Inpatient Quality Indicator 08 (IQI 08) Esophageal Resection Mortality Rate
July 2021
Hospital-Level Indicator
Type of Score: Rate

Prepared by:

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DESCRIPTION

In-hospital deaths per 1,000 discharges with a procedure for esophogeal resection or total gastrectomy and a diagnosis of esophageal cancer; or with a procedure for esophogeal resection and a diagnosis of gastrointestinal cancer, ages 18 years and older. Excludes obstetric discharges and transfers to another hospital.

[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

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

DENOMINATOR

Discharges, for patients ages 18 years and older, with either

• any listed ICD-10-PCS procedure code for esophageal resection (***PRESOPP****) and any listed ICD-10-CM diagnosis code for esophageal cancer; (***PRESOPD****) or

• any listed ICD-10-PCS procedure code for esophageal resection (***PRESOPP****)* and any listed ICD-10-CM diagnosis code for gastrointestinal-related cancer; (***PRESO2D****) or

• any listed ICD-10-PCS procedure code for total gastrectomy ***(PRESO2P*)*** and any listed ICD-10-CM diagnosis code for esophageal cancer (***PRESOPD****).

DENOMINATOR EXCLUSIONS

Exclude cases:

• transferring to another short-term hospital (DISP=2)
• MDC 14 (pregnancy, childbirth, and puerperium)
• MDC 15 (newborns and other neonates with conditions originating in perinatal period)
• with an ungroupable DRG (DRG=999)
• with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

* See below for code list

Esophageal resection procedure codes: (PRESOPP)

0D11074	Bypass upper esophagus to cutaneous with autologous tissue substitute, open approach
0D11076	Bypass upper esophagus to stomach with autologous tissue substitute, open approach
0D11079	Bypass upper esophagus to duodenum with autologous tissue substitute, open approach
0D1107A	Bypass upper esophagus to jejunum with autologous tissue substitute, open approach
0D1107B	Bypass upper esophagus to ileum with autologous tissue substitute, open approach
0D110J4	Bypass upper esophagus to cutaneous with synthetic substitute, open approach
0D110J6	Bypass upper esophagus to stomach with synthetic substitute, open approach
0D110J9	Bypass upper esophagus to duodenum with synthetic substitute, open approach
0D110JA	Bypass upper esophagus to jejunum with synthetic substitute, open approach
0D110JB	Bypass upper esophagus to ileum with synthetic substitute, open approach
0D110K4	Bypass upper esophagus to cutaneous with nonautologous tissue substitute, open approach
0D110K6	Bypass upper esophagus to stomach with nonautologous tissue substitute, open approach
0D110K9	Bypass upper esophagus to duodenum with nonautologous tissue substitute, open approach
0D110KA	Bypass upper esophagus to jejunum with nonautologous tissue substitute, open approach
0D13476	Bypass lower esophagus to stomach with autologous tissue substitute, percutaneous endoscopic approach
0D13479	Bypass lower esophagus to duodenum with autologous tissue substitute, percutaneous endoscopic approach
0D1347A	Bypass lower esophagus to jejunum with autologous tissue substitute, percutaneous endoscopic approach
0D1347B	Bypass lower esophagus to ileum with autologous tissue substitute, percutaneous endoscopic approach
0D134J4	Bypass lower esophagus to cutaneous with synthetic substitute, percutaneous endoscopic approach
0D134J6	Bypass lower esophagus to stomach with synthetic substitute, percutaneous endoscopic approach
0D134J9	Bypass lower esophagus to duodenum with synthetic substitute, percutaneous endoscopic approach
0D134JA	Bypass lower esophagus to jejunum with synthetic substitute, percutaneous endoscopic approach
0D134JB	Bypass lower esophagus to ileum with synthetic substitute, percutaneous endoscopic approach
0D134K4	Bypass lower esophagus to cutaneous with nonautologous tissue substitute, percutaneous endoscopic approach
0D134K6	Bypass lower esophagus to stomach with nonautologous tissue substitute, percutaneous endoscopic approach
0D134K9	Bypass lower esophagus to duodenum with nonautologous tissue substitute, percutaneous endoscopic approach
0D134KA	Bypass lower esophagus to jejunum with nonautologous tissue substitute, percutaneous endoscopic approach
0D134KB	Bypass lower esophagus to ileum with nonautologous tissue substitute, percutaneous endoscopic approach

