



Patient Safety Indicator 25 (PSI 25) Accidental Puncture or Laceration Rate

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Area-Level Indicator

Type of Score: Rate

Prepared by:

Agency for Healthcare Research and Quality

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DESCRIPTION

Accidental punctures or lacerations during a procedure in patients with two abdominopelvic procedures performed one or more days apart per 100,000 population, ages 18 years and older. Excludes obstetric discharges.

[NOTE: The software provides the rate per population. However, common practice reports the measure as per 100,000 population. The user must multiply the rate obtained from the software by 100,000 to report events per 100,000 population.]

NUMERATOR

Surgical and medical discharges, for patients ages 18 years and older, with secondary ICD-9-CM diagnosis codes for "accidental puncture or laceration during a procedure" and any-listed abdominopelvic procedure code accompanied by a second abdominopelvic procedure code occurring one or more days after the index surgery. Surgical and medical discharges are defined by specific MS-DRG codes.

[Appendix C - Medical MS-DRGs](#)

[Appendix E - Surgical MS-DRGs](#)

Accidental puncture or laceration during a procedure diagnosis code: (TECHNID)

9982 Accidental puncture or laceration during a procedure

Alteration of Abdominal Wall with Autologous Tissue Substitute, Open Approach: (ABDOM15IP)

1731	Lap mul seg res lg intes	5149	Incision of other bile ducts for relief of obstruction
1732	Laparoscopic cecectomy	5151	Exploration of common duct
1733	Lap right hemicolectomy	5159	Incision of other bile duct
1734	Lap res transverse colon	5161	Excision of cystic duct remnant
1735	Lap left hemicolectomy	5162	Excision of ampulla of vater with reimplantation of common duct
1736	Lap sigmoidectomy	5163	Other excision of common duct
1739	Lap pt ex lrg intest nec	5169	Excision of other bile duct
3804	Incision of aorta	5171	Simple suture of common bile duct
3806	Incision of abdominal arteries	5172	Choledochoplasty
3807	Incision of abdominal veins	5179	Repair of other bile ducts
3814	Endarterectomy of aorta	5181	Dilation of sphincter of oddi
3816	Endarterectomy of abdominal arteries	5182	Pancreatic sphincterotomy
3834	Resection of aorta with anastomosis	5183	Pancreatic sphincteroplasty
3836	Resection of abdominal arteries with anastomosis	5189	Other operations on sphincter of oddi
3837	Resection of abdominal veins with anastomosis	5192	Closure of cholecystostomy
3844	Resection of aorta, abdominal with replacement	5193	Closure of other biliary fistula
3846	Resection of abdominal arteries with replacement	5194	Revision of anastomosis of biliary tract
3847	Resection of abdominal veins with replacement	5195	Removal of prosthetic device from bile duct
3857	Ligation and stripping of varicose veins, abdominal veins	5199	Other operations on biliary tract
3864	Other excision of aorta, abdominal	5201	Drainage of pancreatic cyst by catheter

3866	Other excision of abdominal arteries	5209	Other pancreatotomy
3867	Other excision of abdominal veins	5212	Open biopsy of pancreas
3884	Other surgical occlusion of aorta, abdominal	5222	Other excision or destruction of lesion or tissue of pancreas or pancreatic duct
3886	Other surgical occlusion of abdominal arteries	523	Gingival and periodontal diseases
3887	Other surgical occlusion of abdominal veins	524	Internal drainage of pancreatic cyst
391	Intra-abdominal venous shunt	5251	Proximal pancreatectomy
3924	Aorta-renal bypass	5252	Distal pancreatectomy
3925	Aorta-iliac-femoral bypass	5253	Radial subtotal pancreatectomy
3926	Other intra-abdominal vascular shunt or bypass	5259	Other partial pancreatectomy
4052	Radical excision of periaortic lymph nodes	526	Total pancreatectomy
4053	Radical excision of iliac lymph nodes	527	Radical pancreaticoduodenectomy
412	Splenotomy	5280	Pancreatic transplant, nos
4133	Open biopsy of spleen	5281	Reimplantation
4141	Marsupialization of splenic cyst	5282	Homotransplant of pancreas
4142	Excision of lesion or tissue of spleen	5283	Heterotransplant of pancreas
4143	Partial splenectomy	5292	Cannulation of pancreatic duct
415	Total splenectomy	5295	Other repair of pancreas
4193	Excision of accessory spleen	5296	Anastomosis of pancreas
4194	Transplantation of spleen	5299	Other operations on pancreas
4195	Repair and plastic operations on spleen	5300	Unilateral repair of inguinal hernia, nos
4199	Other operations on spleen	5301	Repair of direct inguinal hernia
4240	Esophagectomy, nos	5302	Repair of indirect inguinal hernia
4241	Partial exophagectomy	5303	Repair of direct inguinal hernia with graft or prosthesis
4242	Total esophagectomy	5304	Repair of indirect inguinal hernia with graft or prosthesis
4253	Intrathoracic esophageal anastomosis with interposition of small bowel	5305	Repair of inguinal hernia with graft or prosthesis, nos
4254	Other intrathoracic esophagoenterostomy	5310	Bilateral repair of inguinal hernia, nos
4255	Intrathoracic esophageal anastomosis with interposition of colon	5311	Bilateral repair of direct inguinal yernia
4256	Other intrathoracic esophagocolostomy	5312	Bilateral repair of indirect inguinal hernia
4263	Antesternal esophageal anastomosis with interposition of small bowel	5313	Bilateral repair of inguinal hernia, one direct and one indirect
4264	Other antesternal esophagoenterostomy	5314	Bilateral repair of direct inguinal hernia with graft or prosthesis
4265	Antesternal esophageal anastomosis with interposition of colon	5315	Bilateral repair of indirect inguinal hernia with graft or prosthesis

