Working in Partnership

Shared care agreement for the treatment of attention deficit hyperactivity disorder (ADHD) in Children & Young People (6-17 years): Bedfordshire Luton & Milton Keynes

This shared care guideline is only applicable for use for patients within Bedfordshire, Luton and Milton Keynes who are under the care of ELFT (East London NHS Foundation Trust), CNWL (Central and North West London NHS Foundation Trust) or CCS (Cambridgeshire Community Services) clinicians.

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Consultation Groups	BLMK ICS and associated stakeholders in the community ELFT CAMHS services: Luton and Bedfordshire CCS: Luton and Bedfordshire Community Paediatrics
Approved by (Sponsor Group)	BLMK ICS Area Prescribing Committee ELFT Medicine Management Committee
Ratified by:	BLMK ICS Area Prescribing Committee ELFT Medicine Management Committee CCS Medication Safety and Governance Group
Date ratified:	February 2025
Name and Job Title of author:	BLMK ICS ELFT Pharmacists
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General Shared Care Guideline (SCG) Principles

- Medicines considered suitable for shared care are those which should be initiated by a Specialist, but where prescribing and monitoring responsibility may be transferred to Primary Care. Due to their potential side effects, shared care medicines usually require monitoring and review by the Specialist to determine whether the medicines should be continued. The best interest, agreement and preferences of the patient should be at the centre of any shared care agreement.

- The transfer of prescribing responsibility from the Specialist to the patient's General Practitioner (GP) or Primary Care prescriber should occur when both parties are in agreement that the patient's condition is stable or predictable, and that the Primary Care prescriber has the relevant knowledge, skills and access to equipment to allow them to monitor treatment as indicated in this shared care prescribing guideline.

- The aim of this guideline is to equip Primary Care prescribers with the information to confidently take on clinical and legal responsibility for prescribing the medication under a shared care agreement within their own level of competence.

- Within the Bedfordshire, Luton and Milton Keynes (BLMK) Integrated Care System (ICS), shared care guidelines are produced and updated through a robust governance process, following consultation with a wide range of key stakeholders. On this basis for BLMK ICS approved shared care guidelines, it is anticipated that Primary Care prescribers, upon individual assessment, will accept shared care for the patient if they felt it was clinically appropriate to do so and seek patient consent.

- Where a request for shared care is made by the specialist via clinical correspondence, **shared care agreement is assumed.** Specialist services **are not required** to complete any specific forms. Primary Care prescribers **are not required to** send confirmation in writing via letter or approved electronic communication for acceptance of shared care.

- If the Primary Care prescriber feels that a request for shared care cannot be accepted, i.e. falls outside of their own level of competence, they should initially seek further information or advice from the clinician who is sharing care responsibilities or from another experienced colleague in line with the General Medical Council (GMC) guidance.

- If the Primary Care prescriber is still not satisfied clinically to accept shared care, they should make appropriate arrangements for the patient's continuing care where possible. This may include asking another colleague in their practice to undertake the shared care. In the event that other colleagues in the practice also decline to share care, the Primary Care prescriber could seek assistance and advice from their Primary Care Network (PCN) (e.g. PCN Pharmacist).

- If the decision, after discussion with the PCN, is to decline shared care, the Primary Care prescriber must notify the Specialist clinician of their decision and reason (See appendix 1) to decline as soon as they can and in a timely manner (within a maximum of 14 to 21 days upon receipt of request) in writing and ensure the patient is aware of the change. In this scenario, the prescribing responsibility for the patient remains entirely with the Specialist. This principle also applies where shared care needs to be terminated in primary care e.g. due to lack of patient engagement. It is anticipated that these would be very rare events.

- Where the hospital or Specialist clinician retains responsibility for monitoring drug therapy and/or making dosage adjustments, the Primary Care prescriber must be informed of any dose changes made as soon as possible to avoid medication errors. Similarly, if the Primary Care prescriber makes changes to the patient's medication regimen, the Primary Care prescriber must inform the Specialist in a timely manner. Primary Care prescribers can contact the Specialist team for advice, training and support as required.

- The principles above apply to shared care arrangements that involve the Specialist service sharing care with GPs and/or other Primary Care prescribers, e.g. Community Nursing Services. Where patient care is transferred from one Specialist service or GP practice to another, a new shared care agreement request must be commenced.

Shared care agreement for the treatment of Attention deficit hyperkinetic disorder (ADHD) in Children & Young People (6-17 years): Bedfordshire, Luton & Milton Keynes

Introduction and Aims of Shared Care

This shared care guideline is only applicable for use for patients within Bedfordshire, Luton & Milton Keynes who are under the care of ELFT, CNWL or CCS clinicians.

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental condition which manifests as cognitive and behavioural deficits. It is characterised by the core symptoms of persistent hyperactivity, impulsiveness and inattention. As well as presence of core symptoms identified, there must be clear evidence of psychological, social and/or educational or occupational impairment plus some impairment in two or more settings (home, at work, social, occupational).

ADHD is a neurodevelopmental condition and can present from childhood. A diagnosis of ADHD should only be made by a Specialist Psychiatrist or appropriately qualified healthcare professional with training and expertise in the diagnosis of ADHD.

For a diagnosis of ADHD, symptoms of hyperactivity/impulsivity and/or inattention should:

- meet the diagnostic criteria DSM-5 or ICD-10 (hyperkinetic disorder) and
- cause at least moderate psychological, social and/or educational or occupational impairment based on interview and/or direct observation in multiple settings and
- be pervasive, occurring in 2 or more important settings including social, familial, educational and/or occupational settings.
- as part of the diagnostic process, include an assessment of the person's needs, coexisting conditions, social, familial, and educational or occupational circumstances and physical health.

NICE guidelines on the treatment of ADHD recommend that drug treatment of ADHD should form part of a comprehensive treatment programme that focuses on psychological, behavioural and educational or occupational needs.

