

NORFOLK AND WAVENEY STP THERAPEUTICS ADVISORY GROUP (TAG) SHARED CARE AGREEMENT FRAMEWORK

Shared care guidelines - Stimulants for Attention Deficit Hyperactivity Disorder (ADHD) in Children & Young People aged at least 6 years old

Monitoring level 3 - Prescribe the drug and perform significant monitoring including measurements such as height, weight, blood pressure and ECG.

Generic and Proprietary/Brand Name

This shared care agreement covers the prescribing of the following stimulants:

1) Methylphenidate:

Prescribe by <u>brand name</u>, or by manufacturer name if generic, *for modified-release preparations*. Refer to appendix 2 for comparison of modified-release methylphenidate products.

- a) Methylphenidate immediate release tablets; Generic, Ritalin®, Medikinet®, Tranquilyn®.
- Prescribe generically for best value.
- b) Methylphenidate **modified-release tablets**; Affenid XL®, Delmosart®, Matoride XL®, Xaggitin XL®, Xenidate XL®, Concerta XL®.
- Preferred best value brands include: Affenid XL®, Xaggitin XL®, Xenidate XL®, Delmosart®, Matoride XL®.
- c) Methylphenidate modified-release capsules; Equasym XL®, Medikinet XL®, Meflynate XL®, Metyrol XL®.
- 2) Lisdexamfetamine:

Lisdexamfetamine is a prodrug of dexamfetamine; it has an extended-release profile and is associated with a lower abuse potential.

- Lisdexamfetamine capsules; Generic, Elvanse®.
- 3) Dexamfetamine:
- Dexamfetamine immediate release tablets; Generic, Amfexa®.

Indications for shared care

All medication for ADHD should only be initiated by a specialist (registered healthcare professional) with training and expertise in diagnosing and managing ADHD.

Stimulants are licensed for the treatment of ADHD in children **aged 6 years of age and over** as part of a comprehensive treatment programme where remedial measures alone prove insufficient. Although NICE guidance (NG87)¹ recommends that children may treated from age 5 years, the licensed age range stands regarding the scope of this shared care prescribing agreement. This is a TAG recommendation since local GPs may not currently refer such young children to the specialist service, and medications would be off-label.

As per NICE guidance NG87¹ **Methylphenidate** should be offered as the **first line** pharmacological treatment for children and young people with ADHD.

Consider switching to Lisdexamfetamine if after a 6-week trial of methylphenidate (at an adequate dose) there has not been sufficient benefit observed, in terms of reduced ADHD symptoms and associated impairment.

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Shared Care Agreement – Stimulants for Attention Deficit Hyperactivity Disorder (ADHD) in Children & Young People aged at least 6 years old

Dexamfetamine can be considered for children & young people whose ADHD symptoms are responding to Lisdexamfetamine but who cannot tolerate the longer effect profile of the drug. Please note Dexamfetamine is only licensed to treat ADHD in children and young people aged 6 to 17 years when response to methylphenidate is clinically inadequate.

Summary of Specialist Prescribing and Monitoring Responsibilities

Prescribing responsibilities:

Initiation, dose titration and stabilisation on medication for at least two consecutive consultations with no change in dose.

Specialist monitoring:

Monitoring at baseline, during initiation & following dose adjustments is the responsibility of the specialist:

- Height and weight should be monitored and plotted on a growth chart.
- Auscultation of the heart and monitoring of heart rate and blood pressure; to be compared with the normal range for age before and after each dose change.

Additional monitoring:

- Physical and CNS side effects during initiation and dose titration.
- Monitor for psychiatric symptoms / disorders.
- Monitor levels of agitation, irritability and/or the occurrence of self-harming behavior /suicidal thoughts.
- Monitor for the rare possibility of liver problems.

Annual review:

A review with the specialist is required at least once a year to discuss whether medication should be continued. As the young person can 'grow out' of ADHD (secondary to neuro-developmental maturation or changes in circumstances).

