Supplementary Material

Table S1: Details about the potentially inappropriate medication prescribing detection algorithm

Criteria	Explanations	Programmed criteria (Done/Not Done)	Reasons for nonprogramming	Medication information needed (ATC 5) (Yes/No)	Dosage information needed (Yes/No)	Duration information needed (Yes/No)	Route information needed (Yes/No)	Association of drugs information needed (Yes/No)	Comorbidity information needed (text) (Yes/No)	Association of comorbidities information needed (Yes/No)	Others clinical measures (Yes/No)	Others clinical measures (details)	Strict redundancy between criteria	Strict redundancy between criteria
EU(7)-PIM list	European List of potentially inappropriate medications	Done	-	Yes	Yes	Yes	Yes	No	No	-	-	-	Yes, see other criteria	-
Withdrawal	Market withdrawals by the French National Agency of Medicines and Health Products Safety (ANSM) or European Medicine Agency (EMA) due to safety concerns	Done	-	Yes	No	No	No	No	No	-	-	-	Yes with EU-PIM	Pioglitazone (A10BG03), Strontium ranelate (M05BX03), Meprobamate (N05BC01, and N05BC51), Acepromazine (N05CX)
CI	Contraindications	Done	-	Yes	Yes	No	No	Yes	No	-	-	-	No	-
AMI no. 1	AMI no. 1: Neuroleptics in patients with Alzheimer disease	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
AMI no. 2	AMI no. 2: Coprescription of 2 psychotropic drugs in the elderly	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
AMI no. 3	AMI no. 3: Long-acting benzodiazepine in the elderly	Done	-	Yes	No	No	No	No	No	-	-	-	Yes with EU-PIM	Numerous Long-acting benzodiazepines
AMI no. 4	AMI no. 4: Date of initiation of treatment known for all psychotropic drugs	Not Done	Prescription monitoring criteria not suited to a clinical study	-	-	-	-	-	-	-	-	-	-	-
AMI no. 5	AMI no. 5: Search falls every 3 months if psychotropic	Not Done	Prescription monitoring criteria not suited to a clinical study	-	-	-	-	-	-	-	-	-	-	-
AMI no. 6	AMI no. 6: Coprescription of 2 or more diuretics in the elderly	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
AMI no. 7	AMI no. 7: Coprescription of 4 or more antihypertensive drugs in the elderly	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
AMI no. 8	AMI no. 8: Electrolyte monitoring if increased risk associated with a "loop diuretic + thiazide diuretic" or "antialdosterone + renin angiotensin system inhibitor"	Not Done	Prescription monitoring criteria not suited to a clinical study	-	-	-	-	-	-	-	-	-	-	-
AMI no. 9	AMI no. 9: Weight monitoring if diuretics prescribed	Not Done	Prescription monitoring criteria not suited to a clinical study	-	-	-	-	-	-	-	-	-	-	-
AMI no. 10	AMI no. 10: Search orthostatic hypotension every 6 months if antihypertensive	Not Done	Prescription monitoring criteria not suited to a clinical study	-	-	-	-	-	-	-	-	-	-	-
AMI no. 11	AMI no. 11: INR control if a VKA is prescribed and antibiotics or antifungals started	Not Done	Prescription monitoring criteria not suited to a clinical study	-	-	-	-	-	-	-	-	-	-	-

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STOPP A1	STOPP A1. Any drug prescribed without an evidence-based clinical indication.	Partially done	Only 2 sub-criteria: aspirin and statin in primary cardiovascular prevention, proton pump inhibitor without recent oesogastric damage.	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP A2	STOPP A2. Any drug prescribed beyond the recommended duration, where treatment duration is well defined.	Not Done	Lack of comprehensive clinical information to determine the recommended duration of treatment	-	-	-	-	-	-	-	-	-	-	-
STOPP A3	STOPP A3. Any duplicate drug class prescription e.g. two concurrent NSAIDs, SSRIs, loop diuretics, ACE inhibitors, anticoagulants (optimisation of monotherapy within a single drug class should be observed prior to considering a new agent).	Done	-	Yes	No	No	No	No	No	-	-	-	No	-
