

Every effort has been made to ensure the information in this document is current and correct at the time of publication, however errors may have occurred and data for individual drugs, national or local guidance may have changed. Where there is any doubt, information should be checked against manufacturers' recommendations, published literature or other specialist sources.

Thanks to original developers of STOPP START TOOL Paul Gallagher & Denis O'Mahony

STOPP START Toolkit

Supporting Medication Review

STOPP:

Screening Tool of Older People's potentially inappropriate Prescriptions.

START:

**Screening Tool to Alert doctors to Right
i.e. appropriate, indicated Treatments.¹**

STOPP: Screening Tool of Older People's potentially inappropriate Prescriptions.¹

Prescriptions that are potentially inappropriate in persons aged ≥ 65 years of age

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References

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Wound Management

Surrey Wound Management Formulary is available on the [PAD](#).
The PCN supports the use of antimicrobial dressings in line with the algorithm based on the 'Two Week Rule' (available on the PAD).
Antimicrobials should NOT normally be used long term.

Anticholinergic Burden Scale (ACB)⁹

A total score of three or more is considered clinically relevant.

Score 1	Score 2	Score 3
Alverine	Amantadine	Amitriptyline & most TCAs
Atenolol & most beta-blockers	Belladonna alkaloids not otherwise listed	Atropine
Bupropion	Carbamazepine	Chlorphenamine and sedating antihistamines
Chlorthalidone	Cyproheptadine	Dicylomine
Cimetidine & H2RAs	Methotrimeprazine (Levomepromazine)	Doxepin and others related to TCAs
Codeine & other opiates	Oxcarbazepine	Hyoscine (scopolamine)
Diazepam & BZDs	Pethidine	Olanzapine and most atypicals
Digoxin	Pimozide	Orphenadrine
Furosemide & other diuretics	Cetirizine & non-sedating antihistamines*	Oxybutynin and most incontinence drugs
Haloperidol	Loperamide*	Paroxetine and most SSRIs

*From [NHS Scotland Polypharmacy Guidance Oct 2012](#)

START: Screening Tool to Alert doctors to Right i.e. appropriate, indicated Treatments.¹

Medication that should be considered for people ≥ 65 years of age where no contraindication exists

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An evidence based approach to prescribing in the elderly.

Introduction

A definition of medication review is "a structured, critical examination of a patient's medicines with the objective of reaching an agreement with the patient about treatment, optimising the impact of medicines, minimising the number of medication-related problems and reducing waste".²

It is commonly agreed that older people are at greater risk of adverse effects from their medicines due to age related changes in their major organs which in turn alter pharmacokinetics and pharmacodynamics. They also often have multiple co-morbidities leading to drug-drug interactions or cautions and contraindications to preferred treatments.

These patients however are often excluded from drug trials making it difficult for the clinician to weigh up the benefits versus risks, let alone explain them to the patient. Furthermore, although with increasing age a patient can move from benefiting from a treatment to being at significant risk from it, there can be difficulty in stopping medication for the fear of being accused of ageism.

This document is based on the STOPP START Tool, a medication review tool designed to identify medication where the risks outweigh the benefits in the elderly and vice versa.

Eighteen experts in geriatric pharmacotherapy initially contributed to suggesting and then rating the criteria. The STOPP criteria were evaluated (along with Beer's criteria³) against hospital admissions — one third of the patients with "potentially inappropriate prescriptions"

Musculoskeletal System

BNF Chapter 10

START

- **Disease-modifying anti-rheumatic drug (DMARD)** with active moderate-severe rheumatoid disease lasting > 12 weeks (**specialist only**).
- **Bisphosphonates** in patients taking maintenance oral corticosteroid therapy (consider dental check-up before initiating, must be able to stand or sit upright for at least 30 mins after taking).
- **Calcium and Vitamin D** supplement in patients with known osteoporosis (radiological evidence or previous fragility fracture or acquired dorsal kyphosis).

NICE TA160 and TA161 cover prevention of osteoporosis.

