



AHRQ Quality Indicators™ (AHRQ QI™) ICD-10-CM/PCS Specification Version 6.0

Inpatient Quality Indicator 08 (IQI 08) Esophageal Resection Mortality Rate

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Provider-Level Indicator

Type of Score: Rate

Prepared by:

Agency for Healthcare Research and Quality

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www.qualityindicators.ahrq.gov

DESCRIPTION

In-hospital deaths per 1,000 discharges with esophageal resection for 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 codes for esophageal resection and any-listed ICD-10-CM diagnosis codes for esophageal cancer; or
- any-listed ICD-10-PCS procedure codes for esophageal resection and any-listed ICD-10-CM diagnosis codes for gastrointestinal-related cancer; or
- any-listed ICD-10-PCS procedure codes for total gastrectomy and any-listed ICD-10-CM diagnosis codes for esophageal cancer.

Esophageal resection procedure codes: (PRESOPP)

0D11074	Bypass Upper Esophagus to Cutaneous with Autologous Tissue Substitute, Open Approach	0D130Z9	Bypass Lower Esophagus to Duodenum, Open Approach
0D11076	Bypass Upper Esophagus to Stomach with Autologous Tissue Substitute, Open Approach	0D130ZA	Bypass Lower Esophagus to Jejunum, Open Approach
0D11079	Bypass Upper Esophagus to Duodenum with Autologous Tissue Substitute, Open Approach	0D130ZB	Bypass Lower Esophagus to Ileum, Open Approach
0D1107A	Bypass Upper Esophagus to Jejunum with Autologous Tissue Substitute, Open Approach	0D133J4	Bypass Lower Esophagus to Cutaneous with Synthetic Substitute, Percutaneous Approach
0D1107B	Bypass Upper Esophagus to Ileum with Autologous Tissue Substitute, Open Approach	0D13474	Bypass Lower Esophagus to Cutaneous with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D110J4	Bypass Upper Esophagus to Cutaneous with Synthetic Substitute, Open Approach	0D13476	Bypass Lower Esophagus to Stomach with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D110J6	Bypass Upper Esophagus to Stomach with Synthetic Substitute, Open Approach	0D13479	Bypass Lower Esophagus to Duodenum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D110J9	Bypass Upper Esophagus to Duodenum with Synthetic Substitute, Open Approach	0D1347A	Bypass Lower Esophagus to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach

0D110JA	Bypass Upper Esophagus to Jejunum with Synthetic Substitute, Open Approach	0D1347B	Bypass Lower Esophagus to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D110JB	Bypass Upper Esophagus to Ileum with Synthetic Substitute, Open Approach	0D134J4	Bypass Lower Esophagus to Cutaneous with Synthetic Substitute, Percutaneous Endoscopic Approach
0D110K4	Bypass Upper Esophagus to Cutaneous with Nonautologous Tissue Substitute, Open Approach	0D134J6	Bypass Lower Esophagus to Stomach with Synthetic Substitute, Percutaneous Endoscopic Approach
0D110K6	Bypass Upper Esophagus to Stomach with Nonautologous Tissue Substitute, Open Approach	0D134J9	Bypass Lower Esophagus to Duodenum with Synthetic Substitute, Percutaneous Endoscopic Approach
0D110K9	Bypass Upper Esophagus to Duodenum with Nonautologous Tissue Substitute, Open Approach	0D134JA	Bypass Lower Esophagus to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach
0D110KA	Bypass Upper Esophagus to Jejunum with Nonautologous Tissue Substitute, Open Approach	0D134JB	Bypass Lower Esophagus to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach
0D110KB	Bypass Upper Esophagus to Ileum with Nonautologous Tissue Substitute, Open Approach	0D134K4	Bypass Lower Esophagus to Cutaneous with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D110Z4	Bypass Upper Esophagus to Cutaneous, Open Approach	0D134K6	Bypass Lower Esophagus to Stomach with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D110Z6	Bypass Upper Esophagus to Stomach, Open Approach	0D134K9	Bypass Lower Esophagus to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D110Z9	Bypass Upper Esophagus to Duodenum, Open Approach	0D134KA	Bypass Lower Esophagus to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D110ZA	Bypass Upper Esophagus to Jejunum, Open Approach	0D134KB	Bypass Lower Esophagus to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach

