

TABLE S1. ICD-9 CM codes for upper gastrointestinal bleeding and co-morbidities

Disease	Definition
Upper gastrointestinal bleeding	530.21, 530.7, 530.82, 531.0X, 531.2X, 531.4X, 531.6X, 532.0X, 532.2X, 532.4X, 532.6X, 533.0X, 533.2X, 533.4X, 533.6X, 534.0X, 534.2X, 534.4X, 534.6X, 535.01, 535.11, 535.21, 535.31, or 535.41
Depression	296.2x, 296.3x, 300.4, 311
Schizophrenia	295
Anxiety	300
Alcohol related disease	V11.3, 291. 303, 305, 357.5, 425.5, 535.5, 571.0, 571.1, 571.2, 571.3, 790.3, 980.0
Cerebral vascular disease	430-434, 436
Myocardial infarction	410
Heart failure	428
Chronic pulmonary disease	490-496, 500-508
Diabetes mellitus	250
Hypertension	401.x-405.x
Dyslipidemia	272.0, 272.1, 272.2, 272.4
Arrhythmia	427.x, 785.0
Chronic renal disease	585, V45.1, V56.0, V56.8
Chronic liver disease	571
Malignancy	140-208

TABLE S2. Drug category and medication names used in this study

Drug Category (Anatomical Therapeutic Chemical Classification)	Medication Name
Selective serotonin reuptake inhibitors (N06AB)	Fluoxetine, citalopram, paroxetine, setraline, fluvoxamine, escitalopram
Tricyclic antidepressants (N06AA)	Imipramine, clomipramine, amitriptyline, doxepin, dothiepin, maprotiline
Monoamine oxidase inhibitor (N06AG)	Moclobemide
Serotonin norepinephrine reuptake inhibitors (N06AX16, N06AX17, N06AX21)	Venlafaxine, milnacipran, duloxetine
Other antidepressants (N06AX)	Trazodone, mirtazapine, bupropion
Proton pump inhibitors (A02BC)	Esomeprazole, lansoprazole, omeprazole, pantoprazole, rabeprazole
Histamine-2 receptor blockers (A02BA)	Cimetidine, famotidine, nizatidine, ranitidine, roxatidine
Vitamin K antagonist (B01AA)	Warfarin sodium,
Steroids (H02AA & H02AB)	Betamethasone, dexamethasone, methylprednisolone, paramethasone, prednisolone, hydrocortisone, cortisone, aldosterone, fludrocortisone
Aspirin (B01AC06)	Aspirin
Clopidogrel (B01AC04)	Clopidogrel
Nonsteroidal anti-inflammatory drugs (M01A)	Celecoxib, rofecoxib, diclofenac potassium, diclofenac sodium, etoricoxib, fenbufen, fenoprofen, flufenamic acid, flubiprofen, ibuprofen, ketoprofen, mefenamic acid, nabumetone, naproxen, naproxen sodium, niflumic acid, phenylbutazone, sulindac, tilaprofenic acid, tolfenamic acid, tolemtin sodium
Benzodiazepines (N05CD)	Brotizolam, estazolam, flunitrazepam, flurazepam, lormetazepam, midazolam, nitrazepam, triazolam
Non-benzodiazepines hypnotics (N05CF)	Zopiclone, zolpidem, zaleplon

FIGURE S1. The risk of upper gastrointestinal bleeding based on the affinity of the antidepressants to the serotonin transporter. The antidepressants were divided into 3 groups as follows: high (<1 nmol/L, including fluoxetine, paroxetine, sertraline, clomipramine, and duloxetine), intermediate (1–10 nmol/L, including citalopram, fluvoxamine, escitalopram, imipramine, amitriptyline, venlafaxine, and milnacipran), and low affinity (>10 nmol/L, including doxepin, dothiepin, maprotiline, moclobemide, mianserin, trazodone, mirtazapine, and bupropion).

