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| Methylphenidate Shared Care Guideline: Prescribing Agreement for Attention Deficit Hyperactivity Disorder in Children & Young People (6-18 years) |

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| **Section A: To be completed by the hospital specialist initiating the treatment** | | |
| **GP Practice Details:**  ***(IT add full GP address, practice code etc)*** | | **Patient Details: (IT add patient fields)** |
| **Specialist prescriber name:** ……………………………...... **Clinic name:**………………………………….  **Contact details**: Address:.........................................................................................................................  Tel no: ……………………………………… E-mail: …………………………… | | |
| **Diagnosis: (IT add latest diagnosis)** | **Medication name, dose and frequency to be prescribed by GP:** ………………………………………………. | |
| **Next hospital appointment:** | | |
| Dear Dr. …………………….,  Your patient was reviewed on *;* they started (insert medication name and dose) on  for the above diagnosis and in my view, their condition is now stable. I am requesting your agreement to sharing the care of this patient from  in accordance with the attached Shared Care Prescribing Guideline (approval date ). Please take particular note of the responsibilities for the specialist, GP and patient for this shared care arrangement are detailed.  Patient information has been given outlining potential aims and side effects of this treatment.  The patient has given me consent to treatment possibly under a shared care prescribing agreement (with your agreement) and has agreed to comply with instructions and follow up requirements.  Report all adverse effect of atomoxetine to the MHRA via the yellow card system.  .  The most recent investigations have been performed on  and are acceptable for shared care.  Please monitor:  Blood pressure, pulse, and weight every 6 months  For children 10 years and underweight every 3 months.  For children over 10 years weight at 3 and 6 months after starting treatment and every 6 months thereafter.  For signs of liver toxicity with atomoxetine.  Please re-refer the patient or seek specialist advice from the psychiatrist or paediatrician if there is deterioration in ADHD symptomatology, behaviour, evidence of suicidal ideation or adverse effects of medication.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Test** | **Baseline** | **Date** | **Current** | **Date** | | Blood pressure |  |  |  |  | | Pulse |  |  |  |  | | Weight (including centiles) |  |  |  |  | | Height (including centiles) |  |  |  |  |   Other relevant information: ………………………………………………………………………………………..  Specialist Signature: ………………………………………………Date: | | |

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# Methylphenidate Shared Care Guideline: Prescribing Agreement for Attention Deficit Hyperactivity Disorder in Children & Young People (6-18 years)

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| NOTES to the GP  The expectation is that these guidelines should provide sufficient information to enable GPs to be confident to take clinical and legal responsibility for prescribing this medicine.  The questions below will help you confirm this:   * Is the patient’s condition predictable or stable? * 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. Prescribe a maximum of 30 days at a time with a review date of every 6 months. Quantities should be supplied in line with pack size and local waste reduction program.  If the answer is NO to any of these questions, you should not accept prescribing responsibility. You should write to the specialist prescriber within 14 days, 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 CCG pharmacist will assist you in making decisions about shared care.  It would not normally be expected that a GP would decline to share prescribing on the basis of cost.  **The patient’s best interests are always paramount** |

Approved by: Integrated medicines committee (IMOC)

Approval date: 27th November 2024

Review Date: November 2026

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| **Methylphenidate for attention deficit hyperactivity disorder in** **Children & Young People (6-18 years)** | | |
| **Specialist prescriber responsibilities**   * Assess the patient and provide diagnosis; ensure that this diagnosis is within scope of this shared care protocol ([section 2](#Two_indications)) and communicated to primary care. * Use a shared decision-making approach; discuss the benefits and risks of the treatment with the patient and/or their carer and provide the appropriate counselling (see [section 11](#Eleven_advice_to_patients)) to enable the patient to reach an informed decision. Obtain and document consent. Provide an appropriate patient information leaflet. <https://www.choiceandmedication.org/swlstg-tr/printable-leaflets/patient-information-leaflets/91/ALL/> * Ensure the patient and/or their carer understands that treatment may be stopped if they do not attend for monitoring and treatment review * Assess for contraindications and cautions (see [section 4](#Four_cx_and_cautions)) and interactions (see [section 7](#Seven_interactions)). * Conduct required baseline investigations and initial monitoring (see [section 8](#Eight_specialist_monitoring)). * Initiate and optimise treatment as outlined in [section 5](#Five_dosing). Prescribe the maintenance treatment for at least 4 weeks and until optimised. * Prescribe in line with controlled drug prescription requirements (section 6). * Once treatment is optimised, complete the