Shared Care Protocol for the Methylphenidate and the Management of Attention Deficit Hyperactivity Disorder (ADHD) for children from 4 years up to 17 years and 364 days

1.0 INTRODUCTION

The medical assessment and treatment of children with ADHD should be shared between Primary Care, Paediatrics and Psychiatry. This protocol sets out guidelines for assessment and treatment of children over 4 years with ADHD and delineated responsibilities when care is to be shared between Primary Care and Secondary Care and includes the transitional arrangements between Paediatrics and Adult Psychiatry.

Shared Care Protocols are intended to provide clear guidance to General Practitioners (GPs) and hospital prescribers regarding the procedures to be adopted when clinical (and therefore prescribing and financial) responsibility for a patient's treatment is transferred from secondary to primary care.

GPs, as independent contractors, have the right to decline to take clinical and prescribing responsibilities for a patient on their medical list who is being treated elsewhere. However the reason for this action must be documented.

If a specialist asks a GP to prescribe ADHD medication in relation to this disease, the GP should reply to this request as soon as practicable.

The doctor who prescribes the medication legally assumes clinical responsibility for the drug and the consequence of its use.

2.0 DEFINITION

Attention deficit hyperactivity disorder (ADHD), also sometimes referred as hyperkinetic disorder (HKD), is a neurobiological disorder thought to be caused by an imbalance of some of the neurotransmitters found in the brain, principally called noradrenaline (norepinephrine) and dopamine.

3.0 BACKGROUND INFORMATION

ADHD is a common behavioural disorder occurring in children and adolescents, and may persist into adulthood. The principal diagnostic features are inattention, hyperactivity, and impulsive behaviour that are often disruptive and may become defiant and aggressive. In adults with ADHD, symptoms of hyperactivity and impulsiveness that were present in childhood tend to decrease, but symptoms of inattention persist.

3.1 Prevalence

National Institute for Clinical Effectiveness (NICE) estimates that around 5% of school-aged children and adolescents would meet the DSM-IV diagnostic criteria for ADHD, equivalent to 366,000 children and adolescents in England and Wales, but not all of these children and adolescents would require treatment. Approximately 1% of school-aged children and adolescents would meet the diagnostic criteria for hyperkinetic disorder.

3.2 NICE Guidance

ADHD medication is indicated in severe ADHD. If a child or adolescent needs treatment with medication for ADHD, methylphenidate, is one of three drugs recommended as possible choices. When deciding which drug to use, doctors should consider the following:

- whether the child or adolescent has other conditions such as epilepsy
- the side effects of each drug
- factors that might make it difficult for the person to take the medicine at the right time (for example, if it is difficult to take a dose during school hours)
- the possibility that the medicine might be misused, or passed on to another person for misuse
- the individual preference of the child or adolescent and/or their family or carer.

Where more than one of the medicines is considered to be appropriate for a child or adolescent, their doctor should choose the cheapest one.

Methylphenidate, should only be started after a specialist who is an expert in ADHD has thoroughly assessed the child or adolescent and confirmed the

diagnosis. Once treatment has been started it can be continued and monitored by a GP.

3.3 Symptoms

Health care professionals recognise that there are 3 main combinations of symptoms:

- Some children have predominantly hyperactive- impulsive type.
- Some have predominantly inattentive type.
- And some have a combined type (Inattentiveness, hyperactivity and impulsivity). This makes up the majority of cases.

Whilst most children show these behaviours, the difference between ADHD and normal behaviour is the degree of impairment, and mainly how it affects the child at home, school and in the community children with ADHD show these behaviours to a significantly greater extent and severity.

3.4 Impact

Children with ADHD might experience one or more of the following:

- Underachievement at school.
- Problems with peers and adult relationships.
- Problems with finding and keeping a job.
- Alcohol and substance abuse.
- Criminal behaviour.
- Depression.

Early identification and treatment by a health professional is therefore very important to ensure that the child can fulfil their full potential.

3.5 Diagnosis

The World Health Organisation system (ICD- 10) is widely used in Europe. A diagnosis of hyperkinetic disorder (severe ADHD) requires three difficulties to be present- hyperactivity, impulsivity and inattention.