Local guidelines are available on the [PAD](#).

EMA guidance recommends restricting the use of the **strontium** to patients who **cannot** be treated with other medicines approved for osteoporosis. In addition these patients should continue to be evaluated regularly by their doctor (every 6 to 12 months) and treatment should be stopped if patients develop heart or circulatory problems, such as uncontrolled high blood pressure or angina. Patients who have a history of certain heart or circulatory problems, such as stroke and heart attack, must **not** be given strontium.

Atypical femoral fractures have been reported rarely with **bisphosphonate therapy**, mainly in patients receiving long-term treatment for osteoporosis. The optimum duration of bisphosphonate treatment for osteoporosis has not been established. The need for continued treatment should be re-evaluated periodically based on the benefits and potential risks for individual patients, particularly after 5 or more years of use.

Musculoskeletal System

BNF Chapter 10

STOPP

Non-steroidal anti-inflammatory drug (NSAID)

- with history of peptic ulcer disease or gastrointestinal bleeding, unless with concurrent gastroprotection (*risk of peptic ulcer relapse*)
- with moderate-severe hypertension (moderate: 160/100mmHg – 179/109mmHg; severe: $\geq 180/110$ mmHg) (*risk of exacerbation of hypertension*).
- with heart failure (*risk of exacerbation of heart failure*).
- with warfarin (*risk of gastrointestinal bleeding*).
- with renal impairment (*sodium and water retention may lead to risk of deterioration in renal function, possibly leading to renal failure-monitor. Deterioration has also been reported after topical use*).
- Long-term use of NSAID (>3 months) for relief of mild joint pain in osteoarthritis (*simple analgesics preferable and usually as effective for pain relief*).
- Long-term **NSAID** or **colchicine** for chronic treatment of gout where there is no contraindication to allopurinol (*allopurinol is the first choice prophylactic drug in gout*).
- Long-term **corticosteroids** (>3 months) as monotherapy for rheumatoid arthritis (*risk of major systemic corticosteroid side-effects*).

Prescribing safety indicators: NSAIDs are the most common group associated with hospital admission. Diclofenac is associated with cardiovascular risks that are higher than the other non-selective NSAIDs, and similar to selective COX-2s. Naproxen and low-dose ibuprofen are still considered to have the most favourable cardiovascular safety profiles of all non-selective NSAIDs. Use the lowest dose for the shortest time.

according to STOPP criteria presented with an associated adverse drug event.

All recommendations from the STOPP START Tool are included here, and where space allows, local and national guidance (in blue-edged boxes); these can only be considered correct at time of publication.

The tool was validated in patients aged 65 and over but there is still a place for clinical judgement in deciding whether a person is “elderly” in terms of the potential effects of medication.

The recommendations are grouped according to the main British National Formulary chapters⁴ with the STOPP items on the left (coloured red) and the START items on the right of the double page (coloured green). The rationale for the intervention is given in italics.

Local and national guidelines for drugs and clinical conditions are available on the Surrey [PAD](#).⁵ As well as using the information here to decide which might need to be stopped in the frail elderly it should also be considered if the drug gives daily symptomatic benefit, prevents rapid worsening of symptoms or replaces a hormone vital for normal function e.g. thyroxine. If so it should normally be continued.

A study of prescribing in general practice in Scotland⁶ used a panel of GPs and pharmacists to develop “prescribing safety indicators” (PSI) against which prescribing is judged. These were mostly either high risk drug combinations (drug interactions) or drug-disease combinations (contraindications). The indicators not already covered by STOPP are given in the blue supporting information boxes however it is the clinicians responsibility to consider other drug interactions or contra-indications not listed here. Local clinicians have also been asked for input with respect to safety.

Urogenital System BNF Chapter 7

START

The following drugs or drug classes were most often implicated in a UK study⁷ looking at cause of admission in two hospitals over a six month period (result given as percentage of adverse drug reaction—ADR—related admissions which in turn were 6.5% of all admissions).