shared care documentation, and send to patient’s GP practice detailing the diagnosis, current and ongoing dose, any relevant test results and when the next monitoring is required. Include contact information ([section 13](#Thirteen_specialist_contact)). * Prescribe sufficient medication to enable transfer to primary care, including where there are unforeseen delays to transfer of care. * Conduct the scheduled reviews and monitoring in [section 8](#Eight_specialist_monitoring) and communicate the results to primary care. After a review, advise primary care whether treatment should be continued, confirm the ongoing dose, and whether the ongoing monitoring outlined in [section 9](#Nine_primary_care_monitoring) remains appropriate. * Determine the duration of treatment and frequency of review. After each review, advise primary care whether treatment should be continued, confirm the ongoing dose, and whether the ongoing monitoring outlined in [section 9](#Nine_primary_care_monitoring)remains appropriate. Trial discontinuations should be managed by the specialist. * Reassume prescribing responsibilities if a woman becomes or wishes to become pregnant. * Provide advice to primary care on the management of adverse effects if required.   **Primary care responsibilities**   * Respond to the request from the specialist for shared care in writing. It is asked that this be undertaken within 14 days of the request being made, where possible. * If shared care is accepted, prescribe ongoing treatment as detailed in the specialist’s request and as per section 5, taking into account any potential drug interactions in [section 7](#Seven_interactions). * Prescribe in line with controlled drug prescription requirements (section 6). * Adjust the dose of methylphenidate prescribed as advised by the specialist. * Conduct the required monitoring as outlined in [section 9](#Nine_primary_care_monitoring). Communicate any abnormal results to the specialist. * Assess for possible interactions with methylphenidate when starting new medicines (see section 7). * Manage any adverse effects as detailed in [section 10](#Ten_ADRs_and_Management) and discuss with specialist team when required. * Stop methylphenidate and make an urgent referral for appropriate care if cerebral ischaemia, new or worsening seizures, or serotonin syndrome are suspected. * Refer the management back to the specialist if the patient becomes or plans to become pregnant. * Stop treatment as advised by the specialist. Trial discontinuations should be managed by the specialist.   **Patient and/or carer responsibilities**   * Take methylphenidate as prescribed and avoid abrupt withdrawal unless advised by their prescriber. * Attend regularly for monitoring and review appointments with primary care and specialist and keep contact details up to date with both prescribers. Be aware that medicines may be stopped if they do not attend. * Report adverse effects to their primary care prescriber. Seek immediate medical attention if they develop any symptoms as detailed in [section 11](#Eleven_advice_to_patients). * Report the use of any over the counter medications (OTC) to their primary care prescriber and be aware they should discuss the use of methylphenidate with their pharmacist before purchasing any OTC medicines. * Methylphenidate is subject to drug driving laws. Not to drive, cycle or operate machines if methylphenidate affects their ability to do so safely, e.g. by causing dizziness, drowsiness and visual disturbances and to inform the DVLA if their ability to drive safely is affected. See <https://www.gov.uk/adhd-and-driving> and [section 11](#Eleven_advice_to_patients). * Avoid alcohol during treatment, as it may make some side effects worse. Avoid recreational drugs. * Methylphenidate is a schedule 2 controlled drug. Patients may be required to prove their identity when collecting prescriptions and should store methylphenidate safely and securely. It must not be shared with anyone else. * Patients of childbearing potential should take a pregnancy test if they think they could be pregnant and inform the specialist or GP immediately if they become pregnant or wish to become pregnant. | | |
| **1. Background** [Back to top](#Responsibilities) | | |
| Methylphenidate is a central nervous system stimulant licensed as part of a comprehensive treatment programme for attention deficit hyperactivity disorder (ADHD). It may be offered as a first line pharmacological treatment option for adults with ADHD who have been appropriately diagnosed (see NICE Guidance [NG87 Attention deficit hyperactivity disorder: diagnosis and management](https://www.nice.org.uk/guidance/ng87/chapter/Recommendations)). NICE recommends that people with ADHD have a comprehensive, holistic shared treatment plan that addresses psychological, behavioural, and occupational or educational needs.  Methylphenidate is available as immediate-release tablets and modified-release tablets and capsules. The modified-release preparations contain both immediate-release and prolonged-release methylphenidate, and different brands have different proportions of each. Brands may therefore vary in their release characteristics and clinical effect. Modified-released preparations should therefore be prescribed by brand name.  Methylphenidate is a schedule 2 controlled substance; all legal requirements for prescribing controlled drugs should be followed. A maximum of 30 days’ supply for Lisdexamfetamine should be prescribed. See NICE Guidance [NG46 Controlled drugs: safe use and management](https://www.nice.org.uk/guidance/ng46/chapter/Recommendations).  The safety and efficacy of long-term use of methylphenidate has not been systematically evaluated in controlled trials. Patients should be reviewed for ongoing need at least annually, and the manufacturers recommend a trial discontinuation at least once yearly to assess the patient’s condition.  Where a person with ADHD is treated by a Child and Adolescent Mental Health Service (CAMHS) but is approaching their 18th birthday, it is expected that CAMHS will refer to the appropriate adult service if need for ongoing treatment is anticipated. | | |