0D110ZB	Bypass Upper Esophagus to Ileum, Open Approach	0D134Z4	Bypass Lower Esophagus to Cutaneous, Percutaneous Endoscopic Approach
0D113J4	Bypass Upper Esophagus to Cutaneous with Synthetic Substitute, Percutaneous Approach	0D134Z6	Bypass Lower Esophagus to Stomach, Percutaneous Endoscopic Approach
0D11474	Bypass Upper Esophagus to Cutaneous with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D134Z9	Bypass Lower Esophagus to Duodenum, Percutaneous Endoscopic Approach
0D11476	Bypass Upper Esophagus to Stomach with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D134ZA	Bypass Lower Esophagus to Jejunum, Percutaneous Endoscopic Approach
0D11479	Bypass Upper Esophagus to Duodenum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D134ZB	Bypass Lower Esophagus to Ileum, Percutaneous Endoscopic Approach
0D1147A	Bypass Upper Esophagus to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D13874	Bypass Lower Esophagus to Cutaneous with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D1147B	Bypass Upper Esophagus to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D13876	Bypass Lower Esophagus to Stomach with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114J4	Bypass Upper Esophagus to Cutaneous with Synthetic Substitute, Percutaneous Endoscopic Approach	0D13879	Bypass Lower Esophagus to Duodenum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114J6	Bypass Upper Esophagus to Stomach with Synthetic Substitute, Percutaneous Endoscopic Approach	0D1387A	Bypass Lower Esophagus to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114J9	Bypass Upper Esophagus to Duodenum with Synthetic Substitute, Percutaneous Endoscopic Approach	0D1387B	Bypass Lower Esophagus to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114JA	Bypass Upper Esophagus to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach	0D138J4	Bypass Lower Esophagus to Cutaneous with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic

0D114JB	Bypass Upper Esophagus to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	0D138J6	Bypass Lower Esophagus to Stomach with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D114K4	Bypass Upper Esophagus to Cutaneous with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D138J9	Bypass Lower Esophagus to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D114K6	Bypass Upper Esophagus to Stomach with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D138JA	Bypass Lower Esophagus to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D114K9	Bypass Upper Esophagus to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D138JB	Bypass Lower Esophagus to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D114KA	Bypass Upper Esophagus to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D138K4	Bypass Lower Esophagus to Cutaneous with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114KB	Bypass Upper Esophagus to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D138K6	Bypass Lower Esophagus to Stomach with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114Z4	Bypass Upper Esophagus to Cutaneous, Percutaneous Endoscopic Approach	0D138K9	Bypass Lower Esophagus to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114Z6	Bypass Upper Esophagus to Stomach, Percutaneous Endoscopic Approach	0D138KA	Bypass Lower Esophagus to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114Z9	Bypass Upper Esophagus to Duodenum, Percutaneous Endoscopic Approach	0D138KB	Bypass Lower Esophagus to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D114ZA	Bypass Upper Esophagus to Jejunum, Percutaneous Endoscopic Approach	0D138Z4	Bypass Lower Esophagus to Cutaneous, Via Natural or Artificial Opening Endoscopic
0D114ZB	Bypass Upper Esophagus to Ileum, Percutaneous Endoscopic Approach	0D138Z6	Bypass Lower Esophagus to Stomach, Via Natural or Artificial Opening Endoscopic