1.	NSAIDs including aspirin	29.6%
2.	Diuretics	27.3%
3.	Warfarin	10.5%
4.	ACEI/ARBs	7.7%
5.	Antidepressants including lithium	7.1%
6.	Betablockers	6.8%
7.	Opiates	6.0%
8.	Digoxin	2.9%
9.	Prednisolone	2.5%
10.	Clopidogrel	2.4%

This study was carried out in patients over the age of 16, but clinicians will recognise that these drugs are commonly prescribed in older people.

The authors suggested that over 70% of the ADRs were avoidable. These findings are supported by a 2006 systematic review⁸ which found the four most common drug groups associated with preventable drug-related admissions to be antiplatelets (16%), diuretics (15.9%), NSAIDs (11%) and anticoagulants (8.3%). In addition to those listed above, they found drugs used in diabetes (3.5%), positive inotropes (3.2%), calcium channel blockers (2.8%) and antiepileptics (2.3%) were also implicated. (This review was not confined to the UK population and not all studies were specific to older people).

It might be prudent to tackle the above drugs as a priority after removing ineffective or unnecessary treatments in order to reduce the burden of polypharmacy in gradual steps.

NICE CG171 Urinary incontinence in women

When offering antimuscarinic drugs to treat OAB always take account of:

- coexisting conditions e.g poor bladder emptying,
- concurrent drug treatments with antimuscarinic effects,
- risk of adverse effects.

Do NOT offer oxybutynin (immediate release) to frail older women.

Review women who remain on long-term drug treatment for urinary incontinence or overactive bladder annually in primary care (or every 6 months for women >75 years).

Urogenital System BNF Chapter 7

STOPP

Bladder antimuscarinic drugs

- with dementia (*risk of increased confusion, agitation*).
- with chronic angle-closure glaucoma (*risk of acute exacerbation*).
- with chronic constipation (*risk of exacerbation*)
- with chronic prostatism (*risk of urinary retention*).

Alpha-blockers

- in males with frequent incontinence i.e. one or more episodes of incontinence daily (*risk of urinary frequency and worsening of incontinence*).
- with long-term urinary catheter *in situ* i.e. more than 2 months (*drug not indicated*).

Many anticholinergic (antimuscarinic) drugs are included in the STOPP sections already but as combining anticholinergic drugs increases the risk of side effects (including confusion, falls and death) the Anticholinergic Cognitive Burden scale⁹ for some commonly prescribed drugs is given on page 26 .

Renal function declines with age; many elderly patients have renal impairment but because of reduced muscle mass, this may not be indicated by a raised serum creatinine. It is wise to assume at least mild impairment of renal function when prescribing in the elderly⁴ .

Particular caution should be taken if considering stopping the following drugs (continue treatment, gradual withdrawal or specialist advice before stopping):¹⁰

- ACEI /ARBs and diuretics used in heart failure.
- Amiodarone, CCBs, betablockers or digoxin used to control heart rate or rhythm.
- Anticonvulsants used in epilepsy.
- Antidepressant, antipsychotic or mood stabilizing drugs.
- Antimuscarinic or other drugs used in Parkinson's disease.
- Steroids, DMARDs or immunosuppressant drugs.

Further information to aid the assessment of benefits versus risks including Number Needed to Treat and Number Needed to Harm can be found in references 10 and 14.

Colour Key.



Medication to consider stopping in patients over 65 from the STOPP Tool¹



Medication to consider starting in patients over 65 from the START Tool¹



National and local guidance e.g. NICE Guidelines¹¹ or other supporting/useful information e.g. prescribing safety indicators (PSI).

Solifenacin is a "black drug" locally i.e. unsuitable for prescribing as other drugs are preferred. The Pathway for Management of Overactive Bladder (OAB) is available on the [PAD](#).⁵ Improvement with antimuscarinic drugs is generally small (less than 20% compared to placebo) so patients may have been tried on several medications. Even if on a recommended drug the need for continuing antimuscarinic drug therapy should be reviewed every 4-6 weeks until symptoms stabilise , and then every 6-12 months.

