

Guidelines for the treatment of Adult ADHD with Psychostimulants

Introduction

This guideline covers the diagnosis and management of attention deficit hyperactivity disorder (ADHD) in adults (>18 years old).

ADHD is a heterogeneous behavioural syndrome characterised by the core symptoms of inattention, hyperactivity and impulsivity. Not every person with ADHD has all of these symptoms – some people are predominantly hyperactive and impulsive; others are mainly inattentive.

Symptoms of ADHD are distributed throughout the population and vary in severity; only those people with at least a moderate degree of psychological,

social and/or educational or occupational impairment in multiple settings should be diagnosed with ADHD. Determining the severity of ADHD is a matter for clinical judgement, taking into account severity of impairment, pervasiveness, individual factors and familial and social context.

Symptoms of ADHD can overlap with those of other disorders, and ADHD cannot be considered a categorical diagnosis. Therefore, care in differential diagnosis is needed. ADHD is also persistent and many young people with ADHD will go on to have significant difficulties in adult life.

Person-centred care

Treatment and care should consider peoples' individual needs and preferences. Good communication is essential, supported by evidence-based information, to allow people to reach informed decisions about their care.

Diagnosis of ADHD

Diagnosis should only be made by an adult psychiatrist, particularly one with an interest or expertise in managing adult ADHD. A diagnosis of ADHD in adulthood should not be made in the absence of evidence of symptoms in childhood. This could include collateral history from a parent or school reports. In the absence of this neuropsychological testing should be considered to determine if the patients cognitive profile is consistent with ADHD.

Diagnosis should be based on:

- a full clinical and psychosocial assessment. Discuss behaviour and symptoms in the different domains and settings of the person's everyday life
- a full developmental and psychiatric history
- observer reports and an assessment of mental state.

Diagnosis should be made when symptoms of hyperactivity/impulsivity and/or inattention:

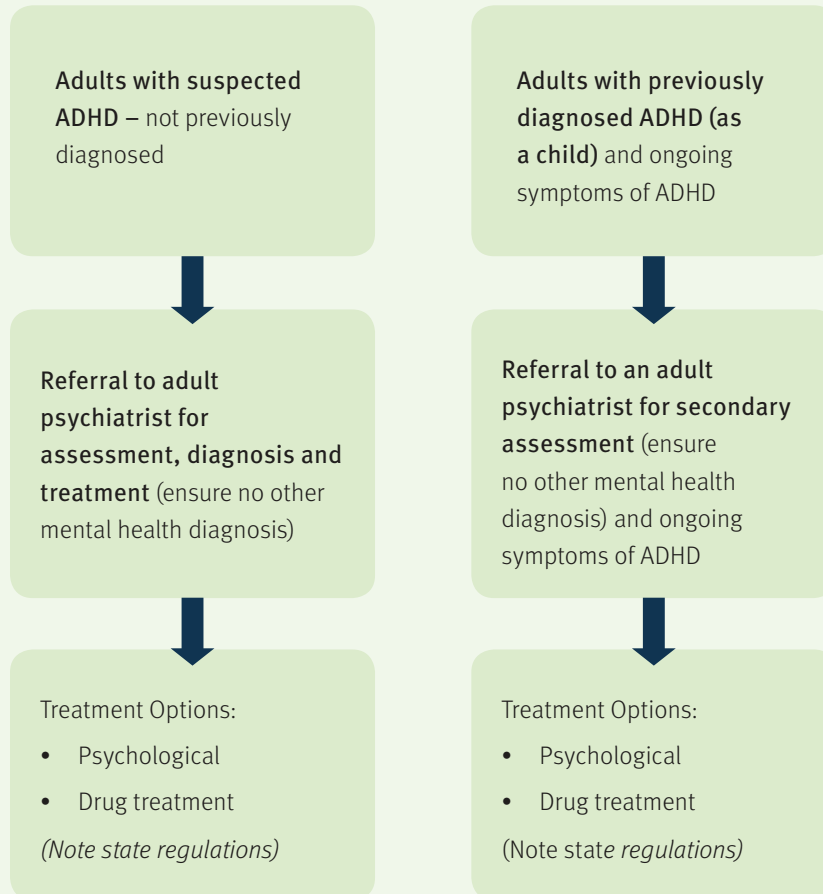
- meet the criteria in DSM-V or ICD-10 (hyperkinetic disorder)
- are associated with at least moderate psychological, social and/or educational or occupational impairment based on interview and/or observation in multiple settings
- are pervasive, occurring in at least two settings
- are not better explained by another disorder such as depression, anxiety or a substance use disorder
- corroborating evidence (if possible) is available of symptomatology in childhood.

