

Supplemental materials for

te Winkel MT, Damoiseaux-Volman BA, Abu-Hanna A. Personal continuity and appropriate prescribing in primary care. *Ann Fam Med.* 2023;21(4):305-312.

Supplemental Table 1: *International Classification of Primary Care*-codes included in study (codes).

Definition	International Classification of Primary Care-codes -1
Chronic disease	A28 A79 A90 B28 B72 B73 B74 B78 B79 B83 B90 D28 D74 D75 D76 D77 D81 D92 D94 D97 F28 F81 F83 F84 F91 F93 F94 H28 H80 H83 H84 H85 H86 K28 K73 K74 K76 K77 K82 K86 K87 K90 K91 K92 L28 L82 L84 L85 L88 L89 L90 L91 L95 L98 N28 N70 N74 N85 N86 N87 N88 P28 P70 P72 P80 P85 R28 R84 R85 R89 R91 R95 R96 S28 S77 S81 S83 S87 S91 T28 T71 T78 T80 T81 T86 T90 T92 T93 U28 U75 U76 U77 U85 U88 W28 W72 W76 X28 X75 X76 X77 X83 X88 Y28 Y77 Y78 Y82 Y84 Z28
Oncologic disease	A79 B72 B73 D74 D75 D76 D77 L71 N74 R84 R85 S77 T71 U75 U76 U77 W72 X75 X76 X77 Y77 Y78
Coronary heart disease	K74 K75 K76
Psychiatric disease	P72 P73 P74 P76 P80

Definitions by Netherlands Institute for Health Services Research (see main text).

Supplemental Table 2: *International Classification of Primary Care* included in study (definitions).

Code	Definition NL (ICPC-1NL)	Definition EN (ICPC-2)
A28	Functiebeperking/handicap	Limited function/disability NOS
A79	Maligniteit met onbekende primaire lokalisatie	Malignancy NOS
A90	Multiple aangeboren afwijkingen	Congenital anomaly OS/multiple
B28	Functiebeperking/handicap bloed/lymfestelsel	Limited function/disability (b)
B72	Ziekte van Hodgkin	Hodgkin's disease/lymphoma
B73	Leukemie	Leukaemia
B74	Andere maligniteit bloed/lymfestelsel	Malignant neoplasm blood other
B78	Erfelijke hemolytische anemie	Hereditary haemolytic anaemia
B79	Andere aangeboren afwijking bloed/lymfestel	Congenital anomaly blood/lymph other
B83	Purpura/stollingsstoornis/afwijkende trombocyten	Purpura/coagulation defect
B90	HIV-infectie (AIDS/ARC)	HIV-infection/aids
D28	Functiebeperking/handicap spijsverteringsorganen	Limited function/disability (d)
D74	Maligniteit maag	Malignant neoplasm stomach
D75	Maligniteit colon/rectum	Malignant neoplasm colon/rectum
D76	Maligniteit pancreas	Malignant neoplasm pancreas
D77	Andere/niet-gespecif. Maligniteit spijsverteringsorganen	Malignant neoplasm digest other/NOS
D81	Aangeboren afwijking(en) spijsverteringsorganen	Congenital anomaly digestive system
D92	Diverticulose/diverticulitis	Diverticular disease
D94	Colitis ulcerosa/chronische enteritis (regionalis)	Chronic enteritis/ulcerative colitis
D97	Cirrose/andere leverziekte	Liver disease NOS
F28	Functiebeperking/handicap oog/adnexen	Limited function/disability (f)
F81	Andere aangeboren afwijking(en) oog/adnexen	Congenital anomaly eye other
F83	Retinopathie	Retinopathy
F84	Maculadegeneratie	Macular degeneration
F91	Refractie afwijking(en)	Refractive error
F93	Glaucoom/verhoogde oogdruk	Glaucoma
F94	Blindheid (elke graad/vorm)	Blindness
H28	Functiebeperking/handicap oor	Limited function/disability ear
H80	Aangeboren afwijking(en) oor	Congenital anomaly of ear
H83	Otosclerose	Otosclerosis
H84	Presbycusis	Presbycusis
H85	Akoestisch letsel/lawaaidoofheid	Acoustic trauma
H86	Doofheid/slechthorendheid	Deafness
K28	Functiebeperking/handicap hart vaatstelsel	Limited function/disability (k)
K73	Aangeboren afwijking(en) hart vaatstelsel	Congenital anomaly cardiovascular
K74	Angina pectoris	Ischaemic heart disease w. angina
K75	Acuut myocardiinfarct	Acute myocardial infarction
K76	Andere/chronische ischemische hartziekte	Ischaemic heart disease w/o angina
K77	Decompensatio cordis	Heart failure
K82	Cor pulmonale	Pulmonary heart disease
K86	Essentiële hypertensie zonder orgaanbeschadiging	Hypertension uncomplicated

