ADHD/Hyperkinetic Disorder for Children & Young People (6-18 years) - Methylphenidate, Atomoxetine, Dexamfetamine and Lisdexamfetamine

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a behavioural syndrome characterised by the core symptoms of hyperactivity, impulsivity and inattention.

Two main diagnostic criteria are in current use – the International Classification of Mental and Behavioural Disorders 10th revision (ICD-10) and the Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5). ICD-10 uses a narrower diagnostic category, which includes those with more severe symptoms and impairment. DSM-5 has a broader, more inclusive definition, which includes a number of different ADHD subtypes. Severe ADHD corresponds approximately to the ICD-10 diagnosis of hyperkinetic disorder.

Based on the narrower criteria of ICD-10, hyperkinetic disorder is estimated to occur in about 1–2% of children and young people in the UK. Using the broader criteria of DSM-5, ADHD is thought to affect about 3–9% of school-age children and young people in the UK, and about 2% of adults worldwide.

Drug treatment of ADHD should only be initiated by an appropriately qualified healthcare professional with expertise in ADHD and should be based on a comprehensive assessment and diagnosis. Drug treatment is not indicated in all patients with this syndrome and the decision to use the drug must be based on a thorough assessment of the severity of the symptoms.

Initiation of drug treatment for ADHD is in accordance with the current NICE guidance for treatment of children and adolescents with ADHD NICE guideline NG87 (NICE, 2018)

The remit of this guideline is to provide guidance on the shared care of children and adolescents aged 6-18 years who are prescribed methylphenidate, atomoxetine, dexamfetamine or lisdexamfetamine for the treatment of ADHD / hyperkinetic disorder.

Target audience

ELFT, Child and Adolescent Mental Health Services (CAMHS), Paediatricians, Clinical Nurse Specialists, General Practitioners (GP's), specialist child and adolescent ADHD services e.g. those based within Child Development Centres, pharmacists and nurses in Luton (LT) and Bedfordshire (BD)

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Approved by: ELFT, Luton/Bedfordshire CCG and JPC
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Assessment

- All young people presenting with significant symptoms of ADHD will be given a full and comprehensive assessment by the multi-disciplinary team, including a child and adolescent psychiatrist or paediatrician. An assessment report will be sent to the GP, and a 'patient friendly' copy provided to parent/carer and where appropriate to the young person.

- Once diagnosed with ADHD, there will be a discussion with the patient and their family or carers about relevant treatment options. Treatment aims, available options, medication and alternative/additional interventions, side effects and the monitoring protocol will be discussed. Written medication information should be provided for the parent/carer and young person where appropriate.

Physical Screen

- The CAMHS team and/ or Paediatrician/ Clinical Nurse Specialist will undertake a baseline physical examination of any young person before commencing medication. This will include measurement of height, weight, pulse, blood pressure and heart sounds which should be compared to reference centiles. A more thorough physical examination may be required in some young people, particularly if there is a medical or family history of serious cardiac disease, a history of sudden death in young family members, or abnormal findings on cardiac examination.
- For those young people (under care of CAMHS) requiring a more thorough cardiac assessment (which may require ECG measurement and interpretation), a referral will be made to the Cardiology department at the local acute Trust.
- Blood tests and ECG will only be recommended if clinically indicated.
- If there are concerns regarding the young person's physical health, a referral to the GP or paediatrician for further assessment may be considered.

DOSE AND ADMINISTRATION

For new patients commencing drug treatment, medication should be initiated by the specialists. Unless contraindicated, methylphenidate should be the first line of drug treatment; atomoxetine, dexamfetamine or lisdexamfetamine are alternatives.

Guanfacine is not included in this ADHD shared care agreement. However, where deemed clinically appropriate can be prescribed by the CAMHS clinician, clinical nurse specialists and/ or paediatrician as per license recommendations. Transfer of prescribing, care and monitoring would need to be agreed between secondary care and GP, as would be the case with any other medication not under a shared care agreement.