| **2. Indications** [Back to top](#Responsibilities) | | |
| As part of a comprehensive treatment programme for attention-deficit hyperactivity disorder (ADHD).  Methylphenidate is indicated as a first line treatment as part of a comprehensive treatment programme for Attention Deficit Hyperactivity Disorder (ADHD) in children aged 6 years of age and over and adults when remedial measures alone prove insufficient. | | |
| **3. Locally agreed off-label use** [Back to top](#Responsibilities) | | |
| The South West London Integrated Medicines Optimisation Committee recommended the use of this document for the indications as outlined above.  The following information should be provided in correspondence to support prescribing in line with this shared care.   * Dosing specific to the indication * Relevant interaction information * Any additional monitoring requirements over and above the shared care. * Duration of treatment * Frequency of review * Specific features of adverse effects or deterioration pertinent to the specific indication for which it is used | | |
| **4. Contraindications and cautions** [Back to top](#Responsibilities)  This information does not replace the Summary of Product Characteristics (SPC), and should be read in conjunction with it. Please see [BNF](https://bnf.nice.org.uk/drug/ciclosporin.html) & [SPC](https://www.medicines.org.uk/emc/search?q=ciclosporin) for comprehensive information. | | |
| **Contraindications:**Hypersensitivity to methylphenidate or to any of the excipientsGlaucomaPhaeochromocytomaDuring treatment with non-selective, irreversible monoamine oxidase (MAO) inhibitors, or within a minimum of 14 days of discontinuing those drugs, due to the risk of hypertensive crisisHyperthyroidism or thyrotoxicosisDiagnosis or history of severe depression, anorexia nervosa/anorexic disorders, suicidal tendencies, psychotic symptoms, severe mood disorders, mania, schizophrenia, psychopathic/borderline personality disorder.Diagnosis or history of severe and episodic (Type I) bipolar (affective) disorder (that is not well-controlled).Certain pre-existing cardiovascular disorders constitute contraindications unless specialist cardiac advice is obtained and documented. These include severe hypertension, heart failure, arterial occlusive disease, angina, haemodynamically significant congenital heart disease, cardiomyopathies, myocardial infarction, potentially life-threatening arrhythmias, disorders caused by the dysfunction of ion channels, and structural cardiac abnormalities.Pre-existing cerebrovascular disorders cerebral aneurysm, vascular abnormalities including vasculitis or stroke.Medikinet XL only: history of pronounced anacidity of the stomach with a pH value above 5.5, or during therapy with H2 receptor blockers, proton pump inhibitors or antacids. **Cautions:**   * Family history of sudden cardiac or unexplained death, malignant arrhythmia. * Cardiovascular status should be carefully monitored (see [section 9](file:///C:\Users\Esther-Njane\Downloads\B1621_vii_methylphenidate-in-adult-services.docx#Nine_primary_care_monitoring) & [section 10](file:///C:\Users\Esther-Njane\Downloads\B1621_vii_methylphenidate-in-adult-services.docx#Ten_ADRs_and_Management)) * Underlying conditions which might be compromised by increases in blood pressure or heart rate. * Known drug or alcohol dependency or misuse of central nervous system (CNS) stimulants: potential for abuse, misuse or diversion. * Alcohol consumption (not recommended during treatment) * Epilepsy: may lower seizure threshold * Psychiatric and neuropsychiatric symptoms or disorders, including manic or psychotic symptoms, aggressive or hostile behaviour, motor or verbal tics (including Tourette’s syndrome), anxiety, agitation or tension, depressive symptoms, bipolar disorder. * Renal or hepatic insufficiency (due to lack of data) * Leukopenia, thrombocytopenia, anaemia, or other haematological abnormalities. * Prolonged-release tablets only: severe narrowing of the gastrointestinal tract or dysphagia; risk of obstruction * Safety and efficacy has not been established in patients older than 60 years of age. * Susceptibility to open-angle glaucoma. * Pregnancy or breast-feeding (see [section 12](file:///C:\Users\Esther-Njane\Downloads\B1621_vii_methylphenidate-in-adult-services.docx#Twelve_pregnancy_paternity)) * Potential for abuse, misuse, or diversion. | | |
| **5. Initiation and ongoing dose regime** [Back to top](#Responsibilities)   * Transfer of monitoring and prescribing to primary care is 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 duration of treatment & frequency of review will be determined by the specialist, based on clinical response and tolerability. * All dose or formulation adjustments will be the responsibility of the initiating specialist unless directions have been discussed and agreed with the primary care clinician. * Termination of treatment will bethe responsibility of the specialist. | | |
