Surrey and Borders Partnership NHS
NHS Foundation Trust

WORKING IN PARTNERSHIP WITH
East Surrey CCG, Guildford & Waverley CCG, North West Surrey CCG, Surrey Downs CCG, Surrey Heath CCG, North East Hampshire & Farnham CCG, Crawley CCG, Horsham & Mid-Sussex CCG

SHARED CARE PRESCRIBING GUIDELINE

Lisdexamfetamine for the Treatment of ADHD

Prescribing Clinical Network classification: Amber

N.B. The eligibility criteria included here apply to new patients commencing treatment under this guideline & not to existing patients whose treatment was initiated under the previous version. However, monitoring and discontinuation criteria apply to all patients.

NOTES to the GP

Amber drugs: Prescribing to be initiated by a hospital specialist (or if appropriate by a GP with specialist interest) but with the potential to transfer to primary care. The expectation is that these guidelines should provide sufficient information to enable GPs to be confident to take clinical and legal responsibility for prescribing these drugs**.**

The questions below will help you confirm this:
- Is the patient's condition predictable?
- Do you have the relevant knowledge, skills and access to equipment to allow you to monitor treatment as indicated in this shared care prescribing guideline?
- Have you been provided with relevant clinical details including monitoring data?

If you can answer YES to all these questions (after reading this shared care guideline), then it is appropriate for you to accept prescribing responsibility. Sign and return a copy of page 6 to the requesting consultant at the Secondary Care Trust. Until the requesting consultant at the Secondary Care Trust has received a signed copy of page 6 indicating that shared care has been agreed all care (including prescribing) remains with the consultant at the Secondary Care Trust.

If the answer is NO to any of these questions, you should not accept prescribing responsibility. You should write to the consultant outlining your reasons for NOT prescribing. If you do not have the confidence to prescribe, we suggest you discuss this with your local Trust/specialist service, who will be willing to provide training and support. If you still lack the confidence to accept clinical responsibility, you still have the right to decline. Your practice pharmacist will assist you in making decisions about shared care.

Prescribing unlicensed medicines or medicines outside the recommendations of their marketing authorisation alters (and probably increases) the prescriber's professional responsibility and potential liability. The prescriber should be able to justify and feel competent in using such medicines.

The patient's best interests are always paramount

The GP has the right to refuse to agree to shared care, in such an event the total clinical responsibility will remain with the consultant

Information

Licensed indications
Lisdexamfetamine dimesylate is indicated as part of a comprehensive treatment programme for attention deficit/hyperactivity disorder (ADHD) in children aged 6 years of age and over when response to previous methylphenidate treatment is considered clinically inadequate.

Dosage, administration, storage and abuse liability
Lisdexamfetamine dimesylate is a pharmacologically inactive prodrug. After oral administration, lisdexamfetamine dimesylate is rapidly absorbed from the gastrointestinal tract and hydrolysed primarily by red blood cells to dexamfetamine.

DOSE: The starting dose for all patients is 30mg once daily in the morning. This may be increased at approximately weekly intervals by 20mg increments, to a maximum of 70mg once daily. The lowest effective dose should be administered.

- Lisdexamfetamine dimesylate may be taken with or without food. The capsules should be swallowed whole or opened, the contents dispersed in a glass of water (stir until completely dispersed) and the resulting solution swallowed immediately (a film of inactive ingredients may remain in the glass).

- Afternoon doses should be avoided (risk of insomnia). If there is a missed morning dose, wait until the following morning before administering the next dose.

- Treatment should be stopped if the symptoms do not improve after 1 month at an appropriate dose. Reduce the dosage if paradoxical aggravation of symptoms/other intolerable adverse events emerge.

Note: Lisdexamfetamine dimesylate is a Prescription Only Medicine (POM) however recent guidance from the Royal Pharmaceutical Society has advised that is should be treated as a **Schedule 2 controlled drug**.

Abuse liability- the SmPC gives details of abuse liability studies which showed that lisdexamfetamine dimesylate has less potential for abuse than dexamfetamine.

Contraindications and cautions for use
CONTRAINDICATIONS: hypersensitivity to sympathomimetic amines or any of the excipients: concomitant use of monoamine oxidase inhibitors (MAOI) or within 14 days after MAOI treatment, hyperthyroidism or thyrotoxicosis, agitated states, symptomatic cardiovascular disease, advanced arteriosclerosis, moderate to severe hypertension, glaucoma.