The DSM - IV diagnostic criteria of the American Psychiatric Association has broader criteria: a diagnosis of ADHD can be made with either impulsivity-hyperactivity (the two problems are combined together) or inattention, as well as with both.

The health care professionals will look for alarm signals:

- The child who significantly under performs at school, despite having a normal intellect and no major specific learning difficulties.
- The child who has ADHD behaviour problems, which are considerably worse than, would be expected for the standard of parenting and home environment.

3.6 Differential diagnosis

- The normal active preschool child
- Intellectual disability
- Specific learning difficulties
- Autism Spectrum Disorder
- Epilepsy
- Depression
- Brain injury
- Family dysfunction

They may also use some objective pointers towards diagnosis such as:

- Rating scales by parents and teachers e.g., Conners Teacher and Parent Rating Scales
- Tests which measure length and type of mental process (Psychometric tests and profiles).

4.0 TREATMENT

4.1 Non Drug Treatment

1. Formal course of psychotherapy by an experienced psychiatrist or psychologist will have a major role in implementing behavioural programmes, and supporting parents.
2. Behavioural interventions **might include**:
    - Family therapy focusing on management strategies.
    - Individual therapy focusing on changing behaviours.

4.2 Drug Treatment

It is accepted practice for shared care that initial dose stabilisation needs to be undertaken by the Consultant before prescribing can be passed to Primary Care. However, it is acknowledged that following a period of dose stabilisation that there may be an occasional requirement for the dosage of medication to be adjusted for some patients.

This Shared Care Protocol and Proforma allows for:

(a) Change of dosage within the same drug
(b) Change of form (i.e. tablet to modified release tablet) within the same drug

without the need for completion of a new Proforma.

Any such changes must be initiated by the Consultant and communicated to the GP in writing.

Patients undergoing a dose or form change will be provided with a 1 month prescription from the Consultant to facilitate this change-over.

Drug treatment

For contraindications or further information please see the current BNF http://www.bnf.org.uk/bnf/bnf/current/index.htm or summary of product characteristics for the individual drug http://www.medicines.org.uk/

Drug, dose & TLS listing	Adverse effects	Therapeutic monitoring	Consultant / GP	Clinical relevant drug interactions
1. STIMULANT DRUG TREATMENT				
1.1 Methylphenidate [AMBER] *Controlled Drug (Schedule 2)*				
Short acting • 4-6 years up to 1.4mg\kg in 2-3 divided doses (unlicensed BNF for children dose) • >6 years – up to 60mg daily in divided doses **Long acting** Concerta XL • >6 years up to 54mg once daily Equasym XL • >6 years up to 60mg once daily Medikinet XL • >6 years up to 60mg once daily	• Insomnia • Lost appetite • GI upset • Headache • Hypertension • Tachycardia, palpitation, arrhythmias • Reduced weight gain or weight loss • Tics • nasopharyngitis • Rarely blood disorder including leucopenia and thrombocytopenia	• 6 monthly height & weight • 6 monthly BP & pulse • Annually discuss and consider with the patient/parent/carer interruption of treatment • Side effects • Symptom control		• MAOI's risk of hypertensive crisis • Moclobemide risk of hypertensive crisis • Clonidine, serious adverse events reported (causality not established)

5.0 SHARED CARE ARRANGEMENTS

Once a stable medication regime has been established (usually 3 months), physical monitoring and prescribing of amber category drugs can be transferred to primary care with agreement.