| **Initial stabilisation (must be prescribed by the initiating specialist):**  **Recommended starting dose in ADHD**:   * Immediate release tablets: 5 mg, given 2 times daily (e.g. at breakfast and lunch) * Modified release tablets: 18 mg daily, given in the morning. * Modified release capsules: 10mg once daily in the morning   The dose of methylphenidate should be titrated to response, usually at weekly intervals.  **Maintenance dose (following initial stabilisation:**  The dose of methylphenidate should be titrated to response, usually at weekly intervals.  **Maximum dose in ADHD:**   * **Modified release tablets:** up to 54mg/day (unlicensed max 108 mg/day) * **Modified release capsules**: up to 60 mg/day (unlicensed max 90mg/day)   Unlicensed doses under the direction of a specialist; discontinue if no response after 6 weeks.  [BAP Evidence-based guidelines for the pharmacological treatment of ADHD 2014](https://www.bap.org.uk/pdfs/BAP_Guidelines-AdultADHD.pdf) [Banaschewski T. et al 2006](https://www.ncbi.nlm.nih.gov/pubmed/16680409)  **Immediate release tablets:** Initiate at 5mg OD or BD; increase dosage, if necessary, weekly, by increments of 5-10mg per day in divided doses (usually at intervals of 3-4 hours).  **Modified release preparations capsules:**  May be given as a single dose in the morning or in divided doses in the morning and at midday, depending on brand.  NB: Modified-released preparations vary in their release characteristics and **must be prescribed by brand name**. These products contain different amounts of immediate release and modified release quantities. The following products are bioequivalent in each type group.  **Type 1:** These products last for **12 hours**, the following are bioequivalent:  Affenid XL® (22/78): 18mg, 27mg, 36mg, 54mg  Concerta XL® (22/78): 18mg, 27mg, 36mg, 54mg  Delmosart XL® (25/75): 18mg, 27mg, 36mg, 54mg  Matoride XL®(22/78): 18mg, 36mg, 54mg  Xaggitin XL® (25/75): 18mg, 27mg, 36mg, 54mg  Xenidate XL® (22/78): 18mg, 27mg, 36mg, 54mg  Initiate at 18mg daily; increase dose gradually according to needs and response of the patient. maximum licensed dose 54mg per day (max 108mg daily unlicensed).  **Type 2:** These product last for **8 hours** (no bioequivalent)  Equasym XL®: 10mg, 20mg, 30mg  **Type 3:** These product last for **8 hours** the following are bioequivalent:  Medikinet XL®▼(50/50):: 5mg, 10mg, 20mg, 30mg, 40mg, 50mg, 60mg  Meflynate XL®(50/50: 10mg, 20mg, 30mg, 40mg, 50mg, 60mg  Metyrol XL®(50/50: 10mg, 20mg, 30mg, 40mg, 50mg, 60mg  Ritalin XL®(50/50: 10mg, 20mg, 30mg, 40mg, 60mg  Please consult the relevant [SPC](https://www.medicines.org.uk/emc/search?q=methylphenidate) for brand-specific licensing information**.**  See the following PDF for methylphenidate product appearance fact sheet    **Conditions requiring dose adjustment:**   * Consider trial periods of stopping medication or reducing the dose when assessment of the overall balance of benefits and harms suggests this may be appropriate. * Discontinue treatment periodically (usually annually), or if no improvement. Treatment holidays may not give optimal therapeutic outcomes but may be still used where there is a preference of family/carers * If symptoms fail to improve despite 6 weeks of methylphenidate at a maximum tolerated dose, consider alternative treatments.   To stop when there is   * significant tachycardia, hypertension, palpitations, or arrhythmias * Neuroleptic Malignant Syndrome (Fever, diaphoresis, rigidity, confusion. Elevated: CK, leucocytosis & LFTs. Fluctuating consciousness, BP & tachycardia * Increase in convulsions.   This should be undertaken and supervised by the specialist who will advise the patient and primary care prescriber of the outcome. | | |
| **6. Pharmaceutical aspects** [Back to top](#Responsibilities) | | |
| Route of administration: | Oral | |
| Formulation: | Methylphenidate hydrochloride.  **Standard release tablets:**  Medikinet®: 5mg, 10mg, 20mg  Methylphenidate hydrochloride (generic): 5mg, 10mg, 20mg  Ritalin®: 10mg  Tranquilyn®: 5mg, 10mg, 20mg  Brand name prescribing is not necessary for standard release tablets.  **Modified-released tablets:** preparations vary in their release characteristics and **must be prescribed by brand name.** The specialist must specify the brand to be prescribed.  Type 1:  Delmosart®: 18mg, 27mg, 36mg, 54mg  Xenidate XL®: 18mg, 27mg, 36mg, 54mg  Xaggitin XL®: 18mg, 27mg, 36mg, 54mg  Matoride XL®: 18mg, 36mg, 54mg  Concerta XL®: 18mg, 27mg, 36mg, 54mg  Affenid XL®: 18mg, 27mg, 36mg, 54mg  Type 2:  Equasym XL®: 10mg, 20mg, 30mg  Type 3:  Medikinet XL®▼: 5mg, 10mg, 20mg, 30mg, 40mg, 50mg, 60mg  Meflynate XL®: 10mg, 20mg, 30mg, 40mg, 50mg, 60mg  Metyrol XL®: 10mg, 20mg, 30mg, 40mg, 50mg, 60mg | |
| Administration details: | Methylphenidate can be taken with or without food, but patients should standardise which method is chosen. Administration requirements vary by formulation and brand. Some brands e.g., Medikinet XL if administered without food can have a risk of dose dumping, therefore should be administered with food. Meflynate XL and Metyrol XL are not affected by food.  Methylphenidate capsules (**Medikinet XL**® and **Equasym XL** ®) can be opened and sprinkled on a small amount of soft food for administration. If taken with high fat content food delays absorption by approximately 1.5 hours.  Prolonged release methylphenidate **Delmosart XL®** prolonged-release tablet, **Xaggitin** **XL®, Affenid XL®, Xenidate XL®** and **Concerta XL®)** should be to be swallowed whole not to be chewed, crushed, or broken. The tablet shell is eliminated from the body; children/adolescents and carers should be advised not to be concerned if they occasionally notice something that looks like a tablet in their stools.  