STOPP B1	STOPP B1. Digoxin for heart failure with normal systolic ventricular function (no clear evidence of benefit)	Not Done	No information on the ventricular ejection fraction in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP B2	STOPP B2. Verapamil or diltiazem with NYHA Class III or IV heart failure (may worsen heart failure).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP B3	STOPP B3. Beta-blocker in combination with verapamil or diltiazem (risk of heart block).	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
STOPP B4	STOPP B4. Beta blocker with bradycardia (< 50/min), type II heart block or complete heart block (risk of complete heart block, asystole).	Done	-	Yes	No	No	No	No	Yes	No	Yes	Heart rate	No	-
STOPP B5	STOPP B5. Amiodarone as first-line antiarrhythmic therapy in supraventricular tachyarrhythmias (higher risk of side-effects than beta-blockers, digoxin, verapamil or diltiazem)	Not Done	No information about "first-line treatment" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP B6	STOPP B6. Loop diuretic as first-line treatment for hypertension (safer, more effective alternatives available).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP B7	STOPP B7. Loop diuretic for dependent ankle oedema without clinical, biochemical evidence or radiological evidence of heart failure, liver failure, nephrotic syndrome or renal failure (leg elevation and /or compression hosiery usually more appropriate).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-

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STOPP B8	STOPP B8. Thiazide diuretic with current significant hypokalaemia (i.e. serum K+ < 3.0 mmol/l), hyponatraemia (i.e. serum Na+ < 130 mmol/l) hypercalcaemia (i.e. corrected serum calcium > 2.65 mmol/l) or with a history of gout (hypokalaemia, hyponatraemia, hypercalcaemia and gout can be precipitated by thiazide diuretic)	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP B9	STOPP B9. Loop diuretic for treatment of hypertension with concurrent urinary incontinence (may exacerbate incontinence).	Done	-	Yes	No	No	No	No	Yes	Yes	No	-	No	-
STOPP B10	STOPP B10. Centrally-acting antihypertensives (e.g. methyldopa, clonidine, moxonidine, rilmenidine, guanfacine), unless clear intolerance of, or lack of efficacy with, other classes of antihypertensives (centrally-active antihypertensives are generally less well tolerated by older people than younger people)	Not Done	No information about "clear intolerance of, or lack of efficacy with, other classes of antihypertensives" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP B11	STOPP B11. ACE inhibitors or Angiotensin Receptor Blockers in patients with hyperkalaemia.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP B12	STOPP B12. Aldosterone antagonists (e.g. spironolactone, eplerenone) with concurrent potassium-conserving drugs (e.g. ACEI's, ARB's, amiloride, triamterene) without monitoring of serum potassium (risk of dangerous hyperkalaemia i.e. > 6.0 mmol/l – serum K should be monitored regularly, i.e. at least every 6 months).	Not Done	Prescription monitoring criteria not suited to a clinical study and no information about the frequency of serum potassium monitoring in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP B13	STOPP B13. Phosphodiesterase type-5 inhibitors (e.g. sildenafil, tadalafil, vardenafil) in severe heart failure characterised by hypotension i.e. systolic BP < 90 mmHg, or concurrent nitrate therapy for angina (risk of cardiovascular collapse)	Done	-	Yes	No	No	No	Yes	Yes	No	Yes	Systolic blood pressure	No	-
STOPP C1	STOPP C1. Long-term aspirin at doses greater than 160mg per day (increased risk of bleeding, no evidence for increased efficacy).	Done	-	Yes	Yes	Yes	No	No	No	-	-	-	No	-
STOPP C2	STOPP C2. Aspirin with a past history of peptic ulcer disease without concomitant PPI (risk of recurrent peptic ulcer).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-