0D110KB	Bypass upper esophagus to ileum with nonautologous tissue substitute, open approach
0D110Z4	Bypass upper esophagus to cutaneous, open approach
0D110Z6	Bypass upper esophagus to stomach, open approach
0D110Z9	Bypass upper esophagus to duodenum, open approach
0D110ZA	Bypass upper esophagus to jejunum, open approach
0D110ZB	Bypass upper esophagus to ileum, open approach
0D11474	Bypass upper esophagus to cutaneous with autologous tissue substitute, percutaneous endoscopic approach
0D11476	Bypass upper esophagus to stomach with autologous tissue substitute, percutaneous endoscopic approach
0D11479	Bypass upper esophagus to duodenum with autologous tissue substitute, percutaneous endoscopic approach
0D1147A	Bypass upper esophagus to jejunum with autologous tissue substitute, percutaneous endoscopic approach
0D1147B	Bypass upper esophagus to ileum with autologous tissue substitute, percutaneous endoscopic approach
0D114J4	Bypass upper esophagus to cutaneous with synthetic substitute, percutaneous endoscopic approach
0D114J6	Bypass upper esophagus to stomach with synthetic substitute, percutaneous endoscopic approach
0D114J9	Bypass upper esophagus to duodenum with synthetic substitute, percutaneous endoscopic approach
0D114JA	Bypass upper esophagus to jejunum with synthetic substitute, percutaneous endoscopic approach
0D134Z4	Bypass lower esophagus to cutaneous, percutaneous endoscopic approach
0D134Z6	Bypass lower esophagus to stomach, percutaneous endoscopic approach
0D134Z9	Bypass lower esophagus to duodenum, percutaneous endoscopic approach
0D134ZA	Bypass lower esophagus to jejunum, percutaneous endoscopic approach
0D134ZB	Bypass lower esophagus to ileum, percutaneous endoscopic approach
0D15074	Bypass esophagus to cutaneous with autologous tissue substitute, open approach
0D15076	Bypass esophagus to stomach with autologous tissue substitute, open approach
0D15079	Bypass esophagus to duodenum with autologous tissue substitute, open approach
0D1507A	Bypass esophagus to jejunum with autologous tissue substitute, open approach
0D1507B	Bypass esophagus to ileum with autologous tissue substitute, open approach
0D150J4	Bypass esophagus to cutaneous with synthetic substitute, open approach
0D150J6	Bypass esophagus to stomach with synthetic substitute, open approach
0D150J9	Bypass esophagus to duodenum with synthetic substitute, open approach
0D150JA	Bypass esophagus to jejunum with synthetic substitute, open approach
0D150JB	Bypass esophagus to ileum with synthetic substitute, open approach

