OB INC HEMAT PERIN
5919	PERIVESICAL INCISION NEC	7592	EVAC OB HEMAT VULVA/VAG
610	SCROTUM & TUNICA I & D	8604	OTHER SKIN & SUBQ I & D
6998	UTERINE SUPPORT OP NEC		

ICD-9-CM Miscellaneous hemorrhage- or hematoma-related procedure codes:

0121	CRANIAL SINUS I & D	1809	EXTERNAL EAR INCIS NEC
0124	OTHER CRANIOTOMY	1811	OTOSCOPY
0131	INCISE CEREBRAL MENINGES	2001	MYRINGOTOMY W INTUBATION
0139	OTHER BRAIN INCISION	2009	MYRINGOTOMY NEC
0213	MENINGE VESSEL LIGATION	2021	MASTOID INCISION
0239	VENT SHUNT EXTRACRAN NEC	2022	PETRUS PYRAM AIR CEL INC
0241	IRRIGATE/EXPL VENT SHUNT	2023	MIDDLE EAR INCISION
0309	SPINAL CANAL EXPLOR NEC	2079	INC/EXC/DESTR IN EAR NEC
0401	EXCISION ACOUSTC NEUROMA	2100	CONTROL OF EPISTAXIS NOS
0404	PERIPH NERVE INCIS NEC	2101	ANT NASAL PACK FOR EPIST
0443	CARPAL TUNNEL RELEASE	2102	POST NASAL PAC FOR EPIST
0444	TARSAL TUNNEL RELEASE	2103	CAUTERY TO STOP EPISTAX
0602	REOPEN THYROID FIELD WND	2104	ETHMOID ART LIGAT-EPIST
0609	INCIS THYROID FIELD NEC	2105	MAX ART LIG FOR EPISTAX
0692	THYROID VESSEL LIGATION	2106	EXT CAROT ART LIG-EPIST
0700	ADRENAL EXPLORATION NOS	2107	NASAL SEPT GRFT-EPISTAX
0701	UNILAT ADRENAL EXPLORAT	2109	EPISTAXIS CONTROL NEC
0702	BILAT ADRENAL EXPLORAT	211	INCISION OF NOSE
0741	ADRENAL INCISION	2121	RHINOSCOPY
0743	ADRENAL VESSEL LIGATION	2219	NASAL SINUS DX PROC NEC
0751	PINEAL FIELD EXPLORATION	2239	EXT MAXILLARY ANTROT NEC
0752	PINEAL GLAND INCISION	2241	FRONTAL SINUSOTOMY
0771	PITUITARY FOSSA EXPLORAT	2251	ETHMOIDOTOMY
0772	PITUITARY GLAND INCISION	2252	SPHENOIDOTOMY
0791	THYMUS FIELD EXPLORATION	260	INCIS SALIVARY GLND/DUCT
0792	OTHER INCISION OF THYMUS	270	DRAIN FACE & MOUTH FLOOR
0795	THORAC INCISION THYMUS	280	PERITONSILLAR I & D
0809	OTHER EYELID INCISION	2911	PHARYNGOSCOPY
090	LACRIMAL GLAND INCISION	313	INCIS LARYNX TRACHEA NEC
0953	LACRIMAL SAC INCISION	3141	TRACHEOSCOPY THRU STOMA
1244	EXCISE CILIARY BODY LES	3142	LARYGNOSCOPY/TRACHEOSCOPI
1289	SCLERAL OPERATION NEC	330	INCISION OF BRONCHUS
149	OTHER POST SEGMENT OPS	331	INCISION OF LUNG
1609	ORBITOTOMY NEC	3321	BRONCHOSCOPY THRU STOMA
1802	EXT AUDITORY CANAL INCIS	3322	FIBER-OPTIC BRONCHOSCOPY