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STOPP C3	STOPP C3. Aspirin, clopidogrel, dipyridamole, vitamin K antagonists, direct thrombin inhibitors or factor Xa inhibitors with concurrent significant bleeding risk, i.e. uncontrolled severe hypertension, bleeding diathesis, recent non-trivial spontaneous bleeding) (high risk of bleeding).	Not Done	No information about "recent nontrivial spontaneous bleeding" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP C4	STOPP C4. Aspirin plus clopidogrel 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 (no evidence of added benefit over clopidogrel monotherapy)	Not Done	No information about "coronary stent insertion date" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP C5	STOPP C5. Aspirin in combination with vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors in patients with chronic atrial fibrillation (no added benefit from aspirin)	Done	-	Yes	No	No	No	Yes	Yes	No	No	-	No	-
STOPP C6	STOPP C6. Antiplatelet agents with vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors in patients with stable coronary, cerebrovascular or peripheral arterial disease (No added benefit from dual therapy).	Not Done	Diffcult to exclude case with appropriate anticoagulant/antiplatelet combination (coronary stent less than 12 months) because no information about "coronary stent insertion date" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP C7	STOPP C7. Ticlopidine in any circumstances (clopidogrel and prasugrel have similar efficacy, stronger evidence and fewer side-effects).	Done	-	Yes	No	No	No	No	No	-	-	-	Yes with EU-PIM	Ticlopidine (B01AC05)
STOPP C8	STOPP C8. Vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors for first deep venous thrombosis without continuing provoking risk factors (e.g. thrombophilia) for > 6 months, (no proven added benefit).	Not Done	No information about "thombophilia exploration" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP C9	STOPP C9. Vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors for first pulmonary embolus without continuing provoking risk factors (e.g. thrombophilia) for > 12 months (no proven added benefit).	Not Done	No information about "thombophilia exploration" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP C10	STOPP C10. NSAID and vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors in combination (risk of major gastrointestinal bleeding).	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-

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STOPP C11	STOPP C11. NSAID with concurrent antiplatelet agent(s) without PPI prophylaxis (increased risk of peptic ulcer disease)	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
STOPP D1	STOPP D1. TriCyclic Antidepressants (TCAs) with dementia, narrow angle glaucoma, cardiac conduction abnormalities, prostatism, or prior history of urinary retention (risk of worsening these conditions).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP D2	STOPP D2. Initiation of TriCyclic Antidepressants (TCAs) as first-line antidepressant treatment (higher risk of adverse drug reactions with TCAs than with SSRIs or SNRIs).	Not Done	No information about "first-line treatment" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP D3	STOPP D3. Neuroleptics with moderate-marked antimuscarinic/anticholinergic effects (chlorpromazine, clozapine, flupenthixol, fluphenzine, pipothiazine, promazine, zuclopenthixol) with a history of prostatism or previous urinary retention (high risk of urinary retention).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP D4	STOPP D4. Selective serotonin re-uptake inhibitors (SSRI's) with current or recent significant hyponatraemia i.e. serum Na+ < 130 mmol/l (risk of exacerbating or precipitating hyponatraemia).	Not Done	No information about blood sodium levels and "current or recent significant hyponatremia" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP D5	STOPP D5. Benzodiazepines for ≥ 4 weeks (no indication for longer treatment; risk of prolonged sedation, confusion, impaired balance, falls, road traffic accidents; all benzodiazepines should be withdrawn gradually if taken for more than 4 weeks as there is a risk of causing a benzodiazepine withdrawal syndrome if stopped abruptly).	Done	-	Yes	No	Yes	No	No	No	-	-	-	No	-