CAUTIONS: in patients with a history of substance abuse or dependence; should not be used if there are known serious structural cardiac abnormalities, cardiomyopathy, serious heart rhythm abnormalities, or other serious cardiac problems that may place them at increased vulnerability to the sympathomimetic effects. Caution is indicated in treating patients whose underlying medical conditions might be compromised by increases in blood pressure or heart rate. Cardiomyopathy has been reported. All patients should have a careful history (including assessment for a family history of sudden death or ventricular arrhythmia) and physical exam to assess for the presence of cardiac disease, and should receive further cardiac evaluation if findings suggest such disease. Patients who develop symptoms such as exertional chest pain, unexplained syncope, or other symptoms suggestive of cardiac disease during stimulant treatment should undergo a prompt cardiac evaluation. Administration may exacerbate symptoms of behaviour disturbance and thought disorder in patients with pre existing psychotic disorders. Take particular care in patients with comorbid bipolar disorder. Screen patients with comorbid depressive symptoms to determine if they are at risk for bipolar disorder before lisdexamfetamine dimesylate treatment is started. If treatment emergent psychotic or manic symptoms occur, consideration should be given to a possible causal role of the stimulant, and possible discontinuation of treatment. Patients beginning treatment for ADHD should be monitored for the appearance/worsening of aggressive behaviour or hostility. Clinical evaluation for tics and Tourette's syndrome in children and their families should precede use. Growth should be monitored during treatment with stimulants, and patients who are not growing/ gaining weight as expected may need to have their treatment interrupted. In the presence of new onset or worsening seizures, lisdexamfetamine dimesylate should be discontinued. Difficulties with accommodation and blurring of vision have been reported with stimulant treatment. Use with caution in patients taking other sympathomimetic drugs.

Side Effects
Children

Very Common (frequency ≥1/10):	Decreased appetite, insomnia, headache, upper abdominal pain, weight decreased
Common (≥1/100 to <1/10):	Anorexia, tics, affect lability, psychomotor hyperactivity, aggression, dizziness, somnolence, mydriasis, dry mouth, diarrhoea, nausea, vomiting, rash, irritability, fatigue, pyrexia
Uncommon (≥1/1000 to <1/100):	Hypersensitivity, agitation, anxiety, logorrhea, depression, dysphoria, dermatillomania, mania, hallucination, restlessness,tremor, vision blurred, tachycardia, palpitation, dyspnoea, hyperhidrosis, urticaria, feeling jittery, blood pressure increased

Adolescents

Very Common (frequency ≥1/10):	Decreased appetite, insomnia, headache, weight decreased
Common (≥1/100 to <1/10):	Anorexia, affect lability, dizziness, tremor, tachycardia, palpitation, dyspnoea, dry mouth, diarrhoea, upper abdominal pain, nausea, vomiting, irritability, fatigue, blood pressure increased
Uncommon (≥1/1000 to <1/100):	Agitation, anxiety, logorrhea, depression, tic, euphoria, psychomotor hyperactivity, dermatillomania, hallucination, aggression, restlessness, somnolence, mydriasis, urticaria, rash, erectile dysfunction, feeling jittery, pyrexia

Please consult the SmPC for rare (≥1/10000 to <1/1000); very rare (<1/10000), not known (cannot be estimated from the available data) side effects.

