

Table A 1 – ICD-9 codes included for this study.

ICD-9 code	Description
530.7	GASTROESOPHAGEAL LACERATION-HEMORRHAGE SYNDROME
569.3	HEMORRHAGE OF RECTUM AND ANUS
578.0	HEMATEMESIS
578.1	BLOOD IN STOOL
578.9	HEMORRHAGE OF GASTROINTESTINAL TRACT, UNSPECIFIED
530.21	ULCER OF ESOPHAGUS WITH BLEEDING
530.82	ESOPHAGEAL HEMORRHAGE
531.00	ACUTE GASTRIC ULCER WITH HEMORRHAGE, WITHOUT MENTION OF OBSTRUCTION
531.01	ACUTE GASTRIC ULCER WITH HEMORRHAGE, WITH OBSTRUCTION
531.20	ACUTE GASTRIC ULCER WITH HEMORRHAGE AND PERFORATION, WITHOUT MENTION OF OBSTRUCTION
531.21	ACUTE GASTRIC ULCER WITH HEMORRHAGE AND PERFORATION, WITH OBSTRUCTION
531.40	CHRONIC OR UNSPECIFIED GASTRIC ULCER WITH HEMORRHAGE, WITHOUT MENTION OF OBSTRUCTION
531.41	CHRONIC OR UNSPECIFIED GASTRIC ULCER WITH HEMORRHAGE, WITH OBSTRUCTION
531.60	CHRONIC OR UNSPECIFIED GASTRIC ULCER WITH HEMORRHAGE AND PERFORATION, WITHOUT MENTION OF OBSTRUCTION
531.61	CHRONIC OR UNSPECIFIED GASTRIC ULCER WITH HEMORRHAGE AND PERFORATION, WITH OBSTRUCTION
532.00	ACUTE DUODENAL ULCER WITH HEMORRHAGE, WITHOUT MENTION OF OBSTRUCTION
532.01	ACUTE DUODENAL ULCER WITH HEMORRHAGE, WITH OBSTRUCTION
532.20	ACUTE DUODENAL ULCER WITH HEMORRHAGE AND PERFORATION, WITHOUT MENTION OF OBSTRUCTION
532.21	ACUTE DUODENAL ULCER WITH HEMORRHAGE AND PERFORATION, WITH OBSTRUCTION
532.40	CHRONIC OR UNSPECIFIED DUODENAL ULCER WITH HEMORRHAGE, WITHOUT MENTION OF OBSTRUCTION
532.41	CHRONIC OR UNSPECIFIED DUODENAL ULCER WITH HEMORRHAGE, WITH OBSTRUCTION
532.60	CHRONIC OR UNSPECIFIED DUODENAL ULCER WITH HEMORRHAGE AND PERFORATION, WITHOUT MENTION OF OBSTRUCTION
532.61	CHRONIC OR UNSPECIFIED DUODENAL ULCER WITH HEMORRHAGE AND PERFORATION, WITH OBSTRUCTION
533.00	ACUTE PEPTIC ULCER OF UNSPECIFIED SITE WITH HEMORRHAGE, WITHOUT MENTION OF OBSTRUCTION
533.01	ACUTE PEPTIC ULCER OF UNSPECIFIED SITE WITH HEMORRHAGE, WITH OBSTRUCTION
533.20	ACUTE PEPTIC ULCER OF UNSPECIFIED SITE WITH HEMORRHAGE AND PERFORATION, WITHOUT MENTION OF OBSTRUCTION

533.21	ACUTE PEPTIC ULCER OF UNSPECIFIED SITE WITH HEMORRHAGE AND PERFORATION, WITH OBSTRUCTION
533.40	CHRONIC OR UNSPECIFIED PEPTIC ULCER OF UNSPECIFIED SITE WITH HEMORRHAGE, WITHOUT MENTION OF OBSTRUCTION
533.41	CHRONIC OR UNSPECIFIED PEPTIC ULCER OF UNSPECIFIED SITE WITH HEMORRHAGE, WITH OBSTRUCTION
533.60	CHRONIC OR UNSPECIFIED PEPTIC ULCER OF UNSPECIFIED SITE WITH HEMORRHAGE AND PERFORATION, WITHOUT MENTION OF OBSTRUCTION
533.61	CHRONIC OR UNSPECIFIED PEPTIC ULCER OF UNSPECIFIED SITE WITH HEMORRHAGE AND PERFORATION, WITH OBSTRUCTION
534.00	ACUTE GASTROJEJUNAL ULCER WITH HEMORRHAGE, WITHOUT MENTION OF OBSTRUCTION
534.01	ACUTE GASTROJEJUNAL ULCER, WITH HEMORRHAGE, WITH OBSTRUCTION
534.20	ACUTE GASTROJEJUNAL ULCER WITH HEMORRHAGE AND PERFORATION, WITHOUT MENTION OF OBSTRUCTION
534.21	ACUTE GASTROJEJUNAL ULCER WITH HEMORRHAGE AND PERFORATION, WITH OBSTRUCTION
534.40	CHRONIC OR UNSPECIFIED GASTROJEJUNAL ULCER WITH HEMORRHAGE, WITHOUT MENTION OF OBSTRUCTION
534.41	CHRONIC OR UNSPECIFIED GASTROJEJUNAL ULCER, WITH HEMORRHAGE, WITH OBSTRUCTION
534.60	CHRONIC OR UNSPECIFIED GASTROJEJUNAL ULCER WITH HEMORRHAGE AND PERFORATION, WITHOUT MENTION OF OBSTRUCTION
534.61	CHRONIC OR UNSPECIFIED GASTROJEJUNAL ULCER WITH HEMORRHAGE AND PERFORATION, WITH OBSTRUCTION
535.01	ACUTE GASTRITIS, WITH HEMORRHAGE
535.11	ATROPHIC GASTRITIS, WITH HEMORRHAGE
535.21	GASTRIC MUCOSAL HYPERTROPHY, WITH HEMORRHAGE
535.31	ALCOHOLIC GASTRITIS, WITH HEMORRHAGE
535.41	OTHER SPECIFIED GASTRITIS, WITH HEMORRHAGE
535.51	UNSPECIFIED GASTRITIS AND GASTRODUODENITIS, WITH HEMORRHAGE
535.61	DUODENITIS, WITH HEMORRHAGE
535.71	EOSINOPHILIC GASTRITIS, WITH HEMORRHAGE
537.84	DIEULAFOY LESION (HEMORRHAGIC) OF STOMACH AND DUODENUM
562.02	DIVERTICULOSIS OF SMALL INTESTINE WITH HEMORRHAGE
562.03	DIVERTICULITIS OF SMALL INTESTINE WITH HEMORRHAGE
562.12	DIVERTICULOSIS OF COLON WITH HEMORRHAGE
562.13	DIVERTICULITIS OF COLON WITH HEMORRHAGE
569.85	ANGIODYSPLASIA OF INTESTINE WITH HEMORRHAGE

Note: All ICD codes for diagnoses are based on the ICD-9-CM both in MIMIC-III and in the eICU-CRD. The ICD-10 equivalent code can only be queried in the eICU-CRD (not included in Table A1). Nevertheless, it is important to mention that the code field in MIMIC-III is up to six characters long and without decimal point(17). In case the reader wants to query them on

MIMIC-III, just remove the decimal point that is referred to in Table A1 in the respective query code.