STOPP D6	STOPP D6. Antipsychotics (i.e. other than quetiapine or clozapine) in those with parkinsonism or Lewy Body Disease (risk of severe extra-pyramidal symptoms)	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP D7	STOPP D7. Anticholinergics/antimuscarinics to treat extra-pyramidal side-effects of neuroleptic medications (risk of anticholinergic toxicity),	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP D8	STOPP D8. Anticholinergics/antimuscarinics in patients with delirium or dementia (risk of exacerbation of cognitive impairment).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-

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STOPP D9	STOPP D9. Neuroleptic antipsychotic in patients with behavioural and psychological symptoms of dementia (BPSD) unless symptoms are severe and other non-pharmacological treatments have failed (increased risk of stroke).	Not Done	No information about "unless symptoms are severe and other nonpharmacological treatments have failed" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP D10	STOPP D10. Neuroleptics as hypnotics, unless sleep disorder is due to psychosis or dementia (risk of confusion, hypotension, extra-pyramidal side effects, falls).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP D11	STOPP D11. Acetylcholinesterase inhibitors with a known history of persistent bradycardia (< 60 beats/min.), heart block or recurrent unexplained syncope or concurrent treatment with drugs that reduce heart rate such as beta-blockers, digoxin, diltiazem, verapamil (risk of cardiac conduction failure, syncope and injury).	Done	-	Yes	No	No	No	Yes	Yes	No	Yes	Heart rate	No	-
STOPP D12	STOPP D12. Phenothiazines as first-line treatment, since safer and more efficacious alternatives exist (phenothiazines are sedative, have significant anti-muscarinic toxicity in older people, with the exception of prochlorperazine for nausea/vomiting/vertigo, chlorpromazine for relief of persistent hiccoughs and levomepromazine as an anti-emetic in palliative care).	Not Done	No information about "first-line treatment" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP D13	STOPP D13. Levodopa or dopamine agonists for benign essential tremor (no evidence of efficacy)	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP D14	STOPP D14. First-generation antihistamines (safer, less toxic antihistamines now widely available).	Done	-	Yes	No	No	No	No	No	-	-	-	Yes with EU-PIM	Numerous first-generation antihistamines
STOPP E1	STOPP E1. Digoxin at a long-term dose greater than 125µg/day if eGFR < 30 ml/min/1.73m2 (risk of digoxin toxicity if plasma levels not measured).	Not Done	No information about serum creatinine levels in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP E2	STOPP E2. Direct thrombin inhibitors (e.g. dabigatran) if eGFR < 30 ml/min/1.73m2 (risk of bleeding)	Not Done	No information about serum creatinine levels in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP E3	STOPP E3. Factor Xa inhibitors (e.g. rivaroxaban, apixaban) if eGFR < 15 ml/min/1.73m2 (risk of bleeding)	Not Done	No information about serum creatinine levels in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP E4	STOPP E4. NSAID's if eGFR < 50 ml/min/1.73m2 (risk of deterioration in renal function).	Not Done	No information about serum creatinine levels in the database	-	-	-	-	-	-	-	-	-	-	-

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STOPP E5	STOPP E5. Colchicine if eGFR < 10 ml/min/1.73m2 (risk of colchicine toxicity)	Not Done	No information about serum creatinine levels in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP E6	STOPP E6. Metformin if eGFR < 30 ml/min/1.73m2 (risk of lactic acidosis).	Not Done	No information about serum creatinine levels in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP F1	STOPP F1. Prochlorperazine or metoclopramide with Parkinsonism (risk of exacerbating Parkinsonian symptoms).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP F2	STOPP F2. PPI for uncomplicated peptic ulcer disease or erosive peptic oesophagitis at full therapeutic dosage for > 8 weeks (dose reduction or earlier discontinuation indicated).	