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Initial, titration and maximum doses for children aged 6 years and older

	Age	Dosing
Methylphenidate (BNFC, 2018d) BNF	Child 4–6 years	2.5 mg twice daily increased if necessary at weekly intervals by 2.5 mg daily to max. 1.4 mg/kg daily in 2–3 divided doses
	Child 6–17 years	Initially 5 mg 1–2 times daily, increased if necessary at weekly intervals by 5–10 mg daily; licensed max. 60 mg daily in 2–3 divided doses but may be increased to 2.1 mg/kg daily in 2–3 divided doses (max. 90 mg daily) under the direction of a specialist
Atomoxetine (BNFC, 2018a) BNF	Child 6-17 years, *(body-weight under 70 kg)*	Initially 500 micrograms/kg daily for 7 days, increased according to response; usual maintenance 1.2 mg/kg daily, but may be increased to 1.8 mg/kg daily (max. 120 mg daily) [unlicensed] under the direction of a specialist.
	Child 6–17 years, *(body-weight over 70 kg)*	Initially 40 mg daily for 7 days, increased according to response; usual maintenance 80 mg daily, but may be increased to max. 120 mg daily [unlicensed] under the direction of a specialist
Lisdexamfetamine (BNFC, 2018c) BNF	Child 6-17 years	Initially 30mg once daily, alternatively initially 20mg once daily increased in steps of 10-20mg every week. Discontinue if response insufficient after 1 month; maximum 70mg per day.
Dexamfetamine (BNFC, 2018b) BNF	Child 6–17 years	Initially 2.5 mg 2–3 times daily, increased if necessary at weekly intervals by 5 mg daily, usual max. 1 mg/kg (up to 20 mg) daily (40 mg daily has been required in some children).

Doses used should be in accordance with the current edition of the BNF and relevant NICE guidance, and any interactions, cautions and contraindications should be taken into account.

During the titration phase, doses are gradually increased until there is no further clinical improvement in ADHD (that is, symptom reduction, behaviour change, improvements in education and/or relationships) and side effects are tolerable.

Where a young person has been initiated on an ADHD medication, the CAMHS clinician, clinical nurse specialists and/or paediatrician will contact the patient's GP and request that the prescription of the treatment is continued under a formal shared care arrangement. Supply of the medication would only be taken over by the young person's GP once the young person has been stabilised on a particular dose (i.e. deemed to be stable after review by the Community Paediatric service and on a stable dose of medication which controls symptoms with no side-effects) which will normally be within a 3 month time period. A total period of up to three months

should be sufficient to allow transfer of care so long as the patient is stable. During this period of transfer the paediatrician, clinical nurse specialist or CAMHS team will continue to provide the monthly prescriptions. A final 28-day prescription should be issued by the paediatrician, clinical nurse specialist or CAMHS team once the patient is moved over to shared care to allow the GP enough time to issue the next supply.

Symptoms and side effects should be recorded at each dose change on standard scales (for example, Conners' 10-item scale) by parents and teachers, and progress reviewed regularly.

Formulations available

Below are listed the formulations available, but not the brands. Please refer to the current addition of the BNF (hardcopy or online) for brand choices for the formulation type and specific release profile.

Drug	Available formulation
Methylphenidate **Controlled Drug**	**Immediate release**
	5mg, 10mg and 20mg tablets
	Modified release capsules
	Preparations consider of either: Immediate release component 50% dose + modified release component 50% ***Or*** Immediate release component 30% of dose + modified release component 70%
	Modified release tablets
	Preparations consist of Immediate release component 22% dose + modified release component 78%
Atomoxetine	10mg, 18mg, 25mg, 40mg, 60mg, 80mg and 100mg capsules
Dexamfetamine* **Controlled Drug** ***Black triangle status***	5mg, 10mg, 20mg tablets 1mg/1mg oral solution sugar free 5mg/5ml oral solution sugar free 5mg, 10mg, 15mg modified-release capsule
Lisdexamfetamine* **Controlled Drug** ***Black triangle status***	20mg, 30mg, 40mg, 50mg, 60mg and 70mg capsules
***Black triangle drugs:* All ADRs (adverse drugs reactions) should be reported to the MHRA via the yellow card scheme. ADRs can also be reported online at; https://www.gov.uk/report-problem-medicine-medical-device**	

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PRESCRIPTION REQUIREMENTS

Methylphenidate, Dexamfetamine and Lisdexamfetamine are Schedule 2 Controlled Drugs. Please complete prescription as per legal requirements for controlled drugs.

*Prescribing of modified release (MR) Methylphenidate

Generic prescribing of MR Methylphenidate is not recommended due to cost implications and impact of monitoring of patient response to treatment as a result of increased variability in different brands being supplied to the young person. There is also the added factor that modified release preparations have varying release profiles and generic prescribing can lead to the supply of an inappropriate MR formulation product which does not treat meet the clinical needs of the young person.