Summary of GP / Community Team - Primary Care Prescribing and Monitoring Responsibilities

Prescribing responsibilities:

To accept shared care when patient is on a 'stable' dose and evidence of benefit is stated.

To prescribe treatment from the date specified by specialist.

Monitoring responsibilities:

- Measure height at least every 6 months in children and young people taking medication for ADHD.
- Measure weight at least every 3 months in children aged 10 years and <u>under</u>
- For children over 10 years and young people measure weight at 3 and 6 months after starting treatment, and then at least 6 monthly thereafter.
- Height and weight to be plotted on growth chart. If concerns arise, or any significant changes from baseline, this should be discussed with the specialist; please see box 'When is further assessment required?' RCPCH growth charts for general advice.
- Monitor **heart rate** and **blood pressure** and compare with the normal range for age **every 6 months**.
- Monitor for psychiatric symptoms / disorders.

Patient Information

Families will be provided with relevant patient information.

For additional medicines information, including patient information leaflets, please see: http://www.choiceandmedication.org/nsft/.

Specialist Contact Details

- Norwich Community Health and Care NHS Trust, Neurodevelopmental Service, Tel 01553 668712
- The James Paget University Hospital, Newberry Clinic, Tel 01493 442322
- Children's Community Medical Team, West Suffolk NHS Foundation Trust, Tel 01284 741700
- Autism Diagnostic Service Suffolk, Tel 01449 745389 (aged over 11 years)
- Child and Adolescent Mental Health Service (CAMHS);
 - o Central and West Norfolk Tel 0300 790 0371
 - o East Norfolk, Great Yarmouth and Waveney Telephone 0300 123 1882

GENERAL PRINCIPLES FOR SHARED CARE PRESCRIBING

- Shared Care is only appropriate if it provides the optimum solution for the patient.
- GPs are **invited** to participate. If GPs are not confident to undertake these roles, they are under no obligation to do so. In such an event, the total clinical responsibility for the patient for the diagnosed condition remains with the specialist.
- If a specialist asks the GP to prescribe this drug, the GP should reply to this request as soon as practicable if they are unwilling to do so.
- Prescribing responsibility will only be transferred when it is agreed by the consultant and the
 patient's GP and when the patient's condition is stable or predictable.
- Safe prescribing must be accompanied by effective monitoring.
- The doctor who prescribes the medication legally assumes clinical responsibility for the drug and the consequences of its use.

Background to Treatment

Stimulants are licensed for the treatment of ADHD in children **aged 6 years of age and over** as part of a comprehensive treatment programme where remedial measures alone prove insufficient.

As per NICE guidance (NG87)¹ **Methylphenidate** should be offered as the **first line** pharmacological treatment for children and young people with ADHD.

Consider switching to Lisdexamfetamine if after a 6-week trial of methylphenidate (at an adequate dose) there has not been sufficient benefit observed, in terms of reduced ADHD symptoms and associated impairment.

Dexamfetamine can be considered for children & young people whose ADHD symptoms are responding to Lisdexamfetamine but who cannot tolerate the longer effect profile of the drug. Please note Dexamfetamine is only licensed to treat ADHD in children and young people aged 6 to 17 years when response to methylphenidate is clinically inadequate.

Licensed use and agreed local off-label use

Stimulants are licensed for the treatment of ADHD in children **aged 6 years of age and over** as part of a comprehensive treatment programme where remedial measures alone prove insufficient.

Please refer to individual manufacturers' Summary of Product Characteristics (SPC) for full information on each product - https://www.medicines.org.uk/emc/

Criteria for Patient Selection

The patient's ADHD symptoms of hyperactivity/ impulsivity and/or inattention:

- meet the diagnostic criteria in DSM-5 or ICD-11 and
- cause at least moderate psychological, social and/or educational or occupational impairment based on interview and/or direct observation in multiple settings and
- are pervasive, occurring in 2 or more important settings including social, familial, educational and/or occupational settings.