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3323	OTHER BRONCHOSCOPY	4500	INTESTINAL INCISION NOS
3324	CLOSED BRONCHIAL BIOPSY	4501	DUODENAL INCISION
3402	EXPLORATORY THORACOTOMY	4502	SMALL BOWEL INCISION NEC
3403	REOPEN THORACOTOMY SITE	4503	LARGE BOWEL INCISION
3409	OTHER PLEURAL INCISION	4511	TRANSAB SM BOWEL ENDOSC
341	INCISION OF MEDIASTINUM	4512	ENDOSC SM BOWEL THRU ST
3421	TRANSPLEURA THORACOSCOPY	4513	SM BOWEL ENDOSCOPY NEC
3422	MEDIASTINOSCOPY	4516	EGD WITH CLOSED BIOPSY
3582	TOTAL REPAIR OF TAPVC	4521	TRANSAB LG BOWEL ENDOSC
3639	OTH HEART REVASCULAR	4522	ENDOSC LG BOWEL THRU ST
3699	HEART VESSEL OP NEC	4523	COLONOSCOPY
370	PERICARDIOCENTESIS	4524	FLEXIBLE SIGMOIDOSCOPY
3711	CARDIOTOMY	4543	ENDOSC DESTRU LG INT LES
3799	OTHER HEART/PERICARD OPS	4549	DESTRUC LG BOWEL LES NEC
3800	INCISION OF VESSEL NOS	480	PROCTOTOMY
3801	INTRACRAN VESSEL INCIS	4821	TRANSAB PROCTOSIGMOIDOSC
3802	HEAD/NECK VES INCIS NEC	4822	PROCTOSIGMOIDOSC THRU ST
3803	UPPER LIMB VESSEL INCIS	4823	RIGID PROCTOSIGMOIDOSCPY
3804	INCISION OF AORTA	4921	ANOSCOPY
3805	THORACIC VESSEL INC NEC	4945	HEMORRHOID LIGATION
3806	ABDOMEN ARTERY INCISION	500	HEPATOTOMY
3807	ABDOMINAL VEIN INCISION	5110	ENDOSC RETRO CHOLANGIOPA
3808	LOWER LIMB ARTERY INCIS	5111	ENDOSC RETRO CHOLANGIO
3809	LOWER LIMB VEIN INCISION	5141	CDE FOR CALCULUS REMOV
3850	VARICOSE V LIG-STRIP NOS	5142	CDE FOR OBSTRUCTION NEC
3851	INTCRAN VAR V LIG-STRIP	5149	INCIS OBSTR BILE DUC NEC
3852	HEAD/NECK VAR V LIG-STR	5151	COMMON DUCT EXPLORATION
3853	ARM VARICOSE V LIG-STRIP	5159	BILE DUCT INCISION NEC
3855	THORAC VAR V LIG-STRIP	5184	ENDOSC DILATION AMPULLA
3857	ABD VARICOS V LIGA-STRIP	5188	ENDOSC REMOVE BILE STONE
3859	LEG VARICOS V LIGA-STRIP	5196	PERC EXTRAC COM DUC CALC
387	INTERRUPTION VENA CAVA	5198	OTH PERC PROC BIL TRCT
3930	SUTURE OF VESSEL NOS	5209	PANCREATOTOMY NEC
3931	SUTURE OF ARTERY	5213	ENDOSC RETRO PANCREATOG
3932	SUTURE OF VEIN	5411	EXPLORATORY LAPAROTOMY
3952	ANEURYSM REPAIR NEC	5419	LAPAROTOMY NEC
3953	ARTERIOVEN FISTULA REP	5421	LAPAROSCOPY
3972	ENDOVASC EMBOL HD/NK VES	5495	PERITONEAL INCISION
3979	OTH ENDO PROC OTH VESSEL	5501	NEPHROTOMY
398	CARTD BODY/SINUS/VASC OP	5511	PYELOTOMY
400	INCIS LYMPHATIC STRUCTUR	5521	NEPHROSCOPY
412	SPLENOTOMY	5522	PYELOSCOPY
4209	ESOPHAGEAL INCISION NEC	562	URETEROTOMY
4221	ESOPHAGOSCOPY BY INCIS	5631	URETEROSCOPY
4222	ESOPHAGOSCOPY THRU STOMA	5719	CYSTOTOMY NEC
4223	ESOPHAGOSCOPY NEC	5731	CYSTOSCOPY THRU STOMA
4233	ENDOSC DESTRUC ESOPH LES	5732	CYSTOSCOPY NEC
4239	DESTRUCT ESOPHAG LES NEC	580	URETHROTOMY
4291	LIGATION ESOPH VARIX	5822	URETHROSCOPY NEC
430	GASTROTOMY	5909	PERIREN/URETER INCIS NEC
4341	ENDOSC DESTR STOMACH LES	600	INCISION OF PROSTATE
4411	TRANSABDOMIN GASTROSCOPY	6081	PERIPROSTATIC INCISION
4412	GASTROSCOPY THRU STOMA	620	INCISION OF TESTES
4413	GASTROSCOPY NEC	631	EXC SPERMATIC VARICOCELE
4440	SUTURE PEPTIC ULCER NOS	636	VASOTOMY
4441	SUT GASTRIC ULCER SITE	6372	SPERMATIC CORD LIGATION
4442	SUTURE DUODEN ULCER SITE	6392	EPIDIDYMYOTOMY
4443	ENDOSC CONTROL GAST HEM	6393	SPERMATIC CORD INCISION
4444	TRANSCATH EMBO GAST HEM	6492	INCISION OF PENIS
4449	OTHER CONTROL GAST HEM	6501	LAPAROSCOPIC OOPHOROTOMY
4491	LIGATE GASTRIC VARICES	6509	OTHER OOPHOROTOMY