4266	Other antesternal esophagocolostomy	5316	Bilateral repair of inguinal hernia, one direct and one indirect, with graft or prosthesis
4291	Ligation of esophageal varices	5317	Bilateral inguinal hernia repair with graft or prosthesis, nos
430	Gastrostomy	5321	Unilateral repair of femoral hernia
433	Pyloromyotomy	5329	Other unilateral femoral herniorrhaphy
4342	Local excision of other lesion or tissue of stomach	5331	Bilateral repair of femoral hernia with graft or prosthesis
4349	Other destruction of lesion or tissue of stomach	5339	Other bilateral femoral herniorrhaphy
435	Partial gastrectomy with anastomosis to esophagus	5341	Repair of umbilical hernia with prosthesis
436	Partial gastrectomy with anastomosis to duodenum	5349	Other umbilical herniorrhaphy
437	Partial gastrectomy with anastomosis to jejunum	5351	Incisional hernia repair
4381	Partial gastrectomy with jejuna transposition	5359	Repair of other hernia of anterior abdominal wall
4382	Laparoscopic vertical sleeve gastrectomy	5361	Incisional hernia repair with prosthesis
4389	Other partial gastrectomy	5369	Repair of other hernia of anterior abdominal wall with prosthesis
4391	Total gastrectomy with intestinal interposition	537	Repair of diaphragmatic hernia, abdominal approach
4399	Other total gastrectomy	5375	Abd rep-diaphr hern nos
4400	Vagotomy, nos	540	Incision of abdominal wall
4401	Truncal vagotomy	5411	Exploratory laparotomy
4402	Highly selective vagotomy	5419	Other laparotomy
4403	Other selective vagotomy	5422	Biopsy of abdominal wall or umbilicus
4411	Transabdominal gastroscopy	5423	Biopsy of abdominal wall or umbilicus
4415	Open biopsy of stomach	543	Excision or destruction of lesion or tissue of abdominal wall or umbilicus
4421	Dilation of pylorus by incision	544	Excision or destruction of peritoneal tissue
4429	Other pyloroplasty	5459	Other lysis of peritoneal adhesions
4431	High gastric bypass	5463	Other suture of abdominal wall
4439	Other gastroenterostomy	5464	Suture of peritoneum
4440	Suture of peptic ulcer, nos	5471	Repair of gastroschisis
4441	Suture of gastric ulcer site	5472	Other repair of abdominal walls
4442	Suture of duodenal ulcer site	5473	Other repair of peritoneum
445	Revision of gastric anastomosis	5474	Other repair of omentum
4461	Suture of laceration of stomach	5475	Other repair of mesentery
4463	Closure of other gastric fistula	5492	Removal of foreign body from peritoneal cavity
4464	Gastropexy	5493	Creation of cutaneoperitoneal fistula