Children should only be offered medication if all of following criteria are met:

- a baseline assessment has been carried out.
- they and their family/ and carers have discussed information about ADHD.
- patient has completed psychoeducation and environmental modifications have been implemented and reviewed.
- ADHD symptoms are still causing a persistent significant impairment in at least one domain.

Form and strength of preparation

This shared care agreement covers the prescribing of the following stimulants:

1) Methylphenidate²:

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Shared Care Agreement – Stimulants for Attention Deficit Hyperactivity Disorder (ADHD) in Children & Young People aged at least 6 years old

Prescribe by <u>brand name</u>, or by manufacturer name if generic, *for modified release preparations.*

Refer to appendix 2 for comparison of modified-release methylphenidate products.

- a) Methylphenidate immediate release tablets; Generic, Ritalin®, Medikinet®, Tranquilyn®
- Prescribe generically for best value.
- b) Methylphenidate **modified-release tablets**; Affenid XL®*, Delmosart®, Matoride XL®, Xaggitin XL®, Xenidate XL®, Concerta XL®.
- Preferred best value brands include: Affenid XL®, Xaggitin XL®, Xenidate XL®, Delmosart®, Matoride XL®.
- Affenid XL®*, Delmosart®, Matoride XL®, Xaggitin XL®, Xenidate XL® are bioequivalent to Concerta XL® tablets. Concerta XL 18mg once daily is equivalent to a total daily dose of 15mg Immediate Release Methylphenidate.
- c) Methylphenidate **modified-release** <u>capsules</u>; Equasym XL®, Medikinet XL®, Meflynate XL®, Metyrol XL®.

2) Lisdexamfetamine²:

Lisdexamfetamine is a prodrug of dexamfetamine; it has an extended-release profile and is associated with a lower abuse potential.

• Lisdexamfetamine capsules; Generic, Elvanse®

3) Dexamfetamine²:

• Dexamfetamine immediate release tablets; Generic, Amfexa®

Side Effects (Please refer to the BNFC and individual products SPC)

Side effects are mainly transient. Gastro-intestinal, and Central nervous system: insomnia, nervousness, headache, appetite loss, gastrointestinal discomfort, vomiting, nausea, somnolence, and dizziness. Options to reduce these include taking medication with or after food, reducing the dose or taking later in the day.

May affect performance of skilled tasks (driving); effects of alcohol unpredictable.

Drug Interactions (Please refer to the BNFC and individual products SPC)

Stimulant medication interacts with several over-the-counter medicines containing pseudoephedrine. Methylphenidate also interacts with a number of prescription only medicines, necessitating extra care. These effects are mainly due to the sympathomimetic properties of stimulant medications. For children & young people these issues are unlikely to be a frequent problem (hypertension treatment, anaesthetics, anticoagulation), however please check for interactions with other medication using the BNF for Children.

Cautions and Contraindications (Please refer to the <u>BNFC</u> and individual products <u>SPC</u>)

Methylphenidate:

- Cautions: Agitation; alcohol dependence; anxiety; drug dependence; epilepsy (discontinue if increased seizure frequency); family history of Tourette syndrome; susceptibility to angle-closure glaucoma; tics. For Concerta® XL, Delmosart® prolonged release tablets and Xaggitin® XL caution with Dysphagia.
- Contra-indications: Anorexia nervosa; arrhythmias; cardiomyopathy; cardiovascular disease; cerebrovascular disorders; heart failure; hyperthyroidism; mania; phaeochromocytoma; psychosis; severe depression; severe hypertension; structural cardiac abnormalities; suicidal tendencies; uncontrolled bipolar disorder; vasculitis

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- Patients with hypertension, tachycardia, and cardiovascular or cerebrovascular disease: pulse and BP should be measured more frequently than 6 monthly whilst on therapy.
- Growth rates (weight and height) should also be monitored as precaution. Stimulant medication
 may cause small growth retardation with long-term use.
- History of drug or alcohol abuse (also consider patients wider network): consider alternative non-stimulant treatments.
- Hyperthyroidism, glaucoma, pregnancy, breastfeeding.
- Epilepsy not normally a major problem but care should be taken as there is the possibility of further lowering the seizure threshold.