K87	Hypertensie met orgaanbeschadiging/secundaire hypertensie	Hypertension complicated
K90	Cerebrovasculair accident (CVA)	Stroke/cerebrovascular accident
K91	Atherosclerose [ex. K76,K90]	Cerebrovascular disease
K92	Andere ziekte(n) perifere arteriën	Atherosclerosis/PVD
L28	Functiebeperking/handicap bewegingsapparaat	Limited function/disability (l)
L71	Neoplasma bewegingsapparaat	Malignant neoplasm musculoskeletal
L82	Aangeboren afwijking(en) bewegingsapparaat	Congenital anomaly musculoskeletal
L84	Artrose/spondylose wervelkolom	Back syndrome w/o radiating pain
L85	Verworven afwijking(en) wervelkolom	Acquired deformity of spine
L88	Reumatoïde artritis/verwante aandoening(en)	Rheumatoid/seropositive arthritis
L89	Coxartrose	Osteoarthritis of hip
L90	Gonartrose	Osteoarthritis of knee
L91	Andere artrose/verwante aandoening(en)	Osteoarthritis other
L95	Osteoporose	Osteoporosis
L98	Verworven afwijking(en) extremiteiten	Acquired deformity of limb
N28	Functiebeperking/handicap zenuwstelsel	Limited function/disability (n)
N70	Poliomyelitis/andere enterovirus infectie	Poliomyelitis
N74	Maligniteit zenuwstelsel	Malignant neoplasm nervous system
N85	Aangeboren afwijking(en) zenuwstelsel	Congenital anomaly neurological
N86	Multiple sclerose	Multiple sclerosis
N87	Parkinsonisme, ziekte van Parkinson	Parkinsonism
N88	Epilepsie (alle vormen)	Epilepsy
P28	Functiebeperking/handicap psychische ziekte	Limited function/disability (p)
P70	Seniele dementie/Alzheimer	Dementia
P72	Schizofrenie	Schizophrenia
P73	Affectieve psychose	Affective psychosis
P74	Angststoornis/angsttoestand	Anxiety disorder/anxiety state
P76	Depressie	Depressive disorder
P80	Persoonlijkheids-/karakterstoornis	Personality disorder
P85	Mentale retardatie/intellectuele achterstand	Mental retardation
R28	Functiebeperking/handicap luchtwegen	Limited function/disability (r)
R84	Maligniteit bronchus/long	Malignant neoplasm bronchus/lung
R85	Andere maligniteit luchtwegen	Malignant neoplasm respiratory, other
R89	Aangeboren afwijking(en) luchtwegen	Congenital anomaly respiratory
R91	Chronische bronchitis/bronchiëctasieën	*does not exist*
R95	Emfyseem/COPD	Chronic obstructive pulmonary disease
R96	Astma	Asthma
S28	Functiebeperking/handicap huid/subcutis	Limited function/disability (s)
S77	Maligniteit huid/subcutis	Malignant neoplasm of skin
S81	Hemangioom/lymfangioom	Haemangioma/lymphangioma
S83	Andere aangeboren afwijking(en) huid/subcutis	Congenital skin anomaly other
S87	Constitutioneel eczeem	Dermatitis/atopic eczema
S91	Psoriasis (met of zonder artropathie)	Psoriasis
T28	Funct.beperking/handicap endocr. Klieren/metabolisme/voeding	Limited function/disability (t)