If a dose is missed, then the next scheduled dose should be taken as usual; a double dose should not be taken to make up for a missed dose.  [handyfactsheetadhdformsuk.pdf (choiceandmedication.org)](https://www.choiceandmedication.org/swlstg-tr/generate/handyfactsheetadhdformsuk.pdf)  The last dose should, in general, not be given within 4 hours before bedtime to prevent disturbances in falling asleep. However, if the effect of the drug wears off too early in the evening, disturbed behaviour and/or inability to go to sleep may recur. A small evening dose may help to solve this problem. The pros and cons of a small evening dose versus disturbances in falling asleep should be considered. | |
| Other important information: | * Methylphenidate is a schedule 2 controlled drug and is subject to [legal prescription requirements](https://bnf.nice.org.uk/guidance/controlled-drugs-and-drug-dependence.html). It has the potential for misuse and diversion. Maximum of 30 days’ supply for schedule 2 Controlled Drugs (CDs) * Risk of misuse can be reduced by using modified-release preparations. * Alcohol may exacerbate CNS adverse effects of methylphenidate and should be avoided during use. * Methylphenidate may cause false positive laboratory test results for amphetamines. * The choice of formulation will be decided by the treating specialist on an individual basis and depends on the intended duration of effect. | |
| **7. Significant medicine interactions** [Back to top](#Responsibilities)  The following list is not exhaustive. Please see [BNF](https://bnf.nice.org.uk/drug/ciclosporin.html) or [SPC](https://www.medicines.org.uk/emc/search?q=ciclosporin) for comprehensive information and recommended management. | | |
| * **Monoamine oxidase inhibitors (MAOIs**): risk of hypertensive crisis. The combination should be avoided, and use of methylphenidate and MAOIs should be separated by at least 14 days * **Coumarin anticoagulants, anticonvulsants (e.g. phenobarbital, phenytoin, primidone), selective serotonin reuptake inhibitors (SSRIs) and tricyclic antidepressants**: metabolism may be inhibited by methylphenidate. Dose adjustment may be required when starting or stopping methylphenidate. * **Anti-hypertensive drugs:** effectiveness may be reduced by methylphenidate * **Other drugs which elevate blood pressure**: risk of additive effects (e.g. linezolid) * **Alcohol**: may exacerbate adverse CNS effects of methylphenidate * **Serotonergic drugs**, including SSRIs and MAOIs: increased risk of central nervous system (CNS) adverse effects, risk of serotonin syndrome * **Halogenated anaesthetics:** risk of sudden blood pressure increase during surgery. Avoid methylphenidate on the day of planned surgery. * **Dopaminergic drugs, including antipsychotics:** increased risk of pharmacodynamic interactions including dyskinesias or hypertensive crisis (e.g. risperidone, paliperidone, selegiline, rasagiline) * **Apraclonidine:** effects decreased by methylphenidate. * **Carbamazepine**: may decrease methylphenidate levels * **Ozanimod:** may increase risk of hypertensive crisis | | |
| **8. Baseline investigations, initial monitoring, and ongoing monitoring to be undertaken by specialist prescriber.**  Monitoring at baseline and during initiation is the responsibility of the specialist; only once the patient is optimised on the chosen medication with no anticipated further changes expected in immediate future will prescribing and monitoring be transferred to primary care. [Back to top](#Responsibilities) | | |
| **Baseline investigations:**   * A medical history and cardiovascular assessment, taking into account conditions that may be contraindications, risk of pregnancy (where applicable), and to ensure the patient meets the criteria for ADHD and that pharmacological treatment is required. * Risk assessment for substance misuse and drug diversion * Height, weight, and body mass index (BMI) * Blood pressure (BP) and heart rate * Arrange for electrocardiogram (ECG), only if the patient has any of the following: * History of congenital heart disease or previous cardiac surgery * Sudden death in a first-degree relative under 40 years suggesting a cardiac disease. * Shortness of breath on exertion compared with peers. * Fainting on exertion or in response to fright or noise * Palpitations * Chest pain suggestive of cardiac origin * Signs of heart failure, heart murmur or hypertension * Current treatment with a medicine that may increase cardiac risk   **Initial monitoring:**   * Before every change of dose: assess heart rate, blood pressure, and weight. * After every change of dose: assess heart rate and blood pressure, and any new or worsening psychiatric symptoms. The specialist should determine the appropriate timing for this monitoring. * Assessment of symptom improvement. Discontinue if no improvement is observed after one month.   **Ongoing monitoring (ADHD):**   * Ensure the patient receives a review at least annually with a healthcare professional with training and expertise in managing ADHD. This may be in primary or secondary care, depending on local arrangements, and should include a review of ADHD medication, including patient preferences, benefits, adverse effects, and ongoing clinical need. Consider trial periods of stopping medication or reducing the dose when assessment of the overall balance of benefits and harms suggests this may be appropriate. If continuing medication, document the reasons why. * Review outcomes should be communicated to the primary care prescriber in writing, with any urgent changes also communicated by telephone.   When a patient is reviewed, advise primary care whether treatment should be continued, confirm the ongoing dose, and whether the ongoing monitoring outlined in [section 9](#Nine_primary_care_monitoring) remains appropriate. | | |