Not Done	No information about peptic ulcer disease severity in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP F3	STOPP F3. Drugs likely to cause constipation (e.g. antimuscarinic/anticholinergic drugs, oral iron, opioids, verapamil, aluminium antacids) in patients with chronic constipation where non-constipating alternatives are available (risk of exacerbation of constipation).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP F4	STOPP F4. Oral elemental iron doses greater than 200 mg daily (e.g. ferrous fumarate> 600 mg/day, ferrous sulphate > 600 mg/day, ferrous gluconate> 1800 mg/day; no evidence of enhanced iron absorption above these doses).	Done	-	Yes	Yes	No	Yes	No	No	-	-	-	Yes with EU-PIM	Iron supplements (B03AA)
STOPP G1	STOPP G1. Theophylline as monotherapy for COPD (safer, more effective alternative; risk of adverse effects due to narrow therapeutic index).	Done	-	Yes	No	No	No	Yes	Yes	No	No	-	No	-
STOPP G2	STOPP G2. Systemic corticosteroids instead of inhaled corticosteroids for maintenance therapy in moderate-severe COPD (unnecessary exposure to long-term side-effects of systemic corticosteroids and effective inhaled therapies are available).	Not Done	Lack of comprehensive clinical information for which systemic corticosteroids can be prescribed	-	-	-	-	-	-	-	-	-	-	-
STOPP G3	STOPP G3. Anti-muscarinic bronchodilators (e.g. ipratropium, tiotropium) with a history of narrow angle glaucoma (may exacerbate glaucoma) or bladder outflow obstruction (may cause urinary retention).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP G4	STOPP G4. Benzodiazepines with acute or chronic respiratory failure i.e. pO2 < 8.0 kPa ± pCO2 > 6.5 kPa (risk of exacerbation of respiratory failure).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-

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STOPP H1	STOPP H1. Non-steroidal anti-inflammatory drug (NSAID) other than COX-2 selective agents with history of peptic ulcer disease or gastrointestinal bleeding, unless with concurrent PPI or H2 antagonist (risk of peptic ulcer relapse).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP H2	STOPP H2. NSAID with severe hypertension (risk of exacerbation of hypertension) or severe heart failure (risk of exacerbation of heart failure).	Done	-	Yes	No	No	No	No	Yes	No	Yes	Systolic and diastolic blood pressure	No	-
STOPP H3	STOPP H3. Long-term use of NSAID (>3 months) for symptom relief of osteoarthritis pain where paracetamol has not been tried (simple analgesics preferable and usually as effective for pain relief)	Not Done	No information about "situation where acetaminophen has not been tried" in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP H4	STOPP H4. Long-term corticosteroids (>3 months) as monotherapy for rheumatoid arthrtitis (risk of systemic corticosteroid side-effects).	Not Done	Lack of comprehensive clinical information for which systemic corticosteroids can be prescribed	-	-	-	-	-	-	-	-	-	-	-
STOPP H5	STOPP H5. Corticosteroids (other than periodic intra-articular injections for mono-articular pain) for osteoarthritis (risk of systemic corticosteroid side-effects).	Not Done	Lack of comprehensive clinical information for which systemic corticosteroids can be prescribed	-	-	-	-	-	-	-	-	-	-	-
STOPP H6	STOPP H6. Long-term NSAID or colchicine (>3 months) for chronic treatment of gout where there is no contraindication to a xanthine-oxidase inhibitor (e.g. allopurinol, febuxostat) (xanthine-oxidase inhibitors are first choice prophylactic drugs in gout).	Done	-	Yes	No	No	No	Yes	Yes	No	No	-	No	-
STOPP H7	STOPP H7. COX-2 selective NSAIDs with concurrent cardiovascular disease (increased risk of myocardial infarction and stroke)	Not Done	Lack of clinical information to identify all patients with concurrent cardiovascular disease in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP H8	STOPP H8. NSAID with concurrent corticosteroids without PPI prophylaxis (increased risk of peptic ulcer disease)	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