0D11874	Bypass Upper Esophagus to Cutaneous with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D138Z9	Bypass Lower Esophagus to Duodenum, Via Natural or Artificial Opening Endoscopic
0D11876	Bypass Upper Esophagus to Stomach with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D138ZA	Bypass Lower Esophagus to Jejunum, Via Natural or Artificial Opening Endoscopic
0D11879	Bypass Upper Esophagus to Duodenum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D138ZB	Bypass Lower Esophagus to Ileum, Via Natural or Artificial Opening Endoscopic
0D1187A	Bypass Upper Esophagus to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D15074	Bypass Esophagus to Cutaneous with Autologous Tissue Substitute, Open Approach
0D1187B	Bypass Upper Esophagus to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D15076	Bypass Esophagus to Stomach with Autologous Tissue Substitute, Open Approach
0D118J4	Bypass Upper Esophagus to Cutaneous with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0D15079	Bypass Esophagus to Duodenum with Autologous Tissue Substitute, Open Approach
0D118J6	Bypass Upper Esophagus to Stomach with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0D1507A	Bypass Esophagus to Jejunum with Autologous Tissue Substitute, Open Approach
0D118J9	Bypass Upper Esophagus to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0D1507B	Bypass Esophagus to Ileum with Autologous Tissue Substitute, Open Approach
0D118JA	Bypass Upper Esophagus to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0D150J4	Bypass Esophagus to Cutaneous with Synthetic Substitute, Open Approach
0D118JB	Bypass Upper Esophagus to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0D150J6	Bypass Esophagus to Stomach with Synthetic Substitute, Open Approach
0D118K4	Bypass Upper Esophagus to Cutaneous with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D150J9	Bypass Esophagus to Duodenum with Synthetic Substitute, Open Approach

0D118K6	Bypass Upper Esophagus to Stomach with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D150JA	Bypass Esophagus to Jejunum with Synthetic Substitute, Open Approach
0D118K9	Bypass Upper Esophagus to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D150JB	Bypass Esophagus to Ileum with Synthetic Substitute, Open Approach
0D118KA	Bypass Upper Esophagus to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D150K4	Bypass Esophagus to Cutaneous with Nonautologous Tissue Substitute, Open Approach
0D118KB	Bypass Upper Esophagus to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D150K6	Bypass Esophagus to Stomach with Nonautologous Tissue Substitute, Open Approach
0D118Z4	Bypass Upper Esophagus to Cutaneous, Via Natural or Artificial Opening Endoscopic	0D150K9	Bypass Esophagus to Duodenum with Nonautologous Tissue Substitute, Open Approach
0D118Z6	Bypass Upper Esophagus to Stomach, Via Natural or Artificial Opening Endoscopic	0D150KA	Bypass Esophagus to Jejunum with Nonautologous Tissue Substitute, Open Approach
0D118Z9	Bypass Upper Esophagus to Duodenum, Via Natural or Artificial Opening Endoscopic	0D150KB	Bypass Esophagus to Ileum with Nonautologous Tissue Substitute, Open Approach
0D118ZA	Bypass Upper Esophagus to Jejunum, Via Natural or Artificial Opening Endoscopic	0D150Z4	Bypass Esophagus to Cutaneous, Open Approach
0D118ZB	Bypass Upper Esophagus to Ileum, Via Natural or Artificial Opening Endoscopic	0D150Z6	Bypass Esophagus to Stomach, Open Approach
0D12074	Bypass Middle Esophagus to Cutaneous with Autologous Tissue Substitute, Open Approach	0D150Z9	Bypass Esophagus to Duodenum, Open Approach
0D12076	Bypass Middle Esophagus to Stomach with Autologous Tissue Substitute, Open Approach	0D150ZA	Bypass Esophagus to Jejunum, Open Approach