However, where the clinician (CAMHS/ paediatrician/ clinical nurse specialist) has assessed a young person would benefit from a modified release profile, the following is recommended:

- To prescribe by brands and **not** generically as different versions of modified-release preparations may not have the same clinical effect
- To prescribe a cheaper bio-equivalent brand as agreed between ELFT, CAMHS, clinical nurse specialists, paediatricians the CCGs/ JPCs.
- In Luton, GPs can switch to bioequivalent MR Methylphenidate in line with the most cost effective formulary choice, without needed informing the parent/ carer and young person (i.e. Xaggitin XL in preference to Concerta XL).
- In Bedfordshire, any switch in bioequivalent MR Methylphenidate brand must be agreed with the clinician, GP, parent/ carer and where appropriate, the young person.
- Written medication information must be provided on the brand where a bioequivalent switch has been agreed

Methylphenidate: immediate- and modified-release dose equivalents (mg) (SPC, 2018a-b)

*IR-MPH	**Concerta XL	Equasym XL	Medikinet XL
10	-	10	10
15	18	-	-
20	-	20	20
30	36	30	30
-	-	-	40
45	54	-	-
60	72	60	-

*IR MPH = Methylphenidate immediate release
**Matoride XL® tablets, Xenidate XL® tablets, Delmosart XL® tablets and Xaggitin XL® tablets are all bioequivalent to Concerta XL®. Please refer to the latest copy of the BNF, or the Summary of Product Characteristics for further details of the different brands, including their available strengths.

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Comparison of pharmacokinetic profiles of Concerta XL, Medikinet XL and Equasym XL (SPS, 2018)

	Concerta XL	Equasym XL	Medikinet XL
Composition *(percentage immediate:extended release)*	22:78	30:70	50:50
Release profile	Maximum plasma concentration at 1-2 hours, second peak at 6-8 hours	Maximum plasma concentration at 1.5 hours, followed by a second peak at 6 hours, followed by a gradual decline	Maximum plasma concentration reached rapidly, second peak at 3-4 hours
Duration of action	Up to 12 hours	Up to 8 hours	Up to 8 hours
Administration	Swallow whole with liquid. Must not be chewed, crushed or divided.	Can be swallowed whole with liquid, or opened and the contents sprinkled onto a small amount (tablespoon) of applesauce or yoghurt and given immediately. Capsules and contents not to be crushed or chewed	Can be swallowed whole with liquid, or opened and the contents sprinkled onto a small amount (tablespoon) of applesauce or yoghurt and given immediately. Capsules and contents not to be crushed or chewed
Food requirements	Can be given with or without food	To be taken with or after breakfast	To be taken with or after breakfast
Frequency	Once daily in the morning	Once daily in the morning	Once daily in the morning
Immediate-release methylphenidate equivalent	Three times daily	Twice daily	Twice daily

ADVERSE EFFECTS

Where the young person is under the care of the paediatrician, clinical nurse specialists and/ or CAMHS team, the GP can seek advice from the relevant specialist with regards to making any changes and/ or discontinuation of medication

Adverse effect	Symptoms/ signs	Occurs with MPH, ATMX, DEX or LDE?	Frequency*	Suggested actions
Gastro-intestinal symptoms	Stomach ache	MPH, LDEX	Very common	Usually transient may occur on starting treatment but these go after a few days. Possibly helped by taking the medication after food.
	Decreased appetite/ anorexia	MPH, DEX, ATMX	Common	Usually transient. Take medication with food rather than before meals. For MPH, DEX: additional meals or

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				snacks taking early in the morning or in the late evening when the stimulant effects of the drugs have worn off may help.
	Dry mouth	MPH, DEX, LDEX	Common	Usually transient. Encourage fluid intake, chewing of sugar-free gum or sucking sugar-free boiled sweets.
	Abdominal pain, nausea and vomiting	MPH, DEX, ATMX	Common	Usually at beginning of treatment & may be helped by taking with food.
	Constipation	ATMX	Common	Maintain a good fluid intake, a fibrous diet and exercise regularly
Psychiatric disorders	Insomnia	MPH, DEX, LDEX	Very common (at initiation of treatment)	Can usually be controlled by reducing the dosage and/or omitting the afternoon or evening dose.
	Abnormal behaviour, aggression, agitation, anxiety, depression, irritability	MPH, DEX	Common	Development or worsening of psychiatric disorders should be monitored at every adjustment of dose then at least every 6 months, and at every visit; discontinuation of treatment may be appropriate
Nervous system disorders	Dizziness, drowsiness, headache	MPH, DEX, ATMX	Common	Usually transient, manage symptomatically. Dizziness: avoid standing up quickly. Headache may occur on starting treatment but should go after a few days, possibly helped by taking the medication after food. Mild analgesia (e.g. paracetamol) may provide relief.
	Dyskinesia	MPH, DEX	Common	Assess severity. May warrant change to an alternative.
Cardiac	Palpitations,	MPH, DEX	Common	Often transient,