5.1 Aspects of care for which Secondary Care Team is responsible

- Diagnosis and assessment
- 6 monthly pulse & BP
- ^6 monthly height a weight
- Initiation and stabilisation of drug therapy, usually but not exceptionally, a period of 3 months.
- Patient/ family education
- Ensure patient/parent/carer is fully informed of potential benefits and side effects of treatment
- Ensure patient's guardian/carer is fully informed of the treatment.
- With consent, liaise with school (head / class teacher / SENCO / educational psychologist as appropriate) providing information about ADHD, drug therapy and storage.
- Provide a comprehensive treatment package in addition to stimulant and / or non-stimulant medications.
- Ensure that shared care arrangements are in place before transfer of treatment
    - That the patient/parent/carer is clear what is being monitored and by whom
    - That the patient/parent/carer knows what significant adverse effects/events to report urgently and to whom they should report (specialist or GP)
- At regular intervals (2- 3 times in the first 6 months, then at least once yearly thereafter) to monitor mental state and behaviour, compliance problems and adverse effects.
- Write to the GP after every clinic visit detailing whether the stimulant or non-stimulant regime should remain the same or be changed. Specify any products / dose or frequency changes.
- *Undertake dose changes where necessary in previously stabilised patients. Provide an interim medication supply of not less than 1 month duration. Write to the GP informing them of dose change.*
- Monitor side effects of medication.
- *Report adverse events via the Yellow Card Scheme at www.yellowcard.gov.uk*
- *Expert clinicians suggest that blood tests should not be viewed as rou*tine but only performed when clinically indicated. This will however be undertaken by the secondary care services where appropriate.

5.2 Aspects of care for which Primary Care Team is responsible

- Ensure that shared care arrangements are in place before initiating treatment
    - That the patient/parent/carer is clear what is being monitored and by whom
    - That the patient/parent/carer knows what significant adverse effects/events to report urgently and to whom they should report (specialist or GP)
- If the specialist initiates treatment, **reply to the request for shared care as soon as practicable**
- Confirm that proposed therapy is not contra-indicated because of concurrent therapy for other conditions the patient may be suffering from e.g. check drug-drug and drug-interactions
- Check that where possible the specialists have provided the patient/parent/carer with a patient-held record or information sheet for monitoring and/or to alert other clinical staff to the treatment they are receiving
- Ensure patient's guardian/carer is fully informed of the treatment
- Ensure clear arrangements are in place for back up, advice and support e.g. out of hours and/or when the consultant initiating therapy is not available
- Amend prescription as per requests from secondary care for dose changes in patients on established treatment.
- Confirm with specialist which changes in these or other parameters should trigger urgent referral back to the specialist
- Seek specialist advice promptly as advised in the shared care protocol or if signs/symptoms of changes occur
- Report adverse events via the Yellow Card Scheme at www.yellowcard.gov.uk
- Also report adverse events to the consultant sharing the care of the patient
- Stop treatment on advice of specialist, or immediately if intolerable side effects occur provided that it is safer to do so than to continue this therapy

5.3 Parent (or Carer's) Responsibilities (patient consent if required)

- Discuss potential benefits and side effects of treatment with the specialist and GP. Identify whether they have a clear picture of these from the specialist and to raise any outstanding queries.
- Check that where possible the specialists have provided a patient-held record or information sheet for monitoring and/or to alert other clinical staff to the treatment they are receiving.
- Share any concerns they have in relation to treatment with the medicine.
- Report any adverse effects to their specialist or GP whilst taking the medicine.

- Report to the specialist or GP if they do not have a clear understanding of their treatment.
- Participate in the monitoring of therapy and the assessment of outcomes, to assist health professionals to provide safe, appropriate treatment.

6.0 PROCEDURE FOR ADOPTING SHARED CARE

6.1 General Procedure:

The specialist will send to the GP a diagnostic assessment report including cardiovascular assessment, a copy of the shared care protocol and a shared care referral specifying who is responsible for physical monitoring (height, weight, pulse and blood pressure). Both the specialist and GP should sign the proforma with a record kept in the GP and Hospital Records. Full details will be given of the prescribing regime (brand, form, strength and dose of medication) and follow-up plan.

The child and the responsible adult (parent or other carer) will be asked to make arrangements with their GP for continued supply.

6.2 Discharge

Paediatricians would generally provide outpatient care until the age of **17 years and 364** days for young people. Medication treatment would cease on discharge, unless arrangements for transfer to General Adult Psychiatry has been made.

8.0 REFERENCES

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8.0 SHARED CARE DEVELOPMENT

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