

DERBYSHIRE JOINT AREA PRESCRIBING COMMITTEE (JAPC)

Medication and falls prevention in the older person

This guidance is for any member of health and social care staff to use when a patient has had a fall to identify whether the medication the patient is taking is likely to be contributing to falls risk.

Relevant drugs have been graded using a traffic light system according to their potential to cause a fall:

- **RED: High risk – should prompt a referral for a medication review**
- **AMBER: Medium risk – should prompt a referral for a medication review after consideration of other risk factors that may have contributed to a fall**

NB any patient with Parkinson's disease is at high risk of falls because of the disease and medication so should be reviewed if falling.

Patients with a fall in the last year who are taking four or more medicines, of which at least one is graded as medium or high risk should be referred for medication review as soon as possible. That medication review should give consideration to falls risk alongside the patients other medical history.

Report to prescriber if:

- falls in last year
- effect of prescribed drug i.e. effect on sleep/behaviour/seizures/pain
- reason for prescription not known
- side effects (see table for likely effects)
- poor compliance

Patients with a fall in the last year taking four or more medicines, where none of those medicines have been graded as medium or high risk should continue to have their medication reviewed as normal.

Drug (*High risk drugs)	Drug class	Effects on falls risk
alfuzosin*	Alpha-blockers	Severe orthostatic hypotension, sedating
alimemazine	Antihistamines	Sedating, no evidence of benefit in long term use
amiodarone	Anti-arrhythmics	Bradycardia, other arrhythmias
amisulpride	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
amitriptyline*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
amlodipine	Calcium Channel Blockers	Hypotension, paroxysmal hypotension, bradycardia (verapamil & diltiazem), fatigue
aripiprazole	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
atenolol*	Beta-blockers	Bradycardia, hypotension, carotid sinus hypersensitivity, orthostatic hypotension, vasovagal syndrome
baclofen	Muscle Relaxants	Sedative, reduced muscle tone, tends to be used in conditions associated with falls
bendroflumethiazide	Diuretics	Dehydration causes hypotension, low potassium can cause fainting & general weakness, low sodium can cause sluggishness and confusion
betahistine	Antihistamines	Sedating, no evidence of benefit in long term use
bisoprolol*	Beta-blockers	Bradycardia, hypotension, carotid sinus hypersensitivity, orthostatic hypotension, vasovagal syndrome
bumetanide	Diuretics	Dehydration causes hypotension, low potassium can cause fainting & general weakness, low sodium can cause sluggishness and confusion
buprenorphine*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
candesartan*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
captopril*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
carbamazepine*	Anti-epileptics	Sedation, slow reactions. Excess blood levels cause unsteadiness & ataxia
carvedilol*	Beta-blockers	Bradycardia, hypotension, carotid sinus hypersensitivity, orthostatic hypotension, vasovagal syndrome
chlorthalidone*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
chlorphenamine	Antihistamines	Sedating, no evidence of benefit in long term use
chlorpromazine	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
chlorthalidone	Diuretics	Dehydration causes hypotension, low potassium can cause fainting & general weakness, low sodium can cause sluggishness and confusion

cinnarizine	Antihistamines	Sedating, no evidence of benefit in long term use
citalopram	Antidepressants (SSRI)	Orthostatic hypotension, bradycardia (rare), impair sleep quality
clomipramine*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
clonazepam*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
clonidine*	Centrally acting antihypertensive	Orthostatic hypotension, sedating
clozapine	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
co-codamol*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
codeine*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
co-dydramol*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
dantrolene	Muscle relaxants	Sedative, reduced muscle tone, tends to be used in conditions associated with falls
diazepam*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
digoxin	Anti-arrhythmics	Bradycardia, other arrhythmias
dihydrocodeine*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
diltiazem	Calcium Channel Blockers	Hypotension, paroxysmal hypotension, bradycardia (verapamil & diltiazem), fatigue
donepezil	Dementia medication	Symptomatic bradycardia & syncope
dosulepin*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
doxazosin*	Alpha-blockers	Severe orthostatic hypotension, sedating
doxepin*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
duloxetine*	Antidepressants (SNRI)	Orthostatic hypotension, bradycardia (rare), impair sleep quality
enalapril*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
eprosartan*	ACE inhibitors/sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
felodipine	Calcium Channel Blockers	Hypotension, paroxysmal hypotension, bradycardia (verapamil & diltiazem), fatigue
fentanyl*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
flecainide	Anti-arrhythmics	Bradycardia, other arrhythmias
fluoxetine	Antidepressants (SSRI)	Orthostatic hypotension, bradycardia (rare), impair sleep quality
fluphenazine	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
flurazepam*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
fosinopril*	ACE inhibitors/sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
furosemide	Diuretics	Dehydration causes hypotension, low potassium can cause fainting & general weakness, low sodium can cause sluggishness and confusion
gabapentin	Anti-epileptics	Some data on falls association (sodium valproate & gabapentin) Insufficient data on newer agents
galantamine	Dementia medication	Symptomatic bradycardia & syncope
glyceryl trinitrate*	Angina medication	Hypotension, paroxysmal hypotension
haloperidol	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
hydroxyzine	Antihistamines	Sedating, no evidence of benefit in long term use
imipramine*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
indapamide	Diuretics	Dehydration causes hypotension, low potassium can cause fainting & general weakness, low sodium can cause sluggishness and confusion
indoramin*	Alpha-blockers	Severe orthostatic hypotension, sedating
irbesartan*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
isocarboxazid*	Monoamine oxidase inhibitors (MAOIs)	Severe orthostatic hypotension
isosorbide mononitrate*	Angina medication	Hypotension, paroxysmal hypotension
lacidipine	Calcium Channel Blockers	Hypotension, paroxysmal hypotension, bradycardia (verapamil & diltiazem), fatigue
lamotrigine	Anti-epileptics	Some data on falls association (sodium valproate & gabapentin) Insufficient data on newer agents
lercanidipine	Calcium Channel Blockers	Hypotension, paroxysmal hypotension, bradycardia (verapamil & diltiazem), fatigue
levetiracetam	Anti-epileptics	Some data on falls association (sodium valproate & gabapentin) Insufficient data on newer agents
lisinopril*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
lofepramine*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision

lorazepam*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
lormetazepam*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
losartan*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
metolazone	Diuretics	Dehydration causes hypotension, low potassium can cause fainting & general weakness, low sodium can cause sluggishness and confusion
metoprolol*	Beta-blockers	Bradycardia, hypotension, carotid sinus hypersensitivity, orthostatic hypotension, vasovagal syndrome
mianserin*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
mirtazapine*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
morphine*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
moxonidine*	Centrally acting antihypertensive	Orthostatic hypotension, sedating
nicorandil*	Angina medication	Hypotension, paroxysmal hypotension
nifedipine	Calcium Channel Blockers	Hypotension, paroxysmal hypotension, bradycardia (verapamil & diltiazem), fatigue
nitrazepam*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
nortriptyline*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
olanzapine	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
olmesartan*	ACE inhibitors/sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
orphenadrine	Antimuscarinics	Blurred vision, dry eyes, drowsiness, dizziness
oxazepam*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
oxybutynin	Antimuscarinics	Blurred vision, dry eyes, drowsiness, dizziness
oxycodone*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
paroxetine	Antidepressants (SSRI)	Orthostatic hypotension, bradycardia (rare), impair sleep quality
perindopril*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
phenelzine*	Monoamine oxidase inhibitors (MAOIs)	Severe orthostatic hypotension
phenobarbital*	Anti-epileptics	Sedation, slow reactions. Excess blood levels cause unsteadiness & ataxia
phenytoin*	Anti-epileptics	May cause permanent cerebellar damage and unsteadiness in long term use High levels can cause unsteadiness & ataxia
prazosin*	Alpha-blockers	Severe orthostatic hypotension, sedating
pregabalin	Anti-epileptics	Some data on falls association (sodium valproate & gabapentin) Insufficient data on newer agents
prochlorperazine	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
procyclidine	Antimuscarinics	Blurred vision, dry eyes, drowsiness, dizziness
promazine	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
promethazine	Antihistamines	Sedating, no evidence of benefit in long term use
propranolol*	Beta-blockers	Bradycardia, hypotension, carotid sinus hypersensitivity, orthostatic hypotension, vasovagal syndrome
quetiapine	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
quinapril*	ACE inhibitors/sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
ramipril*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
risperidone	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
rivastigmine	Dementia medication	Symptomatic bradycardia & syncope
sertraline	Antidepressants (SSRI)	Orthostatic hypotension, bradycardia (rare), impair sleep quality
sodium valproate	Anti-epileptics	Some data on falls association (sodium valproate & gabapentin) Insufficient data on newer agents
solifenacin	Antimuscarinics	Blurred vision, dry eyes, drowsiness, dizziness
sotalol*	Beta-blockers	Bradycardia, hypotension, carotid sinus hypersensitivity, orthostatic hypotension, vasovagal syndrome
sulpiride	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
tamsulosin*	Alpha-blockers	Severe orthostatic hypotension, sedating
telmisartan*	ACE inhibitors/sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
temazepam*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
terazosin*	Alpha-blockers	Severe orthostatic hypotension, sedating
timolol eye drops*	Beta-blockers	Bradycardia, hypotension, carotid sinus hypersensitivity, orthostatic hypotension, vasovagal syndrome
tolterodine	Antimuscarinics	Blurred vision, dry eyes, drowsiness, dizziness

topiramate	Anti-epileptics	Some data on falls association (sodium valproate & gabapentin) Insufficient data on newer agents
tramadol*	Opiate analgesic	Sedation, slow reactions, impair balance, cause delirium
trandolapril*	ACE inhibitors/sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
tranylcypromine*	Monoamine oxidase inhibitors (MAOIs)	Severe orthostatic hypotension
trazodone*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
trifluoperazine	Antipsychotics	Can cause orthostatic hypotension sedation, slow reflexes, loss of balance
trihexyphenidyl	Antimuscarinics	Blurred vision, dry eyes, drowsiness, dizziness
trimeprazine	Antihistamines	Sedating, no evidence of benefit in long term use
trimipramine*	Tricyclic and related	*Doubles risk of falling* Orthostatic hypotension, drowsiness, impaired balance, slow reaction times, dizziness, blurred vision
valsartan*	ACE inhibitors/Sartans	Accumulate in dehydration or renal failure, orthostatic hypotension
venlafaxine*	Antidepressants (SNRI)	Orthostatic hypotension, bradycardia (rare), impair sleep quality
verapamil	Calcium Channel Blockers	Hypotension, paroxysmal hypotension, bradycardia (verapamil & diltiazem), fatigue
zolpidem*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use
zopiclone*	Hypnotics	Drowsiness, slow reactions, impaired balance (especially if getting up in the night), hangover effects next morning, tolerance to hypnotic effect after 14 days consider stopping/prn use

N.B. This list is not meant to be fully comprehensive but intended to raise awareness of the types of drugs that can contribute to falls. There may be other drugs that increase the risk of falls in certain patients

Reference: Care Homes – medication and falls, PrescQIPP, December 2014

First Produced: March 2011

Reviewed: October 2015

Next review date: September 2017