

Incidental Appendectomy in the Elderly Rate

Inpatient Quality Indicators #24

Technical Specifications

Provider-Level Indicator

Procedure Utilization Indicator

AHRQ Quality Indicators, Version 4.4, March 2012

Numerator

Number of incidental appendectomies (procedures) among cases meeting the inclusion and exclusion rules for the denominator.

ICD-9-CM Incidental appendectomy procedure codes^{1,2}:

4382	LAP VERTICAL GASTRECTOMY	4711	LAP INCID APPEDECTOMY
<i>471</i>	<i>INCIDENTAL APPEDECTOMY</i>	4719	OTHER INCID APPEDECTOMY

¹ Bolded codes are new to the current fiscal year.

² Italicized codes are not active in the current fiscal year.

Denominator

All discharges, age 65 years and older, with ICD-9-CM codes for abdominal and pelvic surgery.

ICD-9-CM Abdominal and pelvic surgery procedure codes¹:

1711	LAP DIR ING HERN-GRAFT	4342	LOCAL GASTR EXCISION NEC
1712	LAP INDIR ING HERN-GRAFT	4349	LOCAL GASTR DESTRUCT NEC
1713	LAP ING HERN-GRAFT NOS	435	PROXIMAL GASTRECTOMY
1721	LAP BIL DIR ING HRN-GRFT	436	DISTAL GASTRECTOMY
1722	LAP BI INDIR ING HRN-GRF	437	PART GASTREC W JEJ ANAST
1723	LAP BI DR/IND ING HRN-GR	4381	PART GAST W JEJ TRANSPOS
1724	LAP BIL ING HERN-GRF NOS	4389	OPN/OTH PART GASTRECTOMY
412	SPLENOTOMY	4391	TOT GAST W INTES INTERPO
4133	OPEN SPLEEN BIOPSY	4399	TOTAL GASTRECTOMY NEC
4141	SPLENIC CYST MARSUPIAL	4400	VAGOTOMY NOS
4142	EXC SPLENIC LESION/TISS	4401	TRUNCAL VAGOTOMY
4143	PARTIAL SPLENECTOMY	4402	HIGHLY SELECT VAGOTOMY
415	TOTAL SPLENECTOMY	4403	SELECTIVE VAGOTOMY NEC
4193	EXC OF ACCESSORY SPLEEN	4411	TRANSABDOMIN GASTROSCOPY
4194	SPLEEN TRANSPLANTATION	4415	OPEN GASTRIC BIOPSY
4195	REPAIR OF SPLEEN	4421	DILATE PYLORUS, INCISION
4199	SPLEEN OPERATION NEC	4429	OTHER PYLOROPLASTY
4240	ESOPHAGECTOMY NOS	4431	HIGH GASTRIC BYPASS
4241	PARTIAL ESOPHAGECTOMY	4438	LAP GASTROENTEROSTOMY
4242	TOTAL ESOPHAGECTOMY	4439	GASTROENTEROSTOMY NEC
4253	THORAC SM BOWEL INTERPOS	4440	SUTURE PEPTIC ULCER NOS
4254	THORAC ESOPHAGOENTER NEC	4441	SUT GASTRIC ULCER SITE
4255	THORAC LG BOWEL INTERPOS	4442	SUTURE DUODEN ULCER SITE
4256	THORAC ESOPHAGOCOLOS NEC	445	REVISION GASTRIC ANASTOM
4263	STERN SM BOWEL INTERPOS	4461	SUTURE GASTRIC LACERAT
4264	STERN ESOPHAGOENTER NEC	4463	CLOSE GASTRIC FISTUL NEC
4265	STERN LG BOWEL INTERPOS	4464	GASTROPEXY
4266	STERN ESOPHAGOCOLOS NEC	4465	ESOPHAGOGASTROPLASTY
4291	LIGATION ESOPH VARIX	4466	CREAT ESOPHAGASTR SPHINC
430	GASTROTOMY	4467	LAP CREAT ESOPH SPHINCT
433	PYLOROMYOTOMY	4468	LAPAROSCOPI GASTROPLASTY