Aim:
The purpose of this document is to provide guidance on the shared care of children and adolescents aged 6-17 years who are prescribed methylphenidate, atomoxetine, dexamfetamine, lisdexamfetamine or guanfacine for the treatment of ADHD. Where appropriate, medication can be prescribed for children presenting with any of the subtypes of ADHD as follows:

- **Inattentive**
  This subtype accounts for 20–30% of cases. People with this subtype have poor concentration and organizational skills and get distracted easily.
- **Hyperactive-impulsive**
  This subtype accounts for around 15% of cases. People with this subtype are impulsive and hyperactive, and have trouble staying on task.
- **Combined**
  This subtype accounts for 50–75% of cases. People with this subtype are impulsive and hyperactive, and have trouble paying attention and are easily distracted.

Exception to shared care agreement: Children under 6 years with diagnosis of ADHD.
ADHD NICE guidance (NG87, updated Sept 2019), states medication can be started for children 5 years and over if their ADHD symptoms are 'causing a persistent significant impairment in at least one domain after environmental modifications have been implemented and reviewed'.

ADHD medication is licensed for children 6 years and over. Treatment of children under 6 years falls outside the remit of the ADHD shared care. Agreement of any prescribing for children 5 -6 years old would, where appropriate, need to be locally agreed with the GP service. Otherwise, it must be retained within the specialist service, and the shared care agreement can be implemented for the child once they are 6 years old.

NICE Guidance: Attention deficit hyperactivity disorder: diagnosis and management (NG87):
https://www.nice.org.uk/guidance/ng87

1. AREAS OF RESPONSIBILITY

Secondary/Tertiary Care Prescribers or Specialist Team

- To obtain patient / carer informed consent for sharing of care between the Specialist, Primary Care prescriber and patient. Consenting parties must have sufficient, accurate, timely information in an understandable form. Consent must be given voluntarily and must be documented in the patient's notes.
- If shared care is considered appropriate for the patient, the patient's treatment regimen is confirmed, and benefit from treatment is demonstrated, the Specialist will contact the Primary Care prescriber to initiate shared care.
- At the point of initial contact, the Specialist should check if the Primary Care prescriber can access blood test results electronically. If access is unavailable, the Specialist and the Primary Care prescriber should agree a process of communication to ensure blood test results and relevant results of investigations can be accessed by both parties in a timely manner.
- To ensure that the Primary Care prescriber has sufficient information to enable them to monitor treatment, identify medicines interactions, and prescribe safely. **A signed copy of the SCG is not required**, however, the specialist's written communication to the GP should include access or direction to a current copy of the SCG and contact details for the initiating specialist. As a partner in the shared care agreement, the patient should, where appropriate, be provided with access or direction to a copy of the shared care guideline.
- The specialist will recommend, initiate, and prescribe the initial supply of 28-30 days of ADHD medication, and continue supply until the patient is on a stable dose, pending initiation of the shared care and transfer of prescribing to primary care.
- Most young persons can reach a stable dose between 1-3 months of starting an ADHD medication.
- Specialist to check for any interactions/ contraindications (medication/ physical health) before prescribing ADHD medication,
- The specialist should confirm that the patient is optimised on the chosen medication with no further changes anticipated in the immediate future. It is the responsibility of the specialist to decide with the patient and/or carer that a patient is suitable for sharing care of their medication.
- For stable patients, ensure ADHD treatment is reviewed annually by a member of the specialist team to monitor response, and to stop if there is lack of efficacy.
- Inform the Primary Care prescriber if a non-standard dose is used and/or the preparation is changed from the agreed formulary choice, including the rationale for the choice.
- Ensure the patient/carer is aware of the off-license status or use of unlicensed preparation (if applicable).
- Evaluate any reported adverse effects by the Primary Care prescriber or patient.
- Advise the Primary Care prescriber on review, duration or discontinuation of treatment where necessary.
- Inform the Primary Care prescriber of patients who do not attend clinic appointments.
- Advise the Primary Care prescriber of the arrangements for the future monitoring of the patient, should the young person need to continue ADHD medication once they reach adulthood.

- **The Specialist will provide the patient's Primary Care prescriber with the following information:**
  - diagnosis of the patient's condition with the relevant clinical details
  - details of the patient's specialist treatment to date
  - details of treatments to be undertaken by the Primary Care prescriber (including reasons for choice of treatment, medicine or medicine combination, frequency of treatment,

number of months of treatment to be given before review by the Specialist)
- the date from which the Primary Care prescriber should prescribe the treatment.
- details of other specialist treatments being received by the patient that are not included in shared care.
- details of any monitoring arrangements required.

- **Whenever the Specialist sees the patient, they will:**
  - send a written summary to the patient's Primary Care prescriber in a timely manner, noting details of any relevant blood test results or investigations if applicable.
  - confirm that ongoing treatment with the monitored medicine is appropriate.
  - confirm the current dosage and clearly highlight any changes made both to the patient and in writing to the patient's Primary Care prescriber who will action any of them as required.

- **The Specialist team will:**
  - provide advice and guidance (as appropriate) for Primary Care prescribers if necessary to support the shared care agreement.
  - provide contact details for both working and non-working hours.
  - supply details for referral back to secondary/specialist care.
  - provide the patient with details of their treatment, follow-up appointments, monitoring requirements and, where appropriate, nurse specialist contact details
  - provide continued support for the Primary Care prescriber and answer any questions they may have on the treatment and the condition for which the medicine is being used.
  - should medication no longer be considered necessary or is not tolerated- advice should, where appropriate, be given on down titration and discontinuation.

- **Prior to requesting shared care prescribing, the Specialist will:**
  - Ensure that patients (and their caregivers, where appropriate) are aware of and understand their responsibilities to attend appointments and the need for continued monitoring arrangements.
  - The Specialist will document the decision to share care for the treatment to the Primary Care prescriber via the shared care guideline in the patient's hospital medical notes. If the Primary Care prescriber declines the request for shared care, then the Specialist will retain the prescribing responsibility for the medication. This should also be documented in the patients' medical notes.

All of the above information should be provided to the Primary Care Prescriber in writing via a letter or approved electronic communication.