STOPP: Screening Tool of Older People's potentially inappropriate Prescriptions.¹

The following STOPP prescriptions are potentially inappropriate in persons aged ≥ 65 years of age

Gastrointestinal System BNF Chapter 1

Diphenoxylate, loperamide or codeine phosphate

- for treatment of diarrhoea of unknown cause* (*risk of delayed diagnosis, may exacerbate constipation with overflow diarrhoea, may precipitate toxic megacolon in inflammatory bowel disease, may delay recovery in unrecognised gastroenteritis*).
- for treatment of severe infective gastroenteritis i.e. bloody diarrhoea, high fever or severe systemic toxicity (*risk of exacerbation or protraction of infection*).

Prochlorperazine or **metoclopramide** with Parkinsonism (*risk of exacerbating Parkinsonism*).

Proton pump inhibitor at **treatment dose** for peptic ulcer disease at full therapeutic dosage for > 8 weeks (*earlier discontinuation or dose reduction for maintenance/prophylactic treatment of peptic ulcer disease, oesophagitis or GORD indicated. Potential increase in bone fracture rates, hyponatraemia and hypomagnesaemia with longterm use*).

Anticholinergic antispasmodic drugs with chronic constipation (*risk of exacerbation of constipation*).

Review enteral nutrition: **NICE CG32** (Nutrition support in adults) recommends assessment using a tool such as **MUST**. See local guidelines on the **PAD** and ensure supplements are being use appropriately-do not put on repeat prescription.

Endocrine System BNF Chapter 6

START

- **Metformin** with type 2 diabetes +/- metabolic syndrome (avoid if $eGFR < 30\text{ml/min}/1.73\text{m}^2$; see BNF and SPC)
- **ACE inhibitor** or Angiotensin Receptor Blocker in diabetes with nephropathy i.e. overt urinalysis proteinuria or microralbuminuria ($> 30\text{mg}/24$ hours) +/- serum biochemical renal impairment—estimated GFR $< 50\text{ml/min}$. Watch BP for postural hypotension and risk of falls.
- **Antiplatelet** therapy in diabetes mellitus if one or more co-existing major cardiovascular risk factor present (hypertension, hypercholesterolaemia, smoking history).*
- **Statin** therapy in diabetes mellitus –for primary prevention consider starting atorvastatin 20mg for Type 1 and in Type 2 if $\geq 10\%$ risk. For patients with CVD, atorvastatin 80mg is recommended, however dose reduction may be appropriate and see advice on page 13.

*In 2009 The **MHRA** issued advice that aspirin is not licensed for primary prevention and recent studies supported its use only in secondary prevention. However they did state that the benefits and risks have to be considered for individual patients particularly the benefits with vascular disease including diabetes (but also the risks of gastrointestinal harms).¹³

The lipid guidance in **NICE CG 87 Type 2 Diabetes** has been updated and replaced by **NICE CG 181 Lipid Modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease**

Endocrine System BNF Chapter 6

STOPP

- **Glibenclamide or chlorpropamide** with type 2 diabetes mellitus (*risk of prolonged hypoglycaemia*).
- **Beta-blockers** in those with diabetes mellitus and frequent hypoglycaemic episodes i.e. >1 episode per month (*risk of masking hypoglycaemic symptoms*).
- **Oestrogens**
 - ◆ with a history of breast cancer or venous thromboembolism (*increased risk of recurrence*)
 - ◆ without progestogen in patients with intact uterus (*risk of endometrial cancer*).
- **Metformin**- if eGFR < 30ml/min/1.73m² and review if < 45ml/min/1.73m² (*increased risk of lactic acidosis*).
- **Glitazones** – in heart failure, bladder cancer or fracture risk. Caution in elderly.
- **SGLT-2 inhibitors**– if using loop diuretics or volume depleted. STOP dapagliflozin if eGFR < 60ml/min/1.73m², STOP canagliflozin and empagliflozin if eGFR < 45ml/min/1.73m²
- **Gliptins** –if acute pancreatitis (vildagliptin if hepatic impairment)