Drug Interactions

Amfetamines should not be administered during or within 14 days following the administration of **monoamine oxidase inhibitors (MAOI)** because they can increase the release of norepinephrine and other monoamines. This can cause severe headaches and other signs of hypertensive crisis. A variety of toxic neurological effects and malignant hyperpyrexia can occur, sometimes with fatal outcomes. **Chlorpromazine** blocks dopamine and norepinephrine receptors, thus inhibiting the central stimulant effects of amfetamines. **Haloperidol** blocks dopamine receptors, thus inhibiting the central stimulant effects of amfetamines. The anorectic and stimulatory effects of amfetamines may be inhibited by **lithium carbonate**. Amfetamines potentiate the analgesic effect of **narcotic analgesics**. Amfetamines may decrease the effectiveness of **guanethidine** or other **antihypertensive** medications. **Ascorbic acid** and other agents and conditions (diets high in fruits and vegetables, urinary tract infections and vomiting) that acidify urine increase urinary excretion and decrease the half-life of amfetamine. **Sodium bicarbonate** and other agents and conditions (**thiazide diuretics**, diets high in animal protein, diabetes, respiratory acidosis) that alkalinise urine decrease urinary excretion and extend the half-life of amfetamine. There are limited data on the possible interaction with **alcohol**. Amfetamines can cause a significant elevation in plasma **corticosteroid** levels. It may interfere with urinary steroid determinations. *In vitro* experiments with human microsomes indicate minor inhibition of **CYP2D6** by amfetamine and minor inhibition of **CYP1A2, 2D6,** and **3A4** by one or more metabolites. Although the clinical significance of this interaction is likely to be minimal, consideration should be given when medications metabolised by these pathways are administered.

Cost

30 mg capsule (white/pink), net price 28-cap pack = £58.24;
50 mg capsule (white/blue), 28-cap pack = £68.60;
70 mg capsule (blue/pink), 28-cap pack = £83.16.

The annual cost per patient treated with 30mg capsule once daily will be £759.20 and with 70mg capsule once daily will be £1,084.05 (based on 365 days prescribing).

Supporting references

1. Elvanse® Summary of Product Characteristics. Shire February 2013
2. NICE Attention deficit hyperactivity disorder. Diagnosis and management of ADHD in children, young people and adults NICE CG72 (2008, modified March 2013)

Criteria for Use

The Prescribing Clinical Network supports the availability of Lisdexamfetamine for use within its licensed indication as an additional step between methylphenidate IR/ER and atomoxetine and is afforded an amber traffic light status.

RESPONSIBILITIES and ROLES

	Consultant / Specialist responsibilities
1	Confirmation of diagnosis and identification of suitable patients following full assessment
2	Request agreement of shared care with primary care prescriber
3	Initiation of appropriate therapy
4	Discussion of risks and benefits with patients, outline possible side effects and explain their roles
5	To undertake a complete history, documenting: concomitant medicines; past and present medical and psychiatric disorders or symptoms; family history of sudden cardiac death, unexplained death, or malignant arrhythmia; and accurate pre-treatment height, weight and appetite on a growth chart.
6	To undertake a physical examination for the presence of heart disease.
7	To assess baseline cardiovascular status, including blood pressure and heart rate before prescribing and get specialist cardiac advice if appropriate.
8	To review the patient and monitor the following usually on a six monthly basis and act on the results appropriately and communicate these results to the primary care prescriber: • Height, weight and appetite, recorded at baseline, following dosage adjustments and 6 monthly. Recorded on a growth centile chart. • Blood pressure and pulse, recorded at baseline, following dosage adjustments and 6 monthly. Record on a centile chart. • Blood and platelet counts at discretion of supervising clinician(s) (e.g. if recurrent nose bleeds, bruising or infections occur. Baseline, then when clinically indicated. • As stimulant medications are controlled drugs, the specialist or parents should inform the school concerning any medication for these indications. In order to assess the effects of the drug on the child's emotional, physical or behavioural states the specialist should request further information from the school about the child's behaviour. • To refer patients who develop symptoms such as palpitations, exertional chest pain, unexplained syncope, dyspnoea, or other symptoms suggestive of heart disease for prompt specialist cardiac evaluation. • The development of new or worsening of pre-existing, psychiatric symptoms (also following dose adjustments and at every visit).
9	When prescribing stimulant medication to look out for signs of diversion (transfer of the medicine from the individual for whom it was prescribed to one for whom it is not prescribed), misuse, and abuse.
10	To advise and support parents and teachers.
11	To liaise with the child's school as appropriate.
12	Issuing initial prescription(s) until the patient is stabilised (minimum of one month) and until shared care is in place. If a dose change is required at a later stage then stabilisation of the new dose by secondary care may be necessary, but it is **essential** that this is clearly communicated with primary care to avoid duplication of supply
13	Ensure that all newly treated patients (and/or their carers) receive appropriate education and advice regarding their drug therapy and shared care arrangements. This should include written information where appropriate.
14	Providing primary care prescriber with clinic letter stating planned introduction and reviews
15	Provide outpatient reviews, monitor effectiveness/side effects
16	Notify the GP of the patient's failure to attend for clinical review or drug monitoring and give advice on stopping the medication.
17	To liaise and advise primary care prescriber to interrupt treatment at least annually and to assess ongoing need for medication.
18	To take responsibility for stopping the drug or to agree aftercare when the patient reaches 18 years of age.