Primary Care Prescribers

- To prescribe within their own level of competence. The (GMC) guidance on "Good practice in prescribing and managing medicines and devices" states that doctors are responsible for the prescriptions they sign and their decisions and actions when they supply and administer medicines and devices or authorise or instruct others to do so. They must be prepared to explain and justify their decisions and actions when prescribing, administering, and managing medicines.
- The same principles apply to non-medical prescribers as well as medical prescribers as outlined in the "Competency Framework for all Prescribers".
- To confirm that the patient or carer consents to sharing of care between the Specialist, Primary Care prescriber and patient. Consenting parties must have sufficient, accurate, timely information in an understandable form. Consent must be given voluntarily and must be documented in the patient's notes.
- If shared care is accepted, commencement of shared care must be clearly documented in the patient's Primary Care medical notes.
- If declining the request for shared care, the decision and rationale should be explained to the Specialist in writing as soon as is possible and in a timely manner, within a maximum of 14 to 21

days upon receipt of request. The patient should also be informed of the decision.

- Ensure that he/she has the information and knowledge to understand the therapeutic issues relating to the patient's clinical condition.
- Undergo any additional training necessary in order to carry out the prescribing and monitoring.
- Agree that in his/her opinion the patient should receive shared care for the diagnosed condition unless good reasons exist for the management to remain within Secondary/Specialist care.
- Prescribe ADHD medication at the dose and formulation recommended. If prescribing long-acting methylphenidate, prescribe by brand name (as different brands are not interchangeable).
- During periods of ADHD medication shortage, certain formulations of medication can be prescribed **generically**- please seek advice from local pharmacy/ medicine management team, before changing to generic formulations.
- Prescribe the maintenance medication in accordance with the written instructions contained within the SCG or other written information provided and communicate any changes of dosage made in Primary Care to the patient. It is the responsibility of the prescriber making a dose change to communicate this to the patient.
- Inform the Specialist if there is suspicion of abuse of stimulant ADHD medication.
- Stimulant medication are controlled drugs. The Department of Health strongly recommend that the maximum quantity of controlled drugs prescribed should not exceed 30 days. Exceptionally, to cover a justifiable clinical need and after consideration of any risk, a prescription can be issued for a longer period, but the reasons for the decision should be recorded on the patient's notes.
- Medication requests for non-stimulants (Atomoxetine, Guanfacine) longer than a month (e.g. covering holidays) should be discussed with the Specialist if necessary and can be issued at the prescriber's discretion. The reason should be documented in the patient's record and explained to the community pharmacy.
- Report any adverse effect in the treatment of the patient to the Specialist team, and via the MHRA Yellow Card Scheme https://yellowcard.mhra.gov.uk/.
- The Primary Care prescriber will ensure that the patient is monitored as outlined in the SCG and will take the advice of the referring Specialist if there are any amendments to the suggested monitoring schedule.
- The Primary Care prescriber will ensure a robust monitoring system is in place to ensure that the patient attends the appropriate appointments in Primary Care for follow-up and monitoring, and that defaulters from follow-up are contacted to arrange alternative appointments. It is the Primary Care prescriber's responsibility to decide whether to continue treatment for a patient who does not attend appointments required for follow-up and monitoring, and to inform the Specialist of any action taken.
- Refer any patient who becomes pregnant or who wishes to plan a pregnancy to the Specialist team for an urgent review.
- Primary Care prescribers are not expected to be asked to participate in a shared care arrangement where:
    - no locally approved SCG exists, or the medicine or condition does not fall within the criteria defining suitability for inclusion in a shared care agreement
    - the prescriber does not feel clinically confident in managing this individual patient's condition, and there is a sound clinical basis for refusing to accept shared care.

Patient and/or carer

- To provide their informed consent for sharing of their care with the Specialist and Primary Care prescriber. Consenting parties must have sufficient, accurate, timely information in an understandable and accessible format. Consent must be given voluntarily and must be documented in the patient's notes. Supporting information is available from NICE "Making decisions about your care".
- To take their medication as agreed, unless otherwise instructed by an appropriate healthcare professional.
- Prescriptions for controlled drugs are only valid for 28 days from the date of issue. Patients/ carers should be advised to collect stimulant medication within 28 days of the date on the prescription.

- During supply disruptions, the primary care prescriber, community pharmacist and specialist services will be advised on how to respond to shortages and how to support young people and their families. Patient/ carers should be advised to contact their GP service and/ or specialist team if they are having issues obtaining ADHD medication.
- During supply disruptions, repeat prescriptions should be requested from the GP surgery and sent to the pharmacy two weeks before the ADHD medication it is due to run out. This is to allow the pharmacy enough time to source or time for patient/ carers to get in touch with the primary care prescriber, community pharmacist or specialist service if an alternate dose or ADHD medication is required.
- During supply disruptions, certain medication can be prescribed generically. See formulary for details.
- To meet all necessary monitoring arrangements to ensure the safe prescribing of their medication, and to alert the prescriber where these arrangements are not met.
- To attend all follow-up appointments with the Primary Care prescriber and Specialist. If the patient is unable to attend any appointments, they should inform the relevant practitioner as soon as possible and arrange an alternative appointment.
- Inform healthcare professionals of their current medications prior to receiving any new prescribed or over the counter (OTC) medication. It is also important that the specialist and Primary Care prescriber are made aware of any other medications that the patient is taking which may not appear in the patient's medical records, such as OTC products, any medicinal products obtained privately, any recreational drugs, herbal medicines, etc.
- Report all suspected adverse reactions to medicines to their specialist and/or Primary Care prescriber.
- Store their medication securely away from children and according to the medication instructions.
- Read the information supplied by their Primary Care prescriber, Specialist and Pharmacist and contact the relevant practitioner if they do not understand any of the information given.
- An agreed method of communication of results of investigations between the Specialist, the Primary Care prescriber, the Community Pharmacist, and the patient should be agreed at the onset of therapy.
- To inform DVLA of their diagnosis (If ADHD will affect ability to drive) and treatment (if ADHD treatment will affect the ability to drive) and, if relevant, to inform their vehicle insurance provider.
- To contact the Specialist team as soon as possible if a patient becomes pregnant or who wishes to plan a pregnancy.