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4469	GASTRIC REPAIR NEC	4681	INTRA-ABD SM BOWEL MANIP
4491	LIGATE GASTRIC VARICES	4682	INTRA-ABD LG BOWEL MANIP
4492	INTRAOP GASTRIC MANIPUL	4691	MYOTOMY OF SIGMOID COLON
4495	LAP GASTRIC RESTRIC PROC	4692	MYOTOMY OF COLON NEC
4496	LAP REV GAST RESTRI PROC	4693	REVISE SM BOWEL ANASTOM
4497	LAP REM GAST RESTRIC DEV	4694	REVISE LG BOWEL ANASTOM
4499	GASTRIC OPERATION NEC	4697	TRANSPLANT OF INTESTINE
4500	INTESTINAL INCISION NOS	4699	INTESTINAL OP NEC
4501	DUODENAL INCISION	4821	TRANSAB PROCTOSIGMOIDOSC
4502	SMALL BOWEL INCISION NEC	4825	OPEN RECTAL BIOPSY
4503	LARGE BOWEL INCISION	4840	PULL-THRU RES RECTUM NOS
4511	TRANSAB SM BOWEL ENDOSC	4841	SOAVE SUBMUC RECT RESECT
4515	OPEN SMALL BOWEL BIOPSY	4842	LAP PULL-THRU RES RECTUM
4521	TRANSAB LG BOWEL ENDOSC	4843	OPN PULL-THRU RES RECTUM
4526	OPEN LARGE BOWEL BIOPSY	4849	PULL-THRU RECT RESEC NEC
4531	OTH EXCISE DUODENUM LES	485	<i>ABDOMINOPERINEAL RESECTION OF RECTUM</i>
4532	DESTRUCT DUODEN LES NEC	4850	ABDPERNEAL RES RECTM NOS
4533	LOCAL EXCIS SM BOWEL NEC	4851	LAP ABDPERNEAL RESC REC
4534	DESTR SM BOWEL LES NEC	4852	OPN ABDPERNEAL RESC REC
4541	EXCISE LG INTESTINE LES	4859	ABDPERNEAL RESC RECT NEC
4549	DESTRUC LG BOWEL LES NEC	4871	SUTURE OF RECTAL LACER
4550	INTEST SEG ISOLAT NOS	4874	RECTORECTOSTOMY
4551	SM BOWEL SEGMENT ISOLAT	4875	ABDOMINAL PROCTOPEXY
4552	LG BOWEL SEGMENT ISOLAT	500	HEPATOTOMY
4561	MULT SEG SM BOWEL EXCIS	5012	OPEN LIVER BIOPSY
4562	PART SM BOWEL RESECT NEC	5014	LAPAROSCOPIC LIVER BX
4563	TOTAL REMOVAL SM BOWEL	5019	HEPATIC DX PROC NEC
458	<i>TOTAL INTRA-ABDOMINAL COLECTOMY</i>	5021	MARSUPIALIZAT LIVER LES
4590	INTESTINAL ANASTOM NOS	5022	PARTIAL HEPATECTOMY
4591	SM-TO-SM BOWEL ANASTOM	5023	OPN ABLTN LIVER LES/TISS
4592	SM BOWEL-RECT STUMP ANAS	5025	LAP ABLTN LIVER LES/TISS
4593	SMALL-TO-LARGE BOWEL NEC	5026	ABLTN LIVER LES/TISS NEC
4594	LG-TO-LG BOWEL ANASTOM	5029	DESTRUC HEPATIC LES NEC
4595	ANAL ANASTOMOSIS	503	HEPATIC LOBECTOMY
4601	SM BOWEL EXTERIORIZATION	504	TOTAL HEPATECTOMY
4603	LG BOWEL EXTERIORIZATION	5051	AUXILIARY LIVER TRANSPL
4610	COLOSTOMY NOS	5059	LIVER TRANSPLANT NEC
4611	TEMPORARY COLOSTOMY	5061	CLOSURE LIVER LACERAT
4613	PERMANENT COLOSTOMY	5069	LIVER REPAIR NEC
4614	DELAY OPENING COLOSTOMY	5102	TROCAR CHOLECYSTOSTOMY
4620	ILEOSTOMY NOS	5103	CHOLECYSTOSTOMY NEC
4621	TEMPORARY ILESOSTOMY	5104	CHOLECYSTOTOMY NEC
4622	CONTINENT ILEOSTOMY	5113	OPEN BILIARY TRACT BX
4623	PERMANENT ILEOSTOMY NEC	5119	BILIARY TR DX PROC NEC
4640	INTEST STOMA REVIS NOS	5121	OTH PART CHOLECYSTECTOMY
4641	SM BOWEL STOMA REVISION	5122	CHOLECYSTECTOMY
4642	PERICOLOST HERNIA REPAIR	5123	LAPAROSCOPIC CHOLECYSTEC
4643	LG BOWEL STOMA REVIS NEC	5124	LAP PART CHOLECYSTECTOMY
4650	INTEST STOMA CLOSURE NOS	5131	GB-TO-HEPAT DUCT ANAST
4651	SM BOWEL STOMA CLOSURE	5132	GB-TO-INTESTINE ANASTOM
4652	LG BOWEL STOMA CLOSURE	5133	GB-TO-PANCREAS ANASTOM
4660	INTESTINAL FIXATION NOS	5134	GB-TO-STOMACH ANASTOMOS
4661	SM BOWEL-ABD WALL FIXAT	5135	GALLBLADDER ANASTOM NEC
4662	SMALL BOWEL FIXATION NEC	5136	CHOLEDOCHOENTEROSTOMY
4663	LG BOWEL-ABD WALL FIXAT	5137	HEPATIC DUCT-GI ANASTOM
4664	LARGE BOWEL FIXATION NEC	5139	BILE DUCT ANASTOMOS NEC
4672	DUODENAL FISTULA CLOSURE	5141	CDE FOR CALCULUS REMOV
4673	SMALL BOWEL SUTURE NEC	5142	CDE FOR OBSTRUCTION NEC
4674	CLOSE SM BOWEL FIST NEC	5143	CHOLEDOCHOHEPAT INTUBAT
4675	SUTURE LG BOWEL LACERAT	5149	INCIS OBSTR BILE DUC NEC
4676	CLOSE LG BOWEL FISTULA	5151	COMMON DUCT EXPLORATION
4679	REPAIR OF INTESTINE NEC	5159	BILE DUCT INCISION NEC
4680	INTRA-AB BOWEL MANIP NOS		