disorders	tachycardia			though if sustained resting tachycardia, arrhythmia or systolic BP > 95th percentile (or a clinically significant increase) measured on two occasions, dose reduction and referred for further investigation should be considered.
Musculoskeletal and connective tissue disorders	Arthralgia	MPH	Common	Manage symptomatically.
Skin and subcutaneous tissue	Rash, puritus, urticarial, alopecia	MPH, DEX, ATMX, LDEX	Common	Manage symptomatically; severe cases may require cessation of medication.
***Very common ≥ 10%, Common ≥ 1% to 10%. MPH = Methylphenidate. ATMX = Atomoxetine. DEX = Dexamfetamine. LDEX = Lisdexamfetamine**				

CAUTIONS

Drug	Cautions[1]
Methylphenidate	Monitor for: • Psychiatric disorders, anxiety or agitation. • Tics or a family history of Tourette syndrome • Drug or alcohol dependence • Epilepsy (discontinue if increased seizure frequency) • Avoid abrupt withdrawal
Atomoxetine	• Cardiovascular disease including hypertension and tachycardia (avoid in severe cardiovascular disease). • Structural cardiac abnormalities • QT-interval prolongation (avoid concomitant use of drugs that prolong QT interval) • Cerebrovascular disease (avoid in severe cerebrovascular disease) • Psychosis or mania • Monitor for appearance or worsening of anxiety, depression or tics, history of seizures, aggressive behaviour, hostility or emotional liability.
Dexamfetamine	• Anorexia • Mild hypertension (contra-indicated if moderate or severe); • Psychosis or bipolar disorder • Monitor for aggressive behaviour or hostility during initial

[1] For a full list of cautions, please refer to the current version of the British National Formulary (BNF) and the Summary of Product Characteristics

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	treatment • History of epilepsy (discontinue if seizures occur) • Tics and Tourette syndrome (use with caution) – discontinue if tics occur • Monitor growth in children • Avoid abrupt withdrawal
Lisdexamfetamine	• Bipolar disorder • History of cardiovascular disease (caution in patients with underlying conditions that might be compromised by increases in blood pressure or heart rate) • History of substance abuse • May lower the seizure threshold (discontinue if seizures occur) • Psychotic disorders • Susceptibility to angle-closure glaucoma • Tics and Tourettes syndrome

CONTRAINDICATIONS

Drug	Contraindications[2]
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.
Atomoxetine	Phaeochromocytoma
Dexamfetamine	Cardiovascular disease including moderate to severe hypertension, structural cardiac abnormalities, advanced arteriosclerosis, hyperexcitability or agitated states, hyperthyroidism, history of drug or alcohol abuse.
Lisdexamfetamine	Symptomatic cardiovascular disease including moderate to severe hypertension and advanced arteriosclerosis, hyperexcitability or agitated states, hyperthyroidism.

INTERACTIONS

Interacting drug	ADHD drug	Interaction[2]
Coumarin anticoagulants, anticonvulsants (e.g. phenobarbital, phenytoin, primodone) and some antidepressants (tricyclic and selective serotonin reuptake inhibitors)	MPH	Metabolism of interacting drug may be inhibited, leading to adverse effects
Anti-hypertensive drugs	MPH, ATMX, LDEX	Possible increase in blood pressure. Decreased effectiveness of

[2] For a full list of contra-indications and interactions please refer to the current British National Formulary and Summary of Product Characteristics.