Community Pharmacist

- Know where to access locally agreed shared care guidelines to aid professional clinical check of prescription prior to dispensing.
- Professionally check prescriptions to ensure they are safe for the patient and contact the Primary Care prescriber if necessary to clarify their intentions.
- Fulfil legal prescriptions for medication for the patient unless they are considered unsafe.
- Counsel the patient on the proper use of their medication.
- Advise patients suspected of experiencing an adverse reaction to their medicines to contact their Primary Care prescriber or Specialist/Specialist nurse team.
- Support the primary care prescriber during any periods of medication shortages with timeframes and alternatives. Please refer to document; Table of available brands for BIPHASIC Methylphenidate MR Products for further information.

2. COMMUNICATION AND SUPPORT

Specialist contact information: East London Foundation Trust (ELFT)
(The referral letter will indicate named consultant)

Name and address: South Bedfordshire/ Luton CAMHS, 1st Floor Charter House, Alma Street, Bedfordshire, Luton, LU1 2PL.

Opening times: Monday to Friday 9am to 5pm

Telephone: 01525 638613/614

Web: https://www.elft.nhs.uk/camhs/where-we-work/south-bedfordshireluton-camhs

Name and address: 9 Rush Court, Bedford, Bedfordshire, MK40 3JT

Opening times: Monday to Friday 9am to 5pm

Telephone: 01234 893301 / 01234 893300

Web: https://www.elft.nhs.uk/camhs/where-we-work/north-bedfordshire-camhs

Out of Hours details and procedure: ELFT

Duty clinician is available Monday to Friday 9am to 5pm

Contact crisis line for advice/ support:

Luton and Bedfordshire, call NHS 111 & ask for 'Option 2' or visit https://camhs.elft.nhs.uk/Crisis-Support

Emergencies- call 999 and/ or take child to A/E

Crisis Liaison Team and 24 Hour All Age Help Line

The Crisis team is based in the Luton and Dunstable Hospital Accident and Emergency department 7 days a week between 9am and 9pm on weekdays and 9am and 2pm weekends and public holidays for emergency mental health assessments.

An all age helpline for both adults and children has been set up offering 24/7 emergency mental health crisis care or for other mental wellbeing concerns is available by calling 111 or 01582 538631.

Specialist contact information: Central and North West London Foundation Trust (CNWL)
(The referral letter will indicate named consultant)

MK Specialist CAMHS team:

Tel: 01908724544
Email: cnw-tr.mkspcamhsspa@nhs.net

Specialist contact information: Cambridgeshire Community Services NHS Trust (CCS) Community Paediatrics: Union Street Clinic (Bedford) Union Street Bedford MK40 2SF ccs.paediatricadminteam-unionstreet@nhs.net Child Development Centre (Kempston) Hill Rise Bedford MK42 7EB ccs.beds.childrens.cdc.admin@nhs.net Edwin Lobo Centre (Luton) Redgrave Gardens Luton LU3 3QN edwinlobocomms.s1@nhs.net Contact telephone number for all the three services: 0300 555 0606 (Health HUB). Our hours of operation are Monday – Friday, 09.00 – 17.00 Website - https://www.cambscommunityservices.nhs.uk/beds-luton-community-paediatrics **CCS Out-of-hours details and procedure:** No out-of-hours service Emergencies- call 111 or 999 and/ or take child to A/E
Specialist support / resources available to Primary Care prescriber including patient information: This shared care guideline is available online on the BLMK Medicines website

3. CLINICAL INFORMATION

Indication(s): **(Please state whether licensed or unlicensed)**	Attention Deficit Hyperactivity Disorder (ADHD) in children and young people. For children transitioning to adults refer to the Adult ADHD SCG regarding licensing and dosing Links to SPC and NICE guidance in reference section **Stimulants** Methylphenidate Licensed for use in children aged 6 years of age and over and adults for ADHD. (Ref: Xaggitin XL® SPC). For children transitioning to adults refer to Adult SCG regarding licensing and dosing Lisdexamfetamine Licensed for use in children aged 6 years and over with ADHD when

	response to previous Methylphenidate treatment is considered clinically inadequate. It can be continued, where appropriate, into adulthood (Ref: Elvanse® SPC). <u>Dexamfetamine</u> Dexamfetamine is indicated as part of a comprehensive treatment programme for attention- deficit/hyperactivity disorder (ADHD) in children and adolescents aged 6 to 17 years when response to previous Methylphenidate treatment is considered clinically inadequate. **Non- stimulants** <u>Atomoxetine</u> Licensed for the treatment of ADHD in children 6 years and older, in adolescents and in adults (Ref: Strattera® SPC). <u>Guanfacine</u> Licensed for the treatment of ADHD in children 6- 17 years.
Place in therapy:	<u>First line intervention:</u> Psychoeducation ADHD ADHD parenting group Recommendations for school support <u>Second line intervention:</u> ADHD medication where behavioural interventions, support at home and school have limited benefit. Offer medication to children/ adolescents with ADHD if their symptoms are still causing a significant impairment in at least one domain after the above modifications have been implemented and reviewed. Domains refer to areas of function, for example, interpersonal relationships, education and occupational attainment, and risk awareness. **Where more than one agent is considered suitable, the medicine with the lowest acquisition cost should be chosen.**
Therapeutic summary:	Methylphenidate is a mild central nervous system (CNS) stimulant. The mode of therapeutic action in ADHD is not known. Methylphenidate is thought to block the reuptake of noradrenaline and dopamine into the presynaptic neurone and increase the release of these monoamines into the extra neuronal space. Dexamfetamine is a central nervous stimulant. It works by enhancing the action of dopamine and norepinephrine by blocking their reuptake from synapses. It also inhibits monoamine oxidase and facilitates the release of catecholamines. Lisdexamfetamine dimesylate is a pharmacologically inactive prodrug. After oral administration, lisdexamfetamine is rapidly absorbed from the gastrointestinal tract and hydrolysed primarily by red blood cells to dexamfetamine, which is responsible for the drug's activity. It is thought to be due to its ability to block the reuptake of noradrenaline and dopamine into the presynaptic neuron and increase the release of