NICE CG87 Type 2 Diabetes covers:

- offering lifestyle advice as well as medication to achieve individually set HbA1c levels (and not to pursue highly intensive management to levels of less than 6.5%)
 - self monitoring of blood glucose as part of overall management-see local [SMBG Guidelines](#)
 - Choice of medication
 - **Do not use pioglitazone** with **SGLT-2 inhibitors** due to increased risk of bladder cancer.
 - **Do not use gliptins** and **GLP-1s** together.
- See individual SPCs and [PAD⁵](#) for further information .

START: Screening Tool to Alert doctors to Right i.e. appropriate, indicated Treatments.¹

These **START** medications should be considered for people ≥ 65 years of age with the following conditions, where no contraindication exists.

Gastrointestinal System BNF Chapter 1

Proton Pump Inhibitor with severe gastro-oesophageal acid reflux disease or peptic stricture requiring dilatation.

Fibre supplement for chronic, symptomatic diverticular disease with constipation.

NICE CG177 Osteoarthritis “Offer a standard NSAID...Co-prescribe with a **proton pump inhibitor**”

MHRA Advice Domperidone- domperidone should not be used by people who have serious underlying heart conditions. It should only be used in the relief of symptoms of nausea and vomiting and at the lowest effective dose for the shortest possible duration. Adults should take no more than three 10mg tablets per day. Domperidone should no longer be used to treat other conditions such as heartburn, bloating or relief of stomach discomfort.

* For diarrhoea of unknown cause consider the possibility of Clostridium difficile infection (CDI) if there is a history of antibiotic use or recent hospital discharge.

Stop antimotility agents and PPIs: Stop Antibiotics

Cardiovascular System BNF Chapter 2

STOPP

Digoxin at a long-term dose > 125mcg/day with impaired renal function — estimated GFR <50ml/min (*increased risk of toxicity*).

Loop diuretic

- for dependent ankle oedema only i.e. no clinical signs of heart failure (*no evidence of efficacy, compression hosiery usually more appropriate*).
- as first-line monotherapy for hypertension (*safer, more effective alternatives available*).

Thiazide diuretic with a history of gout (*may exacerbate gout*).

Beta-blocker

- in combination with verapamil (*risk of symptomatic heart block*).

Non-cardioselective beta-blocker with Chronic Obstructive Pulmonary Disease (COPD) (*risk of bronchospasm*).

Calcium channel blockers

- with chronic constipation (*may exacerbate constipation*).
- Use of **diltiazem** or **verapamil** with NYHA Class III or IV heart failure (*may worsen heart failure*).

Vasodilator drugs known to cause hypotension in those with persistent postural hypotension i.e. recurrent > 20mmHg drop in systolic blood pressure (*risk of syncope, falls*). *Stop if patient has fallen in past 3 months*.

Central Nervous System BNF Chapter 4

START

- **Levodopa** in idiopathic Parkinson's disease with definite functional impairment and resultant disability (**No PD drugs to be initiated in primary care prior to specialist diagnosis**).
- **Antidepressant** drug in the presence of moderate-severe depressive symptoms lasting at least three months. Refer to [Surrey Mood Hive](#) for use in Older people.

NICE CG42 Dementia .

The three **acetylcholinesterase (AChE) inhibitors** donepezil, galantamine and rivastigmine are recommended as options for managing mild to moderate Alzheimer's disease. Start with treatment of lowest acquisition cost (currently donepezil).

Memantine is recommended as an option for managing Alzheimer's disease for people with

- moderate Alzheimer's disease who are intolerant of or have a contraindication to AChE inhibitors or
- severe Alzheimer's disease.

They should be started by a specialist team and only continued by a GP following a 6 month review to assess benefit-see [PAD](#) for Shared Care Guidelines. Discontinue in those not responding.