0D114JB	Bypass upper esophagus to ileum with synthetic substitute, percutaneous endoscopic approach
0D114K4	Bypass upper esophagus to cutaneous with nonautologous tissue substitute, percutaneous endoscopic approach
0D114K6	Bypass upper esophagus to stomach with nonautologous tissue substitute, percutaneous endoscopic approach
0D114K9	Bypass upper esophagus to duodenum with nonautologous tissue substitute, percutaneous endoscopic approach
0D114KA	Bypass upper esophagus to jejunum with nonautologous tissue substitute, percutaneous endoscopic approach
0D114KB	Bypass upper esophagus to ileum with nonautologous tissue substitute, percutaneous endoscopic approach
0D114Z4	Bypass upper esophagus to cutaneous, percutaneous endoscopic approach
0D114Z6	Bypass upper esophagus to stomach, percutaneous endoscopic approach
0D114Z9	Bypass upper esophagus to duodenum, percutaneous endoscopic approach
0D114ZA	Bypass upper esophagus to jejunum, percutaneous endoscopic approach
0D114ZB	Bypass upper esophagus to ileum, percutaneous endoscopic approach
0D12074	Bypass middle esophagus to cutaneous with autologous tissue substitute, open approach
0D12076	Bypass middle esophagus to stomach with autologous tissue substitute, open approach
0D12079	Bypass middle esophagus to duodenum with autologous tissue substitute, open approach
0D1207A	Bypass middle esophagus to jejunum with autologous tissue substitute, open approach
0D150K4	Bypass esophagus to cutaneous with nonautologous tissue substitute, open approach
0D150K6	Bypass esophagus to stomach with nonautologous tissue substitute, open approach
0D150K9	Bypass esophagus to duodenum with nonautologous tissue substitute, open approach
0D150KA	Bypass esophagus to jejunum with nonautologous tissue substitute, open approach
0D150KB	Bypass esophagus to ileum with nonautologous tissue substitute, open approach
0D150Z4	Bypass esophagus to cutaneous, open approach
0D150Z6	Bypass esophagus to stomach, open approach
0D150Z9	Bypass esophagus to duodenum, open approach
0D150ZA	Bypass esophagus to jejunum, open approach
0D150ZB	Bypass esophagus to ileum, open approach
0D15474	Bypass esophagus to cutaneous with autologous tissue substitute, percutaneous endoscopic approach
0D15476	Bypass esophagus to stomach with autologous tissue substitute, percutaneous endoscopic approach
0D15479	Bypass esophagus to duodenum with autologous tissue substitute, percutaneous endoscopic approach
0D1547A	Bypass esophagus to jejunum with autologous tissue substitute, percutaneous endoscopic approach
0D1547B	Bypass esophagus to ileum with autologous tissue substitute, percutaneous endoscopic approach

0D1207B	Bypass middle esophagus to ileum with autologous tissue substitute, open approach
0D120J4	Bypass middle esophagus to cutaneous with synthetic substitute, open approach
0D120J6	Bypass middle esophagus to stomach with synthetic substitute, open approach
0D120J9	Bypass middle esophagus to duodenum with synthetic substitute, open approach
0D120JA	Bypass middle esophagus to jejunum with synthetic substitute, open approach
0D120JB	Bypass middle esophagus to ileum with synthetic substitute, open approach
0D120K4	Bypass middle esophagus to cutaneous with nonautologous tissue substitute, open approach
0D120K6	Bypass middle esophagus to stomach with nonautologous tissue substitute, open approach
0D120K9	Bypass middle esophagus to duodenum with nonautologous tissue substitute, open approach
0D120KA	Bypass middle esophagus to jejunum with nonautologous tissue substitute, open approach
0D120KB	Bypass middle esophagus to ileum with nonautologous tissue substitute, open approach
0D120Z4	Bypass middle esophagus to cutaneous, open approach
0D120Z6	Bypass middle esophagus to stomach, open approach
0D120Z9	Bypass middle esophagus to duodenum, open approach
0D120ZA	Bypass middle esophagus to jejunum, open approach
0D120ZB	Bypass middle esophagus to ileum, open approach
0D154J4	Bypass esophagus to cutaneous with synthetic substitute, percutaneous endoscopic approach
0D154J6	Bypass esophagus to stomach with synthetic substitute, percutaneous endoscopic approach
0D154J9	Bypass esophagus to duodenum with synthetic substitute, percutaneous endoscopic approach
0D154JA	Bypass esophagus to jejunum with synthetic substitute, percutaneous endoscopic approach
0D154JB	Bypass esophagus to ileum with synthetic substitute, percutaneous endoscopic approach
0D154K4	Bypass esophagus to cutaneous with nonautologous tissue substitute, percutaneous endoscopic approach
0D154K6	Bypass esophagus to stomach with nonautologous tissue substitute, percutaneous endoscopic approach
0D154K9	Bypass esophagus to duodenum with nonautologous tissue substitute, percutaneous endoscopic approach
0D154KA	Bypass esophagus to jejunum with nonautologous tissue substitute, percutaneous endoscopic approach
0D154KB	Bypass esophagus to ileum with nonautologous tissue substitute, percutaneous endoscopic approach
0D154Z4	Bypass esophagus to cutaneous, percutaneous endoscopic approach
0D154Z6	Bypass esophagus to stomach, percutaneous endoscopic approach
0D154Z9	Bypass esophagus to duodenum, percutaneous endoscopic approach
0D154ZA	Bypass esophagus to jejunum, percutaneous endoscopic approach
0D154ZB	Bypass esophagus to ileum, percutaneous endoscopic approach
0DB10ZZ	Excision of upper esophagus, open approach

