NHS Grampian

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Date: 9th November 2023
Our Ref: JA/nhsgADHDp/MGPG805
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Dear Colleagues

This guidance is currently under review by the author.

NHS Grampian staff prescribing guidance for attention deficit hyperactivity disorder (ADHD) in children and adolescents – Version 3

This document has been risk assessed by the author and deemed appropriate to be used during this review period. A copy of the risk assessment can be provided on request.

It has been noted that as part of this review process patient pathways and monitoring is under discussion. Clinicians referring to this document, who are recommending medicines or prescribing for individual patients must ensure all relevant monitoring has been discussed and it has been agreed who will be undertaking this element of care.

If you have any queries regarding this, please do not hesitate to contact the Medicines Guidelines and Policy Group (MGPG) email at gram.mgpg@nhs.scot

Yours sincerely

Lesley Coyle
Chair of Medicines Guidelines and Policy Group (MGPG), NHSG

NHS Grampian

Mental Health

NHS Grampian Staff Prescribing Guidance for Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents

Lead Author/Co-ordinator:	Consultation Group:	Approver:
Child and Adolescent Mental Health Service Consultant	Clinical Director and Associate Medical Director of Mental Health and Learning Disability Service, NHS Grampian Mental Health Operational Medicines Management Group	Medicine Guidelines and Policies Group
Signature:	**Signature:**	**Signature:**

Identifier:	Review Date:	Date Approved:
NHSG/RxGuid/ADHDp/ MGPG805	July 2019	July 2016

Uncontrolled when printed

Version 3

Executive Sign-Off

This document has been endorsed by the Director of Pharmacy and Medicines Management

Signature: _____

This document is also available in large print and other formats and languages, upon request. Please call NHS Grampian Corporate Communications on (01224) 551116 or (01224) 552245.

Title:	NHS Grampian staff prescribing guidance for attention deficit hyperactivity disorder (ADHD) in children and adolescents
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Process Document: Policy, Protocol, Procedure or Guideline	(Prescribing guidance) Protocol
Document application:	NHS Grampian
Purpose/description:	This document provides guidance on the prescribing of medication used for the treatment of ADHD, including responsibilities of care for specialists and for GPs
Group/Individual responsible for this document:	Mental Health Operational Medicines Management Group
Policy statement:	It is the responsibility of all staff to ensure that they are working to the most up to date and relevant policies, protocols procedures.

Responsibilities for ensuring registration of this document on the NHS Grampian Information/ Document Silo:

Lead Author/Co-ordinator:	Mental Health Operational Medicines Management Group
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Directorate Level	Directorate Service Managers and Clinical Directors
Sector	General Managers, Medical Leads and Nursing Leads
Departmental:	Clinical Leads
Area:	Line Manager

Review frequency and date of next review:	This policy will be reviewed at least every three years or sooner if current treatment recommendations change.

Responsibilities for review of this document:

Lead Author/Co-ordinator:	Mental Health Operational Medicines Management Group

Revision History:

Date of change	Approval date that is being superseded	Summary of Changes	Section heading
May 2016	Version 2.1	Addition of guanfacine prolonged-release	Section 3.4
		References to Bio-Melatonin® changed to melatonin.	Section 4.3
		Review 17+ years added	Section 4.4
		Addition of trial period without medication to flow chart	Appendix 1
		References updated	

* Changes marked should detail the section(s) of the document that have been amended i.e. page number and section heading.

NHS Grampian Staff Prescribing Guidance for Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents

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1. Introduction

This guidance applies to children and adolescents between their 6th and 18th birthdays who have been assessed and diagnosed as having Attention Deficit Hyperactivity Disorder (ADHD) by a specialist in either Child and Adolescent Psychiatry or Paediatrics.

The responsibilities of both GP and specialist consultant in the overall care of the patients is summarised in the table below.

Table 1: Responsibilities

Specialist Responsibility	GP responsibility
Baseline Checks and treatment recommendations	Prescription issue as per specialist recommendation
Liaison with General Practitioner	Liaison with specialists reporting any issues/concerns that arise
Regular follow - up Ongoing review/monitoring Keeping GP informed of results and treatment plan	Occasional monitoring as requested by specialist

See Appendix 1 for a flowchart summarising the guidance that follows.