In elderly patients with dementia, **antipsychotic drugs** are associated with a small increased risk of mortality and an increased risk of stroke or transient ischaemic attack. Furthermore, elderly patients are particularly susceptible to postural hypotension and to hyper- and hypothermia in hot or cold weather.⁵

Surrey guidance on treating BPSD (behavioural and psychological symptoms in patients with dementia) is available on the [PAD](#).⁵ Risperidone is the only drug licensed for short term treatment of aggression in patients with moderate to severe Alzheimer's dementia unresponsive to non-pharmacological interventions.

Central Nervous System

BNF Chapter 4

Further information:

Welsh MeReC gives guidance on stopping benzodiazepines, antidepressants and antipsychotics available at

www.wemerec.org.

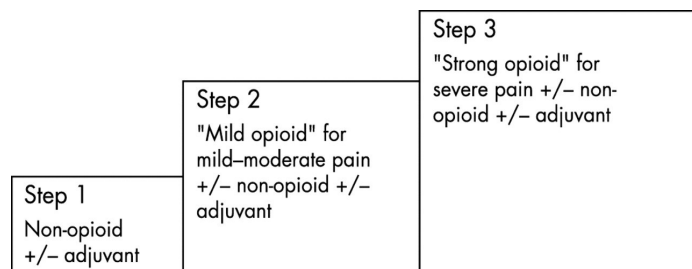
Patient.co.uk has both [patient information](#) and [professional resources](#) on stopping benzodiazepines.

Palliative care guidelines produced by the Surrey West Sussex & Hampshire Cancer Network are available to order on line at www.despatch365.com/palliative or phone 08448540898

WHO analgesic ladder:

Mild opioid: codeine, dihydrocodeine, tramadol.

Strong opioid: morphine, diamorphine, buprenorphine, oxycodone, pethidine, tramadol—at high doses.



Great care is required when prescribing opioids to patients with impaired renal function. Many opioids (and/or their active/toxic metabolites) are renally excreted e.g. morphine. Accumulation occurs in renal failure potentially leading to extreme opioid sensitivity.

Avoid **tramadol** in the over 75s. **Fentanyl** is a potent opioid analgesic and should be used only in patients who have previously tolerated opioids because of a risk of significant respiratory depression in opioid-naïve patients.

Surrey Management of Chronic non-malignant pain available on the [PAD](#).⁵

Aspirin

- with a past history of peptic ulcer disease without histamine H2 receptor antagonist or Proton Pump Inhibitor (*risk of bleeding*).
- at dose > 150mg day (*increased bleeding risk, no evidence for increased efficacy*).
- with no history of coronary, cerebral or peripheral arterial symptoms or occlusive arterial event (*not indicated*).
- to treat dizziness not clearly attributable to cerebrovascular disease (*not indicated*).
- with concurrent bleeding disorder (*high risk of bleeding*).

Warfarin

- for first, uncomplicated deep venous thrombosis for longer than 6 months duration (*no proven added benefit*).
- for first uncomplicated pulmonary embolus for longer than 12 months duration (*no proven benefit*).
- with concurrent bleeding disorder (*high risk of bleeding*).
- use of aspirin and warfarin in combination without gastroprotection (avoid cimetidine because of interaction with warfarin) (*high risk of gastrointestinal bleeding*).

Clopidogrel

- with concurrent bleeding disorder (*high risk of bleeding*).

Dipyridamole

- as monotherapy for secondary prevention of ischaemic stroke and TIA (*no evidence for efficacy –only use if no other option see local guidance on PAD*).
- with concurrent bleeding disorder (*high risk of bleeding*).

Prescribing safety indicators: The combination of NSAID+ACEI/ARB+diuretic is considered particularly risky. Antiplatelets should not be combined with warfarin—even if indicated the benefits are unlikely to outweigh the harms in the frail elderly.

NICE CG180 Atrial Fibrillation (AF) addresses stroke and bleeding risk stratification and the role of new antithrombotic agents.