| **9. Ongoing monitoring (ADHD)**   * Ensure the patient receives a review at least annually with a healthcare professional with training and expertise in managing ADHD. This in southwest London will be carried out by secondary care specialists, and should include a review of ADHD medication, including patient preferences, benefits, adverse effects, and ongoing clinical need. Consider trial periods of stopping medication or reducing the dose when assessment of the overall balance of benefits and harms suggests this may be appropriate. If continuing medication, document the reasons why. * Review outcomes should be communicated to the primary care prescriber in writing with any changes.   [Back to top](#Responsibilities)  See [section 10](#Ten_ADRs_and_Management) for further guidance on management of adverse effects/responding to monitoring results. | | |
| **Monitoring** | | **Frequency** |
| * Blood pressure and heart rate, and assessment for cardiovascular signs or symptoms * Height, Weight and appetite * Assessment for new or worsening psychiatric and neurological signs or symptoms (e.g. tics, anxiety, symptoms of bipolar disorder) * Explore whether patient is experiencing any difficulties with sleep | | * Blood pressure & pulse every 6 months. * For children 10 years and under weight every 3 months. * For children over 10 years weight at 3 and 6 months after starting treatment and every 6 months thereafter, and after any change of dose recommended by specialist team. * Height and weight should be plotted on a growth chart which are available through the RCPCH website   <https://www.rcpch.ac.uk/resources/growth-charts> |
| Additional relevant investigations (e.g. ECG if family history of arrhythmias or sudden death or if the treatment may affect the QT interval). | | Annually, and after any change of dose recommended by specialist team. |
| Assessment of adherence, and for any  indication of methylphenidate abuse,  misuse, or diversion. | | As required, based on the patient’s needs and individual circumstances |
| Review to ensure patient has been offered and attended an annual review with a healthcare professional with expertise in ADHD. | | Annually |
| **10. Adverse effects and other management** [Back to top](#Responsibilities)  **Any serious adverse reactions should be reported to the MHRA via the Yellow Card scheme. Visit** [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard)  For information on incidence of ADRs see relevant summaries of product characteristics | | |
| **Result** | | **Action for primary care** |
| **As well as responding to absolute values in laboratory tests, a rapid change or a consistent trend in any value should prompt caution and extra vigilance** | | |
| **Cardiovascular**  Resting HR greater than 120bpm, arrhythmia/palpitations, clinically significant increase in systolic BP · | | * In context of recent dose increase, revert to previous dose and discuss with specialist for ongoing management. * In absence of recent dose changes, reduce dose by half and discuss with specialist or cardiology for further advice. |
| **Weight or BMI outside healthy range**  anorexia or weight loss | | Exclude other reasons for weight loss. Give advice as per NICE NG87:   * take medication with or after food, not before. * 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   Discuss with specialist if difficulty persists; dose reduction, treatment break, or change of medication may be required. |
| **Haematological disorders**  Including leukopenia, thrombocytopenia, anaemia, or other alterations NB: no haematological monitoring is  recommended. Haematological disorders  would be a chance finding/due to patient.  reporting adverse drug reactions. | | Contact specialist team. Discontinuation should be considered. Referral to haematology may be warranted; use clinical discretion. |
| **Psychiatric disorders**  New or worsening psychiatric symptoms, e.g. psychosis, mania, aggressive or hostile behaviour, suicidal ideation or behaviour, motor or verbal tics (including Tourette’s  syndrome), anxiety, agitation or tension, bipolar disorder, depression | | Discuss with specialist. Stop treatment and consider referral to acute mental health team if suicidal thoughts, mania, or psychosis are present Methylphenidate should not be continued unless the benefits outweigh the risks. |
| **Nervous system disorder**  Symptoms of cerebral ischaemia, e.g. severe headache, numbness, weakness, paralysis, and impairment of coordination, vision, speech, language or memory | | Discontinue methylphenidate, refer urgently for neurological assessment |
| New or worsening seizures | | Discontinue methylphenidate. Discuss with specialist team |
| Symptoms of serotonin syndrome, e.g.  agitation, hallucinations, coma, tachycardia,  labile blood pressure, hyperthermia,  hyperreflexia, incoordination, rigidity, nausea,  vomiting, diarrhoea | | Discontinue methylphenidate as soon as possible. Management depends on severity; use clinical judgement and seek advice if necessary. Discuss with specialist team to determine whether methylphenidate can be re-started. |