2. Baseline measurements

This is the responsibility of the specialist service. The child/adolescent will have had a full diagnostic assessment completed. During this assessment, a diagnosis of ADHD will have been made and an assessment of other co-morbid diagnoses completed. Details of any personal or family medical/psychiatric history will be taken and a history of any drug misuse, either by the child/adolescent or within their family will be noted.

Information will be gathered about symptoms in the home situation and education/employment situation. Corroborative information will be obtained when appropriate from other professionals involved with the family, such as Educational Psychologists, Community Child Health Doctors, Speech and Language Therapists, Occupational Therapists and Social Workers. School reports will be requested (if the child/adolescent is in attendance at school) and appropriate symptom rating scales such as Connor's Rating Scales (Teachers and Parents), NICQH Vanderbilt rating scale (Parents and Teachers) and/or Strengths and Difficulties Questionnaires will be used to gain standardised information.

Medical baseline measurements will include height, weight, blood pressure and heart rate. These will be plotted on a growth chart. Other medical investigations will be done if clinically indicated.

At the time of diagnosis, the child/adolescent and their parents/carer will be given access to printed information on ADHD and its treatment. Details of local ADHD support groups will be provided. Possible eligibility for any financial benefits will be discussed.

A treatment package based on individual need will be devised to include, as appropriate; behaviour management advice, pharmacological treatment and liaison with other professionals involved, particularly education and social work.

The child's/adolescent's referrer and General Practitioner (if not the referrer) will be kept informed at all stages of the assessment and treatment process. The child/adolescent and their parents/carer will be provided with copies of correspondence as appropriate. Permission will be sought from the child/adolescent and their parents/carer to send copies of reports to other relevant professionals who would find this useful in their involvement with the child/adolescent, e.g. community paediatrician linked to School Health Service.

3. Pharmacological treatment

3.1 Consent to pharmacological treatment

Following the diagnosis of ADHD being made, treatment options will be discussed with the child/adolescent and their parents/carer. Both verbal and printed information will be given in order that they can give fully informed consent to pharmacological intervention. Where English is not easily understood, translations and properly recognised interpreters should be used.

Use of a dose beyond the licensed range or use of a drug not licensed for the treatment of ADHD must be explained to the child/adolescent/parents/carer along with a discussion of the potential risks and benefits. Informed consent should be documented in the notes and the GP should be advised that informed consent has been obtained.

3.2 Initiation of pharmacological treatment and follow-up

Medication will be recommended by the specialist following diagnosis. They will make a request in writing to the child's/adolescent's GP to initiate the prescription. The child/adolescent and their parents/carer should be advised that prescriptions will not be issued by the practice until communication is received. GPs should prescribe a maximum of 4 weeks supply[*] at any one time.

Specialist follow up will be arranged within 4 to 6 weeks of treatment initiation and will continue at regular intervals either in the out-patient clinic or by telephone until the optimum treatment is reached for that individual. Clear lines of contact need to be established between the child/adolescent/parents/carer and specialist clinic in case of problems during this period.

[*] Although not a legal requirement there is a strong recommendation that prescriptions for Schedule 2, 3 and 4 controlled drugs should not exceed 30 days unless there is a clinical need.

If, after the titration period, the child/adolescent, parents/carer and specialist feel that the medication is effective in treating the ADHD symptoms and is without major side-effects, the child/adolescent will continue on their maintenance dose. They will then be seen at every 3 to 6 months to review continuing care. This appointment will be with a Child and Adolescent Mental Health Service (CAMHS) professional or paediatrician with training in ADHD.

At each follow up meeting the physical parameters of height, weight, blood pressure and heart rate will be taken and compared to previous measurements. Height only needs to be measured every 6 months. Efficacy of treatment will be assessed and side-effects will be enquired about.
The child's/adolescent's GP will be kept informed of any dose changes, and monitoring parameters and, with permission, this information will be given to the community paediatrician linked to the child's/adolescent's school and other relevant professionals involved.