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5161	EXCIS CYST DUCT REMNANT	5362	LAP INCIS HERN REPR-GRFT
5162	EXCIS AMPULLA OF VATER	5363	LAP HERN ANT ABD-GFT NEC
5163	COMMON DUCT EXCIS NEC	5369	OPN HERN ANT ABD-GRF NEC
5169	BILE DUCT EXCISION NEC	537	<i>REPAIR OF DIAPHRAGMATIC HERNIA, ABDOMINAL APPROACH</i>
5171	SIMPLE SUT-COMMON DUCT	5371	LAP ABD REP-DIAPHR HERN
5172	CHOLEDOCHOPLASTY	5372	OPN ABD DIAPHRM HERN NEC
5179	BILE DUCT REPAIR NEC	5375	ABD REP-DIAPHR HERN NOS
5181	SPHINCTER OF ODDI DILAT	540	ABDOMINAL WALL INCISION
5182	PANCREAT SPHINCTEROTOM	5411	EXPLORATORY LAPAROTOMY
5183	PANCREAT SPHINCTEROPLAS	5412	REOPEN RECENT LAP SITE
5189	SPHINCT OF ODDI OP NEC	5419	LAPAROTOMY NEC
5191	REPAIR GB LACERATION	5421	LAPAROSCOPY
5192	CLOSURE CHOLECYSTOSTOMY	5422	ABDOMINAL WALL BIOPSY
5193	CLOS BILIARY FISTUL NEC	5423	PERITONEAL BIOPSY
5194	REVIS BILE TRACT ANASTOM	5429	ABD REGION DX PROC NEC
5195	REMOVE BILE DUCT PROSTH	543	DESTRUCT ABD WALL LESION
5199	BILIARY TRACT OP NEC	544	DESTRUCT PERITONEAL TISS
5201	CATH DRAIN-PANCREAT CYST	5451	LAP PERITON ADHESIOLYSIS
5209	PANCREATOTOMY NEC	5459	OTH PERITON ADHESIOLYSIS
5212	OPEN PANCREATIC BIOPSY	5461	RECLOSE POST OP DISRUPT
5219	PANCREATIC DX PROC NEC	5462	DELAYED CLOS ABD WOUND
5222	OTHER DESTRU PANCREA LES	5463	ABD WALL SUTURE NEC
523	PANCREAT CYST MARSUPIALI	5464	PERITONEAL SUTURE
524	INT DRAIN PANCREAT CYST	5471	REPAIR OF GASTROSCHISIS
5251	PROXIMAL PANCREATECTOMY	5472	ABDOMEN WALL REPAIR NEC
5252	DISTAL PANCREATECTOMY	5473	PERITONEAL REPAIR NEC
5253	RAD SUBTOT PANCREATECTOM	5474	OMENTAL REPAIR NEC
5259	PARTIAL PANCREATECT NEC	5475	MESENTERIC REPAIR NEC
526	TOTAL PANCREATECTOMY	5492	REMOVE FB FROM PERITON
527	RADICAL PANCREATICODUODENECTOMY	5493	CREATE CUTANPERITON FIST
5280	PANCREAT TRANSPLANT NOS	5494	CREAT PERITONEOVAS SHUNT
5281	REIMPLANT PANCREATIC TIS	5495	PERITONEAL INCISION
5282	PANCREATIC HOMOTRANSPLAN	5651	FORM CUTAN ILEOURETEROST
5283	PANCREATIC HETEROTRANSPL	5652	REVIS CUTAN ILEOURETEROS
5292	CANNULATION PANCREA DUC	5661	FORM CUTAN URETEROSTOMY
5295	PANCREATIC REPAIR NEC	5662	REVIS CUTAN URETEROS NEC
5296	PANCREATIC ANASTOMOSIS	5671	URIN DIVERSION TO BOWEL
5299	PANCREATIC OPERATION NEC	5672	REVIS URETEROENTEROSTOMY
5300	UNILAT ING HERN REP NOS	5900	RETROPERIT DISSECT NOS
5301	OPN REP DIR ING HERN NEC	6501	LAPAROSCOPIC OOPHOROTOMY
5302	OPN REP IND ING HERN NEC	6509	OTHER OOPHOROTOMY
5303	OPN DIR ING HERN-GFT NEC	6512	OVARIAN BIOPSY NEC
5304	OPN IND ING HERN-GFT NEC	6521	OVARIAN CYST MARSUPIALIZ
5305	ING HERNIA REP-GRAFT NOS	6522	OVARIAN WEDGE RESECTION
5310	BILAT ING HERNIA REP NOS	6523	LAP MARSUP OVARIAN CYST
5311	OPN BIL DIR ING HERN NEC	6524	LAP WEDGE RESECT OVARY
5312	OPN BIL IND ING HERN NEC	6525	OTH LAP LOC EXC DEST OVA
5313	OPN BI DR/IN ING HRN NEC	6529	LOCAL DESTR OVA LES NEC
5314	OPN BI DR ING HRN-GR NEC	6531	LAP UNILAT OOPHORECTOMY
5315	OP BI IN ING HRN-GRF NEC	6539	OTH UNILAT OOPHORECTOMY
5316	OP BI DR/IN IG HR-GR NEC	6541	LAP UNI SALPINGO-OOPHOR
5317	BIL ING HRN REP-GRFT NOS	6549	OTH UNI SALPINGO-OOPHOR
5321	UNIL FEMOR HRN REP-GRFT	6551	OTH REMOVE BOTH OVARIES
5329	UNIL FEMOR HERN REP NEC	6552	OTH REMOVE REMAIN OVARY
5331	BIL FEM HERN REPAIR-GRFT	6553	LAP REMOVE BOTH OVARIES
5339	BIL FEM HERN REPAIR NEC	6554	LAP REMOVE REMAIN OVARY
5341	OPN REP UMB HRN-GRFT NEC	6561	OTH REMOVE OVARIES/TUBES
5342	LAP UMBIL HERNIA-GRAFT	6562	OTH REMOVE REM OVA/TUBE
5343	LAP UMBILICAL HERNIA NEC	6563	LAP REMOVE OVARIES/TUBES
5349	OPEN REP UMBIL HERN NEC	6564	LAP REMOVE REM OVA/TUBE
5351	INCISIONAL HERNIA REPAIR	6571	OTH SIMPLE SUTURE OVARY
5359	ABD WALL HERN REPAIR NEC	6572	OTH REIMPLANT OF OVARY
5361	OPEN INCIS HERN-GRFT NEC		