	these monoamines into the extra neuronal space. Atomoxetine is a highly selective and potent inhibitor of the pre-synaptic noradrenaline transporter. Guanfacine is a selective alpha2A-adrenergic receptor agonist. Guanfacine is a non-stimulant. Research suggests guanfacine modulates signalling in the prefrontal cortex and basal ganglia through direct modification of synaptic noradrenaline transmission at the alpha2A-adrenergic receptors. Through their different modes of action, ADHD medication help to improve attention, concentration and reduce hyperactivity and impulsivity.
Initiation and ongoing dose regime and Route of administration:	**Initial stabilisation:** The starting dose should be prescribed as per the SPC/ BNF and initiated by the specialist service. **Maintenance dose (following initial stabilisation):** Response should be assessed before transferring ongoing prescribing of medication to primary care. Once a stable dose has been reached under the supervision of the specialist, a request for shared care and ongoing prescribing of maintenance medication can be made. **Conditions requiring dose adjustment:** Side effects to medication Interactions with concomitant medications (see interactions section for further information) Reduced efficacy over time Product shortages requiring change in dose and/ or formulation. Physical health condition e.g. hepatic/ renal impairment *Note: initiation of shared care with Primary Care is normally after the patient is on a stable dose.*
Duration of treatment:	There is no set duration for ADHD treatment. An individual can remain on medication if there is ongoing benefit and there are no side effects.
Treatment breaks	Not all children take stimulant medication every day and prescribing and use is based on the needs of the child. This means some children will take breaks on weekends and during holidays, as part of the treatment plan.
Preparations available (Manufacturer): **Where more than one agent is considered suitable, the medicine with the lowest acquisition cost should be prescribed**	Biphasic modified release methylphenidate tablets and biphasic modified release methylphenidate capsules are **not interchangeable** as they have different ratios of immediate-release/extended-release components and different release profiles. See Drug Safety Update from MHRA for further details and advice (reference section). Biphasic modified release methylphenidate tablets: Xaggitin XL is the current preferred choice in BLMK. Available as 18mg, 27mg, 36mg and 54mg strength. It consists of an immediate-release component (22% of dose) and a modified-release component (78% of dose).

	○ The following brands of modified release tablets are all deemed to being bio-equivalent: Affenid® XL, Delmosart®, Matoride XL®, Xaggitin XL®, Xenidate XL® and Concerta XL® ○ Bio-equivalent brands of XL tablets and can be prescribed generically in periods of brand shortage, unless there are concerns about allergies and/ or poor tolerability to a particular brand, patients should be informed that they might receive a different brand, and to report any new symptoms or side effects. **<u>Biphasic modified release methylphenidate capsules</u>:** ○ Different brands of modified release methylphenidate capsules are **not** bioequivalent as they have different ratios of immediate release / extended-release components; some have a ratio of 50:50 and others have a ratio of 30:70. ○ To ensure the correct ratio profile is selected each time, **ALL** modified release methylphenidate capsules should be prescribed by **BRAND NAME** only. Immediate-release component (30% of dose) and a modified-release component (70% of dose): ○ Equasym XL® **capsules**: 10mg/ 20mg/ 30mg Immediate release component (50% of dose) and a modified-release component (50% of dose): ○ Medikinet® XL **capsules**: 5mg/ 10mg/ 20mg/ 30mg/ 40mg/ 50mg/ 60mg ○ Meflynate® XL **capsules**: 10mg/ 20mg/ 30mg/ 40mg/ 60mg ○ Metyrol® XL **capsules**: 10mg/ 20mg/ 30mg/ 40mg/ 60mg All other products to be prescribed generically e.g. Dexamfetamine, Atomoxetine and Guanfacine. Lisdexamfetamine can be prescribed generically. Although the same active ingredient, patient/ care should be advised that the pharmacy may supply Elvanse Adult® capsules, which as a product is not licensed for use in children. Dexamfetamine tablets (generic) - 5mg/ 10mg/ 15mg/ 20mg **Prolonged release stimulant** Lisdexamfetamine Elvanse® capsules- 20mg, 30mg, 40mg, 50mg, 60mg, 70mg (licensed for use in children) Elvanse Adult® capsules- 20mg, 30mg, 40mg, 50mg, 60mg, 70mg (licensed for use in adults) **Non-stimulants** Atomoxetine (generic) capsules- 10mg/ 18mg/ 25mg/ 40mg/ 60mg Guanfacine MR (Intuniv®) tablets- 1mg/ 2mg/ 3mg/ 4mg

Summary of adverse effects:	**Frequency/ likelihood**	**Adverse effect**

(See Summary of Product Characteristics () for full list) **Any serious adverse reactions should be reported to the MHRA via the Yellow Card scheme.**	**Methylphenidate**	
	Very common (≥ 1/10)	Insomnia, nervousness, headache
	Common (≥ 1/100 to < 1/10)	Reduced appetite, hypertension, GI side effects, changes in heart rate in BP, irritability, mood swings, insomnia, agitation, anxiety, depression and depressed mood, tics
	Lisdexamfetamine	
	Very common (≥ 1/10)	Decreased appetite, insomnia, headache, reduced weight, insomnia, nervousness.
	Common (≥ 1/100 to < 1/10)	Anxiety, affect lability, psychomotor hyperactivity, bruxism, dizziness, restlessness, tremor, tachycardia, palpitation, dyspnoea, GI side effects, erectile dysfunction, chest pain, irritability, fatigue, feeling jittery, increased BP, reduced weight
	Dexamfetamine	
	Very common (≥ 1/10)	Decreased appetite, reduced weight gain and weight loss during prolonged use in children.
	Common (≥ 1/100 to < 1/10)	Arrhythmia, palpitations, tachycardia, abdominal pain and cramps, nausea, vomiting, dry mouth, changes in BP/ HR, arthralgia, vertigo, dyskinesia, headache, hyperactivity, abnormal behaviour, aggression, excitation, anorexia, anxiety, depression, irritability
	Atomoxetine	
	Very common (≥ 1/10)	Reduced appetite, headache, somnolence, abdominal pain, nausea, vomiting, increase in BP and heart rate.
	Common (≥ 1/100 to < 1/10)	Loss of appetite, Irritability, mood swings, insomnia, agitation, anxiety, depression and depressed mood, tics,