On occasions, GPs, School Nurses, or community paediatricians may be asked to arrange to have physical parameters checked in between routine follow ups if clinical need makes this necessary, e.g. weight monitoring of a child/adolescent living a significant distance from the clinic base.
In most cases, medication should be continued seven days per week to obtain maximum benefit with respect to behavioural control problems, which occur at home and in the community as well as in school. If there are serious concerns about growth weekend or vacation drug holidays may be required. The specialist service will discuss the issue with the child/adolescent and/or with parents/carers and inform the GP as appropriate.

3.3 First-line pharmacological treatment

Pharmacological treatment will usually be with immediate-release methylphenidate, unless the child/adolescent is unsuitable for this medication and/or an acceptable regime cannot be arranged (see Section 3.4 - Second-line pharmacological treatment).

3.3.1 Immediate-release methylphenidate

Methylphenidate is licensed for the treatment of ADHD in children aged 6 years and over. After a full explanation of therapeutic effects and side-effects, standard (immediate-release) methylphenidate can be commenced and titrated, as per response, to a maximum benefit and minimum side-effect level.
Gradual dose titration required - refer to current Summary of Product Characteristics/BNF for Children for prescribing information. Licensed maximum dose of methylphenidate is 60mg daily in 2-3 divided doses but may be increased to 2.1mg/kg daily in 2-3 divided doses (max. 90mg daily) under the direction of a specialist; discontinue if no response after 1 month.
Use of a dose beyond the licensed range must be explained to the child/adolescent/parents/carer along with a discussion of the potential risks and benefits. Informed consent should be documented in the notes and the GP should be advised that informed consent has been obtained.

3.4 Second-line pharmacological treatment

There may be absolute or relative contra-indications for the use of immediate-release methylphenidate. Second-line treatments may be used for the reasons stated below:

Medical factors:

- tic disorder worsened by stimulants
- known sensitivity to stimulants
- cardiac problems
- interaction with other medicines currently being taken by the child/adolescent.

Environmental/social factors:

- drug misuse in child/adolescent or immediate family members
- involvement in competitive sport
- stigmatisation at school or work
- family preference for non-stimulant medication
- unable to arrange appropriate dosing regimen at school/work.

Unsuccessful trial of immediate-release methylphenidate indicated by:

- failure to respond or partial response to trial of immediate-release methylphenidate
- compliance problems
- stigmatisation while on immediate-release methylphenidate
- significant side-effects while on immediate-release methylphenidate
- unsuitable dose/effect profile while on immediate-release methylphenidate.

The second-line options are as follows:-

- Stimulants
  - Sustained-release methylphenidate
  - Dexamfetamine sulphate
  - Lisdexamfetamine dimesylate (prodrug)

- Non-stimulants
  - Atomoxetine
  - Guanfacine prolonged-release

3.4.1 Sustained-release methylphenidate

There are **three** sustained-release methylphenidate preparations available. They have different release characteristics and are therefore not interchangeable and must be prescribed by brand name. Sustained-release preparations may increase adherence and be preferred if there is a concern about misuse or diversion.

The main difference between them is their duration of effect.

- **Concerta® XL** - 12 hour duration of action - consists of an immediate-release component (22% of the dose) and a modified release component (78% of the dose).

- **Equasym XL®** - 8 hour duration of action –consisting of an immediate-release component (30%) and a modified release component (70% of the dose).

Contents of the capsule can be sprinkled on an appropriate cold semi-solid foodstuff or liquid, e.g. a tablespoon full of apple sauce, yogurt or mashed banana, or a small amount of orange juice and then swallowed immediately without chewing.

- **Medikinet XL®** - 8 hour duration of action –consisting of an immediate-release component (50%) and a modified release component (50% of the dose). Contents of the capsule can be sprinkled on an appropriate cold semi-solid foodstuff or liquid, e.g. a tablespoon full of apple sauce, yogurt or mashed banana, or a small amount of orange juice and then swallowed immediately without chewing.

Gradual dose titration is required - refer to current Summary of Product Characteristics/BNF for Children for prescribing information.

Licensed maximum dose of Medikinet XL® and Equasym XL® is 60mg daily but may be increased to 2.1mg/kg daily (max. 90mg daily†) under the direction of a specialist.