0D12079	Bypass Middle Esophagus to Duodenum with Autologous Tissue Substitute, Open Approach	0D150ZB	Bypass Esophagus to Ileum, Open Approach
0D1207A	Bypass Middle Esophagus to Jejunum with Autologous Tissue Substitute, Open Approach	0D153J4	Bypass Esophagus to Cutaneous with Synthetic Substitute, Percutaneous Approach
0D1207B	Bypass Middle Esophagus to Ileum with Autologous Tissue Substitute, Open Approach	0D15474	Bypass Esophagus to Cutaneous with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120J4	Bypass Middle Esophagus to Cutaneous with Synthetic Substitute, Open Approach	0D15476	Bypass Esophagus to Stomach with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120J6	Bypass Middle Esophagus to Stomach with Synthetic Substitute, Open Approach	0D15479	Bypass Esophagus to Duodenum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120J9	Bypass Middle Esophagus to Duodenum with Synthetic Substitute, Open Approach	0D1547A	Bypass Esophagus to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120JA	Bypass Middle Esophagus to Jejunum with Synthetic Substitute, Open Approach	0D1547B	Bypass Esophagus to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120JB	Bypass Middle Esophagus to Ileum with Synthetic Substitute, Open Approach	0D154J4	Bypass Esophagus to Cutaneous with Synthetic Substitute, Percutaneous Endoscopic Approach
0D120K4	Bypass Middle Esophagus to Cutaneous with Nonautologous Tissue Substitute, Open Approach	0D154J6	Bypass Esophagus to Stomach with Synthetic Substitute, Percutaneous Endoscopic Approach
0D120K6	Bypass Middle Esophagus to Stomach with Nonautologous Tissue Substitute, Open Approach	0D154J9	Bypass Esophagus to Duodenum with Synthetic Substitute, Percutaneous Endoscopic Approach
0D120K9	Bypass Middle Esophagus to Duodenum with Nonautologous Tissue Substitute, Open Approach	0D154JA	Bypass Esophagus to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach

0D120KA	Bypass Middle Esophagus to Jejunum with Nonautologous Tissue Substitute, Open Approach	0D154JB	Bypass Esophagus to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach
0D120KB	Bypass Middle Esophagus to Ileum with Nonautologous Tissue Substitute, Open Approach	0D154K4	Bypass Esophagus to Cutaneous with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120Z4	Bypass Middle Esophagus to Cutaneous, Open Approach	0D154K6	Bypass Esophagus to Stomach with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120Z6	Bypass Middle Esophagus to Stomach, Open Approach	0D154K9	Bypass Esophagus to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120Z9	Bypass Middle Esophagus to Duodenum, Open Approach	0D154KA	Bypass Esophagus to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120ZA	Bypass Middle Esophagus to Jejunum, Open Approach	0D154KB	Bypass Esophagus to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0D120ZB	Bypass Middle Esophagus to Ileum, Open Approach	0D154Z4	Bypass Esophagus to Cutaneous, Percutaneous Endoscopic Approach
0D123J4	Bypass Middle Esophagus to Cutaneous with Synthetic Substitute, Percutaneous Approach	0D154Z6	Bypass Esophagus to Stomach, Percutaneous Endoscopic Approach
0D12474	Bypass Middle Esophagus to Cutaneous with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D154Z9	Bypass Esophagus to Duodenum, Percutaneous Endoscopic Approach
0D12476	Bypass Middle Esophagus to Stomach with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D154ZA	Bypass Esophagus to Jejunum, Percutaneous Endoscopic Approach
0D12479	Bypass Middle Esophagus to Duodenum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D154ZB	Bypass Esophagus to Ileum, Percutaneous Endoscopic Approach

0D1247A	Bypass Middle Esophagus to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D15874	Bypass Esophagus to Cutaneous with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D1247B	Bypass Middle Esophagus to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0D15876	Bypass Esophagus to Stomach with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D124J4	Bypass Middle Esophagus to Cutaneous with Synthetic Substitute, Percutaneous Endoscopic Approach	0D15879	Bypass Esophagus to Duodenum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D124J6	Bypass Middle Esophagus to Stomach with Synthetic Substitute, Percutaneous Endoscopic Approach	0D1587A	Bypass Esophagus to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D124J9	Bypass Middle Esophagus to Duodenum with Synthetic Substitute, Percutaneous Endoscopic Approach	0D1587B	Bypass Esophagus to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D124JA	Bypass Middle Esophagus to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach	0D158J4	Bypass Esophagus to Cutaneous with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D124JB	Bypass Middle Esophagus to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	0D158J6	Bypass Esophagus to Stomach with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D124K4	Bypass Middle Esophagus to Cutaneous with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D158J9	Bypass Esophagus to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D124K6	Bypass Middle Esophagus to Stomach with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D158JA	Bypass Esophagus to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D124K9	Bypass Middle Esophagus to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D158JB	Bypass Esophagus to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic
0D124KA	Bypass Middle Esophagus to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D158K4	Bypass Esophagus to Cutaneous with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic

0D124KB	Bypass Middle Esophagus to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0D158K6	Bypass Esophagus to Stomach with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D124Z4	Bypass Middle Esophagus to Cutaneous, Percutaneous Endoscopic Approach	0D158K9	Bypass Esophagus to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D124Z6	Bypass Middle Esophagus to Stomach, Percutaneous Endoscopic Approach	0D158KA	Bypass Esophagus to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D124Z9	Bypass Middle Esophagus to Duodenum, Percutaneous Endoscopic Approach	0D158KB	Bypass Esophagus to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic
0D124ZA	Bypass Middle Esophagus to Jejunum, Percutaneous Endoscopic Approach	0D158Z4	Bypass Esophagus to Cutaneous, Via Natural or Artificial Opening Endoscopic
0D124ZB	Bypass Middle Esophagus to Ileum, Percutaneous Endoscopic Approach	0D158Z6	Bypass Esophagus to Stomach, Via Natural or Artificial Opening Endoscopic
0D12874	Bypass Middle Esophagus to Cutaneous with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D158Z9	Bypass Esophagus to Duodenum, Via Natural or Artificial Opening Endoscopic
0D12876	Bypass Middle Esophagus to Stomach with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D158ZA	Bypass Esophagus to Jejunum, Via Natural or Artificial Opening Endoscopic
0D12879	Bypass Middle Esophagus to Duodenum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0D158ZB	Bypass Esophagus to Ileum, Via Natural or Artificial Opening Endoscopic
0D1287A	Bypass Middle Esophagus to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0DB10ZZ	Excision of Upper Esophagus, Open Approach
0D1287B	Bypass Middle Esophagus to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0DB13ZZ	Excision of Upper Esophagus, Percutaneous Approach

0D128J4	Bypass Middle Esophagus to Cutaneous with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0DB17ZZ	Excision of Upper Esophagus, Via Natural or Artificial Opening
0D128J6	Bypass Middle Esophagus to Stomach with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0DB20ZZ	Excision of Middle Esophagus, Open Approach
0D128J9	Bypass Middle Esophagus to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0DB23ZZ	Excision of Middle Esophagus, Percutaneous Approach
0D128JA	Bypass Middle Esophagus to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0DB27ZZ	Excision of Middle Esophagus, Via Natural or Artificial Opening
0D128JB	Bypass Middle Esophagus to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	0DB30ZZ	Excision of Lower Esophagus, Open Approach
0D128K4	Bypass Middle Esophagus to Cutaneous with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0DB33ZZ	Excision of Lower Esophagus, Percutaneous Approach
0D128K6	Bypass Middle Esophagus to Stomach with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0DB37ZZ	Excision of Lower Esophagus, Via Natural or Artificial Opening
0D128K9	Bypass Middle Esophagus to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0DB50ZZ	Excision of Esophagus, Open Approach
0D128KA	Bypass Middle Esophagus to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0DB53ZZ	Excision of Esophagus, Percutaneous Approach
0D128KB	Bypass Middle Esophagus to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	0DB57ZZ	Excision of Esophagus, Via Natural or Artificial Opening
0D128Z4	Bypass Middle Esophagus to Cutaneous, Via Natural or Artificial Opening Endoscopic	0DT10ZZ	Resection of Upper Esophagus, Open Approach