Assess stroke risk

- Use the CHA2DS2-VASc stroke risk score for assessment in people with:
 - paroxysmal, persistent or permanent AF,
 - atrial flutter,
 - a continuing risk of arrhythmia recurrence after cardioversion back to sinus rhythm.

Assess bleeding risk

- Use the HAS-BLED score to assess bleeding risk in people who are starting or have started anticoagulation. Offer modification and monitoring of the following risk factors:
 - uncontrolled hypertension,
 - poor control of INR ('labile INRs'),
 - concurrent medication, e.g. concomitant use of aspirin or a non-steroidal anti-inflammatory drug,
 - harmful alcohol consumption.

Stroke prevention

- **Do NOT** offer stroke prevention therapy to people at **very low risk of stroke** i.e. adults <65 years with AF and no risk factors other than their sex (CHA2DS2-VASc score of 0 for men or 1 for women).
- **Do NOT** offer aspirin monotherapy solely for stroke prevention.

Anticoagulation

Discuss the benefits and risks of anticoagulation, explain:

- for most people the benefit outweighs the bleeding risk,
- for people with an increased risk of bleeding the benefit may not always outweigh bleeding risk, and careful monitoring is important,
- options for anticoagulation; base choice on the person's clinical features, preferences and bleeding risk. Choices include: apixaban, dabigatran etexilate, rivaroxaban or a vitamin K antagonist e.g. warfarin.

Do NOT withhold anticoagulation solely because the person is at risk of falls.

Local Guidelines **Prescribing Anti Platelet Agents following Stroke or TIA** follow advice from the Royal College of Physicians which recommends that the management of patients after stroke and a TIA should be the same, ie **clopidogrel monotherapy** is the preferred first line treatment option.

- **Selective serotonin re-uptake inhibitors (SSRIs)** with a history of clinically significant hyponatraemia (*<130mmol/l within the previous 2 months. Caution with other drugs that may induce hyponatraemia and GI side effects*).
- **First generation antihistamines** if prolonged use (> 1 week) i.e. chlorphenamine, diphenhydramine, cyclizine, promethazine (risk of sedation and anti-cholinergic side effects).

Opiates

- Use of long-term strong opiates as first line therapy for mild-moderate pain (*WHO analgesic ladder not observed—more details page 16*).
- Regular opiates for more than 2 weeks in those with chronic constipation without concurrent use of laxatives (*risk of severe constipation*).
- long-term in those with dementia unless for palliative care or management of chronic pain syndrome (*exacerbation of cognitive impairment*).

NICE CG90 Depression in Adults:

The first step in mild depression is not routinely to prescribe e.g. offer cognitive behavioural therapy (CBT).

Prescribing safety indicators: The combination of tricyclic antidepressants and heart failure is considered risky (reduced contractility and pro-arrhythmic).¹²

The Mood Hive-Depression and Anxiety Spectrum Disorder Care Pathway contains advice on treating older adults and those with dementia. Avoid drugs with strong anticholinergic properties. It is also best to try to avoid antipsychotics, benzodiazepines and anticonvulsants (unless for seizures).

Central Nervous System BNF Chapter 4

STOPP

Tricyclic antidepressants (TCAs)

- with dementia (*risk of worsening cognitive impairment*).
- with glaucoma (*likely to exacerbate angle-closure glaucoma*).
- with cardiac conductive abnormalities (*pro-arrhythmic effects*).
- with constipation (*likely to worsen constipation*).
- with an opiate or calcium channel blocker (*risk of severe constipation*).
- with prostatism or prior history of urinary retention (*risk of urinary retention*).

Benzodiazepines and Z drugs

- if long-term (i.e. > 1 month) or long-acting
e.g. chlordiazepoxide, flurazepam, nitrazepam and benzodiazepines with long-acting metabolites e.g. diazepam (*risk of prolonged sedation, confusion, impaired balance, falls*).