Licensed maximum dose of Concerta® XL is 54mg once daily but may be increased to 2.1mg/kg daily (max. 108mg daily†) under the direction of a specialist, discontinue if no response after 1 month.

3.4.2 Dexamfetamine sulphate (immediate-release)

Dexamfetamine sulphate can be effective in children/adolescents with ADHD who have had an unsuccessful trial of methylphenidate and either the child/adolescent/ parents/carer or the specialist wishes to use an alternative immediate-release stimulant preparation. Gradual dose titration is required - refer to current Summary of Product Characteristics/BNF for Children for prescribing information. Dexamfetamine sulphate immediate-release - usual maximum dose 1mg/kg daily, up to 20mg/day (40mg/day has been required in some children). Give in 2-4 divided doses.

3.4.3 Lisdexamfetamine dimesylate

Lisdexamfetamine dimesylate (Elvanse®) ▼ is a pharmacologically inactive prodrug (inactive molecule in gut not affected by pH) that is hydrolysed in the blood to dexamfetamine and is taken as a once-daily dose. Lisdexamfetamine dimesylate may be indicated when response to previous methylphenidate treatment is considered clinically inadequate and a once-daily dosing regime is considered appropriate. The recommended starting dose of lisdexamfetamine dimesylate is 30mg once daily increased if necessary at weekly intervals by increments of 20mg. The licensed maximum dose is 70mg daily, discontinue if response insufficient after one month. Contents of the capsule can be dissolved in water and the full glass of water should be consumed immediately. If a dose is missed dosing can resume the next day, afternoon doses should be avoided (potential for insomnia).

† Use of a dose beyond the licensed range must be explained to the child/adolescent/parents/carer along with a discussion of the potential risks and benefits. Informed consent should be documented in the notes and the GP should be advised that informed consent has been obtained.

Note:

- a 30mg capsule of lisdexamfetamine dimesylate delivers 8.9mg of active dexamfetamine.
- a 50mg capsule of lisdexamfetamine dimesylate delivers 14.8mg of active dexamfetamine.
- a 70mg capsule of lisdexamfetamine dimesylate delivers 20.8mg of active dexamfetamine.

3.4.4 Atomoxetine

Atomoxetine is a non-stimulant medication for the treatment of ADHD, licensed for the treatment of children aged 6 years and above. It can be used if stimulants are contra-indicated or not tolerated by the child/adolescent. If a child/adolescent is involved in competitive sport it may be the treatment of choice as stimulants are banned substances. It has less potential to exacerbate a tic disorder. Atomoxetine has a 24-hour duration of effect. An ECG may be indicated prior to commencing atomoxetine, if clinical and/or family history is suggestive of cardiac disease.

After risk:benefit review, the Committee on Safety of Medicines has provided detailed advice for prescribers regarding risk of seizures, hepatoxicity, prolongation of QT interval and suicidal thoughts/behaviour risk of psychotic or manic symptoms and increases in blood pressure and heart rate (for more details see MHRA website).

1. Atomoxetine (Strattera®) increases in blood pressure and heart rate—new contraindications, warnings, and advice for monitoring) (January 2012) http://www.mhra.gov.uk/Safetyinformation/DrugSafetyUpdate/CON140666

2. Atomoxetine (Strattera®) Risk of psychotic or manic symptoms (March 2009) http://www.mhra.gov.uk/Safetyinformation/DrugSafetyUpdate/CON088115

3. Strattera® (atomoxetine) – conclusions of risk:benefit review. CEM/CMO/2006/, 16th February 2006 - summary below.http://www.mhra.gov.uk/Safetyinformation/Safetywarningsalertsandrecalls/Safetywarningsandmessagesformedicines/CON2023222

Atomoxetine dosing schedule:
Child over 6 years (body-weight under 70kg), initially 500micrograms/kg daily for 7 days, increased according to response; usual maintenance 1.2mg/kg daily, but may be increased to 1.8mg/kg daily (max. 120mg daily) [unlicensed] under the direction of a specialist.

Child over 6 years (body-weight over 70kg) initially 40mg daily for 7 days, increased according to response; usual maintenance 80mg daily, but may be increased to maximum 120mg daily [unlicensed] under the direction of a specialist.