STOPP H9	STOPP H9. Oral bisphosphonates in patients with a current or recent history of upper gastrointestinal disease i.e. dysphagia, oesophagitis, gastritis, duodenitis, or peptic ulcer disease, or upper gastrointestinal bleeding (risk of relapse/exacerbation of oesophagitis, oesophageal ulcer, oesophageal stricture)	Done	-	Yes	No	No	Yes	No	Yes	No	No	-	No	-

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STOPP I1	STOPP I1. Antimuscarinic drugs with dementia, or chronic cognitive impairment (risk of increased confusion, agitation) or narrow-angle glaucoma (risk of acute exacerbation of glaucoma), or chronic prostatism (risk of urinary retention).	Done	-	Yes	No	No	No	No	Yes	Yes	No	-	No	-
STOPP I2	STOPP I2. Selective alpha-1 selective alpha blockers in those with symptomatic orthostatic hypotension or micturition syncope (risk of precipitating recurrent syncope)	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP J1	STOPP J1. Sulphonylureas with a long duration of action (e.g. glibenclamide, chlorpropamide, glimepiride) with type 2 diabetes mellitus (risk of prolonged hypoglycaemia).	Done	-	Yes	No	No	No	No	No	-	-	-	Yes with EU-PIM	Numerous sulphonylureas
STOPP J2	STOPP J2. Thiazolidenediones (e.g. rosiglitazone, pioglitazone) in patients with heart failure (risk of exacerbation of heart failure)	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP J3	STOPP J3. Beta-blockers in diabetes mellitus with frequent hypoglycaemic episodes (risk of suppressing hypoglycaemic symptoms).	Not Done	No information about "hypoglycemic episodes" frequence in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP J4	STOPP J4. Oestrogens with a history of breast cancer or venous thromboembolism (increased risk of recurrence).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
STOPP J5	STOPP J5. Oral oestrogens without progestogen in patients with intact uterus (risk of endometrial cancer).	Done	-	Yes	No	No	Yes	Yes	Yes	No	No	-	No	-
STOPP J6	STOPP J6. Androgens (male sex hormones) in the absence of primary or secondary hypogonadism (risk of androgen toxicity; no proven benefit outside of the hypogonadism indication).	Done	-	-	-	-	-	-	-	-	-	-	-	-
STOPP K1	STOPP K1. Benzodiazepines (sedative, may cause reduced sensorium, impair balance).	Not Done	Criterion too broad	-	-	-	-	-	-	-	-	-	-	-
STOPP K2	STOPP K2. Neuroleptic drugs (may cause gait dyspraxia, Parkinsonism).	Not Done	Criterion too broad	-	-	-	-	-	-	-	-	-	-	-
STOPP K3	STOPP K3. Vasodilator drugs (e.g. alpha-1 receptor blockers, calcium channel blockers, long-acting nitrates, ACE inhibitors, angiotensin I receptor blockers,) with persistent postural hypotension i.e. recurrent drop in systolic blood pressure ≥ 20mmHg (risk of syncope, falls).	Done	-	Yes	No	No	Yes	No	Yes	No	Yes	Systolic and diastolic blood pressure, before and after standing	No	-

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STOPP K4	STOPP K4. Hypnotic Z-drugs e.g. zopiclone, zolpidem, zaleplon (may cause protracted daytime sedation, ataxia).	Not Done	Criterion too broad	-	-	-	-	-	-	-	-	-	-	-
STOPP L1	STOPP L1. Use of oral or transdermal strong opioids (morphine, oxycodone, fentanyl, buprenorphine, diamorphine, methadone, tramadol, pethidine, pentazocine) as first line therapy for mild pain (WHO analgesic ladder not observed).	Not Done	No information about "first-line therapy" and pain monitoring in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP L2	STOPP L2. Use of regular (as distinct from PRN) opioids without concomitant laxative (risk of severe constipation).	Not Done	No information about "regular use" and pain monitoring in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP L3	STOPP L3. Long-acting opioids without short-acting opioids for break-through pain (risk of persistence of severe pain)	Not Done	No information about pain monitoring in the database	-	-	-	-	-	-	-	-	-	-	-