Lisdexamfetamine:

- Cautions: Bipolar disorder; history of cardiovascular disease; history of substance abuse; may lower seizure threshold (discontinue if seizures occur); psychotic disorders; susceptibility to angle-closure glaucoma; tics; Tourette syndrome
- Manufacturer advises caution in patients with underlying conditions that might be compromised by increases in blood pressure or heart rate.
- **Contra-indications**: Advanced arteriosclerosis; agitated states; hyperthyroidism; moderate hypertension; severe hypertension; symptomatic cardiovascular disease.

Dexamfetamine:

- Cautions: History of epilepsy (discontinue if seizures occur); mild hypertension; susceptibility to angle-closure glaucoma; tics (discontinue use if tics occur); Tourette syndrome; growth restriction in children.
- Monitor height and weight as growth restriction may occur during prolonged therapy (drug-free periods may allow catch-up in growth but withdraw slowly to avoid inducing depression or renewed hyperactivity).
- Contra-indications: 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 (disorders include severe depression, schizophrenia, borderline personality disorder and uncontrolled bipolar disorder); psychosis; severe hypertension; structural cardiac abnormalities; suicidal tendencies.
- Co-morbidity with psychiatric disorders is common in ADHD. Manufacturer advises if new
 psychiatric symptoms develop or exacerbation of psychiatric disorders occurs, continue use
 only if benefits outweigh risks.

Height & weight loss:

NICE guidance (NG87)¹ recommends that if weight loss is a clinical concern to 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 GP to discuss with specialist.
- changing medication any changes to medication would need to be made by the specialist.

NICE (NG87)¹ also states if a child or young person's height over time is significantly affected by medication (that is, they have not met the height expected for their age), consider a planned break in treatment over school holidays to allow 'catch-up' growth. GP to discuss with specialist.

Initiation of therapy

All medication for ADHD should only be initiated by a specialist (who is a registered healthcare professional) with training and expertise in diagnosing and managing ADHD. Registered healthcare professionals initiating medication for ADHD should:

• be familiar with the pharmacokinetic profiles of all the short and long-acting preparations available for ADHD.

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- ensure that treatment is tailored effectively to the individual needs of the child or young person.
- take account of variations in bioavailability or pharmacokinetic profiles of different preparations to avoid reduced effect or excessive adverse effects.

Initial dose and method of administration and supply

The specialist will be responsible for initiation, dose titration and stabilisation on medication.

Methylphenidate:

As per NICE guidance (NG87)¹ methylphenidate should be offered as the first line pharmacological treatment for children and young people with ADHD.

Modified-release preparations of methylphenidate are preferred because of their pharmacokinetic profile, convenience, improved adherence, reduced risk of drug diversion and the lack of need to be taken to school. Immediate-release preparations can be given when more flexible dosing regimens are required, or during initial dose titration. For younger children starting with immediate release methylphenidate may be more appropriate. A combination of a modified-release and immediate-release preparation taken at different times of the day can be used to extend the duration of effect. The magnitude, duration of effect, and side-effects of stimulants vary between patients.²

Dose by mouth using **immediate release** medicines²:

Child 6-17 years

Initially 5 mg 1–2 times a day, increased in steps of 5–10 mg daily if required, at weekly intervals, increased if necessary up to 60 mg daily in 2–3 divided doses, increased if necessary up to 2.1 mg/kg daily in 2–3 divided doses. The licensed maximum dose is 60 mg daily in 2–3 doses, higher dose (up to a maximum of 90 mg daily) under the direction of a specialist, discontinue if no response after 1 month. If effect wears off in evening (with rebound hyperactivity) a dose at bedtime may be appropriate (establish need with trial bedtime dose).

Treatment may be started using a modified-release preparation. When switching from immediate-release preparations to modified-release preparations—consult product literature. Please also refer to **Appendix 2**.