At least 6 weeks at full dose should be allowed in order to assess efficacy.

3.4.5 Transfer from stimulants to atomoxetine

Atomoxetine can take between two to 12 weeks to reach full effect, therefore, if stimulants are stopped at the same time as atomoxetine is started, the

child/adolescent and their parents/carer must be warned that the ADHD symptoms will return and remain for some weeks.

Stimulants and atomoxetine can be prescribed concurrently during the initial atomoxetine titration period with close clinical monitoring for additional side-effects.

Stimulant medications can be decreased once the ADHD symptoms in the early morning and late evening begin to improve, as this is an indicator that the therapeutic affect of atomoxetine has commenced due to its 24-hour action. Stimulant medication can then be withdrawn gradually.

3.4.6 Guanfacine prolonged-release tablets

Guanfacine is a selective alpha 2 receptor agonist that would provide a licensed alternative to off-label use of clonidine, and an alternative non-stimulant preparation to atomoxetine. It received approval from SMC in February 2016 for treatment of ADHD in children and adolescents 6 to 17 years old for whom stimulants are not suitable, not tolerated or have been shown to be ineffective. The recommended starting dose is 1mg guanfacine orally, swallowed whole, once a day in the morning or evening (see Tables 1 and 2 below for titration schedule, ref SmPC http://www.medicines.org.uk/emc/medicine/31294#POSOLOGY).
The dose may be adjusted in increments of not more than 1mg per week and should be individualised according to the patient's response and tolerability. The recommended maintenance dose range is 0.05 to 0.12mg/kg/day.

Monitoring - regular monitoring of blood pressure, heart rate and checking for signs of over-sedation (weekly during dose titration phase). During the first year of treatment, the patient should be assessed at least every 3 months for 1) signs and symptoms of somnolence and sedation, hypotension, bradycardia; 2) weight increase/risk of obesity. It is recommended clinical judgement be exercised during this period. 6 monthly monitoring should follow thereafter, with more frequent monitoring following any dose adjustments.

Missed dose / Discontinuation - Guanfacine discontinuation should be carried out gradually to avoid the risk of rebound hypertension. Blood pressure and pulse may increase following discontinuation of guanfacine. Increases in mean systolic and diastolic blood pressure, of approximately 3 mmHg and 1 mmHg respectively, above original baseline were observed upon discontinuation [8]. Individuals may have larger increases - blood pressure and pulse should be monitored in all patients during dose downward titration (decrements of no more than 1mg every 3 to 7 days).

Also following discontinuation of guanfacine if two or more consecutive doses are missed, **re-titration** is recommended based on the patient's tolerability to guanfacine starting at dose of 1mg with close monitoring for signs and symptoms of somnolence and sedation, hypotension and bradycardia.

Table 1: Guanfacine prolonged-release (Intuniv®) Titration Schedule for Children Aged 6-12 years				
Weight Group	Week 1	Week 2	Week 3	Week 4
25 kg and up Max Dose= 4 mg	1 mg	2 mg	3 mg	4 mg

Table 2: Guanfacine prolonged-release (Intuniv®) Dose Titration Schedule for Adolescents (Aged 13-17 Years)							
Weight Group[a]	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
34-41.4 kg Max Dose= 4 mg	1 mg	2 mg	3 mg	4 mg			
41.5-49.4 kg Max Dose= 5 mg	1 mg	2 mg	3 mg	4 mg	5 mg		
49.5-58.4 kg Max Dose= 6 mg	1 mg	2 mg	3 mg	4 mg	5 mg	6 mg	
58.5 kg and above Max Dose= 7 mg	1 mg	2 mg	3 mg	4 mg	5 mg	6 mg	7 mg[b]

[a] Adolescent must weigh at least 34kg.

[b] Adolescents weighing 58.5kg and above may be titrated to a 7mg/day dose after the patient has completed a minimum of 1 week of therapy on a 6mg/day dose and the physician has performed a thorough review of the patient's tolerability and efficacy

3.4.7 Dual therapy

The place of combined therapies still requires further evaluation. If co-prescribing is required and appropriate for the child/adolescent this should be clearly stated in any communication with the GP.