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		antihypertensives
Alcohol	MPH	Alcohol may exacerbate the adverse CNS effects of psychoactive drugs. It is therefore advisable for patients to abstain from alcohol during treatment.
Halogenated anaesthetics	MPH	MPH may be associated with pharmacodynamics interactions when co-administered with direct and indirect dopamine agonists (including DOPA and tricyclic antidepressants) or with dopamine antagonists including antipsychotics.
Dopaminergic drugs	MPH	MPH may be associated with pharmacodynamic interactions when co-administered with direct and indirect dopamine agonists (including DOPA and tricyclic antidepressants) or with dopamine antagonists including antipsychotics.
Monoamine oxidase inhibitors	ATMX, DEX, LDEX	**Contraindication.** Risk of hypertensive crisis
CYP2D6 inhibitors (e.g. fluoxetine, paroxetine, quinidine, terbinafine)	ATMX	ATMX exposure may be 6-to-8 fold increased
Salbutamol (or other beta-2 agonists)	ATMX	Cardiovascular effects can be potentiated
Haloperidol	LDEX	Haloperidol blocks dopamine receptors thus inhibiting the central stimulant effects of LDEX
Lithium carbonate	LDEX	The anorectic and stimulatory effects of LDEX may be inhibited by lithium carbonate
MPH = Methylphenidate. ATMX = Atomoxetine. DEX = Dexamfetamine. LDEX = Lisdexamfetamine		

MONITORING STANDARDS (In line with current NICE guidance)

All physical health monitoring should be undertaken by the paediatricians, clinical nurse specialists and CAMHS teams during the initiation and stabilisation period of ADHD medications. Once the patient is stabilised then physical health monitoring should be undertaken at every review appointment (usually 6 monthly, then annually thereafter, however please refer to the specific parameter below for further information). Clinicians to monitor these parameters at other times as clinically required.

Parameter	Frequency of monitoring/ medication	Action
Efficacy/ Medication review	Annually and when doses are changed	Medication information provided to parent/carer and young person. Rating scales may be used
Non-specific side effects	At each appointment	Review and monitor for adverse effects, possible drug interactions, changes to medication regime, deteriorating behaviour. Communicate any relevant medical information to consultant/ GP. Concerns about requests for unnecessarily frequent prescriptions should be communicated to specialist

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		clinic.
Weight and height	Height: baseline then 6-monthly. <u>Weight – Children 10 years and under</u>: measure every 3 months. <u>Children & Young people 10 years and older:</u> measure weight at 3 and 6 months after starting treatment, and 6 months thereafter or more if concerns arise.	Plot height and weight on a growth chart. If weight loss is a clinical concern, consider the following strategies: • Taking medication either with or after food, rather than before meals • Taking additional meals or snacks early in the morning or late in the evening when stimulant effects have worn off • Obtaining dietary advice • Consuming high-calorie foods of good nutritional value • Taking a planned break from treatment • Changing medication If a young person has not met the height expected for their age, consider a planned break in treatment over the school holidays to allow 'catch up' growth.
Cardiovascular	<u>Pulse & Blood pressure</u> Baseline and before and after each dose change and every 6 months.	• Do not offer routine blood tests (including liver function tests) or ECGs to people taking medication for ADHD unless there is a clinical indication. (NICE 2018) • If a person taking ADHD medication has sustained resting tachycardia (more than 120 beats per minute), arrhythmia or systolic blood pressure greater than the 95th percentile (or a clinically significant increase) measured on 2 occasions, reduce their dose and refer them to a paediatric hypertension specialist or adult physician. (NICE 2018)
	<u>ECG</u> Baseline, repeated only when necessary	Baseline ECG should be taken if the ADHD treatment may affect the QT interval (atomoxetine). Do not offer routine ECGs to patients taking medication for ADHD unless there is a clinical indication.
	<u>Routine Full Blood Count (including LFTs)</u> Only when clinically indicated	**Do not offer** routine blood tests to patients taking medication ADHD unless there is a clinical indication (methylphenidate). Specialist CAMHS team to undertake this should a routine blood test be clinically indicated.
Tics	At each appointment	If the patient taking stimulants develops tics, think about whether: • The tics are related to the stimulant (tics naturally wax and wane) and; • The impairment associated with the tics outweighs the benefits if ADHD treatment
Sexual dysfunction <u>(Atomoxetine)</u>	At each appointment	Monitor for erectile and ejaculatory dysfunction (adverse effects of atomoxetine)

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Seizures	Duration of treatment/ monitored at each appointment	If a patient with ADHD develops new seizures or a worsening of existing seizures, review their ADHD medication and stop any medication that might be contributing to the seizures. After investigation, cautiously reintroduce ADHD medication if it is unlikely to be the cause of seizures.
Sleep	At each appointment	Monitor for changes in sleep pattern (e.g. with a sleep diary) and adjust medication accordingly
Worsening behaviour	At each appointment	Monitor the behavioural response to medication, and if behaviour worsens adjust medication and review the diagnosis.
Stimulant diversion	At each appointment	Healthcare professionals and parents or carers should monitor changes in the potential for stimulant misuse and diversion, which may come with changes in circumstances and age.
Liver impairment (Atomoxetine)	Duration of treatment with atomoxetine	Be vigilant for abdominal pain, unexplained nauseas, malaise, darkening of the urine or jaundice. Routine testing of LFTs is not recommended.
Suicidal thinking and self-harming behaviour (Atomoxetine)	During the initial months or after a change of dose	Patients and/or carers should be warned about the potential for suicidal thinking and self-harming behaviour.