T71	Maligniteit schildklier	Malignant neoplasm thyroid
T78	Persisterende ductus thyreoglossus/cyste	Thyroglossal duct/cyst
T80	Andere aangeboren afwijking endocriene klieren/metabolisme	Congenital anomaly endocrine/metabolic
T81	Struma/noduli [ex. T85,T86]	Goitre
T86	Hypothyroidie/myxoedeem	Hypothyroidism/myxoedema
T90	Diabetes mellitus	T89 Diabetes insulin dependent T90 Diabetes non-insulin dependent
T92	Vitamine-/voedingsdeficiëntie(s)	T91 Vitamin/nutritional deficiency T92 Gout
T93	Vetstofwisselingsstoornis(sen)	Lipid disorder
U28	Functiebeperking/handicap urinewegen	Limited function/disability urinary
U75	Maligniteit nier	Malignant neoplasm of kidney
U76	Maligniteit blaas	Malignant neoplasm of bladder
U77	Andere maligniteit urinewegen	Malignant neoplasm urinary other
U85	Aangeboren afwijking(en) urinewegen	Congenital anomaly urinary tract
U88	Glomerulonephritis/nefrose	Glomerulonephritis/nephrosis
W28	Functiebeperking/handicap ten gevolge van zwangerschap	Limited function/disability (w)
W72	Maligniteit in verband met zwangerschap	Malignant neoplasm relate to pregnancy
W76	Zwangerschap complicerende aangeboren afwijking moeder	Congenital anomaly complicate pregnancy
X28	Functiebeperking/handicap geslachtsorganen vrouw	Limited function/disability (x)
X75	Andere symptomen/klachten geslachtsorganen vrouw	Malignant neoplasm cervix
X76	Maligniteit borst vrouw	Malignant neoplasm breast female
X77	Andere maligniteit geslachtsorganen vrouw	Malignant neoplasm genital other (f)
X83	Aangeboren afwijking(en) geslachtsorganen vrouw	Congenital anomaly genital female
X88	Fibroadenoom/polycystische afwijking borsten	Fibrocystic disease breast
Y28	Functiebeperking/handicap geslachtsorganen man	Limited function/disability (y)
Y77	Maligniteit prostaat	Malignant neoplasm prostate
Y78	Andere maligniteit geslachtsorganen/borsten man	Malignant neoplasm male genital other
Y82	Hypospadië	Hypospadias
Y84	Andere aangeboren afwijking(en) geslachtsorganen/borsten man	Congenital genital anomaly (m) other
Z28	Sociale functiebeperking/handicap	Limited function/disability (z)

Supplemental Table 3: Technical translation STOPP criteria.

	STOPP criteria	Technical translation*
A.	Any drug prescribed without an evidence-based clinical indication.	Not coded (as Huibers et al)
	Any drug prescribed beyond the recommended duration, where treatment duration is well defined.	Not coded (as Huibers et al)
	Any duplicate drug class prescription	Not coded (as Huibers et al)
B. Cardiovascular system	Digoxin for heart failure with preserved systolic ventricular function	Huibers et al <i>Data "left ventricular ejection fraction" not available</i>
	Verapamil or diltiazem with NYHA Class III or IV heart failure	Huibers et al
	Beta-blocker in combination with verapamil or diltiazem	Huibers et al
	Beta blocker with symptomatic bradycardia, type II heart block or complete heart block	Huibers et al <i>Data heart rate not available</i>
	Amiodarone as first-line antiarrhythmic therapy	Huibers et al
	Loop diuretic as treatment for hypertension	Huibers et al
	Loop diuretic for dependent ankle oedema without clinical, biochemical evidence or radiological evidence of heart failure, liver failure, nephrotic syndrome or renal failure	Huibers et al
	Thiazide diuretic with current significant hypokalaemia, hyponatraemia, hypercalcaemia or with a history of gout	Huibers et al <i>We used labdata</i>
	Centrally-acting antihypertensives	Huibers et al
	ACE inhibitors or angiotensin Receptor Blockers in patients with hyperkalaemia	Huibers et al <i>We used labdata</i>
	Aldosterone antagonists with concurrent potassium-conserving drugs without monitoring of serum potassium	Huibers et al
Phosphodiesterase type-5 inhibitors in severe heart failure characterized by hypotension or concurrent daily nitrate therapy for angina	Huibers et al	
C. Coagulation system	Antiplatelet agents at doses greater than 80 or 100 mg per day (with exception of the first dose)	Huibers et al <i>Dutch v2 has different doses and durations</i>
	Antiplatelet agents, clopidogrel and other drugs from the same group, dipyridamole, vitamin K antagonists, direct thrombin inhibitors or factor Xa inhibitors with concurrent significant bleeding risk or recent relevant spontaneous bleeding	Huibers et al
	Antiplatelet agents plus clopidogrel (or other drugs from the same group) as secondary stroke prevention, unless the patient has a coronary stent(s) inserted in the previous 12 months or concurrent acute coronary syndrome or has a high grade symptomatic carotid arterial stenosis	Huibers et al
	Antiplatelet agents in combination with vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors in patients with chronic atrial fibrillation	Huibers et al
	Antiplatelet agents with vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors in patients with stable coronary, cerebrovascular or peripheral arterial disease	Huibers et al <i>Removed diagnosis glaucoma in earlier version, this gave other results</i>

	Vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors for first deep venous thrombosis without continuing provoking risk factors for > 6 months	Huibers et al
	Vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors for first pulmonary embolus without continuing provoking risk factors for > 12 months	Huibers et al
	NSAID and vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors in combination	Huibers et al
D. Central Nervous system	Tricyclic antidepressants with dementia, untreated narrow angle glaucoma, cardiac conduction abnormalities, prostatism, Sjogren's illness or previous urinary retention	Huibers et al
	Tricyclic antidepressants as first-line antidepressant treatment	Huibers et al
	Neuroleptics with moderate-marked anticholinergic effects with prostatism or previous urinary retention	Huibers et al
	SSRI's and non-iatrogenic hyponatraemia i.e. serum Na+ < 130 mmol/l in last 2 months	Huibers et al
	Benzodiazepines for ≥ 4 weeks	Huibers et al
	Antipsychotics (i.e. other than quetiapine or clozapine) in those with parkinsonism	Huibers et al
	Anticholinergics to treat extra-pyramidal side-effects of neuroleptic medications	Huibers et al
	Medications with anticholinergic effects in patients with delirium or dementia	Huibers et al
	Antipsychotics in patients with behavioural and psychological symptoms of dementia unless symptoms are severe and not medical treatments have failed	Huibers et al
	Neuroleptics as hypnotics	Huibers et al
	Acetylcholinesterase inhibitors with bradycardia (< 60 beats/min.), heart block or recurrent unexplained syncope	Huibers et al
	Phenothiazines with exception of chlorpromazine for hiccoughs and levopromazine in palliative care	Huibers et al
	Levodopa or dopamine agonists for benign essential tremor	Huibers et al
	First-generation antihistamines	Huibers et al
E. Renal system	Digoxin at a dose > 0.125mg/day if eGFR < 30 ml/min/1.73m ²	Huibers et al <i>We used labdata</i>
	Direct thrombin inhibitors if eGFR < 30 ml/min/1.73m ²	Huibers et al - <i>We used labdata</i>
	Factor Xa inhibitors if eGFR < 15 ml/min/1.73m ²	Huibers et al - <i>We used labdata</i>
	NSAID's if eGFR < 30 ml/min/1.73m ²	Huibers et al <i>We used labdata & in Dutch v2 different GFR</i>
	Metformin if eGFR < 30 ml/min/1.73m ²	Huibers et al - <i>We used labdata</i>
	Bisphosphonates if eGFR < 30 or 50 ml/min/1.73m ²	Technical translation by our study group - <i>Criterion not in Huibers et al</i>
F. Gastrointestinal	Metoclopramide with Parkinsonism	Huibers et al <i>Dutch v2 differs in medications</i>
	PPI for peptic ulcer disease or oesophagitis with exception of Barrett's oesophagus at full therapeutic dosage for > 8 weeks	Huibers et al <i>Dutch v2 differs in diagnoses</i>
	Drugs likely to cause or worsen constipation in patients with chronic constipation	Huibers et al
	Iron preparations with	Huibers et al