Combining drugs increases the risk of potential adverse interactions. Appropriate monitoring is essential and dose reduction may be required. Combined drug treatment may be indicated in certain cases, especially where co-morbidity is a feature, but should be closely supervised by the specialist service. The reason for using combination therapy must be clearly documented in the patient's notes.

3.5 Medicines not licensed for the treatment of ADHD

At the time of writing, clonidine and imipramine did not have UK marketing authorisation for use in children/adolescents with ADHD. They should only be considered where children/adolescents have not responded to licensed medications. A risk benefit assessment of their use should be considered. Informed consent should be obtained and documented.

3.5.1 Clonidine

Clonidine can be considered in those unresponsive to or unable to tolerate treatment with stimulants, atomoxetine or guanfacine. Clonidine may be used on its own or in combination with methylphenidate on an individual case basis. Gradual dose titration is required - refer to Summary of Product Characteristics/BNF for Children for cautions and side-effects. Give in divided doses with regular monitoring of blood pressure, heart rate and checking for signs of over-sedation.

A cardiovascular examination and a pre-treatment ECG should be carried out before starting treatment with clonidine. Starting dose 25microgram/day for one to two weeks then increasing to 50micrograms/day. If required dose can be further increased by 25micrograms every two weeks (side-effects permitting).
Maximum dose: 5micrograms/kg/day (or up to a maximum of 300micrograms/day).
Clonidine discontinuation should be carried out gradually to avoid the risk of rebound hypertension.

3.5.2 Tricyclic antidepressants

Imipramine can be effective in some cases where immediate-release methylphenidate is either unsuitable or has failed (evidence from early 80s and 1990s). It should not be prescribed concomitantly with a CNS stimulant. This group of medicines can be particularly effective in the behavioural symptoms of ADHD and less so with the cognitive symptoms. Baseline measurements must include a cardiac examination and ECG.

3.6 Discontinuation of therapy

In view of evidence for persistence of ADHD/HKD (hyperkinetic disorders) into adolescence and, in some cases, adulthood and the rapid return of core symptoms when psychostimulants are discontinued, treatment may require to continue into adulthood.

Accepted practice is to undertake regular (annual) short (up to two weeks) trial periods off treatment, obtaining feedback from school as well as parents/carer and child/adolescent. This is best avoided at the beginning of a new school year. If there is no appreciable difference in the child's/adolescent's behaviour when he or she is on or off medication, it may be discontinued for a longer period. If there is no appreciable difference with the child/adolescent on treatment and behavioural difficulties continue, it may be necessary to re-evaluate dosage, switch to another medication, or re-evaluate psychological and behavioural strategies.

3.7 Adverse drug reactions

Suspected adverse drug reactions should be reported to the Medicines and Healthcare products Regulatory Agency (MHRA) through the Yellow Card Scheme (yellowcard.mhra.gov.uk).

Healthcare professionals should report all suspected adverse drug reactions, no matter how minor, in children under 18 years even if the black triangle symbol (▼) has been removed.

Patients and their carers can also report suspected adverse drug reactions to the MHRA through the Yellow Card Scheme, https://yellowcard.mhra.gov.uk/.

4. Specialist responsibility

4.1 Baseline checks

- Baseline checks as described in Section 2 including medical baseline measurements of height, weight, blood pressure and heart rate.
- Any other baseline investigations that are clinically indicated prior to initiation of therapy.
- Exclusion of any contra-indications to prescribing (drug or medical condition).
- Informed consent obtained and documented if appropriate.

4.2 Liaison with General Practitioner (GP)

- Request to GP to initiate prescription. Provision of clear details of drug, dose, directions and any dose titration required.
- Inform GP of possible adverse effects (e.g. hepatoxicity with atomoxetine).
- If any additional physical parameters require to be checked between follow-ups, this should be discussed and agreed with the patient's GP.
- Feedback after each follow up appointment.