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6573	OTH SALPINGO-OOPHOROPLAS	6693	IMPL FALLOP TUBE PROSTH
6574	LAP SIMPLE SUTURE OVARY	6694	REMOV FALLOP TUBE PROSTH
6575	LAP REIMPLANT OF OVARY	6696	FALLOPIAN TUBE DILATION
6576	LAP SALPINGO-OOPHOROPLAS	6697	BURY FIMBRIAE IN UTERUS
6579	REPAIR OF OVARY NEC	6699	FALLOPIAN TUBE OP NEC
6581	LAP ADHESIOLYS OVA/TUBE	680	HYSTEROTOMY
6589	ADHESIOLYSIS OVARY/TUBE	6813	OPEN UTERINE BIOPSY
6592	TRANSPLANTATION OF OVARY	6814	OPEN UTERINE LIGAMENT BX
6593	MANUAL RUPT OVARIAN CYST	6819	UTERUS/ADNEX DX PROC NEC
6594	OVARIAN DENERVATION	6823	ENDOMETRIAL ABLATION
6595	OVARIAN TORSION RELEASE	6829	UTERINE LES DESTRUCT NEC
6599	OVARIAN OPERATION NEC	683	<i>SUBTOTAL ABDOMINAL HYSTERECTOMY</i>
6601	SALPINGOTOMY	6831	LAP SCERVIC HYSTERECTOMY
6602	SALPINGOSTOMY	6839	SUBTOTL ABD HYST NEC/NOS
6611	FALLOPIAN TUBE BIOPSY	684	LAP TOTAL ABDOMINAL HYST
6619	FALLOP TUBE DX PROC NEC	6841	LAP TOTAL ABDOMINAL HYST
6631	BILAT TUBAL CRUSHING NEC	6849	TOTAL ABD HYST NEC/NOS
6632	BILAT TUBAL DIVISION NEC	686	<i>RADICAL ABDOMINAL HYSTERECTOMY</i>
6639	BILAT TUBAL DESTRUCT NEC	6861	LAP RADICAL ABDOMNL HYST
664	TOTAL UNILAT SALPINGECT	6869	RADICAL ABD HYST NEC/NOS
6651	REMOVE BOTH FALLOP TUBES	689	HYSTERECTOMY NEC/NOS
6652	REMOVE SOLITARY FAL TUBE	6919	DESTRUC UTER SUPPORT NEC
6661	DESTROY FALLOP TUBE LES	6921	INTERPOSIT OP UTERIN LIG
6662	REMOV TUBE & ECTOP PREG	6922	UTERINE SUSPENSION NEC
6663	BILAT PART SALPINGEC NOS	6923	VAG REPAIR INVERS UTERUS
6669	PARTIAL SALPINGECTOM NEC	6929	UTERUS/ADNEXA REPAIR NEC
6671	SIMPL SUTURE FALLOP TUBE	693	PARACERV UTERINE DENERV
6672	SALPINGO-OOPHOROSTOMY	6941	SUTURE UTERINE LACERAT
6673	SALPINGO-SALPINGOSTOMY	6942	CLOSURE UTERINE FISTULA
6674	SALPINGO-UTEROSTOMY	6949	UTERINE REPAIR NEC
6679	FALLOP TUBE REPAIR NEC	6998	UTERINE SUPPORT OP NEC
6692	UNILAT FALLOP TUBE DESTR		