As part of the diagnostic process, include an assessment of needs, coexisting conditions, social, familial, educational or occupational circumstances and physical health.



ADHD in adults

Care pathways in adults



Identification and referral to ongoing care

Refer adults with ADHD symptoms and moderate/severe impairment that have persisted from childhood and are not explained by other psychiatric diagnoses (although other psychiatric conditions may coexist) to an adult psychiatrist for assessment, diagnosis and ongoing management.

Refer adults who have been treated for ADHD in childhood/adolescence and have symptoms suggestive of continuing ADHD associated with moderate or severe impairment to adult psychiatric services for ongoing assessment and management.

Treatment

It is important to note that many adults with ADHD will also suffer with a co-morbid mental health or substance use disorders. As a result of their ADHD they may also have vocational, educational and social problems. Treatment needs to address these issues in a holistic way as simply providing treatment for their ADHD may not improve their overall function.

Prior to any prescribing of medication, a full psychiatric assessment must be conducted. This should include:

- a full mental health and social assessment
- a full medical history and physical examination, including:
 - » assessment of history of exercise syncope, undue breathlessness and other cardiovascular symptoms

- » heart rate and blood pressure
- » weight
- » family history of cardiac disease and examination of the cardiovascular system
- » an electrocardiogram (ECG) if there is past medical or family history of serious cardiac disease, a history of sudden death in young family members or abnormal findings on cardiac examination (especially in patients prescribed dexamfetamine)
- » risk assessment for substance misuse and drug diversion. Information about history of drug dependence is available from Monitored Medicines Unit–Phone: 13 S8INFO (13 78 46)

Drug treatment should be:

- started only under the guidance of an adult psychiatrist
- part of a comprehensive treatment program addressing psychological, behavioural and educational or occupational needs

Psychological treatment

Consider group or individual CBT for adults who:

- are stabilised on medication but have persisting functional impairment associated with ADHD.
- have co-morbid symptoms of anxiety or depression.
- have partial or no response to drug treatment or who are intolerant to it.
- have made an informed choice not to have drug treatment.
- have difficulty accepting the diagnosis of ADHD and accepting and adhering to drug treatment.
- have remitting symptoms and psychological treatment is considered sufficient to treat mild to moderate residual functional impairment.
- Offer group therapy first because it is the most cost effective.

Drug treatment – choice of drug

If a stimulant is considered appropriate, then methylphenidate or dexamfetamine are the choices available. However, atomoxetine can also be considered a first line drug if there are concerns about drug misuse or the patient would prefer a non-stimulant medication. It can also be useful if the patient has co-morbid anxiety.

Consider changing to the alternative drug if symptoms do not respond to the first choice or the person is intolerant to it after an adequate trial (usually about 6 weeks). Exercise caution if prescribing dexamfetamine to people at risk of stimulant misuse or diversion.

Drug treatment for people who misuse other substances should be carefully monitored. Discussion with, or referral to an Addiction Medicine specialist or Alcohol and Drug Service, for a second opinion would be strongly recommended. If the patient is receiving other treatment for drug dependence, then close liaison between the health professionals treating the ADHD and the drug dependence is essential.

Side effects

Monitor adults starting drug treatment for side effects.

Closely observe adults taking atomoxetine for agitation, irritability, suicidal thinking and self-harming behaviour, and unusual changes in behaviour, particularly during the initial months of treatment, or after a dose change.