4.3 Follow up

- Specialist follow up within 4 - 6 weeks of treatment initiation and regularly until the dose is stabilised.
- After the initial titration period, all children/adolescents receiving pharmacological treatment for ADHD should have a 6 monthly specialist follow up (note 3 monthly follow-up during the first year for guanfacine).
- At each 6 monthly follow up visit, ADHD symptoms, efficacy of medication at home and in education or employment, and side-effects should be discussed.
- At each 6 monthly follow up visit, blood pressure, pulse, height and weight should be measured and recorded appropriately.
- A system should be in place to identify children/adolescents who fail to attend for review and for advising GPs if repeated attempts to contact children/adolescents fail. The specialist must advise GP of a child's/adolescent's non-attendance and if it is appropriate to continue prescribing ADHD medication.
- If medication is required at school direct liaison with school staff (with appropriate consent from child/adolescent and their parents/carer) is indicated. Parents/carers are responsible for delivering medication to school staff in person.
- Where sleep disturbance is an issue either as part of the ADHD syndrome or secondary to stimulant prescription initial management should include a sleep assessment, sleep hygiene advice and review of the dosage and timing of stimulant medication. Melatonin may be recommended as a second-line intervention via Paediatrician or Child and Adolescent Psychiatrist. Melatonin dosage and continuing requirement will be reviewed at each ADHD follow up.

4.4 Review 17+ Year

- Between their 17th and 18th birthday patients should be reviewed for ongoing treatment and a referral made to Adult Mental Health/Learning Disabilities Service if appropriate.

5. General Practitioner responsibility

5.1 Monitoring

- No routine biochemical monitoring required.
- Awareness of potential side-effects and interacting drugs.
- May be required to carry out physical checks (e.g. height, weight) between routine follow-ups, if clinically indicated.

5.2 Prescription issue

- Updating clinical records and adjusting prescription doses as per specialist recommendation.
- Prescribing Controlled Drugs in small quantities. National good practice recommendation for a maximum of 30 days supply[‡].
- If notified of repeated non attendance at specialist follow up, the GP must consider in the context of any specialist advice, whether it is appropriate to continue prescribing.

5.3 Liaison with specialists

- Discuss any concerns regarding monitoring, side-effects etc with specialist.
- Inform specialist if concern about inappropriate drug usage, e.g. prescriptions being requested too frequently.

6. Consultation Group

Medical staff of Child and Family Mental Health Service
Medical staff of Young Peoples Department
Medical staff of Rowan centre, Elgin
Community Child health
Mental Health Operational Medicines Management Group

7. References

1. Management of Attention Deficit and Hyperkinetic Disorders in Children and Young People. A national clinical guideline. Scottish Intercollegiate Guidelines Network (SIGN 112) Oct 2009.
2. Attention deficit hyperactivity disorder: Diagnosis and management. Clinical guideline 72 (CG72). Published: September 2008 last updated: February 2016.
3. British National Formulary for Children https://www.medicinescomplete.com/mc/bnfc/current/
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5. Strattera® (atomoxetine) Increases in blood pressure and heart rate—new contraindications, warnings, and advice for monitoring) (January 2012) http://www.mhra.gov.uk/Safetyinformation/DrugSafetyUpdate/CON140666
6. Strattera® (atomoxetine) Risk of psychotic or manic symptoms (March 2009) http://www.mhra.gov.uk/Safetyinformation/DrugSafetyUpdate/CON088115

[‡] Although not a legal requirement there is a strong recommendation that prescriptions for Schedule 2, 3 and 4 controlled drugs should not exceed 30 days unless there is a clinical need.

7. Strattera® (atomoxetine) – conclusions of risk: benefit review. CEM/CMO/2006/, 16th February 2006 http://www.mhra.gov.uk/Safetyinformation/Safetywarningsalertsandrecalls/Safetywarningsandmessagesformedicines/CON2023222
8. electronic Medicines Compendium (eMC) https://www.medicines.org.uk/emc/
9. SMC Detailed Advice Document published 07/02/2016 https://www.scottishmedicines.org.uk/files/advice/guanfacine_hydrochloride_Intuniv_FINAL_January_2016_for_website.pdf

Appendix 1: ADHD Guidance (children and adolescents) Medication Flowchart

To be used in conjunction with the NHS Grampian Staff Prescribing Guidance for Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents: http://www.nhsgrampian.com/grampianfoi/files/NHSGADHDp.pdf

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