6601	SALPINGOTOMY	8203	BURSOTOMY OF HAND
680	HYSTEROTOMY	8204	I & D PALMAR/THENAR SPAC
6811	DIGITAL EXAM OF UTERUS	8209	INC SOFT TISSUE HAND NEC
6812	HYSTEROSCOPY	8301	TENDON SHEATH EXPLORAT
6995	INCISION OF CERVIX	8302	MYOTOMY
700	CULDOCENTESIS	8303	BURSOTOMY
7012	CULDOTOMY	8309	SOFT TISSUE INCISION NEC
7021	VAGINOSCOPY	850	MASTOTOMY
7022	CULDOSCOPY	8603	INCISION PILONIDAL SINUS
757	MANUAL EXPLOR UTERUS P/P	8609	SKIN & SUBQ INCISION NEC
7710	OTHER BONE INCISION NOS	9621	DILAT FRONTONASAL DUCT
8010	OTHER ARTHROTOMY NOS	9925	INJECT CA CHEMOTHER NEC
8201	EXPLOR TEND SHEATH-HAND	9929	INJECT/INFUSE NEC
8202	MYOTOMY OF HAND		

Denominator

Surgical discharges, for patients ages 18 years and older, with any-listed ICD-9-CM procedure codes for an operating room procedure. 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:

- with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission[†]) for perioperative hemorrhage (see above)
- with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission[†]) for postoperative hematoma (see above)
- where the only operating room procedure is control of postoperative hemorrhage (see above), drainage of hematoma (see above), or a miscellaneous hemorrhage- or hematoma-related procedure (see above)
- with any secondary ICD-9-CM diagnosis codes for perioperative hemorrhage (see above) and any-listed ICD-9-CM procedure codes for control of perioperative hemorrhage (see above) occurring before the first operating room procedure[‡]
- with any secondary ICD-9-CM diagnosis codes for perioperative hemorrhage (see above) and any-listed ICD-9-CM procedure codes for drainage of hematoma (see above) occurring before the first operating room procedure[‡]
- with any secondary ICD-9-CM diagnosis codes for perioperative hemorrhage (see above) and any-listed ICD-9-CM procedure codes for miscellaneous hemorrhage- or hematoma-related procedure (see above) occurring before the first operating room procedure[‡]
- with any secondary ICD-9-CM diagnosis codes for perioperative hematoma (see above) and any-listed ICD-9-CM procedure codes for control of perioperative hemorrhage (see

[†] Only for cases that otherwise qualify for the numerator.

[‡] If day of procedure is not available in the input data file, the rate may be slightly lower than if the information was available.

above) occurring before the first operating room procedure[‡]

- with any secondary ICD-9-CM diagnosis codes for perioperative hematoma (see above) and any-listed ICD-9-CM procedure codes for drainage of hematoma (see above) occurring before the first operating room procedure[‡]
- with any secondary ICD-9-CM diagnosis codes for perioperative hematoma (see above) and any-listed ICD-9-CM procedure codes for miscellaneous hemorrhage- or hematoma-related procedure (see above) occurring before the first operating room procedure[‡]
- with any-listed ICD-9-CM diagnosis codes for coagulation disorder
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

ICD-9-CM Coagulation disorder diagnosis codes:

2860	CONG FACTOR VIII DISORDER	28652	ACQUIRED HEMOPHILIA
2861	CONG FACTOR IX DISORDER	28659	OT HEM D/T CIRC ANTICOAG
2862	CONG FACTOR XI DISORDER	2866	DEFIBRATION SYNDROME
2863	CONG DEF CLOT FACTOR NEC	2867	ACQ COAGUL FACTOR DEF
2864	VON WILLEBRAND'S DISEASE	2869	COAGUL DEFECT NEC NOS