	regulated release or oral elemental iron doses greater than 200 mg daily	
G. Respiratory	Theophylline as monotherapy for COPD	Huibers et al
	Systemic corticosteroids instead of inhaled corticosteroids for maintenance therapy in moderate-severe COPD or asthma	Huibers et al <i>Dutch v2 differs in diagnoses</i>
	Anti-muscarinic bronchodilators (e.g. ipratropium, tiotropium) with untreated narrow angle glaucoma or bladder outflow obstruction	Huibers et al
	Stop benzodiazepines with acute or chronic respiratory failure i.e. pO ₂ < 8.0 kPa ± pCO ₂ > 6.5	Not coded <i>Data for diagnoses not available</i>
H. Musculoskeletal system	NSAID with moderate-severe hypertension or heart failure	Huibers et al
	Long-term use of NSAID (>3 months) for symptom relief of osteoarthritis pain where paracetamol has not been tried	Huibers et al <i>Dutch v2 contains extra information about dosing – consensus needed - therefore extra information not coded</i>
	Long-term corticosteroids (>3 months) as monotherapy for rheumatoid arthritis	Huibers et al
	Corticosteroids (other than periodic intra-articular injections for mono-articular pain) for osteoarthritis	Huibers et al
	Long-term NSAID or colchicine for chronic treatment of gout where there is no contraindication to a xanthine-oxidase inhibitor	Huibers et al
	COX-2 selective NSAIDs and diclofenac with concurrent cardiovascular disease	Huibers et al <i>Dutch v2 differs in medications</i>
	Oral bisphosphonates in patients with a history of upper gastrointestinal disease or in patients who stay in bed	Huibers et al <i>Dutch v2 differs in diagnoses (with “patients who stay in bed”). Not coded.</i>
I. Urogenital	Anticholinergics for neurogenic bladder with concurrent dementia, chronic cognitive impairment, narrow-angle glaucoma or chronic prostatism	Huibers et al
	Selective alpha-1 blockers in those with daily incontinence, symptomatic orthostatic hypotension, micturition syncope or urinary catheter in situ > 2months	Huibers et al <i>Dutch v2 differs in diagnoses & data for urinary catheter in situ not available</i>
J. Endocrine system	Sulphonylureas with a long duration of action and active metabolites with type 2 diabetes mellitus	Huibers et al
	Thiazolidenediones in patients with documented heart failure	Huibers et al
	Beta-blockers in diabetes mellitus with frequent hypoglycaemic episodes	Huibers et al <i>Data for “frequent” not available</i>
	Oestrogens with a history of breast cancer or venous thromboembolism	Huibers et al
	Oral oestrogens without progestogen in patients with intact uterus	Huibers et al

	Androgens in the absence of primary or secondary hypogonadism	Huibers et al
K. Fall risk	Benzodiazepines with history or risk of falling	Huibers et al <i>Data for "falls" not available</i>
	Neuroleptic drugs with history or risk of falling	Huibers et al <i>Data for "falls" not available</i>
	Vasodilator drugs with orthostatic hypotension	Huibers et al
	Hypnotic Z-drugs with history or risk of falling	Huibers et al
L.	Use of oral or transdermal strong opioids as first line therapy for mild pain	Huibers et al
M/N.	Concomitant use of two or more drugs with antimuscarinic/anticholinergic properties	Huibers et al

SSRI's = Selective Serotonin Re-uptake Inhibitors, ACE= Angiotensin-Converting Enzyme, NSAID= Non-Steroidal Anti-Inflammatory Drugs

* Anatomical Therapeutic Chemical-codes, International Classification of Primary Care-codes required for Dutch STOPP/START v2 were selected using Huibers et al or selected - by two researchers (BD and MW) - using www.whocc.no/atc_ddd_index/, the Dutch medication information website www.farmacotherapeutischkompas.nl/, or diagnoses description in our data.

NB. Partially copied from Damoiseaux et al (2021) "Appendix 1: Technical translation and prevalence Dutch STOPP/START v2", with permission. All codes were adapted to International Classification of Primary Care-codes, based on Huibers et al.

Supplemental Table 4: Technical translation START criteria.

