Health and Social Care Board

Interface Pharmacist Network Specialist Medicines

Atomoxetine - ADHD Shared Care Guideline

Specialist Details	Patient Identifier
Name: _____	
Location: _____	
Tel: _____	**Date:** _____

Introduction

Atomoxetine is a non-stimulant treatment for Attention Deficit Hyperactivity Disorder (ADHD). It should only be initiated following assessment and diagnosis by a specialist with expertise in ADHD, as part of a comprehensive treatment plan.

Amber indications: Treatment of ADHD in adults and children of 6 years and older.

Dosage and administration

Can be administered as a single daily dose in the morning, with or without food. If not tolerated or unsatisfactory clinical response, can be given as two divided doses with the second dose no later than late afternoon or early evening.

Atomoxetine should be taken every day without "drug holidays".

Body Weight	Recommended initiation dose & dosage titrations	Recommended maintenance dose
Children under 70kg	Usually 0.5mg/kg/day Titrate upwards if necessary, in 7 day intervals	Usually 1.2 mg/kg/day (max. 1.8mg/kg/day up to 100mg/day)
Adults aged 18 and over (and children over 70kg)	Usually 40mg/day Titrate upwards if necessary, in 7 day intervals	Usually 80 mg/day (max 100mg/day)

Available as: Atomoxetine is available as 10mg, 18mg, 25mg, 40mg, 60mg, 80mg or 100mg capsules and 20mg/5ml oral solution. It is not a controlled drug.

Unlicensed use: not licensed in adults if symptoms of ADHD were not present in childhood.

Hospital specialist responsibilities

- Diagnose the condition and assess if the patient is suitable for treatment with atomoxetine (as per the pre-drug assessment in NICE guidance including an assessment of cardiovascular status)
- Baseline height (not applicable to adults), weight, BP and heart rate
- Provide patient/carer with relevant information on use, side effects and need for monitoring of medication. Counsel patients about recognition of symptoms of hepatic damage or suicidal ideation and need to promptly report these to the specialist
- For patients 6 years and over arrange shared care with the patient's GP
- Provide the GP with relevant information for each patient, including:
  - Treatment to be undertaken by GP (dose, any dosage titrations etc.)
  - Results of baseline investigations and physical monitoring undertaken
  - System of monitoring and recording of progress and side effects
- Monitoring side effects:
  - Height (not required in adults) and appetite: Measure and record every six months
  - Weight: measure and record as follows
    - In children 10 years and under; every 3 months
    - In children over 10 years and young people; at 3 and 6 months after starting treatment and every 6 months thereafter or more often if concerns arise
    - In adults; every 6 months
  - Heart Rate and Blood pressure: Measure and record every six months and after each dose change
  - Assess for development of seizures, psychotic symptoms, anxiety, tics, aggression, depression, suicidal thinking, self-harm, sexual dysfunction, and cardiac symptoms
  - Patients with additional risk factors for cerebrovascular conditions should be assessed at every visit for neurological signs and symptoms
  - Changes in sleep pattern
- Monitor response to treatment and need to continue therapy. Advise discontinuation of atomoxetine if no improvement in symptoms is seen after 3 months at the maximum tolerated dose

- Specialist will continue to review the patient at regular intervals (at least annually) sending a written summary to the GP whenever the patient is reviewed
- Provide any other advice or information for the GP if required including if patient fails to attend review
- Supervise any discontinuation of treatment or onward referral to adult service if appropriate.

GP responsibilities

- Prescribe atomoxetine (continued prescribing is appropriate for patients attending specialist review)
- Report concerns with adherence, potential misuse/diversion, signs of alcohol/drug dependence or misuse to the specialist
- Report any adverse events to the specialist, and the usual bodies (e.g. MHRA / CHM).

Adverse effects, precautions and contraindications

Contraindications:

- Atomoxetine should not be used in combination with monoamine oxidase inhibitors (MAOI). Atomoxetine should not be used within a minimum of 2 weeks after discontinuing therapy with MAOI. Treatment with MAOI should not be initiated within 2 weeks after discontinuing atomoxetine.
- Patients with narrow angle glaucoma
- Phaeochromocytoma or history of phaeochromocytoma
- Severe cardiovascular or cerebrovascular disorders including severe hypertension, heart failure, arterial occlusive disease, angina, haemodynamically significant congenital heart disease, cardiomyopathies, myocardial infarction, potentially life-threatening arrhythmias, channelopathies, cerebral aneurysm or stroke. May be used with caution in patients with certain cardiovascular conditions following individual assessment by a cardiologist.

Pregnancy: avoid unless potential benefits outweigh risk.

Breastfeeding: excreted in breast milk – avoid.

Increase in pulse and BP: Patients may experience a modest increase in pulse (mean <10 bpm) and/or increase in blood pressure (mean <5 mmHg). In most cases these are not clinically important. Due to potential for additive pharmacological effects, caution is advised in patients with hypertension, tachycardia, cardiovascular or cerebrovascular disease. Use with caution in patients with long QT interval or a family history of QT prolongation.

GI Disturbance: Treatment may be associated with transient gastrointestinal side-effects of abdominal pain, vomiting, decreased appetite, constipation, dyspepsia and nausea.

Hepatic: Dose adjustments may be required if pre-existing hepatic insufficiency (see SPC). There is a rare risk of hepatic disorder though LFT monitoring is only indicated if liver injury is suspected. Very rarely, severe liver injury, including acute liver failure, has been reported. Atomoxetine should be discontinued in patients with jaundice or laboratory evidence of liver injury, and should not be restarted.

Other side-effects include dry mouth, urinary disorders, sleep disorders, somnolence, irritability, seizures, dizziness, fatigue, asthenia, paraesthesia, tremor, headache, sexual dysfunction, dysmenorrhoea or menstrual irregularities, palpitations, hot flushes and rash. Suicidal ideation is a rare side-effect which has been reported. May affect performance of skilled tasks (e.g. driving). The DVANI must be informed if prescribed medication or any side effects of the medication are likely to impair safe driving.

Common drug interactions

Atomoxetine is contraindicated in combination with:

- Current/recent (within 14 days) treatment with MAOIs

Use Atomoxetine with caution in association with:

- High dose nebulised or systemically administered salbutamol (or other beta$_2$ agonists)
- Pressor agents (eg. the decongestants pseudoephedrine or phenylephrine)
- Drugs that affect noradrenaline (eg. antidepressants such as imipramine, venlafaxine and mirtazapine)
- Drugs which inhibit CYP2D6 isoenzyme (eg. fluoxetine, paroxetine) – slower titration and final lower dosage of atomoxetine may be necessary
- Other drugs which prolong the QT interval, such as neuroleptics, class IA and III anti-arrhythmic, moxifloxacin, erythromycin, methadone, mefloquine, tricyclic antidepressants, lithium or cisapride
- Medicines known to lower seizure threshold such as, tricyclic anti-depressants or SSRIs, neuroleptics, phenothiazines, butyrophenone, mefloquine, chloroquine, buproprion and tramadol
- Anti-hypertensives as may reduce their effectiveness
- Any other drug that can elevate blood pressure.

There is no interaction between atomoxetine and alcohol.

Communication

For any queries relating to this patient's treatment with atomoxetine, please contact the specialist named at the top of this document.

This information is not inclusive of all prescribing information and potential adverse effects.
Please refer to full prescribing data in the SPC at www.medicines.org.uk or the BNF