STOPP N1	STOPP N1. Concomitant use of two or more drugs with antimuscarinic/anticholinergic properties (e.g. bladder antispasmodics, intestinal antispasmodics, tricyclic antidepressants, first generation antihistamines) (risk of increased antimuscarinic/anticholinergic toxicity)	Done	-	Yes	No	No	No	No	No	-	-	-	No	-
START A1	START A1. Vitamin K antagonists or direct thrombin inhibitors or factor Xa inhibitors in the presence of chronic atrial fibrillation.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START A2	START A2. Aspirin (75 mg – 160 mg once daily) in the presence of chronic atrial fibrillation, where Vitamin K antagonists or direct thrombin inhibitors or factor Xa inhibitors are contraindicated.	Not Done	No information about anticoagulant contraindication in the database	-	-	-	-	-	-	-	-	-	-	-
START A3	START A3. Antiplatelet therapy (aspirin or clopidogrel or prasugrel or ticagrelor) with a documented history of coronary, cerebral or peripheral vascular disease.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START A4	START A4. Antihypertensive therapy where systolic blood pressure consistently > 160 mmHg and/or diastolic blood pressure consistently >90 mmHg; if systolic blood pressure > 140 mmHg and /or diastolic blood pressure > 90 mmHg, if diabetic.	Done	-	Yes	No	No	No	No	Yes	No	Yes	Systolic and diastolic blood pressure	No	-
START A5	START A5. Statin therapy with a documented history of coronary, cerebral or peripheral vascular disease, unless the patient's status is end-of-life or age is > 85 years.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START A6	START A6. Angiotensin Converting Enzyme (ACE) inhibitor with systolic heart failure and/or documented coronary artery disease.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-

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START A7	START A7. Beta-blocker with ischaemic heart disease.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START A8	START A8. Appropriate beta-blocker (bisoprolol, nebivolol, metoprolol or carvedilol) with stable systolic heart failure.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START B1	START B1. Regular inhaled b2 agonist or antimuscarinic bronchodilator (e.g. ipratropium, tiotropium) for mild to moderate asthma or COPD.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START B2	START B2. Regular inhaled corticosteroid for moderate-severe asthma or COPD, where FEV1 <50% of predicted value and repeated exacerbations requiring treatment with oral corticosteroids.	Not Done	No information about "repeated exacerbations requiring treatment with oral corticosteroids" and FEV1 in the database	-	-	-	-	-	-	-	-	-	-	-
START B3	START B3. Home continuous oxygen with documented chronic hypoxaemia (i.e. pO2 < 8.0 kPa or 60 mmHg or SaO2 < 89%)	Not Done	No information about pO2 and SaO2 in the database	-	-	-	-	-	-	-	-	-	-	-
START C1	START C1. L-DOPA or a dopamine agonist in idiopathic Parkinson's disease with functional impairment and resultant disability.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START C2	START C2. Non-TCA antidepressant drug in the presence of persistent major depressive symptoms.	Done	-	Yes	No	No	No	No	Yes	No	Yes	Geriatric Depression Scale (GDS)	No	-
START C3	START C3. Acetylcholinesterase inhibitor (e.g. donepezil, rivastigmine, galantamine) for mild-moderate Alzheimer's dementia or Lewy Body dementia (rivastigmine).	Not Done	Acetylcholinesterase inhibitor are not recommended according to HAS and not reimbursed by French social security	-	-	-	-	-	-	-	-	-	-	-
START C4	START C4. Topical prostaglandin, prostamide or beta-blocker for primary open-angle glaucoma.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START C5	START C5. Selective serotonin reuptake inhibitor (or SNRI or pregabalin if SSRI contraindicated) for persistent severe anxiety that interferes with independent functioning.	Not Done	No information about "persistent severe anxiety that interferes with independent functioning" in the database	-	-	-	-	-	-	-	-	-	-	-