	START description	Technical translation*
A. Cardiovascular system	Vitamin K antagonists or direct thrombin inhibitors or factor Xa inhibitors in the presence of chronic atrial fibrillation (with exception of men 65-75 years without cardiovascular comorbidity)	Huibers et al <i>Dutch v2 contains extra information - consensus needed - therefore extra information not coded</i>
	Antiplatelet agents in the presence of chronic atrial fibrillation, where Vitamin K antagonists or direct thrombin inhibitors or factor Xa inhibitors are contraindicated or not wanted	Huibers et al
	Acetyl salicylic acid or carbasalate calcium, clopidogrel, prasugrel or ticagrelor with a documented history of coronary, cerebral or peripheral vascular disease and sinus rhythm in patient not treated with Vitamin K antagonists or direct thrombin inhibitors or factor Xa inhibitors	Huibers et al <i>Dutch v2 differs in medications</i>
	Antihypertensive therapy where systolic blood pressure consistently > 160 mmHg and/or diastolic blood pressure consistently > 90 mmHg and lifestyle interventions have not enough effect; if systolic blood pressure > 140 mmHg and /or diastolic blood pressure > 90 mmHg, if diabetic	Huibers et al
	Statin therapy with a documented history of coronary, cerebral or peripheral vascular disease or high cardiovascular risk and LDL > 2,5 mmol/l, unless the patient's life expectancy < 3 years	Huibers et al <i>No age limits & Dutch v2 contains extra information about diagnoses – consensus needed - therefore extra information not coded.</i>
	ACE inhibitor (or angiotensin receptor blocker in case of side effects ACE inhibitor) with systolic heart failure and/or coronary artery disease	Huibers et al <i>Dutch v2 differs in medications</i>
	Beta-blocker with ischaemic heart disease or stable angina pectoris	Huibers et al
	Appropriate beta-blocker with stable systolic heart failure	Huibers et al
B. Respiratory	Inhaled beta 2 agonist or antimuscarinic bronchodilator for mild to moderate asthma or COPD	Huibers et al
	Inhaled corticosteroid for COPD, where repeated exacerbations despite long-working bronchodilator	Not coded <i>Data for repeated exacerbations not available</i>
	Continuous oxygen with documented chronic hypoxaemia	Not coded <i>Data for diagnoses and oxygen not available</i>
C. Central nervous & somatohumoral	Anti-Parkinson drug in idiopathic Parkinson's disease with functional impairment and resultant disability	Huibers et al
	Antidepressant drug in the presence of moderate-severe depressive symptoms	Huibers et al <i>Dutch v2 differs in medications</i>
		Huibers et al

	Acetylcholinesterase inhibitor for mild or moderate Alzheimer's dementia or Lewy Body dementia	<i>Data for diagnosis Lewy Body dementia not available</i>
	Prostaglandin analogue or beta-blocker for primary open-angle glaucoma	Huibers et al <i>Dutch v2 differs in medications</i>
	SSRI's (or SNRI or pregabalin if SSRI contraindicated) for persistent severe anxiety that interferes with independent functioning	Huibers et al
	Dopamine agonist for severe restless legs syndrome with unacceptable suffering despite non-medical treatment, once iron deficiency and severe renal failure have been excluded	Huibers et al <i>Dutch v2 contains extra information – consensus needed - therefore extra information not coded</i>
D. Gastrointestinal	Proton Pump Inhibitor with severe gastro-oesophageal reflux disease or peptic stricture requiring dilatation	Huibers et al
	PPI with NSAID (and > 70 years)	Technical translation by our study group - <i>Criterion not in Huibers et al</i>
	PPI with a low dose acetyl salicylic acid or carbasalate calcium (and age specific criteria)	Technical translation by our study group - <i>Criterion not in Huibers et al</i>
	Fibre supplement for chronic diverticulosis with constipation	Huibers et al
E. Musculoskeletal system	DMARD with active, disabling rheumatoid disease (> 4 weeks)	Huibers et al <i>Dutch v2 differs in diagnoses duration, data for "> 4 weeks" not available.</i>
	Bisphosphonates and vitamin D and calcium in patients taking long-term systemic corticosteroid therapy (> 3 months) if dose \geq 7.5 mg daily prednisone (or equivalent)	Huibers et al <i>Dutch v2 differs in dosing.</i>
	Vitamin D and calcium supplement in patients with osteoporosis	Huibers et al <i>Dutch v2 differs on diagnoses.</i>
	Bone anti-resorptive or anabolic therapy in patients with documented osteoporosis, where no contraindication exists	Huibers et al <i>Dutch v2 differs on diagnoses. No data on "T-score" available.</i>
	Vitamin D supplement in older people who are housebound or experiencing falls or with osteopenia	Huibers et al <i>No data on "T-score" available.</i>
	Xanthine-oxidase inhibitors with a history of recurrent episodes of gout or gout tophi	Huibers et al <i>No data on "recurrent" and "gout tophi" available.</i>
	Folic acid supplement in patients taking methotrexate	Huibers et al