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ACTION AND ADVICE

Treatment should generally be continued for as long as it is effective, and should be reviewed at least annually. The symptoms of hyperactivity may diminish during the course of adolescence, though patients may continue to complain of impulsivity and inattention. It is common to tail off treatment as the young person completes their schooling. This should be done gradually to avoid rebound effects.

TREATMENT INTO ADULTHOOD (18 YEARS AND OVER)

Young persons who are 17 years old and still under the care of, and stabilised on ADHD medication from the paediatrician, clinical nurse specialists or CAMHS team, should be reviewed to determine if medication needs to be continued beyond the 18th birthday.

If medication is no longer required, the paediatrician, clinical nurse specialists or CAMHS team will be responsible for tapering off and discontinuing the medication. The young person can be discharged from the service by their 18th birthday.

Where it is deemed appropriate for the young person to continue medication beyond their 18th birthday, it is the responsibility of the paediatrician, clinical nurse specialist or CAMHS team to advise the GP and arrange for transfer of care to the adult provision.

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SHARED CARE

This is a document which provides information allowing patients to be managed safely by primary/secondary care and across the interface. It assumes a partnership and an agreement between a hospital specialist, GP and the patient/carer and also sets out responsibilities for each party. The intention of shared care should be explained to the patient/carer and be accepted by them prior to commencement of shared care. Patients are under regular follow-up and this provides an opportunity to discuss drug therapy. Intrinsic in the shared care agreement is that the prescribing doctor should be appropriately supported by a system of communication and cooperation in the management of patients. The doctor who prescribes the medicine has the clinical responsibility for the drug and the consequence of its use.

Specialist (CAMHS Consultant/ Registrar, Paediatrician or Specialist Non-Medical Prescriber e.g. Clinical Nurse Specialist)

1. Contact the GP if the patient has been referred for assessment by an alternate route other than GP referral.
2. To undertake the initial assessment, diagnosis and physical screen.
3. Initiate treatment and prescribe ADHD medication until the patient reaches medical stabilisation
4. Ensure that patient/carers understand their treatment regimen and any monitoring or follow up that is required (using advocacy if appropriate).
5. Provide the parent/carer and where appropriate, the patient with verbal and written medication information and to inform the GP that if they wish to opt out of the shared care agreement, they should notify the specialist team.
6. Once initiated on ADHD medication, paediatrician, clinical nurse specialist, CAMHS clinician to request shared care with GP
7. Paediatrician, clinical nurse specialist or CAMHS to provide the GP with written correspondence providing details of the medication and requesting on-going monthly supply of the medication, as part of the shared care agreement.
8. Paediatrician, clinical nurse specialist or CAMHS to allow a completion of shared care to occur when patient is stable (normally within a 3 month period). During this transition period paediatrician, clinical nurse specialist or CAMHS to continue to supply monthly prescriptions
9. Once a patient is moved over to a shared care agreement, paediatrician, clinical nurse specialist or CAMHS to supply a final 28 day prescription of ADHD medications to allow GP time to issue the next supply.
10. All physical health monitoring to be undertaken by paediatrician, clinical nurse specialist or CAMHS team during the initiation period of ADHD medication. After the patient is stabilised physical health monitoring should be undertaken 6 monthly until stable and then annually by the paediatrician, clinical nurse specialist or CAMHS team.
11. Clinical supervision of the patient by routine clinic follow-up on a regular basis.
12. Send a letter to the GP after each clinic attendance ensuring current dose is stated.
13. Inform GP of any changes to the prescription in writing and inform GP of the young person's progress on a 6 monthly basis, until stable. If there is a medication change, CAMHS to provide a 28-day prescription to cover this change and allow for GP to amend usual prescription.