Lisdexamfetamine:

Consider switching to lisdexamfetamine if after a 6-week trial of methylphenidate (at an adequate dose) there has not been sufficient benefit observed, in terms of reduced ADHD symptoms and associated impairment¹.

Dose by mouth²:

Child 6-17 years

Initially 30 mg once daily, alternatively initially 20 mg once daily, increased in steps of 10–20 mg every week if required, dose to be taken in the morning, discontinue if response insufficient after 1 month. Maximum 70 mg per day.

Dexamfetamine:

Dexamfetamine can be considered for children & young people whose ADHD symptoms are responding to lisdexamfetamine, but who cannot tolerate the longer effect profile of the drug¹. Please note dexamfetamine is only licensed to treat ADHD in children and young people aged 6 to 17 years when response to methylphenidate is clinically inadequate. Dose by mouth²:

Child 6-17 years

Initially 2.5 mg 2–3 times a day, increased in steps of 5 mg once weekly if required, usual maximum 1 mg/kg daily, up to 20 mg daily (40 mg daily has been required in some children); maintenance dose to be given in 2–4 divided doses.

Maintenance Dose and Administration

See above.

Duration of therapy / How the treatment will be reviewed and if appropriate, stopped

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To establish continued need for medication a healthcare professional with training and expertise in managing ADHD should review the ADHD medication at least **once a year**. They should discuss with the person with ADHD (and their families and carers as appropriate) whether medication should be continued. The review should include a comprehensive assessment of the:

- preference of the child or young person with ADHD (and their family or carers as appropriate)
- benefits, including how well the current treatment is working throughout the day
- adverse effects
- clinical need and whether medication has been optimised
- impact on education and employment
- effects of missed doses, planned dose reductions and periods of no treatment
- effect of medication on existing or new mental health, physical health or neurodevelopmental conditions
- need for support and type of support (for example, psychological, educational, social) if medication has been optimised but ADHD symptoms continue to cause a significant impairment.

Patients with ADHD should be encouraged to discuss any preferences to stop or change medication and to be involved in any decisions about stopping treatments. Trials of treatment-free periods, or dose reductions should be considered where appropriate and be managed by the specialist. If the decision is made to continue medication, the reasons for this should be documented. Drug treatment should only be continued for as long as it is clinically effective. Children & young people should be monitored for effectiveness of treatment and side-effects, in addition to changes in sleep pattern, and the potential for stimulant diversion or misuse. If the child develops new, or has worsening of existing seizures, review drug treatment and stop any drug that might be contributing to the seizures; treatment can be cautiously reintroduced if it is unlikely to be the cause. Monitor children for the development of tics associated with stimulant use. If tics are stimulant related, consider a dose reduction, stopping treatment, or changing to a non-stimulant drug. If there is worsening of behaviour, consider adjusting drug treatment and reviewing the diagnosis.

When conducting treatment reviews the specialist will send a written summary of the consultation to the patient's GP.

The general tendency is for a very significant reduction in the need for continuation of pharmacotherapy towards the end of puberty.

Initial monitoring / baseline assessment – by specialist

Monitoring at baseline and during initiation is the responsibility of the specialist.

Baseline assessment:1

- Review to confirm the patient meets the criteria for ADHD and requires pharmacological treatment
- Review of patient's mental health and social circumstances, including:
 - > presence of coexisting mental health and neurodevelopmental conditions
 - current educational or employment circumstances
 - risk assessment for substance misuse and drug diversion
 - care needs
- Review of physical health, including;
 - medical history, taking into account conditions that may be contraindications for specific medicines.
 - > current medication
 - height and weight (measured and recorded against the normal range for age, height and sex)
 - auscultation of the heart, baseline pulse and blood pressure (measured with an appropriately sized cuff and compared with the normal range for age)
 - a cardiovascular assessment.