0D12474	Bypass middle esophagus to cutaneous with autologous tissue substitute, percutaneous endoscopic approach
0D12476	Bypass middle esophagus to stomach with autologous tissue substitute, percutaneous endoscopic approach
0D12479	Bypass middle esophagus to duodenum with autologous tissue substitute, percutaneous endoscopic approach
0D1247A	Bypass middle esophagus to jejunum with autologous tissue substitute, percutaneous endoscopic approach
0D1247B	Bypass middle esophagus to ileum with autologous tissue substitute, percutaneous endoscopic approach
0D124J4	Bypass middle esophagus to cutaneous with synthetic substitute, percutaneous endoscopic approach
0D124J6	Bypass middle esophagus to stomach with synthetic substitute, percutaneous endoscopic approach
0D124J9	Bypass middle esophagus to duodenum with synthetic substitute, percutaneous endoscopic approach
0D124JA	Bypass middle esophagus to jejunum with synthetic substitute, percutaneous endoscopic approach
0D124JB	Bypass middle esophagus to ileum with synthetic substitute, percutaneous endoscopic approach
0D124K4	Bypass middle esophagus to cutaneous with nonautologous tissue substitute, percutaneous endoscopic approach
0D124K6	Bypass middle esophagus to stomach with nonautologous tissue substitute, percutaneous endoscopic approach
0D124K9	Bypass middle esophagus to duodenum with nonautologous tissue substitute, percutaneous endoscopic approach

0DB14ZZ	Excision of upper esophagus, percutaneous endoscopic approach
0DB20ZZ	Excision of middle esophagus, open approach
0DB24ZZ	Excision of middle esophagus, percutaneous endoscopic approach
0DB30ZZ	Excision of lower esophagus, open approach
0DB34ZZ	Excision of lower esophagus, percutaneous endoscopic approach
0DB40ZZ	Excision of esophagogastric junction, open approach
0DB44ZZ	Excision of esophagogastric junction, percutaneous endoscopic approach
0DB50ZZ	Excision of esophagus, open approach
0DB54ZZ	Excision of esophagus, percutaneous endoscopic approach
0DR507Z	Replacement of esophagus with autologous tissue substitute, open approach
0DR50JZ	Replacement of esophagus with synthetic substitute, open approach
0DR50KZ	Replacement of esophagus with nonautologous tissue substitute, open approach
0DR547Z	Replacement of esophagus with autologous tissue substitute, percutaneous endoscopic approach

0D124KA	Bypass middle esophagus to jejunum with nonautologous tissue substitute, percutaneous endoscopic approach
0D124KB	Bypass middle esophagus to ileum with nonautologous tissue substitute, percutaneous endoscopic approach
0D124Z4	Bypass middle esophagus to cutaneous, percutaneous endoscopic approach
0D124Z6	Bypass middle esophagus to stomach, percutaneous endoscopic approach
0D124Z9	Bypass middle esophagus to duodenum, percutaneous endoscopic approach
0D124ZA	Bypass middle esophagus to jejunum, percutaneous endoscopic approach
0D124ZB	Bypass middle esophagus to ileum, percutaneous endoscopic approach
0D13074	Bypass lower esophagus to cutaneous with autologous tissue substitute, open approach
0D13076	Bypass lower esophagus to stomach with autologous tissue substitute, open approach
0D13079	Bypass lower esophagus to duodenum with autologous tissue substitute, open approach
0D1307A	Bypass lower esophagus to jejunum with autologous tissue substitute, open approach
0D1307B	Bypass lower esophagus to ileum with autologous tissue substitute, open approach
0D130J4	Bypass lower esophagus to cutaneous with synthetic substitute, open approach
0D130J6	Bypass lower esophagus to stomach with synthetic substitute, open approach
0D130J9	Bypass lower esophagus to duodenum with synthetic substitute, open approach
0DR54JZ	Replacement of esophagus with synthetic substitute, percutaneous endoscopic approach
0DR54KZ	Replacement of esophagus with nonautologous tissue substitute, percutaneous endoscopic approach
0DT10ZZ	Resection of upper esophagus, open approach
0DT14ZZ	Resection of upper esophagus, percutaneous endoscopic approach
0DT17ZZ	Resection of upper esophagus, via natural or artificial opening
0DT18ZZ	Resection of upper esophagus, via natural or artificial opening endoscopic
0DT20ZZ	Resection of middle esophagus, open approach
0DT24ZZ	Resection of middle esophagus, percutaneous endoscopic approach
0DT27ZZ	Resection of middle esophagus, via natural or artificial opening
0DT28ZZ	Resection of middle esophagus, via natural or artificial opening endoscopic
0DT30ZZ	Resection of lower esophagus, open approach
0DT34ZZ	Resection of lower esophagus, percutaneous endoscopic approach
0DT37ZZ	Resection of lower esophagus, via natural or artificial opening
0DT38ZZ	Resection of lower esophagus, via natural or artificial opening endoscopic
0DT40ZZ	Resection of esophagogastric junction, open approach