- if fallen in past 3 months

Antipsychotics-see also p19

- long-term (i.e. > 1 month) as hypnotics (*risk of confusion, hypotension, extra-pyramidal side effects, falls*).
- long-term (> 1 month) in those with parkinsonism (*likely to worsen extra-pyramidal symptoms*).
- if fallen in past 3 months (*may cause gait dyspraxia, Parkinsonism, increase risk of falls*).
- **Phenothiazines** in patients with epilepsy (*may lower seizure threshold*).
- **Anticholinergics** to treat extra-pyramidal side-effects of antipsychotic medications (*risk of anticholinergic toxicity*).

Cardiovascular System BNF Chapter 2

START

Warfarin/NOAC in the presence of chronic atrial fibrillation (see NICE guidance on page 12 and local guidelines on PAD)

Aspirin with a documented history of atherosclerotic coronary disease in patients with sinus rhythm.

Clopidogrel with a documented history of ischaemic stroke, TIA or peripheral vascular disease

Antihypertensive therapy where systolic blood pressure consistently >160 mmHg, but monitor for postural hypotension.

Statin therapy for primary prevention following informed discussion about risks and benefits taking into account potential benefits from lifestyle modifications, informed patient preference, comorbidities, polypharmacy, general frailty and life expectancy. In patients with established CVD consider statin therapy, however there is no difference in mortality to 5 years¹⁴.

Angiotensin Converting Enzyme (ACE) inhibitor with chronic heart failure.

ACE inhibitor following acute myocardial infarction.

Beta-blocker with chronic stable angina.

NICE CG 181 Lipid Modification

Consider people aged ≥85 years to be at increased risk of CVD because of age alone, particularly people who smoke or have raised blood pressure.

The decision to stop a statin should be based on an assessment of individual benefits and risks.¹⁴

- Stopping may be justified in a person at relatively low risk of a cardiovascular event, who is also poorly compliant or experiencing troublesome adverse effects.
- Statins should be stopped in palliative patients

Respiratory System BNF Chapter 3

STOPP

- **Theophylline** as monotherapy for COPD (*safer, more effective alternatives; risk of adverse effects due to narrow therapeutic index*).
- **Systemic corticosteroids** instead of inhaled corticosteroids for maintenance therapy in moderate-severe COPD (*unnecessary exposure to long-term side-effects of systemic steroids*).
- **Nebulised ipratropium** with glaucoma (*may exacerbate glaucoma*).
- **First generation antihistamines** (*sedative, cause symptoms of drowsiness in most people*). *Stop if patient has fallen in past 3 months.*

NICE CG 101 COPD

Theophylline

Only offer theophylline after trials of short- and long- acting bronchodilators or to people who cannot use inhaled therapy.

Oral Corticosteroids

Maintenance use of oral corticosteroid therapy in COPD is not normally recommended.

Some people with advanced COPD may need maintenance oral corticosteroids if treatment cannot be stopped after an exacerbation. Keep the dose as low as possible, monitor for osteoporosis and offer prophylaxis.

Respiratory System BNF Chapter 3

START

- Regular inhaled **beta 2 agonist** or **anticholinergic (antimuscarinic)** agent for mild to moderate asthma or COPD.
- Review patients with mild or moderate COPD at least once a year and severe or very severe COPD (FEV1 <50% predicted) at least twice a year. Follow NICE guidance regarding treatment selection for COPD. (Use BTS/SIGN guidelines for asthma).
- Review patients with asthma at least annually and attempt to step down their inhaled corticosteroid if appropriate
- Patients with asthma / COPD should have inhaler technique training and assessment before any new inhaler is initiated and reassessed as part of a structured clinical review

NICE CG 101 COPD

The Respiratory Care Team should be asked to assess the need for **oxygen** therapy in people with any of the following:

- very severe airflow obstruction (FEV1 <30% predicted)
- cyanosis
- polycythaemia
- peripheral oedema
- raised jugular venous pressure
- oxygen saturations less than or equal to 92% breathing air.

Give people with FEV1 < 30% a course of **antibiotic** and **oral corticosteroid** tablets to keep at home.