<table>
<tr><td></td><td></td><td>reduced weight, fatigue, constipation, dizziness</td></tr>
<tr><td></td><td colspan="2">Guanfacine</td></tr>
<tr><td></td><td>Very common (≥ 1/10)

Common (≥ 1/100 to <1/10)</td><td>Somnolence, headache, fatigue, abdominal pain

Reduced appetite, depression, anxiety, affect lability, insomnia, nightmares, lethargy, dizziness, sedation, bradycardia, hypotension, orthostatic hypotension, GI side effects, enuresis, irritability, reduced BP, increased weight</td></tr>
<tr><td>Monitoring requirements by Specialist (baseline investigations, initial monitoring and ongoing monitoring):</td><td colspan="2"><u>Baseline investigations</u>:
Treatment will only be commenced after baseline tests have been completed and reviewed. ECG will be completed at baseline, if there is a clinical indication to do so.

<u>Initial monitoring</u>: (Monitoring at baseline and during initiation is the responsibility of the Specialist until the patient is optimised and stabilised on the medicine with no anticipated further changes)
Weight: Baseline, months 3 & 6, then annually thereafter
Blood pressure and pulse: Baseline, before and after dose change and then 6 monthly thereafter
Risk of suicidal ideation/ intent/ self-harming behaviours- Atomoxetine
Cardiovascular risk assessment- to be completed for those children/ adolescents with pre-existing heart condition.
<u>Ongoing monitoring (specialist review)</u>:
Weight: Baseline, months 3 & 6, then annually thereafter
Blood pressure and pulse: Baseline, before and after dose change and then 6- 12monthly thereafter for stable young persons
Risk of suicidal ideation/ intent/ self-harming behaviours (Atomoxetine)
Risk of substance misuse
Sexual dysfunction (Atomoxetine)
Changes in sleep pattern
Seizures
Tics</td></tr>
<tr><td>Ongoing monitoring</td><td>Monitoring</td><td>Frequency</td><td>Action for primary care prescriber</td></tr>
</table>

requirements by primary care prescriber:	Medication review	Annually- unless otherwise indicated	Adjust dose and/ or discontinue if needed
	Weight/ pulse/ blood pressure	Height: every 6 months (all ages) Weight 10 years and under: Every 3 months Weight over 10 years: Every 6 months BP/ Pulse: Every 6 months	Record weight/ height on centile charts. Record centiles for BP. Refer to specialist service for advice where: Sustained resting tachycardia (100 bpm), arrhythmia or sustained clinically significant high BP and/ or systolic blood pressure over a period of time.
	ECG	Annual	ECG only to be completed if known cardiovascular conditions/ history and/ or risk factors. If annual ECG is abnormal. Primary care advised to repeat. Refer to specialist service for advice where: Repeat ECG continues to show abnormalities. May require review of medication in first instance before considering referral to paediatric cardiology
	Substance misuse risk assessment	As required	Concerns about requests for frequent prescriptions deemed unnecessary should be communicated to consultant/specialist
	Suicide-related behaviour.	As required	Refer to specialist service for advice where: Risk of suicidal ideation/ intent/ self-harming behaviours (Atomoxetine).
	Sexual dysfunction (Atomoxetine)	As required	Be aware that young people and adults with ADHD may develop sexual dysfunction (i.e. erectile and ejaculatory dysfunction) as potential adverse effects of atomoxetine

	Seizures	When needed	Refer to specialist service if: Young person with ADHD develops new seizures and/ or a worsening of existing seizures after starting ADHD medication. Specialist can review ADHD medication and advise on place e.g. to stop any medication that might be contributing to the seizures. Advice should also be sought from the children's epilepsy team, where child has co-morbid epilepsy/ seizures. After investigation, the ADHD medication may be cautiously reintroduced if it is unlikely to be the cause of the seizures.
Clinically relevant drug interactions and advice on management: ***Note: This does not replace the SPC and should be read in conjunction with it.***	**Drug interaction**		**Management / Action for Primary Care prescriber**
	Methylphenidate + MAOI		Methylphenidate is contraindicated in patients being treated (currently or within the preceding 2 weeks) with non-selective, irreversible MAO-inhibitors.
	+ Alcohol		Advisable for patients to abstain from alcohol during treatment.
	+SSRIs		Seek advice from specialist service. Methylphenidate must be discontinued as soon as possible if serotonin syndrome is suspected.
	+ Dopaminergic drugs (including antipsychotics)		Seek advice from specialist service
	Dexamfetamine + Atomoxetine		Dexamfetamine is predicted to increase the risk of adverse effects when given with Atomoxetine. Manufacturer advises caution.
	+ Bupropion		Bupropion might enhance the risk of serotonin syndrome when given with Dexamfetamine. MHRA advises monitor.
	+ Citalopram/ + Duloxetine/ + Escitalopram/ + Mirtazapine/ +		Both Dexamfetamine and listed antidepressant can increase the

	Sertraline/ + St John's wort/ +Tramadol	risk of serotonin syndrome.
	+ Fluoxetine/ + Paroxetine	Predicted to increase the exposure to Dexamfetamine. Manufacturer makes no recommendation.
	+ Lithium	Both Dexamfetamine and Lithium can increase the risk of serotonin syndrome.
	+ MAOI	Because of possible hypertensive crisis, dexamfetamine is contraindicated in patients being treated (currently or within the preceding 2 weeks) with non-selective, irreversible MAO-inhibitors.
	Warfarin	Dexamfetamine might increase the anticoagulant effect of Warfarin. Manufacturer advises monitor INR and adjust dose.
	Lisdexamfetamine + MAOI	Should not be administered during or within 14 days following the administration of monoamine oxidase inhibitors (MAOI) because it can increase the release of norepinephrine and other monoamines. This can cause severe headaches and other signs of hypertensive crisis.
	+ Chlorpromazine Blocks dopamine and norepinephrine receptors, thus inhibiting the central stimulant effects of amphetamines.	Seek advice from specialist team.
	+ Haloperidol blocks dopamine receptors, thus inhibiting the central stimulant effects of amphetamines.	Seek Advice from specialist team.
	+ Lithium carbonate The anorectic and stimulatory effects of amfetamines may be inhibited by lithium carbonate.	Seek advice from specialist team. Continue to monitor lithium level and associated bloods as per national recommendations.
	+ Alcohol	Limited data on the possible interaction with alcohol. Advise patients to avoid alcohol whilst on stimulants.