	Primary care prescriber responsibilities
1	Initial referral to secondary care with a full history of any diagnosis or history where caution is needed or the ADHD medication is contraindicated.
2	To inform the consultant if unwilling to enter into shared-care arrangements.
3	To provide repeat prescriptions of the ADHD medication at the dose recommended once shared care is agreed and in place and the patient is stabilised (not before initial one month stabilisation period). A demonstrable system should be in place to ensure that prescribing is reviewed by the primary care prescriber if there is no record of the fact that monitoring has taken place within the agreed time scales. Prescriptions for stimulants should be restricted to 30 days supply and are only valid for 28 days from the date of signature as stimulant medications are controlled drugs subject to safe custody and specific regulations for prescribing.
4	To record any changes in therapy in the prescribing record on receipt of such communication from secondary care and to act upon these.
5	To monitor prescribing rate of ADHD medications for individual patients.
6	To contact consultant / specialist if deterioration in behaviour.
7	To report adverse drug reactions or interactions to consultant / specialist.
8	To refer patients who develop symptoms such as palpitations, exertional chest pain, unexplained syncope, dyspnoea, or other symptoms suggestive of heart disease for prompt specialist cardiac evaluation.
9	To monitor patients overall health and well-being.
10	Liaise with consultant / specialist if any cause for concern or drug discontinued.
11	To provide a copy of this shared care agreement to the patient to ensure that they are familiar with all roles and responsibilities
12	When prescribing stimulant medication to look out for signs of diversion (transfer of the medicine from the individual for whom it was prescribed to one for whom it is not prescribed), misuse, and abuse.
13	To interrupt treatment at least annually on the recommendation of the specialist.
14	To ensure all relevant staff within the practice are aware of the shared care guidelines.
15	Ensure that if care of the patient is transferred to another prescriber that the new prescriber is made aware of the shared care agreement.

	Patient's / Carer's role
1	Ask the consultant / specialist or primary care prescriber for information, if he or she does not have a clear understanding of the treatment.
2	Share any concerns in relation to treatment with any medication covered by this agreement
3	Tell the consultant / specialist or primary care prescriber of any other medication being taken, including over-the-counter products.
4	Read the patient information leaflet included with your medication and report any side effects or concerns you have to the consultant / specialist or primary care prescriber.
5	To attend appointments.
6	Arrange blood tests as per consultant / specialist request
7	To be aware of side effects and report to their consultant / specialist or primary care prescriber any relevant symptoms such as: palpitations, exertional chest pain, unexplained fainting, shortness of breath, development of new or worsening of pre-existing psychiatric symptoms.

BACK-UP ADVICE AND SUPPORT

Contact details	Specialist	Telephone No.	Email address:
Specialist:			
Hospital Pharmacy:			
Out of hours contact:			

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Agreement for transfer of prescribing to GP

Patient details / addressograph:

Name……..

Address……..
……..
……..

DOB…….

Hospital No……

The following tests, investigations have been carried out:

Blood pressure: Date:

Pulse: Date:

Weight: (including centiles) Date:

Height: (including centiles) Date:

Diagnosis of ADHD made on (date):

Medication initiated on (date):

Patient's last clinic visit on (date):

At the last patient review the drug appeared to be effectively controlling symptoms/ providing benefit: Yes / No

The patients has now been stabilised on a dose of: ……..

I will arrange to review this patient on (date)……, then every 6 months.

Consultant: Address: Contact Number	**Agreement to shared care, to be signed by GP and Consultant.** **Consultant Signature:** …….. **Date:**
GP: Address: Contact Number	**GP Signature:** …… **Date:**
Main Carer: Contact Number:	**If shared care is agreed and GP has signed above please return a copy of this page to the requesting consultant or alternatively fax to:** **Secondary Care Trust please insert appropriate Fax Number**:
Key worker if appropriate: Contact Number:	