0D128Z6	Bypass Middle Esophagus to Stomach, Via Natural or Artificial Opening Endoscopic	0DT14ZZ	Resection of Upper Esophagus, Percutaneous Endoscopic Approach
0D128Z9	Bypass Middle Esophagus to Duodenum, Via Natural or Artificial Opening Endoscopic	0DT17ZZ	Resection of Upper Esophagus, Via Natural or Artificial Opening
0D128ZA	Bypass Middle Esophagus to Jejunum, Via Natural or Artificial Opening Endoscopic	0DT18ZZ	Resection of Upper Esophagus, Via Natural or Artificial Opening Endoscopic
0D128ZB	Bypass Middle Esophagus to Ileum, Via Natural or Artificial Opening Endoscopic	0DT20ZZ	Resection of Middle Esophagus, Open Approach
0D13074	Bypass Lower Esophagus to Cutaneous with Autologous Tissue Substitute, Open Approach	0DT24ZZ	Resection of Middle Esophagus, Percutaneous Endoscopic Approach
0D13076	Bypass Lower Esophagus to Stomach with Autologous Tissue Substitute, Open Approach	0DT27ZZ	Resection of Middle Esophagus, Via Natural or Artificial Opening
0D13079	Bypass Lower Esophagus to Duodenum with Autologous Tissue Substitute, Open Approach	0DT28ZZ	Resection of Middle Esophagus, Via Natural or Artificial Opening Endoscopic
0D1307A	Bypass Lower Esophagus to Jejunum with Autologous Tissue Substitute, Open Approach	0DT30ZZ	Resection of Lower Esophagus, Open Approach
0D1307B	Bypass Lower Esophagus to Ileum with Autologous Tissue Substitute, Open Approach	0DT34ZZ	Resection of Lower Esophagus, Percutaneous Endoscopic Approach
0D130J4	Bypass Lower Esophagus to Cutaneous with Synthetic Substitute, Open Approach	0DT37ZZ	Resection of Lower Esophagus, Via Natural or Artificial Opening
0D130J6	Bypass Lower Esophagus to Stomach with Synthetic Substitute, Open Approach	0DT38ZZ	Resection of Lower Esophagus, Via Natural or Artificial Opening Endoscopic

0D130J9	Bypass Lower Esophagus to Duodenum with Synthetic Substitute, Open Approach	0DT50ZZ	Resection of Esophagus, Open Approach
0D130JA	Bypass Lower Esophagus to Jejunum with Synthetic Substitute, Open Approach	0DT54ZZ	Resection of Esophagus, Percutaneous Endoscopic Approach
0D130JB	Bypass Lower Esophagus to Ileum with Synthetic Substitute, Open Approach	0DT57ZZ	Resection of Esophagus, Via Natural or Artificial Opening
0D130K4	Bypass Lower Esophagus to Cutaneous with Nonautologous Tissue Substitute, Open Approach	0DT58ZZ	Resection of Esophagus, Via Natural or Artificial Opening Endoscopic
0D130K6	Bypass Lower Esophagus to Stomach with Nonautologous Tissue Substitute, Open Approach	0DX60Z5	Transfer Stomach to Esophagus, Open Approach
0D130K9	Bypass Lower Esophagus to Duodenum with Nonautologous Tissue Substitute, Open Approach	0DX64Z5	Transfer Stomach to Esophagus, Percutaneous Endoscopic Approach
0D130KA	Bypass Lower Esophagus to Jejunum with Nonautologous Tissue Substitute, Open Approach	0DX80Z5	Transfer Small Intestine to Esophagus, Open Approach
0D130KB	Bypass Lower Esophagus to Ileum with Nonautologous Tissue Substitute, Open Approach	0DX84Z5	Transfer Small Intestine to Esophagus, Percutaneous Endoscopic Approach
0D130Z4	Bypass Lower Esophagus to Cutaneous, Open Approach	0DXE0Z5	Transfer Large Intestine to Esophagus, Open Approach
0D130Z6	Bypass Lower Esophagus to Stomach, Open 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
C7880	Secondary malignant neoplasm of unspecified digestive organ	D378	Neoplasm of uncertain behavior of other specified digestive organs
C7889	Secondary malignant neoplasm of other digestive organs	D379	Neoplasm of uncertain behavior of digestive organ, unspecified

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

DENOMINATOR EXCLUSIONS

Exclude cases:

- transferring to another short-term hospital (DISP=2)
- 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)