0D130JA	Bypass lower esophagus to jejunum with synthetic substitute, open approach	0DT44ZZ	Resection of esophagogastric junction, percutaneous endoscopic approach
0D130JB	Bypass lower esophagus to ileum with synthetic substitute, open approach	0DT47ZZ	Resection of esophagogastric junction, via natural or artificial opening
0D130K4	Bypass lower esophagus to cutaneous with nonautologous tissue substitute, open approach	0DT48ZZ	Resection of esophagogastric junction, via natural or artificial opening endoscopic
0D130K6	Bypass lower esophagus to stomach with nonautologous tissue substitute, open approach	0DT50ZZ	Resection of esophagus, open approach
0D130K9	Bypass lower esophagus to duodenum with nonautologous tissue substitute, open approach	0DT54ZZ	Resection of esophagus, percutaneous endoscopic approach
0D130KA	Bypass lower esophagus to jejunum with nonautologous tissue substitute, open approach	0DT57ZZ	Resection of esophagus, via natural or artificial opening
0D130KB	Bypass lower esophagus to ileum with nonautologous tissue substitute, open approach	0DT58ZZ	Resection of esophagus, via natural or artificial opening endoscopic
0D130Z4	Bypass lower esophagus to cutaneous, open approach	0DX60Z5	Transfer stomach to esophagus, open approach
0D130Z6	Bypass lower esophagus to stomach, open approach	0DX64Z5	Transfer stomach to esophagus, percutaneous endoscopic approach
0D130Z9	Bypass lower esophagus to duodenum, open approach	0DX80Z5	Transfer small intestine to esophagus, open approach
0D130ZA	Bypass lower esophagus to jejunum, open approach	0DX84Z5	Transfer small intestine to esophagus, percutaneous endoscopic approach
0D130ZB	Bypass lower esophagus to ileum, open approach	0DXE0Z5	Transfer large intestine to esophagus, open approach
0D13474	Bypass lower esophagus to cutaneous with autologous tissue substitute, percutaneous endoscopic approach	0DXE4Z5	Transfer large intestine to esophagus, percutaneous endoscopic approach

Esophageal cancer diagnosis codes: (PRESOPD)

C153	Malignant neoplasm of upper third of esophagus	C158	Malignant neoplasm of overlapping sites of esophagus
C154	Malignant neoplasm of middle third of esophagus	C159	Malignant neoplasm of esophagus, unspecified
C155	Malignant neoplasm of lower third of esophagus		

Gastrointestinal-related cancer diagnosis codes: (PRESO2D)

C160	Malignant neoplasm of cardia	D001	Carcinoma in situ of esophagus
C49A1	Gastrointestinal stromal tumor of esophagus	D378	Neoplasm of uncertain behavior of other specified digestive organs
C7880	Secondary malignant neoplasm of unspecified digestive organ	D379	Neoplasm of uncertain behavior of digestive organ, unspecified
C7889	Secondary malignant neoplasm of other digestive organs		

Total gastrectomy procedure code: (PRESO2P)

0DT60ZZ	Resection of stomach, open approach	0DT67ZZ	Resection of stomach, via natural or artificial opening
0DT64ZZ	Resection of stomach, percutaneous endoscopic approach	0DT68ZZ	Resection of stomach, via natural or artificial opening endoscopic