| Insomnia or other sleep disturbance | | **Review timing of methylphenidate dose and advise as appropriate. Give advice on sleep hygiene. Discuss with specialist if difficulty persists; dose reduction may be required** |
| Suspicion of abuse, misuse, or diversion | | Discuss with specialist team |
| **11. Advice to patients and carers** [Back to top](#Responsibilities)  The specialist will counsel the patient with regard to the benefits and risks of treatment and will provide the patient with any relevant information and advice, including patient information leaflets on individual medicines. | | |
| **The patient should be advised to report any of the following signs or symptoms to their primary care prescriber without delay:**   * Abnormally sustained or frequent and painful erections: seek immediate medical attention. * Signs or symptoms of serotonin syndrome (e.g., agitation, hallucinations, coma, tachycardia, labile blood pressure, hyperthermia, hyperreflexia, incoordination, rigidity, nausea, vomiting, diarrhoea) * Any mood changes, for example. psychosis, mania, aggressive or hostile behaviour, suicidal ideation or behaviour, motor or verbal tics (including Tourette’s syndrome), anxiety, agitation or tension, anxiety, depression. * New or worsening neurological symptoms (e.g. severe headache, numbness, weakness, paralysis, and impairment of coordination, vision, speech, language or memory) * Abdominal pain, malaise, jaundice or darkening of urine. * Skin rashes, or bruising easily * If they suspect, they may be pregnant or are planning a pregnancy. Patients of childbearing potential should use appropriate contraception and take a pregnancy test if they think there is a possibility, they could be pregnant.   **The patient should be advised:**   * Attend regularly for monitoring and review appointments with primary care and specialist and keep contact details up to date with both prescribers. It may not be safe to continue prescribing without regular review, and patients should be aware that their medicines could be stopped if they do not attend appointments. * Methylphenidate is subject to drug driving laws. Not to drive, cycle or operate machines if methylphenidate affects their ability to do so safely, e.g. by causing dizziness, drowsiness and visual disturbances and to inform the DVLA if their ability to drive safely is affected. See <https://www.gov.uk/adhd-and-driving> and [section 11](#Eleven_advice_to_patients). * Avoid alcohol while taking methylphenidate, as it may make side effects worse. Avoid recreational drugs. * Not to stop taking methylphenidate without talking to their doctor. * Medical supervision of withdrawal is required since this may unmask depression or chronic over-activity. · Methylphenidate is a schedule 2 controlled drug. Patients may be required to prove their identity when collecting prescriptions and should store methylphenidate safely and securely. It must not be shared with anyone else. There are restrictions on travelling with controlled drugs: see <https://www.gov.uk/guidance/controlled-drugs-personal-licences>   **Patient and carer information:**   * [» Attention Deficit Hyperactivity Disorder (choiceandmedication.org)](https://www.choiceandmedication.org/swlstg-tr/condition/attention-deficit-hyperactivity-disorder/) * [ADHD and Mental Health | Signs and Symptoms of ADHD | YoungMinds](https://www.youngminds.org.uk/young-person/mental-health-conditions/adhd-and-mental-health/) * NHS – attention deficit hyperactivity disorder. <https://www.nhs.uk/conditions/attention-deficit-hyperactivity-disorder-adhd> * ADHD support groups [Support Groups | The UK ADHD Partnership](https://www.ukadhd.com/support-groups.htm) * [Patient leaflets | BMJ Best Practice](https://bestpractice.bmj.com/patient-leaflets?) * [ADHD and hyperkinetic disorder for parents | Royal College of Psychiatrists (rcpsych.ac.uk)](https://www.rcpsych.ac.uk/mental-health/parents-and-young-people/information-for-parents-and-carers/ADHD-and-hyperkinetic-disorder-information-for-parents)   Patient information leaflets are also available from [Search Results - (emc) (medicines.org.uk)](https://www.medicines.org.uk/emc/search?q=%22Methylphenidate%22)  **ADHD resources for children and young people, parents/carers and primary care professionals**  Working with the ADHD Foundation, we have launched new set of booklets for children, teenagers and their parents and carers. There are three separate booklets, each of which has a different focus:  • The children’s booklet is an interactive guide with 20 fun activities for children to help them focus, manage their emotions, and succeed  • The teenager’s booklet is a guide and workbook with information and activities to support teenagers living with ADHD  • The parents/carers booklet is an information and resource guide for parents and carers of children and young people with ADHD and may also be useful for health professionals including those working in primary care.  All three booklets are available to share and download on the website: <https://www.transformationpartnersinhealthandcare.nhs.uk/cyp-adhd-resources> | | |
| **12. Pregnancy, paternal exposure and breast feeding** [Back to top](#Responsibilities)  It is the responsibility of the specialist to provide advice on the need for contraception to male and female patients on initiation and at each review, but the ongoing responsibility for providing this advice rests with both the primary care prescriber and the specialist. | | |