Monitoring during dose titration:1

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During the titration phase, ADHD symptoms, impairment and adverse effects should be recorded at baseline and **at each dose change** on standard scales by parents and teachers, and progress reviewed regularly (for example, by weekly telephone contact) with the specialist.

Height and **weight** should be monitored and plotted on a growth chart.

Monitor **heart rate** and **blood pressure** and compare with the normal range for age before and after each dose change. Reduce dose and refer to a paediatric hypertension specialist if a patient taking ADHD medication has;

- that have 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.

Additional monitoring:

- Monitor for psychiatric symptoms / disorders.
- Monitor levels of agitation, irritability and/or the occurrence of self-harming behaviour/suicidal thoughts.
- Monitor for the rare possibility of liver problems.
- Physical and CNS side effects during initiation and dose titration.

Annual review:1

A review with the specialist is required at least once a year to discuss whether medication should be continued. As the young person can 'grow out' of ADHD (secondary to neuro-developmental maturation or changes in circumstances). This review should include a comprehensive assessment of:

- preference of the child or young person with ADHD (and their family or carers as appropriate).
- benefits, including how well the current treatment is working throughout the day.
- adverse effects
- clinical need and whether medication has been optimised.
- impact on education and employment.
- effects of missed doses, planned dose reductions and periods of no treatment.
- effect of medication on existing or new mental health, physical health or neurodevelopmental conditions.
- need for support and type of support (for example, psychological, educational, social) if medication has been optimised but ADHD symptoms continue to cause a significant impairment.

Specialist monitoring responsibilities

See above - Initial monitoring / baseline assessment.

GP / Community Team or other Primary Care monitoring responsibilities

Primary care monitoring:1

- Measure height at least every 6 months in children and young people taking medication for ADHD.
- Measure weight at least every 3 months in children aged 10 years and under
- For children <u>over</u> 10 years and young people measure weight at 3 and 6 months after starting treatment, and then at least 6 monthly thereafter.
- Height and weight to be plotted on <u>growth chart</u>. If concerns arise, or any significant changes from baseline, this should be discussed with the specialist; please see box 'When is further assessment required?' RCPCH growth charts for general advice.
- Monitor heart rate and blood pressure and compare with the normal range for age every 6 months.
- Monitor for psychiatric symptoms / disorders.

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Alertness to possible side effects of medication emerging.

Consultant / Specialist prescribing responsibilities

The specialist is responsible for initiation, dose titration and stabilisation on medication for at least two consecutive consultations with **no change in dose**.

Transfer of monitoring and prescribing to primary care is normally after at least 12 weeks, and when the patient's dose has been optimised, and with satisfactory investigation results for at least 4 weeks.

The specialist will provide relevant age-appropriate information to the patient and their family/ carer about the risks and benefits of pharmacological treatment.

The specialist will ensure that the patient has an adequate supply of medication. Prescribers should be familiar with the requirements of controlled drug legislation governing the prescription and supply of stimulants.

GP prescribing responsibilities

To accept shared care when patient is on a 'stable' dose and evidence of benefit is stated. To prescribe treatment from the date specified by specialist.

Prescribers should be familiar with the requirements of controlled drug legislation governing the prescription and supply of stimulants.

Indications for referral back to Specialist

- Common side effects for class of medication, not responsive to (temporary) dose reduction.
- Uncommon, severe or unexpected side effects; this includes newly arising or worsening preexisting psychiatric co-morbidities.
- Lack of efficacy.
- If there are concerns or queries.

Further information and supporting documents

- 1. National Institute for Health and Care Excellence (NICE) Guideline NG87. Attention deficit hyperactivity disorder: diagnosis and management. [Updated13 September 2019]. Available from: Attention deficit hyperactivity disorder: diagnosis and management (nice.org.uk)
- 2. British National Formulary for Children (BNFC). Attention deficit hyperactivity disorder, treatment summary. [Updated 28/02/24]. Available from: Attention deficit hyperactivity disorder | Treatment summaries | BNFC | NICE
- Specialist Pharmacy Service. Considerations when prescribing modified-release methylphenidate. [Updated 23/11/23]. Available from: <u>Considerations when prescribing</u> <u>modified-release methylphenidate – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice</u>
- 4. Royal College of Paediatrics and Child Health. Growth charts. Available from: https://www.rcpch.ac.uk/resources/growth-charts

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Date of Approval	May 2024			
Reviewed by	Medicines Optimisation Team, NHS Norfolk & Waveney ICB.			