START C6	START C6. Dopamine agonist (ropinirole or pramipexole or rotigotine) for Restless Legs Syndrome, once iron deficiency and severe renal failure have been excluded.	Not Done	No information about " iron deficiency" and "renal failure" severity in the database	-	-	-	-	-	-	-	-	-	-	-
START D1	START D1. Proton Pump Inhibitor with severe gastro-oesophageal reflux disease or peptic stricture requiring dilatation.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-

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START D2	START D2. Fibre supplements (e.g. bran, ispaghula, methylcellulose, sterculia) for diverticulosis with a history of constipation.	Not Done	No exhaustive information about "fiber supplements" in the drug database because some fiber supplements are considered food supplements, and not drugs	-	-	-	-	-	-	-	-	-	-	-
START E1	START E1. Disease-modifying anti-rheumatic drug (DMARD) with active, disabling rheumatoid disease.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START E2	START E2. Bisphosphonates and vitamin D and calcium in patients taking long-term systemic corticosteroid therapy.	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
START E3	START E3. Vitamin D and calcium supplement in patients with known osteoporosis and/or previous fragility fracture(s) and/or (Bone Mineral Density T-scores more than -2.5 in multiple sites).	Done	-	Yes	No	No	No	Yes	Yes	No	No	-	No	-
START E4	START E4. Bone anti-resorptive or anabolic therapy (e.g. bisphosphonate, strontium ranelate, teriparatide, denosumab) in patients with documented osteoporosis, where no pharmacological or clinical status contraindication exists (Bone Mineral Density T-scores -> 2.5 in multiple sites) and/or previous history of fragility fracture(s).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START E5	START E5. Vitamin D supplement in older people who are housebound or experiencing falls or with osteopenia (Bone Mineral Density T-score is > -1.0 but < -2.5 in multiple sites).	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START E6	START E6. Xanthine-oxidase inhibitors (e.g. allopurinol, febuxostat) with a history of recurrent episodes of gout.	Done	-	Yes	No	No	No	No	Yes	No	No	-	No	-
START E7	START E7. Folic acid supplement in patients taking methotexate.	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
START F1	START F1. ACE inhibitor or Angiotensin Receptor Blocker (if intolerant of ACE inhibitor) in diabetes with evidence of renal disease i.e. dipstick proteinuria or microalbuminuria (>30mg/24 hours) with or without serum biochemical renal impairment.	Done	-	Yes	No	No	No	No	Yes	Yes	No	-	No	-

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START G1	START G1. Alpha-1 receptor blocker with symptomatic prostatism, where prostatectomy is not considered necessary.	Done	-	Yes	No	No	No	No	Yes	No	No	-	Yes with START_G2	Monotherapy with 5-alpha reductase inhibitor can be appropriate
START G2	START G2. 5-alpha reductase inhibitor with symptomatic prostatism, where prostatectomy is not considered necessary.	Done	-	Yes	No	No	No	No	Yes	No	No	-	Yes with START_G1	Monotherapy with alpha-1 receptor blocker can be appropriate
START G3	START G3. Topical vaginal oestrogen or vaginal oestrogen pessary for symptomatic atrophic vaginitis.	Done	-	Yes	No	No	Yes	No	Yes	No	No	-	No	-
START H1	START H1. High-potency opioids in moderate-severe pain, where paracetamol, NSAIDs or low-potency opioids are not appropriate to the pain severity or have been ineffective.	Not Done	No information about "paracetamol, NSAIDs or low-potency opioids are not appropriate to the pain severity or have been ineffective" and pain monitoring in the database	-	-	-	-	-	-	-	-	-	-	-
START H2	START H2. Laxatives in patients receiving opioids regularly.	Done	-	Yes	No	No	No	Yes	No	-	-	-	No	-
START I1	START I1. Seasonal trivalent influenza vaccine annually	Not Done	No exhaustive information about vaccination in the database	-	-	-	-	-	-	-	-	-	-	-
START I2	START I2. Pneumococcal vaccine at least once after age 65 according to national guidelines	Not Done	No comprehensive information on past immunization history in the database	-	-	-	-	-	-	-	-	-	-	-