| **Pregnancy:**  Methylphenidate is not recommended for use during pregnancy unless a clinical decision is  made that postponing treatment may pose a greater risk to the pregnancy.  Evidence on exposure to methylphenidate during pregnancy is too limited to draw firm conclusions on adverse outcomes. Clinicians should be aware that patients may have other risk factors which independently alter the risks. Patients who become pregnant while taking methylphenidate, or who plan a pregnancy, should be referred to the specialist team for review. The specialist will reassume prescribing responsibility, ending the shared care agreement. Healthcare professional information available from: <https://www.medicinesinpregnancy.org/bumps/monographs/>  USE-OF-METHYLPHENIDATE-IN-PREGNANCY/ Patient information available from: <https://www.medicinesinpregnancy.org/Medicine--pregnancy/Methylphenidate/>  **Breastfeeding:**  Breastfeeding: Methylphenidate has been found in breast milk in small amounts. Evidence for safety in breastfeeding is limited. Decisions to use while breastfeeding should be made on a case-by-case basis, taking into account the risks to the infant and benefits of therapy. Infants should be monitored for symptoms of CNS stimulation (e.g. decreased appetite/weight gain, sleep disturbances, irritability), although these may be difficult to detect. High doses may interfere with lactation, although this is not confirmed in practice. Healthcare professional information available from: <https://www.sps.nhs.uk/articles/safety-in-lactation-drugs-for-adhd/>  **Paternal exposure**:  No evidence regarding adverse outcomes following paternal exposure was identified. Further information for patients: bumps - best use of medicine in pregnancy (medicinesinpregnancy.org) | | |
| **13. Specialist prescribers contact information** [Back to top](#Responsibilities) | | |
| Name: *insert name*  Role and specialty: *insert role and speciality*  Daytime telephone number: *insert daytime telephone number*  Email address: *insert email address*  Alternative contact: *insert contact information, e.g. for clinic or specialist nurse*  Out of hours contact details: *insert contact information, e.g. for duty doctor* | | |
| **14. Additional information** [Back to top](#Responsibilities) | | |
| Where patient care is transferred from one specialist service or GP practice to another, a new shared care agreement must be completed. Ensure that the specialist is informed in writing of any changes to the patient’s GP or their contact details. | | |
| **15. References** [Back to top](#Responsibilities) | | |
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Accessed via <https://www.sps.nhs.uk/articles/safety-in-lactation-drugs-for-adhd/> on 21/11/2022 * Specialist Pharmacy Service. Considerations when prescribing modified-release methylphenidate. [Considerations when prescribing modified-release methylphenidate – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice](https://www.sps.nhs.uk/articles/considerations-when-prescribing-modified-release-methylphenidate/). Published 16th November Last updated 23 November 2023 * NICE Clinical Knowledge Summaries. Attention deficit hyperactivity disorder: Methylphenidate. Updated October 2022. Accessed via [Methylphenidate | Prescribing information | Attention deficit hyperactivity disorder | CKS | NICE](https://cks.nice.org.uk/topics/attention-deficit-hyperactivity-disorder/prescribing-information/methylphenidate/) on 21/11/2022. * Home Office. Guidance: List of most commonly encountered drugs currently controlled under the misuse of drugs legislation. 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DOI: 10.1177/0269881113519509 * Shared care protocols guanfacine accessed via [NHS England » Shared Care Protocols](https://www.england.nhs.uk/medicines-2/regional-medicines-optimisation-committees-advice/shared-care-protocols/#list) on 21/11/2022 | | |
| **16. Other relevant national guidance** | | |
| * Shared Care for Medicines Guidance – A Standard Approach (RMOC). Available from <https://www.sps.nhs.uk/articles/rmoc-shared-care-guidance/> * NHSE policy – Responsibility for prescribing between primary & secondary/tertiary care. Available from <https://www.england.nhs.uk/publication/responsibility-for-prescribing-between-primary-and-secondary-tertiary-care/> * General Medical Council. Good practice in prescribing and managing medicines and devices. Shared care. Available from <https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/good-practice-in-prescribing-and-managing-medicines-and-devices/shared-care> * NICE NG197: Shared decision making. Last updated June 2021. <https://www.nice.org.uk/guidance/ng197/>. | | |
| **17. Local arrangements for referral** [Back to top](#Responsibilities)  Define the referral procedure from hospital to primary care prescriber & route of return should the patient’s condition change. | | |
| Shared care from hospital to primary care  Primary care to hospital – Urgent referrals mental health crisis line or A&E out of hours. For routine/non-urgent referrals contact local CAMHs team. | | |
| **18. Communication**  Please note that the clinical letter received from the specialist prescriber/ team should have the relevant contact details. If this is not provided you may find the following, contact details useful.  **Medicines Information Services**   * South West London and St Georges Mental Health Hospital: Tel. 020 3513 6829 * South London and Maudsley (SLAM): Tel. 020 3228 2317 * Georges Hospital medicines helpline: Tel. 020 872 51033 * Kingston Hospital medicines helpline: Tel. 020 85467711 ext.2092 * Epsom and St Helier Trust medicines helpline: Tel.020 872 51033 | | |