¹ Italicized codes are not active in the current fiscal year.

Exclude cases:

- with any code for surgical removal of the colon (colectomy) or pelvic evisceration
- with any diagnosis of cancer involving or adjacent to the appendix
- MDC 14 (pregnancy, childbirth, and puerperium)
- 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 Surgical removal of the colon (colectomy) or pelvic evisceration procedure codes¹:

1731	LAP MUL SEG RES LG INTES	4574	OPN TRANSV COLON RES NEC
1732	LAPAROSCOPIC CECECTOMY	4575	OPN LFT HEMICOLECTMY NEC
1733	LAP RIGHT HEMICOLECTOMY	4576	OPEN SIGMOIDECTOMY NEC
1734	LAP RES TRANSVERSE COLON	4579	PRT LG INTES EXC NEC/NOS
1735	LAP LEFT HEMICOLECTOMY	458	<i>TOT ABD COLECTMY</i>
1736	LAP SIGMOIDECTOMY	4581	LAP TOT INTR-AB COLECTMY
1739	LAP PT EX LRG INTEST NEC	4582	OP TOT INTR-ABD COLECTMY
4571	OPN MUL SEG LG INTES NEC	4583	TOT ABD COLECTMY NEC/NOS
4572	OPEN CECECTOMY NEC	688	PELVIC EVISCERATION
4573	OPN RT HEMICOLECTOMY NEC		

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ICD-9-CM Cancer involving or adjacent to the appendix diagnosis codes:

1534	MALIGNANT NEOPLASM CECUM	1538	MALIGNANT NEO COLON NEC
1535	MALIGNANT NEO APPENDIX	1539	MALIGNANT NEO COLON NOS
1536	MALIG NEO ASCEND COLON	1588	MAL NEO PERITONEUM NEC

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1589	MAL NEO PERITONEUM NOS	1952	MALIG NEO ABDOMEN
1590	MALIG NEO INTESTINE NOS	1975	SEC MALIG NEO LG BOWEL
1598	MAL NEO GI/INTRA-ABD NEC	1976	SEC MAL NEO PERITONEUM
1599	MAL NEO GI TRACT ILL-DEF	20974	SEC NEUROENDO TU-PERITON