	Atomoxetine + Bupropion	Bupropion is predicted to markedly increase the exposure to Atomoxetine- seek advice from specialist service.
	+ Dexamfetamine	Dexamfetamine is predicted to increase the risk of adverse effects when given with Atomoxetine. Use with caution- seek advice from specialist service.
	+ Fluoxetine/ Paroxetine	Fluoxetine is predicted to markedly increase the exposure to Atomoxetine. Dose adjustment advised- seek support from specialist service.
	+ Salbutamol	Atomoxetine is predicted to increase the risk of cardiovascular adverse effects when given with Salbutamol (high-dose)- seek advice from specialist service.
	+ Terbutaline	Atomoxetine is predicted to increase the risk of cardiovascular adverse effects when given with Terbutaline (high dose). Manufacturer advises caution.
	Guanfacine + Alcohol	Both Guanfacine and alcohol can increase the risk of hypotension- advise to avoid whilst on treatment
	+Carbamazepine	Carbamazepine is predicted to decrease the concentration of Guanfacine. Manufacturer advises adjust Guanfacine dose.
	+ Clonidine	Both Guanfacine and Clonidine can increase the risk of hypotension.
	+ SSRIs	Can increase risk of sedation
	Please see SPC for comprehensive information.	
Clinically relevant precautions and contraindications: ***Note: This does not replace the SPC and should be read in conjunction with it.***	**Cautions/Precautions:** **Methylphenidate** Psychiatric disorders, anxiety, agitation, tics, family history, Tourette syndrome, drug or alcohol dependence, epilepsy, susceptibility to angle-closure glaucoma. **Dexamfetamine** History of epilepsy (discontinue if seizures occur); mild hypertension; susceptibility to angle-closure glaucoma; tics; Tourette syndrome (discontinue use if tics occur). Monitor height and weight as growth	

	restriction may occur during prolonged therapy. **Lisdexamfetamine** Anorexia, history of cardiovascular disease or abnormalities, psychiatric disorders, aggressive behaviour, tics, Tourette's, susceptibility to angle closure glaucoma. **Atomoxetine** Precaution- Atomoxetine use in suicide related behaviours. Atomoxetine should be administered with caution to patients treated with high dose nebulised or systemically administered salbutamol (or other beta2 agonists) because cardiovascular effects can be potentiated. There is the potential for an increased risk of QT interval prolongation when atomoxetine is administered with other QT prolonging drugs, (such as neuroleptics, class IA and III antiarrhythmics, moxifloxacin, erythromycin, methadone mefloquine, tricyclic antidepressants, lithium or cisapride) drugs that cause electrolyte imbalance (such as thiazide diuretics) and drugs that inhibit CYP2D6. Atomoxetine should be used cautiously with antihypertensive drugs and other agents which increase blood pressure. **Guanfacine** Bradycardia (risk of torsade de pointes); heart block (risk of torsade de pointes); history of cardiovascular disease; history of QT-interval prolongation; hypokalaemia (risk of torsade de pointes). **<u>Contraindications</u>:** **All medicines** Known hypersensitivity to the active substance or any of the excipients. **Methylphenidate** Severe depression, suicidal ideation, anorexia nervosa, psychosis, uncontrolled bipolar disorder, hyperthyroidism, cardiovascular disease (including heart failure, cardiomyopathy, severe hypertension, and arrhythmias), structural cardiac abnormalities, phaeochromocytoma, vasculitis, cerebrovascular disorders. **Dexamfetamine** Advanced arteriosclerosis; anorexia; arrhythmias (life-threatening); cardiomyopathies; cardiovascular disease; cerebrovascular disorders; heart failure; history of alcohol abuse; history of drug abuse; hyperexcitability; hyperthyroidism; moderate hypertension; psychiatric disorders; psychosis; severe hypertension; structural cardiac abnormalities; suicidal tendencies **Lisdexamfetamine** Symptomatic cardiovascular disease (moderate to severe hypertension, advanced arteriosclerosis), hyperexcitability or agitation, hyperthyroidism. **Atomoxetine** Atomoxetine should not be used with MAOIs/ should not be used in

	patients with severe cardiovascular or cerebrovascular disorders/ phaeochromocytoma. **Guanfacine** Hypersensitivity to the active substance or to any of the excipients. Please see SPC for comprehensive information.
Renal impairment:	**Methylphenidate:** Methylphenidate has not been studied in patients with renal impairment. Caution should be exercised in these patients. **Dexamfetamine:** Has not been studied in patients with renal impairment. Caution should be exercised in these patients by taking care with dosage. **Lisdexamfetamine**- Manufacturer advises max. dose 50mg daily in severe impairment (creatinine clearance less than 30 ml/min). **Atomoxetine**: No information available. Dose adjustment is unlikely to be necessary but be aware that atomoxetine may exacerbate hypertension in patients with end stage renal disease. **Guanfacine**- Dose reduction may be required in severe impairment (GFR 15-29 ml/min) and end-stage renal disease (GFR <15 ml/min) or in patients requiring dialysis (no information available in children with renal impairment).
Hepatic impairment:	**Methylphenidate:** Methylphenidate has not been studied in patients with hepatic impairment. Caution should be exercised in these patients. **Dexamfetamine:** Has not been studied in patients with hepatic impairment. Caution should be exercised in these patients by taking care with dosage. **Lisdexamfetamine:** No information available. Caution should be exercised. **Atomoxetine**- Manufacturer advises halve dose in moderate impairment and quarter dose in severe impairment. **Guanfacine**- Manufacturer advises caution (pharmacokinetics have not been assessed in paediatric patients with hepatic impairment).
Advice to patients and caregivers:	**The patient/ caregivers should be advised to report any of the following signs or symptoms to their Primary Care prescriber without delay:** • Significant reduction in appetite and weight • Significant deterioration/ reduction in sleep pattern • Significant changes in mood e.g. low mood, anxiety • Distressing thoughts/ feelings including self-harm and suicidal thoughts.
Pregnancy, paternal exposure and breastfeeding:	**Pregnancy:** • Methylphenidate: limited experience- avoid unless potential benefit outweighs risk • Dexamfetamine: Avoid (retrospective evidence of uncertain

