

Supplementary Table 1. ICD-10 diagnostic and procedural codes utilized in the study

We employed two distinct methodologies to identify hospitalizations related to non-variceal upper gastrointestinal bleeding.

1- If the primary diagnosis ICD-10 code is one of the following

K25.0 Acute gastric ulcer with hemorrhage

K25.2 Acute gastric ulcer with both hemorrhage and perforation

K25.4 Chronic or unspecified gastric ulcer with hemorrhage

K25.6 Chronic or unspecified gastric ulcer with both hemorrhage and perforation

K26.0 Acute duodenal ulcer with hemorrhage

K26.2 Acute duodenal ulcer with both hemorrhage and perforation

K26.4 Chronic or unspecified duodenal ulcer with hemorrhage

K26.6 Chronic or unspecified duodenal ulcer with both hemorrhage and perforation

K27.0 Acute peptic ulcer, site unspecified, with hemorrhage

K27.2 Acute peptic ulcer, site unspecified, with both hemorrhage and perforation

K27.4 Chronic or unspecified peptic ulcer, site unspecified, with hemorrhage

K27.6 Chronic or unspecified peptic ulcer, site unspecified, with both hemorrhage and perforation

K28.0 Acute gastrojejunal ulcer with hemorrhage

K28.2 Acute gastrojejunal ulcer with both hemorrhage and perforation

K28.4 Chronic or unspecified gastrojejunal ulcer with hemorrhage

K28.6 Chronic or unspecified gastrojejunal ulcer with both hemorrhage and perforation

K29.01 Acute gastritis with bleeding

K29.21 Alcoholic gastritis with bleeding

K29.31 Chronic superficial gastritis with bleeding

K29.41 Chronic atrophic gastritis with bleeding

K29.51 Unspecified chronic gastritis with bleeding

K29.61 Other gastritis with bleeding

K29.71 Gastritis, unspecified with bleeding

K29.81 Duodenitis with bleeding

K29.91 Gastroduodenitis, unspecified with bleeding

K31.811 Angiodysplasia

K31.82 Dilatation

K21.01 GERD esophagitis with bleeding

K20.91 Unspecified esophagitis with bleeding

K22.11 esophageal ulcer

K92.0 Hematemesis

2- Hospitalizations were included if the primary diagnosis indicated a non-specific source of upper gastrointestinal bleeding (2a) and if there was a secondary diagnosis indicating a potential source of bleeding (2b).

2a- ICD-10 codes suggestive of non-specific source of upper gastrointestinal bleeding

K92.2 GI hemoarrhage

K92.1 Melena

D62 acute post hemorrhagic anemia

2b- ICD-10 codes that indicates a potential source of bleeding.

D13.0 Benign neoplasm of esophagus

D13.1 Benign neoplasm of stomach

D13.2 Benign neoplasm of duodenum

C15.3 Malignant neoplasm of upper third of esophagus

C15.4 Malignant neoplasm of middle third of esophagus

C15.5 Malignant neoplasm of lower third of esophagus

C15.8 Malignant neoplasm of overlapping sites of esophagus

C15.9 Malignant neoplasm of esophagus, unspecified

C16.0 Malignant neoplasm of cardia

C16.1 Malignant neoplasm of fundus of stomach

C16.2 Malignant neoplasm of body of stomach

C16.3 Malignant neoplasm of pyloric antrum

C16.4 Malignant neoplasm of pylorus

C16.5 Malignant neoplasm of lesser curvature of stomach, unspecified

C16.6 Malignant neoplasm of greater curvature of stomach, unspecified

C16.8 Malignant neoplasm of overlapping sites of stomach

C16.9 Malignant neoplasm of stomach, unspecified

C17.0 Malignant neoplasm of duodenum

K22.10 Ulcer of esophagus without bleeding

K20.80 Esophagitis without bleeding

K20.8 Other esophagitis without bleeding

K20.9 Esophagitis, unspecified without bleeding

K25.3 Acute gastric ulcer without hemorrhage or perforation

K25.7 Chronic gastric ulcer without hemorrhage or perforation

K25.9 Gastric ulcer, unspecified as acute or chronic, without hemorrhage or perforation

K31.819 Angiodysplasia of stomach and duodenum without bleeding

K21.00 Gastro-esophageal reflux disease with esophagitis-

This above inclusion criteria are based on previously published studies (1,2).