14. Where the patient is stable the patient should be reviewed minimum annually and the GP informed of the young person's progress and changes in treatment in writing.
15. Specialist to provide a 28 day prescription for any dose/medication change, and to inform the GP of this in writing.
16. Evaluate any reported adverse effects by GP, patient, parent/carer.
17. Inform GP of patients who do not attend clinic appointments, and advise the GP on course of action in regards to supplying further prescriptions.
18. Inform GP, by letter, of clinic visits and action taken for management of patient.
19. Ensure that backup advice is available for patient and GP at all times.
20. Advise the GP of which specialist will provide future monitoring of the patient, should they need to continue treatment once they reach adulthood.
21. Inform and decide with GP any action if patient has not been reviewed within 6 months of the last appointment. This may include the decision to continue treatment as before, or withdraw/ stop treatment.
22. Where a young person has been discharged from the CAMHS team, and then is re-referred back the GP, the consultant will assess suitability for accepting back into the CAMHS team. Where clinically appropriate the consultant will provide advice/ support to the GP and/ or accept YP back onto the CAMHS caseload.

General Practitioner

1. All young people who present with characteristic symptoms of ADHD should be referred for an assessment.
2. Treatment for ADHD would need to be initiated by the specialist.
3. Young people diagnosed outside of the county/ borough and already taking medication should be referred for reassessment and ongoing monitoring. The GP should continue to prescribe in the intervening period unless this is contraindicated. If any adverse effects or contraindications are identified, this should be communicated to the CAMHS consultant psychiatrist, clinical nurse specialist or paediatrician.
4. GP to respond to a shared-care request invitation and complete arrangements, including on-going provision of monthly prescriptions when the patient is stable (normally within a 3 month period). Should the case arise where the GP decides that they do not wish to accept the shared-care request, they should notify the specialist team to opt out of the arrangement.
5. On commencement of the shared care, CAMHS, the clinical nurse specialist, or paediatrician to continue to supply monthly repeat of ADHD medication after the initial supply by the CAMHS/ community paediatric team for new initiations and/ or where there has been a dose/ medication change, in line with the specialist's recommendation.
6. If the GP has a specific concern about prescribing for a particular patient under this Shared Care Protocol, they should discuss this with the CAMHS consultant psychiatrist/ clinical nurse specialist or paediatrician.
7. Check the patient is attending CAMHS/ paediatrician appointment before re-issuing further prescriptions.

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8. Methylphenidate, dexamfetamine and lisdexamfetamine are Schedule 2 Controlled Drugs and prescriptions must be issued on a monthly basis. Medications requests for longer than a month (e.g. covering patients' holidays) should be discussed with CAMHS, paediatrician or the clinical nurse specialist clinician and can be issued at the prescriber's discretion.
9. Requests for an alteration in the regular dosage should be referred back to the CAMHS team, clinical nurse specialist or paediatrician.
10. Report and discuss with CAMHS consultant, paediatrician or clinical nurse specialist any adverse effects of medication, possible drug interactions, changes to the patient's medication regimen, deteriorating behaviour, suspected diversion/ misuse and/ or relevant medical information including any test results.
11. Regular physical health monitoring to be undertaken by CAMHS, clinical nurse specialist paediatrician; however GPs to undertake physical health monitoring at other times as clinically required.

CCG

1. To provide feedback to trusts via Trust Medicines Committee.
2. To support GPs to make the decision whether or not to accept clinical responsibility for prescribing.
3. To support trusts in resolving issues that may arise as a result of shared care.

Patient/Carer

1. Ensure they have a clear understanding of their treatment.
2. Report any adverse effects to their GP or specialist.
3. Report any changes in symptoms to the GP or specialist.

MEDICATION INFORMATION

Below are suggested where professionals can access information, both for themselves and either direct and/ or print off for parents/ carers

Professionals

BNF (hardcopy) and/ or online BNF which can be accessed at the following link if your organisation has a subscription:
https://www.medicinescomplete.com/mc/bnf/current/
Summary of Product Characteristics:
http://www.medicines.org.uk/emc/

Parent/carer and young person

Summary of Product Characteristics (patient information leaflet)
http://www.medicines.org.uk/emc/
Medicines for Children
http://www.medicinesforchildren.org.uk/

ADHD/Hyperkinetic Disorder for Children & Young People (6-18 years) - Methylphenidate, Atomoxetine, Dexamfetamine and Lisdexamfetamine

CONTACT NUMBERS FOR ADVICE AND SUPPORT

East London Foundation Trust	
Lauren Christie - Jones, CAMHS Pharmacist	0207 540 6789
Natasha Patel, Lead Pharmacist - Luton and Bedfordshire	07940 466861
Clinical Commissioning Groups (CCG)	
CCG Luton and Bedfordshire	
Community paediatrician, Edwin Lobo Centre	01582 700300, Option 2.
Community paediatrician, Union St. clinic	01234 310071
Child Development Centre, Hill Rise	01234 310278
Hospital paediatrician, Bedford Hospital	01234 355122