	significance suggesting possible embryotoxicity). • Lisdexamfetamine: Manufacturer advises use only if potential benefit outweighs risk. • Atomoxetine: Manufacturer advises avoid unless potential benefit outweighs risk. • Guanfacine: Manufacturer advises avoid—toxicity in *animal* studies. Patient information is available from: Bumps - Best use of medicines in pregnancy. **Breastfeeding:** Healthcare professional information available from: https://www.sps.nhs.uk/articles/safety-in-lactation-drugs-for-adhd • Methylphenidate: Limited information available—avoid. • Dexamfetamine: Significant amount in milk—avoid. • Lisdexamfetamine: Manufacturer advises avoid—present in human milk. • Atomoxetine: Avoid-present in milk in *animal* studies. • Guanfacine: Manufacturer advises avoid—present in milk in *animal* studies. For additional support and advice on prescribing during pregnancy and while breast feeding see Perinatal Mental Health – Guidance for GPs.
Practical issues and Supply of ancillary equipment (where relevant):	• Methylphenidate, Dexamfetamine and Lisdexamfetamine are schedule 2 controlled drugs and so prescriptions should be provided for max 30 days and written as per controlled drug requirements. • Only in exceptional circumstances should more than 30 days of medication be issued. The reason should be clearly documented in the patient records and communicated to the community pharmacy. • The patient should be prescribed the brand with the lowest acquisition cost and as per formulary agreement with BLMK ICS.
Key references:	• Drug Tariff online: https://www.drugtariff.nhsbsa.nhs.uk/ • Medicine for Children; Methylphenidate: https://www.medicinesforchildren.org.uk/medicines/methylphenidate-for-adhd/ • Nice BNF: https://bnf.nice.org.uk/ (accessed Oct 2024) • EMC medicines Atomoxetine/ Guanfacine/ Methylphenidate/ Dexamfetamine / Lisdexamfetamine: https://www.medicines.org.uk/emc (accessed Oct 2024) • MHRA Methylphenidate long-acting (modified-release) preparations: caution if switching between products due to differences in formulations (Sept 2022): https://www.gov.uk/drug-safety-update/methylphenidate-long-acting-modified-release-preparations-caution-if-switching-between-products-due-to-differences-in-formulations (accessed Oct 2024) • Attention deficit hyperactivity disorder: diagnosis and

	management (NG87), 14 March 2018, updated 13 Sept 2019 https://www.nice.org.uk/guidance/ng87 (accessed Oct 2024) • Attention deficit hyperactivity disorder (QS39), 30 July 2013, updated 14 March 2018 https://www.nice.org.uk/guidance/qs39 (accessed Oct 2024) • BLMK ADHD adult shared care guidance (September 2024): https://medicines.bedfordshirelutonandmiltonkeynes.icb.nhs.uk/guideline/attention-deficit-hyperactivity-disorder-adhd-shared-care-guideline-for-the-management-of-adhd-in-adults/. • Prescribing available medicines to treat ADHD (SPS), 27 Sept 2023, updated 17 April 2024: https://www.sps.nhs.uk/articles/prescribing-available-medicines-to-treat-adhd/ (accessed Oct 2024). • Shared Care Guideline for Adult Patients with Attention Deficit Hyperactivity Disorder (ADHD) for NHS patients within BLMK who are under the care of Psychiatry-UK (December 2023): https://medicines.bedfordshirelutonandmiltonkeynes.icb.nhs.uk/guideline/the-management-of-attention-deficit-hyperactivity-disorder-adhd-in-adults-shared-care-guideline/.
This shared care guideline is to be read in conjunction with the following documents: RMOC Shared Care Guidance – https://www.england.nhs.uk/medicines-2/regional-medicines-optimisation-committees-advice/shared-care-protocols/ NHSE/NHSCC guidance – items which should not be routinely prescribed in Primary Care: guidance for CCGs – link here NHSE policy – Responsibility for prescribing between Primary & Secondary/Tertiary Care – link here	

Appendix 1 – Possible Reasons for a Primary Care Prescriber to decline to accept shared care:-

1	I do not feel clinically confident in managing this individual patient's condition, and there is a sound clinical basis for refusing to accept shared care. I have consulted with other Primary Care prescribers in my practice who support my decision. I have discussed my decision with the patient and request that prescribing for this individual remains with you due to the sound clinical basis given above.
2	The medicine or condition does not fall within the criteria defining suitability for inclusion in a shared care arrangement (medicine not included on the national list of shared care drugs as identified by RMOC or is not a locally agreed shared care medicine).
3	The patient has not had the minimum duration of supply of medication to be provided by the initiating Specialist. Therefore, please contact the patient as soon as possible in order to provide them with the appropriate length of supply of the medication before transferring the prescribing responsibility to the Primary Care prescriber.
4	The patient has not been optimised/stabilised on this medication. Therefore, please contact the patient as soon as possible in order to provide them with the medication until the patient is optimised on this medication before transferring the prescribing responsibility to the Primary Care prescriber.
5	Shared Care Guideline and/or relevant clinical information as stipulated in the guideline not received. Therefore, please contact the patient as soon as possible in order to provide them with the medication until I receive the appropriate Shared Care Guideline before transferring the prescribing responsibility.
6	Other (Primary Care prescriber to complete if there are other reasons why shared care cannot be accepted or why shared care is to be discontinued if already started, e.g. adverse effects): ……