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Shared Care Agreement – Stimulants for Attention Deficit Hyperactivity Disorder (ADHD) in Children & Young People aged at least 6 years old.

Last review date	August 2022
Date of next review	May 2026

Appendix 1:

Normative data on Blood Pressure for normal children

		Boys			Boys Girls		
Age	Pulse rate/min	ВР	Systole 98%	Diastole 98%	ВР	Systole 98%	Diastole 98%
4	105	102/55	120	72	101/55	120	72
5	100	103/55	121	72	102/55	122	72
7	95	105/55	123	73	105/56	125	73
9	85	106/56	126	73	108/57	129	74
11	80	110/56	129	73	111/57	132	74
13	75	114/56	134	74	114/57	136	75
15	70	120/57	141	74	116/58	139	76
17	70	125/58	147	76	118/59	141	78

Appendix 2: Comparison of modified-release methylphenidate products³.

Product	Immediate- release/ modified- release %	Onset of action (hours)	Timing of second peak (hours)	Duration of action (hours)	Food requirement for dose administration
	Mod	ified-relea	se tablets		
Affenid XL tablets	22/78*	1 to 2	6 to 8	12	No
Concerta XL tablets	22/78	1 to 2	6 to 8	12	No
Delmosart tablets	25/75	1 to 2	6 to 8	12	No
Matoride XL tablets	22/78*	1 to 2	6 to 8	12	No
Xaggitin XL tablets	25/75	1 to 2	6 to 8	12	No
Xenidate XL tablets	22/78*	1 to 2	6 to 8	12	No
	Modif	ied-releas	e <u>capsules</u>	<u> </u>	
Equasym XL capsules	30/70	1 to 2	4.5	8	Take before breakfast
Medikinet XL capsules	50/50	1 to 2	3 to 4	8	Take with food
Meflynate XL capsules	50/50	1 to 2	4	8	No
Metyrol XL capsules	50/50	1 to 2	4	8	No

^{*}Manufacturers have not provided exact IR/MR ratio but confirms bioequivalent to the reference product.

Document history:

Version	Date	Author / Editor	Status	Comment
10.0	April 2024	Medicines Optimisation Team	Draft	Document restarted on new template. Title changed from 'Stimulants for ADHD and related disorders in Children aged at least 6 years old & Adolescents' to 'Stimulants for Attention Deficit Hyperactivity Disorder (ADHD) in Children & Young People aged at least 6 years old'. Addition of new products - Tranquilyn®, Affenid XL®, Meflynate XL®, and Metyrol XL®. Removed Elvanse Adult® formulation of Lisdexamfetamine from shared care as not licensed in children. Blood pressure data now Appendix 1. Comparison of modified-release methylphenidate products now Appendix 2. Previous appendices on side effects removed as most up to date information can be found in BNF and SPC. Cost comparison table removed considering supply national issues. Updated supporting information, included reference to SPS guidance 'Considerations when prescribing modified-release methylphenidate'.
10.1	May 2024	Medicines Optimisation Team	Draft	Addition of further information about weight monitoring and link to RCPCH growth charts; 'Height and weight to be plotted on growth chart. If concerns arise, or any significant changes from baseline, this should be discussed with the specialist; please see box 'When is further assessment required?' RCPCH growth charts for general advice.' Addition of advice from NICE regarding weight loss and growth; addition of strategies listed in NICE guidance.
10.2	May 2024	Medicines Optimisation Team	Final	Supported by TAG and ratified by Medicines Optimisation Programme Board

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