

Table S1. ICD-10 Codes Used for Data Extraction.

| ICD-10 Codes | | Dataset | Quan ¹ | Valkhoff ² | Ah-med ³ |
|--------------|-------------------------------------------------------------------------------------|---------|-------------------|-----------------------|---------------------|
| K226 | Gastro-oesophageal laceration-haemorrhage syndrome | K226 | | | K226 |
| K250 | Gastric ulcer, acute with haemorrhage | K250 | K25.0 | K25.0 | K250 |
| K251 | Gastric ulcer, acute with perforation | | | K25.1 | |
| K252 | Gastric ulcer, acute with both haemorrhage and perforation | | K25.2 | K25.2 | K252 |
| K253 | Gastric ulcer, acute without haemorrhage or perforation | | | | |
| K254 | Gastric ulcer, chronic or unspecified with haemorrhage | K254 | K25.4 | | K254 |
| K255 | Gastric ulcer, chronic or unspecified with perforation | | | | |
| K256 | Gastric ulcer, chronic or unspecified with both haemorrhage and perforation | K256 | K25.6 | | K256 |
| K257 | Gastric ulcer, chronic with haemorrhage or perforation | | | | |
| K259 | Gastric ulcer, unspecified as acute or chronic, without haemorrhage or perforation | | | | |
| K260 | Duodenal ulcer, acute with haemorrhage | K260 | K26.0 | K26.0 | K260 |
| K261 | Duodenal ulcer, acute with perforation | | | K26.1 | |
| K262 | Duodenal ulcer, acute with both haemorrhage and perforation | | K26.2 | K26.2 | K262 |
| K263 | Duodenal ulcer, acute without haemorrhage or perforation | | | | |
| K264 | Duodenal ulcer, chronic or unspecified with haemorrhage | K264 | K26.4 | | K264 |
| K265 | Duodenal ulcer, chronic or unspecified with perforation | | | | |
| K266 | Duodenal ulcer, chronic or unspecified with both haemorrhage and perforation | K266 | K26.6 | | K266 |
| K267 | Duodenal ulcer, chronic with haemorrhage or perforation | | | | |
| K269 | Duodenal ulcer, unspecified as acute or chronic, without haemorrhage or perforation | | | | |
| K270 | Peptic ulcer, acute with haemorrhage | K270 | K27.0 | K27.0 | K270 |
| K271 | Peptic ulcer, acute with perforation | | | K27.1 | |
| K272 | Peptic ulcer, acute with both haemorrhage and perforation | | K27.2 | K27.2 | K272 |
| K273 | Peptic ulcer, acute without haemorrhage or perforation | | | | |
| K274 | Peptic ulcer, chronic or unspecified with haemorrhage | K274 | K27.4 | | K274 |
| K275 | Peptic ulcer, chronic or unspecified with perforation | | | | |

| | | | |
|------|------------------------------------------------------------------------------------------|-------|------------|
| K276 | Peptic ulcer, chronic or unspecified with both haemorrhage and perforation | K27.6 | K276 |
| K277 | Peptic ulcer, chronic with haemorrhage or perforation | | |
| K279 | Peptic ulcer, unspecified as acute or chronic, without haemorrhage or perforation | | |
| K280 | Gastrojejunal ulcer, acute with haemorrhage | K28.0 | K280 |
| K281 | Gastrojejunal ulcer, acute with perforation | | K28.1 |
| K282 | Gastrojejunal ulcer, acute with both haemorrhage and perforation | K28.2 | K282 |
| K283 | Gastrojejunal ulcer, acute without haemorrhage or perforation | | |
| K284 | Gastrojejunal ulcer, chronic or unspecified with haemorrhage | K284 | K284 |
| K285 | Gastrojejunal ulcer, chronic or unspecified with perforation | | |
| K286 | Gastrojejunal ulcer, chronic or unspecified with both haemorrhage and perforation | K28.6 | K286 |
| K287 | Gastrojejunal ulcer, chronic with haemorrhage or perforation | | |
| K289 | Gastrojejunal ulcer, unspecified as acute or chronic, without haemorrhage or perforation | | |
| K290 | Acute haemorrhagic gastritis | | K29.0 K290 |
| K920 | Haematemesis | K920 | K920 |
| K921 | Melaena | K921 | K92.1 K921 |
| K922 | Gastrointestinal haemorrhage, unspecified | K922 | K92.2 K922 |

1. Quan S. Upper-gastrointestinal bleeding secondary to peptic ulcer disease: Incidence and outcomes. *WJG*. 2014;20(46):17568. doi:10.3748/wjg.v20.i46.17568
2. Valkhoff VE, Coloma PM, Masclee GMC, et al. Validation study in four health-care databases: upper gastrointestinal bleeding misclassification affects precision but not magnitude of drug-related upper gastrointestinal bleeding risk. *Journal of Clinical Epidemiology*. 2014;67(8):921-931. doi:10.1016/j.jclinepi.2014.02.020
3. Ahmed A. Upper gastrointestinal bleeding in Scotland 2000-2010: Improved outcomes but a significant weekend effect. *WJG*. 2015;21(38):10890. doi:10.3748/wjg.v21.i38.10890

Table S2. Canadian Classification of Health Intervention Codes Used for Stratifying Patients.

| Procedure Classification | Canadian Classification of Health Interventions Codes |
|--------------------------|-------------------------------------------------------|
| High risk | 1NA13BAGX |
| | 1NA13BAX7 |
| | 1NA13DAE3 |
| | 1NF13BABD |
| | 1NF13BAC2 |
| | 1NF13BAGX |
| | 1NF13BAKK |
| | 1NF13BAW4 |
| | 1NF13BAX7 |
| | 1NF13GPGE |
| | 1NP13BAC2 |
| | 1NP13BAGX |
| | 1NP13BAKK |
| | 1NP13BAX7 |
| 1NP13GQGE | |
| Low risk | 2NA71BA |
| | 2NK71BABJ |
| | 2NK71BABL |
| | 2NF71BA |
| | 2NA70BA |
| | 2NK70BCBK |
| | 2NK70BABJ |
| | 2NK70BABL |
| 2NK70BDBK | |
| 2NF70BA | |

High risk procedures were considered to have codes related to control of bleeding or interventional radiology procedures. Low risk procedures were identified by codes related to inspection or biopsy of the esophagus, stomach or small bowel.