

Mean \pm SD	2.0 \pm 1.7	2.1 \pm 1.8	2.3 \pm 1.6	1.8 \pm 1.6	1.9 \pm 1.7	2.2 \pm 1.7	2.1 \pm 1.6	1.0 \pm 1.1	2.4 \pm 1.5
Median (IQR)	2 (1-3)	2 (1-3)	2 (1-3)	2 (0-3)	2 (1-3)	2 (1-3)	2 (1-3)	1 (0-2)	3 (1-3)
Current smoker	80 (11.6)	14 (9.2)	11 (7.8)	11 (10.2)	17 (23.9)	2 (3.4)	13 (22.8)	11 (19.6)	1 (2.2)
Current drinker*	119 (17.3)	20 (13.2)	19 (13.5)	20 (18.5)	25 (35.2)	7 (12.1)	9 (15.8)	13 (23.2)	6 (13.3)
Hospital stay (days)									
Mean \pm SD	23.1 \pm 21.9	25.6 \pm 25.0	20.7 \pm 19.6	30.3 \pm 20.6	14.2 \pm 11.6	28.3 \pm 29.3	19.6 \pm 18.0	14.0 \pm 11.1	28.0 \pm 25.7
Median	16.0	19.0	14.0	27.5	11.0	18.5	15.0	12.0	16.0
IQR	10.0 – 29.0	12.0 – 31.0	9.0 – 24.0	15.0 – 41.5	7.0 – 16.0	10.0 – 39.0	8.0 – 24.0	8.5 – 16.0	8.0 – 45.0
Past medical history									
Heart failure	87 (12.6)	49 (32.0)	11 (7.8)	8 (7.4)	5 (7.0)	4 (6.9)	9 (15.8)	0 (0.0)	1 (2.2)
Ischemic heart disease [†]	76 (11.0)	26 (17.0)	9 (6.4)	10 (9.3)	6 (8.5)	8 (13.8)	6 (10.5)	7 (12.5)	4 (8.9)
Atrial fibrillation	115 (16.7)	55 (36.0)	16 (11.3)	17 (15.7)	7 (9.9)	6 (10.3)	6 (10.5)	6 (10.7)	2 (4.4)

Ischemic stroke	127 (18.4)	27 (17.6)	34 (24.1)	25 (23.1)	11 (15.5)	12 (20.7)	6 (10.5)	7 (12.5)	5 (11.1)
Hemorrhagic stroke [‡]	27 (3.9)	4 (2.6)	9 (6.4)	2 (1.9)	1 (1.4)	4 (6.9)	3 (5.3)	0 (0.0)	4 (8.9)
NIDDM	130 (18.9)	25 (16.3)	30 (21.3)	24 (22.2)	13 (18.3)	7 (12.1)	10 (17.5)	18 (32.1)	3 (6.7)
IDDM	19 (2.8)	4 (2.6)	3 (2.1)	4 (3.7)	0 (0.0)	4 (6.9)	0 (0.0)	2 (3.6)	2 (4.4)
Hypertension	469 (68.1)	111 (72.5)	87 (61.7)	79 (73.1)	57 (80.3)	37 (63.8)	32 (56.1)	36 (64.3)	30 (66.7)
Dyslipidemia	187 (24.1)	40 (26.1)	24 (17.0)	27 (25.0)	21 (29.6)	16 (27.6)	17 (29.8)	30 (53.6)	12 (26.7)
Chronic kidney disease	199 (28.9)	90 (58.8)	30 (21.3)	30 (27.8)	10 (14.1)	9 (15.5)	3 (5.3)	17 (30.4)	10 (22.2)
Rheumatic disease	30 (4.4)	5 (3.3)	10 (7.1)	4 (3.7)	5 (7.0)	3 (5.2)	0 (0.0)	0 (0.0)	3 (6.7)
Asthma	43 (6.2)	10 (6.5)	3 (2.1)	4 (3.7)	4 (5.6)	3 (5.2)	18 (31.6)	1 (1.8)	0 (0.0)
COPD	58 (8.4)	9 (5.9)	16 (11.3)	4 (3.7)	0 (0.0)	1 (1.7)	25 (43.9)	1 (1.8)	2 (4.4)
Dementia	168 (24.4)	29 (19.0)	47 (33.3)	25 (23.1)	7 (9.9)	24 (41.4)	7 (12.3)	3 (5.4)	26 (57.8)
Active cancer	31 (4.5)	5 (3.3)	7 (5.0)	5 (4.6)	3 (4.2)	2 (3.4)	5 (8.8)	2 (3.6)	2 (4.4)

Osteoporosis	133 (19.3)	28 (18.3)	34 (24.1)	23 (21.3)	6 (8.5)	14 (24.1)	9 (15.8)	4 (7.1)	15 (33.3)
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*Current drinkers were defined as patients who drank alcoholic beverages every day, regardless of volume.

†Ischemic heart disease includes angina, myocardial infarction, and coronary artery bypass grafting.

‡Hemorrhagic stroke includes subarachnoid hemorrhage and intracranial cerebral hemorrhage.

ACS, acute coronary syndrome; CCI, Charlson Comorbidity Index; COPD, chronic obstructive pulmonary disease; GI, gastrointestinal; IDDM:

insulin-dependent diabetes mellitus; IQR, interquartile range; NIDDM, non-insulin-dependent diabetes mellitus; SD, standard deviation; UTI,

urinary tract infection.

1 **Table S2.** The proportion of medications that were discontinued or that were not PIMs at
 2 discharge out of all PIMs* according to the subcategories of drugs taken at admission.

Drug category	Total number	Discontinuation rate[†] (%)
Total	510	66.9
Benzodiazepines	141	58.9
Proton pump inhibitors [‡]	129	53.5
Hypnotics (non-benzodiazepines)	38	57.9
Antipsychotics	36	61.1
NSAIDs	28	100.0
Ticlopidine or dipyridamole	18	94.4
Peripheral alpha-1 blocker	18	72.2
Digoxin	16	93.8
H ₂ -receptor antagonists for dementia	14	78.6
Anticholinergics	14	78.6
First-generation antihistamines	12	100.0
Antidepressants	11	72.7
Verapamil or diltiazem for heart failure	10	70.0
Others	25	92.0

3 *PIMs are defined based on the 2015 American Geriatric Society Beers Criteria.

4 [†]The proportion of medications that were discontinued or that were not PIMs at
 5 discharge out of all PIMs taken at admission.

6 [‡]PPI therapy was judged to be potentially inappropriate if the patients had none of the
 7 following indications: (1) peptic ulcer disease; (2) GERD with or without esophagitis;
 8 (3) *Helicobacter pylori* eradication therapy; (4) pathological hypersecretory conditions,
 9 such as Zollinger-Ellison syndrome; (5) use of NSAIDs; (6) use of antiplatelet therapy
 10 and at least one risk factor (history of peptic ulcer or concomitant use of anticoagulants,
 11 corticosteroids or glucocorticoids).

12 GERD, gastroesophageal reflux disease; NSAIDs, non-steroidal anti-inflammatory
 13 drugs; PIM, potentially inappropriate medication; PPI, proton pump inhibitor.