4465	Esophagogastroplasty	5494	Creation of peritoneovascular shunt
4466	Other procedures for creation of esophagogastric sphincteric competence	5495	Incision of peritoneum
4469	Other repair of stomach	5532	Opn abltn renal les/tiss
4491	Ligation of gastric varices	5535	Abltn renal les/tiss nec
4492	Intraoperative manipulation of stomach	5551	Nephroureterectomy
4499	Gastric operation nec	5552	Nephrectomy of remaining kidney
4500	Incision of intestine, nos	5553	Removal of transplanted or rejected kdiney
4501	Incision of duodenum	5554	Bilateral nephrectomy
4502	Other incision of small intestine	5561	Renal autotransplantation
4503	Incision of large intestine	5569	Ulcerative colitis, unspecified
4531	Other local excision of lesion of duodenum	557	Nephropexy
4532	Other destruction of lesion of duodenum	5583	Closure of other fistula of kidney
4533	Local excision of lesion or tissue of small intestine, except duodenum	5584	Reduction of torsion of renal
4534	Other destruction of lesion of small intestine, except duodenum	5585	Symphysiotomy for horeshoe kidney
4541	Excision of lesion or tissue of large intestine	5586	Anastomosis of kidney
4549	Other destruction of lesion of large intestine	5587	Correction of ureteropelvic junction
4550	Isolation of intestinal segment, nos	5591	Decapsulation of kedney
4551	Isolation of segment of small intestine	5597	Implantation or replacement of mechanical kidney
4552	Isolation of segment of large intestine	5598	Removal of mechanical kidney
4561	Multiple segmental resection of small intestine	5651	Formation of cutaneous ureteroileostomy
4562	Other partial resection of small intestine	5652	Revision of cutaneous ureter oileostomy
4563	Total removal of small intestine	5661	Formation of other cutaneous ureterostomy
4571	Multiple segmental resection of large intestine	5662	Revision of other cutaneous ureterostomy
4572	Cesectomy	5671	Urinary diversion to intestine
4573	Right hemicolectomy	5672	Revision of ureterointestinal anastomosis
4574	Resection of transverse colon	5673	Nephrocystanastomosis, no
4575	Left hemicolectomy	5674	Ureteroneoxystostomy
4576	Sigmoidectomy	5675	Transureteroureterostomy
4579	Other partial excision of large intestine	5683	Closure of ureterostomy
458	Total intra-abdominal colectomy	5684	Closure of other fistula of ureter
4581	Lap tot intr-ab colectmy	5685	Ureteropexy
4582	Op tot intr-abd colectmy	5686	Removal of ligature form ureter

4583	Tot abd colectmy nec/nos	5689	Other repair of ureter
4590	Intestinal anastomosis, nos	5695	Ligation of ureter
4591	Small-to-small intestinal anastomosis	5771	Radical cystectomy
4592	Anastomosis of small intestine to rectal stump	5779	Other total cystectomy
4593	Other small-to-large intestinal anastomosis	5782	Closrue of cystostomy
4594	Large-to-large intestinal anastomosis	5787	Reconstruction of urniary bladder
4595	Anastomosis to anus	5900	Retroperitoneal dissection, nos
4601	Exteriorization of small intestine	5902	Other lysis of perirenal or periureteral adhesions
4603	Exteriorization of large intestine	5909	Other incision of perirenal or periureteral tissue
4610	Colostomy, nos	6012	Open biopsy of prostate
4611	Temporary colostomy	6014	Open biopsy of seminal vesicles
4613	Permanent colostomy	6015	Biopsy of periprostatic tissue
4620	Ileostomy, nos	603	Suprapubic prostatectomy
4621	Temporary ileostomy	604	Retropubic prostatectomy
4622	Continent ileostomy	605	Radical prostatectomy
4623	Other permanent ileostomy	6061	Local excision of lesion of prostate
4640	Revision of intestina stoma, nos	6072	Incision of seminal vesicle
4641	Revision of stoma of small intestine	6073	Excision of seminal vesicle
4642	Repair of pericostomy hernia	6079	Other operations on seminal vesicles
4643	Other revision of stoma of large intestine	6093	Repair of prostate
4650	Closure of intestinal stoma, nos	6509	Other oophorectomy
4651	Closure of stoma of small intestine	6512	Other biopsy of ovary
4652	Closure of stoma of large intestine	6521	Marsupialization of ovarian cyst
4660	Fixation of intestine, nos	6522	Wedge resection of ovary
4661	Fixation of small intestine to abdominal wall	6529	Other local excision or destruction of ovary
4662	Other fixation of small intestine	6539	Other unililateral oophorectomy
4663	Fixation of large intestine to abdominal wall	6549	Other unliateral salpingoophorectomy
4664	Other fixation of large intestine	6551	Other removal of both ovaries at same operative episode
4672	Closure of fistula of duodenum	6552	Other removal of remaining ovary
4674	Closure of fistula of small intestine, except duodenum	6561	Other removal of both ovaries and tubes at same operative episode
4676	Closure of fistula of large intestine	6562	Other removal of remaining ovary and tube
4680	Intra-abdominal manipulation of intestine, nos	6571	Other simple suture of ovary
4681	Intra-abdominal manipulation of small intestine	6572	Other reimplantation of ovary