Esophagogastroduodenoscopy (EGD)

1- Diagnostic:

0DJ68ZZ: Inspection of Stomach, Via Natural or Artificial Opening Endoscopic

0DJ08ZZ: Inspection of Upper Intestinal Tract, Via Natural or Artificial Opening Endoscopic

2- Therapeutic:

0W3P8ZZ: Control Bleeding in Gastrointestinal Tract, Via Natural or Artificial Opening Endoscopic

0D518ZZ: Destruction of Upper Esophagus, Via Natural or Artificial Opening Endoscopic

0D528ZZ: Destruction of Middle Esophagus, Via Natural or Artificial Opening Endoscopic

0D538ZZ: Destruction of Lower Esophagus, Via Natural or Artificial Opening Endoscopic

0D548ZZ: Destruction of Esophagogastric Junction, Via Natural or Artificial Opening Endoscopic

0D558ZZ: Endoscopic excision or destruction of lesion or tissue of esophagus

3E0G8TZ: Introduction of Destructive Agent into Upper GI, Via Natural or Artificial Opening Endoscopic

0D568ZZ: Destruction of Stomach, Via Natural or Artificial Opening Endoscopic

0D578ZZ: Destruction of Stomach, Pylorus, Via Natural or Artificial Opening Endoscopic

0D598ZZ: Destruction of Duodenum, Via Natural or Artificial Opening Endoscopic

0DQ68ZZ: Repair Stomach, Via Natural or Artificial Opening Endoscopic

0DQ78ZZ: Repair Stomach, Pylorus, Via Natural or Artificial Opening Endoscopic

0DQ98ZZ: Repair Duodenum, Via Natural or Artificial Opening Endoscopic

Other ICD10 codes utilized in our study:

Z7982: Long-term use of aspirin

Z791: Long-term use of NSAIDs

Z7901: Long-term use of anticoagulants

30243N0, 30243N1, 30243P0, 30243P1, 30243H0, 30243H1, 30240N0, 30240N1, 30240P0, 30240P1, 30240H0, 30240H1, 30230H0, 30230H1, 30230N0, 30230N1, 30230P0, 30230P1, 30233N0, 30233N1, 30233P0, 30233P1: Blood transfusion

J9601, J9600, J95821, J96: Acute respiratory failure

0BH17EZ, 0BH18EZ, 5A1935Z, 5A1945Z, 5A1955Z: Mechanical ventilation

Z515: Palliative consult

The ICD-10 codes used to identify EGD procedures are based on previously published study about NVUGIB (3).

1. Abougergi MS, Travis AC, Saltzman JR. The in-hospital mortality rate for upper GI hemorrhage has decreased over 2 decades in the United States: A nationwide analysis. *Gastrointest Endosc* [Internet]. 2015 Apr 1 [cited 2023 Feb 15];81(4):882-888.e1. Available from: <http://www.giejournal.org/article/S0016510714022068/fulltext>
2. Abougergi MS, Travis AC, Saltzman JR. Impact of day of admission on mortality and other outcomes in upper GI hemorrhage: A nationwide analysis. *Gastrointest Endosc* [Internet]. 2014 Aug 1 [cited 2023 Feb 15];80(2):228-235.e1. Available from: <http://www.giejournal.org/article/S0016510714001072/fulltext>
3. Asotibe JC, Shaka H, Akuna E, Shekar N, Shah H, Ramirez M, et al. Outcomes of Non-Variceal Upper Gastrointestinal Bleed Stratified by Hospital Teaching Status: Insights From the National Inpatient Sample. *Gastroenterology Res* [Internet]. 2021 Oct [cited 2023 Feb 27];14(5):268. Available from: [/pmc/articles/PMC8577599/](https://pubmed.ncbi.nlm.nih.gov/3577599/)