With atomoxetine, warn the patient about the potential for increased agitation, anxiety, suicidal thinking and self-harming behaviour (in some adults, especially aged 30 years or younger), notably during the first few weeks of treatment and the possibility of liver damage in rare cases (usually presenting as abdominal pain, unexplained nausea, malaise, darkening of the urine or jaundice).

For more details of side effects, see table on page 6.

How to use drug treatment in adults

Prescribers should be familiar with:

1. The pharmacokinetic profiles of all ADHD preparations to tailor treatment to individual needs
2. Controlled drug legislation governing prescription and supply of psychostimulant medication. ***Under the Health (Drugs and Poisons) Regulation 1996 Medical Practitioners are required to seek approval from the Chief Executive (through the Monitored Medicines Unit) to prescribe psychostimulants (methylphenidate and dexamfetamine) to patients 18 years and over. Information regarding confirmation of the diagnosis by an adult psychiatrist and history of drug misuse is required prior to approval being granted.***

During titration

Gradually increase the dose until there is no further improvement in symptoms, behaviour, education and/or relationships and side effects are tolerable.

Methylphenidate and dexamfetamine should be titrated over 4–6 weeks. In adults, record symptoms and side effects at each dose change, after discussion with the patient and if possible, a spouse, parent, close friend or carer.

Review progress regularly (for example, by weekly telephone contact and at each dose change).

Dose titration should be slower if tics or seizures are present.

Routinely monitor and record side effects of drug treatment.

Consider dose reduction if side effects become troublesome.

After titration and dose stabilisation, referral to the patient's General Practitioner maybe appropriate, however, ongoing monitoring and review should be in a shared care model.

For details of initial, titration and maximum doses, see table on the next page.

Contact Monitored Medicines Unit for further information on:

Phone: 13 S8INFO (13 78 46)

Fax: 3708 5431 or

Email: mmu@health.qld.gov.au

(Please note that atomoxetine does not require an approval under the Health (Drugs and Poisons) Regulation 1996)

Initial, titration and recommended maximum doses for adults

Drug	Initial treatment	Titration and dose
Methylphenidate	<p>Begin with low doses – 5mg (half a scored tablet) two or three times a day (with food for better absorption) of the immediate release medication.</p> <p>Dosage should be standardised in relation to food to ensure consistency of effect (due to faster absorption/onset of action with food for immediate release – and high fat content slowing absorption of long acting).</p>	<p>Increase doses weekly according to response up to a maximum of 60mg daily</p> <p>Immediate release preparations should be given 2-3 times a day, with the last dose given prior to 6pm. If symptoms do not improve after dose titration over a one month period, the drug should be discontinued.</p> <p>Long acting preparations may increase compliance and be preferred if there are concerns about misuse or diversion. Morning dosing is recommended (with no more than twice daily dosing). Dosage may be adjusted at weekly intervals in 10mg increments.</p>
Dexamfetamine	<p>Begin with a low dose of 5mg twice a day</p>	<p>Increase dose according to response to 40mg daily in increments of 10mg at weekly intervals. (There is no strong evidence that higher doses have been shown to increase effectiveness)</p> <p>Divided doses – up to 2 to 6 times a day.</p>
Atomoxetine	<p>Up to 70kg body weight: Use a total starting dose of approximately 0.5mg/kg/day</p> <p>Over 70kg body weight: Use a total starting dose of 40mg/day</p>	<p>Up to 70kg body weight: increase dose after a minimum of 3 days to 1.2mg/kg/day</p> <p>Over 70kg body weight: Increase dose after a minimum of 3 days to maximum of 100mg daily.</p> <p>The usual maintenance dose is 80-100mg/day in divided doses. Trial for 6 weeks to determine the effectiveness of the dose.</p>

Duration of treatment and follow-up

Continue treatment for as long as it is effective. Adopt an individual treatment approach for adults. If patients are managed by their General Practitioner a regular review by a psychiatrist is recommended (yearly would be considered appropriate). Include in all reviews:

- clinical need, benefits and side effects
- the views of the person with ADHD, and those of carers, a spouse or close friend, as appropriate
- the effect of missed doses, planned dose reductions and brief periods of no treatment
- coexisting conditions; treat or refer if necessary
- the need for psychological, social and occupational support for the person
- if the patient has a history of drug misuse then random urine drug screens are advised to confirm the psychostimulant medication is being taken and that there is no continuing use of other drugs

Monitoring and Intervention	Methylphenidate	Atomoxetine	Dexamfetamine*
<p>Weight</p> <p>In adults, weight loss is sometimes associated with treatment. Consider monitoring BMI or changing drug if necessary.</p> <p>Strategies to reduce weight loss:</p> <ul style="list-style-type: none"> taking medication with or after food eating additional snacks early morning or late at night when stimulant effects have worn off obtain dietary advice re high calorie foods 	Yes	Yes	Yes
<p>Cardiac function and blood pressure</p> <p>Monitor heart rate and blood pressure, check before and after each dose change and every 3 months</p> <p>Sustained resting tachycardia, arrhythmia or a clinically significant increase in systolic BP measured on 2 occasions should prompt dose reduction and referral to a physician for review.</p>	Yes	Yes	Yes
<p>Reproductive system and sexual function Monitor for dysmenorrhoea, erectile dysfunction and ejaculatory dysfunction.</p>		Yes	
<p>Tics</p> <p>Consider whether tics are stimulant related, and whether tic-related impairment outweighs the benefits of ADHD treatment.</p> <p>If stimulant-related reduce the dose or stop drug treatment or consider using atomoxetine instead.</p>	Yes		Yes
<p>Psychotic symptoms (delusions, hallucinations)</p> <p>Withdraw drug treatment and carry out full psychiatric assessment.</p> <p>Consider atomoxetine instead.</p>	Yes		Yes
<p>Anxiety symptoms including panic</p> <p>Where symptoms are precipitated by stimulants, particularly if there is a history of coexisting anxiety, use lower doses of the stimulant and/or combined treatment with an antidepressant used to treat anxiety.</p> <p>Switching to atomoxetine maybe effective.</p>	Yes		Yes
<p>Agitation, irritability, suicidal thinking and self-harm</p> <p>Closely observe especially during the initial months of treatment or after a change in dose.</p> <p>Warn patients and family members if relevant about the potential for suicidal thinking and self-harm with atomoxetine.</p> <p>Warn young adults about the possible increased agitation, anxiety, suicidal thinking and self-harming behaviour, especially in the first weeks of treatment.</p>		Yes	
<p>Drug misuse and diversion</p> <p>Monitor potential for misuse and diversion with regular checks for illicit drug use (check for needle marks, urine drug screens, pill counts)</p> <p>Long-acting methylphenidate, lisdexamfetamine or atomoxetine maybe an option</p>	Yes		Yes

* Dexamfetamine is not TGA approved for use in adult ADHD, however, it is PBS reimbursed. Using Dexamfetamine to treat adults is therefore an "off-label" use and consent of patients should be obtained.

Patients presenting for continuation of treatment

Patients who present to a medical practitioner requesting ongoing prescribing of their medication that are unknown to the doctor should be managed in the safest way possible. It is recommended that the medical practitioner:

- Contact the previous prescriber to check the dose and last prescribing date, or
- Contact Monitored Medicines Unit (MMU) through the 13 S8INFO enquiry service (Phone: 13 78 46, 8 am – 8 pm, 7 days a week) to determine the last approval holder and the prescribing history.

If in doubt, arrange to give the patient a small number of tablets for the next 1-2 days and ask them to return to their normal prescriber; or contact the prescriber and arrange to take over the prescribing. The new prescriber should contact MMU to request approval to continue treating the patient.

Ceasing psychostimulants

All psychostimulant medication should be ceased over a period to avoid problems associated with withdrawal symptoms. A slow withdrawal from high doses over several weeks is recommended.

Psychostimulant prescriptions

Prescriptions are valid for 6 months only.

All prescriptions must be endorsed with the words “specified condition” when prescribing in Queensland.