4682	Intra-abdominal manipulation of large intestine	6573	Other salpingo oophoroplasty
4691	Myotomy of sigmoid colon	6579	Other repair of ovary
4692	Myotomy of other parts of colon	6589	Other lysis of adhesions of avary and fallopian tube
4693	Revision of anastomosis of small intestine	6592	Transplantation of ovary
4694	Revision of anastomosis of large intestine	6593	Manual rupture of ovarian cyst
4699	Other operations on intestines	6594	Ovarian denervation
4709	Other appendectomy	6595	Release of torsion of ovary
4719	Other incidental appendectomy	6599	Other operations on ovary
472	Drainage of appendiceal abscess	6601	Salpingotomy
4791	Appendectomy	6602	Salpingostomy
4792	Closure of appendiceal fistula	6631	Other bilateral ligation and crushing of fallopian tubes
4799	Other	6632	Other bilateral ligation and division of fallopian tubes
4840	Pull-thru res rectum nos	6639	Other bilateral destruction or occlusion of fallopian tubes
4841	Submucosal resection of rectum	664	Total unilateral salpingectomy
4843	Opn pull-thru res rectum	6651	Removal of both fallopian tubes at same operative episode
4849	Other pull-through resection of rectum	6652	Removal of remaining fallopian tube
485	Abdominoperineal resection of rectum	6661	Excision or destruction of lesion of fallopian tube
4850	Abdperneal res rectm nos	6662	Salpingectomy with removal of tubal pregnancy
4852	Opn abdperneal resc rec	6663	Bilateral partial salpingectomy, nos
4859	Abdperneal resc rect nec	6669	Other partial salpingectomy
4875	Abdominal proctopexy	6671	Simple suture of fallopian tube
500	Hepatotomy	6672	Salpingo-oophorostomy
5012	Open biopsy of liver	6673	Salpingo-salpingostomy
5021	Marsupialization of lesion of liver	6674	Salping0-uterostomy
5022	Partial hepatectomy	6679	Other repair of fallopian tube
5023	Opn abltn liver les/tiss	6692	Unilateral destruction or occlusion of fallopian tube
5026	Abltn liver les/tiss nec	6697	Burying of fimbriae in uterine wall
5029	Other destruction of lesion of liver	680	Other incision and excision of uterus
503	Lobectomy of liver	6813	Open biopsy of uterus
504	Total hepatectomy	6814	Open biopsy of uterine ligaments
5051	Auxiliary liver transplant	683	Subtotal abdominal hysterectomy
5059	Other transplant of liver	6839	Oth subtot abd hysterect
5069	Other repair of liver	684	Total abdominal hysterectomy
5103	Other cholecystostomy	6841	Lap total abdominal hyst
5104	Other cholecystotomy	6849	Total abd hyst nec/nos

5113	Open biopsy of gallbladder or bile ducts	686	Radical abdominal hysterectomy
5121	Other partial cholecystectomy	6861	Lap radical abdomnl hyst
5122	Cholecystectomy	6869	Radical abd hyst nec/nos
5131	Anastomosis of gallbladder to hepatic ducts	688	Pelvic evisceration
5132	Anastomosis of gallbladder to intestine	6922	Other uterine suspension
5133	Anastomosis of gallbladder to pancreas	693	Paracervical uterine denervation
5134	Anastomosis of gallbladder to stomach	6941	Suture of laceration of uterus
5135	Other gallbladder anastomosis	6942	Closure of fistula of uterus
5136	Choledochoenterostomy	6949	Other repair of uterus
5137	Anastomosis of hepatic duct to gastrointestinal tract	031	Division of intraspinal nerve root
5139	Other bile duct anastomosis	0529	Sympathectomy, other sympathectomy and ganglionectomy
5141	Common duct exploration for removal of calculus	0581	Repair of sympathetic nerve or ganglion
5142	Common duct exploration for relief of other obstruction	5124	Laparoscopic partial cholecystectomy
5143	Insertion of choledochohepatic tube for decompression		

NUMERATOR EXCLUSIONS

Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

DENOMINATOR

Population ages 18 years and older in metropolitan area† or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.

† The term “metropolitan area” (MA) was adopted by the U.S. Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs) and primary metropolitan statistical areas (PMSAs). In addition, “area” could refer to either 1) FIPS county, 2) modified FIPS county, 3) 1999 OMB Metropolitan Statistical Area or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the QI software.