F. endocrine	Metformin in type 2 diabetes mellitus (not if eGFR < 30 ml/min/1.73m ²)	Technical translation by our study group - <i>Criterion not in Huibers et al</i>
	ACE inhibitor or Angiotensin Receptor Blocker (if intolerant of ACE inhibitor) in diabetes with evidence of renal disease	Huibers et al <i>No labdata on "microalbuminuria" available</i>
G. Urogenital	Alpha-1 receptor blocker with symptomatic prostatism, where prostatectomy is not considered necessary	Huibers et al
	5-Alpha reductase inhibitor with symptomatic prostatism, where prostatectomy is not considered necessary or can be postponed	Huibers et al
	Topical vaginal oestrogen or vaginal oestrogen pessary for symptomatic atrophic vaginitis	Huibers et al
H. Analgesics	High-potency opioids (exception methadone) in moderate-severe pain, where paracetamol, NSAIDs or low-potency opioids are not appropriate to the pain severity or have been ineffective	Huibers et al
	Short working opioids for break through pain with treatment of long working opioids	Not coded <i>Data for "break through pain" not available</i>
	Laxatives in patients receiving opioids	Huibers et al
I.	Seasonal trivalent influenza vaccine annually	Huibers et al

SSRI = Selective Serotonin Re-uptake Inhibitors, SNRI = Selective Serotonin and Noradrenalin Reuptake Inhibitor, ACE= Angiotensin-Converting Enzyme, NSAID= Non-Steroidal Anti-Inflammatory Drugs, PPI = Proton Pump Inhibitor, DMARD = Disease-modifying anti-rheumatic drug, T-score = Bone Mineral Density T-score

* Anatomical Therapeutic Chemical codes, International Classification of Primary Care-codes required for Dutch STOPP/START v2 were selected using Huibers et al or selected - by two researchers (BD and MW) - using www.whocc.no/atc_ddd_index/, the Dutch medication information website www.farmacotherapeutischkompas.nl/, or diagnoses description in our data.

NB. Partially copied from Damoiseaux et al (2021) "Appendix 1: Technical translation and prevalence Dutch STOPP/START v2", with permission. All codes were adapted to International Classification of Primary Care-codes, based on Huibers et al.

Supplemental Table 5: Multilevel negative binomial regression analysis of association between personal continuity and PPO, crude.

PPO	total population (n=25854)		
	Exp(rc)	p	95% CI
UPC		<.001	
<i>low</i>			
<i>intermediate</i>	.969		.939 .999
<i>high</i>	.901		.871 .931
BBI		<.001	
<i>low</i>			
<i>intermediate</i>	1.03		.998 1.064
<i>high</i>	.939		.908 .971
HI		<.001	
<i>low</i>			
<i>intermediate</i>	.927		.898 .957
<i>high</i>	.848		.821 .877

Rc: regression coefficient; CI: Confidence Interval; PPO: Potential Prescribing Omissions; UPC: Usual Provider of Care; BBI: Bice-Boxerman Index; HI: Herfindahl Index.

Supplemental Table 6: Multilevel negative binomial regression analysis of association between personal continuity and PIM, crude, stratified by the number of chronic conditions.

PIM	0-2 chronic conditions (n=7992)			3-4 chronic conditions (n=8349)			5-18 chronic conditions (n=9513)			total population (n=25854)		
	Exp(rc)	p	95% CI	Exp(rc)	p	95% CI	Exp(rc)	p	95% CI	Exp(rc)	p	95% CI
UPC		.006			.360			<.001			<.001	
<i>low</i>												
<i>intermediate</i>	1.123		1.046 1.206	.971		.921 1.024	.946		.910 .983	.977		.946 1.008
<i>high</i>	1.059		.985 1.138	.963		.912 1.017	.903		.866 .942	.920		.889 .951
BBI		<.001			.192			.002			<.001	
<i>low</i>												
<i>intermediate</i>	1.107		1.031 1.188	1.047		.993 1.104	.991		.952 1.031	1.079		1.045 1.115
<i>high</i>	.946		.879 1.017	1.010		.955 1.067	.935		.896 .975	.988		.955 1.022
HI		.124			.009			<.001			<.001	
<i>low</i>												
<i>intermediate</i>	1.033		.961 1.110	.958		.908 1.010	.924		.888 .961	.916		.887 .946
<i>high</i>	.961		.893 1.034	.911		.868 .969	.869		.833 .906	.843		.815 .872

Rc: regression coefficient; CI: Confidence Interval; PIM: Potentially Inappropriate Medications; UPC: Usual Provider of Care; BBI: Bice-Boxerman Index; HI: Herfindahl Index