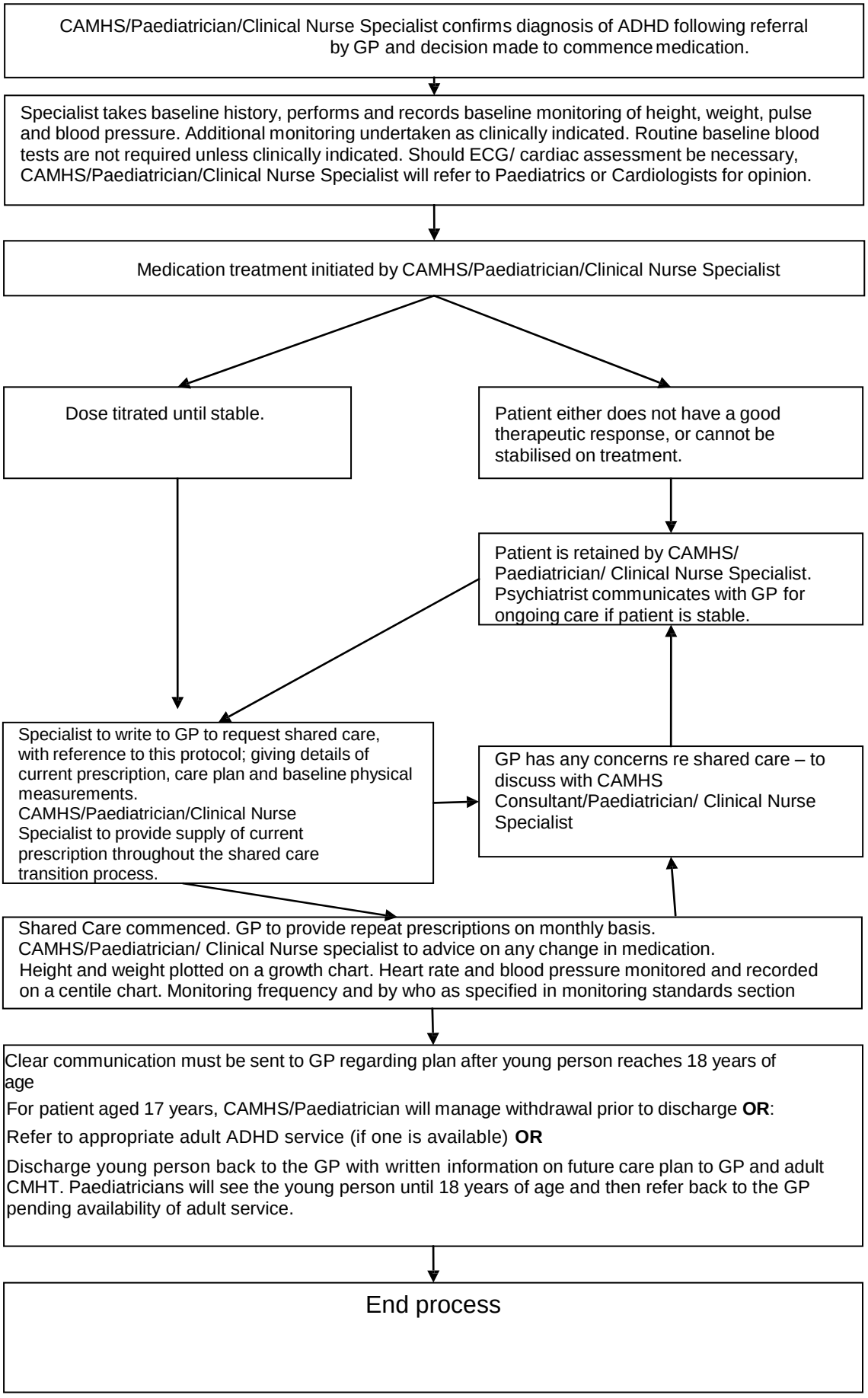
NHS East London NHS Foundation Trust

NHS Cambridgeshire Community Services NHS Trust

NHS Bedfordshire linical Commissioning Group

NHS Luton Clinical Commissioning Group

ADHD/Hyperkinetic Disorder for Children & Young People (6-18 years) - Methylphenidate, Atomoxetine, Dexamfetamine and Lisdexamfetamine



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