

Issue date: March 2006

Methylphenidate, atomoxetine and dexamfetamine for attention deficit hyperactivity disorder (ADHD) in children and adolescents

Understanding NICE guidance –
information for children and adolescents
with ADHD, their families and carers,
and the public

Ordering information

You can download the following documents from www.nice.org.uk/TA098

- This booklet.
- The full guidance on this appraisal.
- A short version for healthcare professionals – the quick reference guide.
- The assessment report – details of all the studies that were looked at.

For printed copies of the quick reference guide or information for the public, phone the NHS Response Line on 0870 1555 455 and quote:

- N1010 (quick reference guide)
- N1011 (information for the public).

National Institute for Health and Clinical Excellence

MidCity Place
71 High Holborn
London
WC1V 6NA

www.nice.org.uk

ISBN 1-84629-182-8

© National Institute for Health and Clinical Excellence, March 2006. All rights reserved. This material may be freely reproduced for educational and not-for-profit purposes within the NHS. No reproduction by or for commercial organisations is allowed without the express written permission of the Institute.

Contents

What is NICE guidance?	4
What is attention deficit hyperactivity disorder?	5
What are methylphenidate, atomoxetine and dexamfetamine?	5
What has NICE recommended?	6
What should I do next?	7
Will NICE review its guidance?	7
Further information	Back cover

What is NICE guidance?

The National Institute for Health and Clinical Excellence (NICE) is the independent organisation responsible for providing national guidance on the promotion of good health and the prevention and treatment of ill health. One of NICE's roles is to produce guidance (recommendations) on the use of medicines, medical equipment, diagnostic tests and clinical and surgical procedures within the NHS.

To produce this guidance, NICE looks at how well the medicine, equipment or procedure works and also how well it works in relation to how much it costs. This process is called an appraisal. The appraisal process involves the manufacturer of the medicine or equipment for which guidance is being produced and the organisations that represent the healthcare professionals, patients and carers who will be affected by the guidance.

NICE was asked to look at the available evidence on the use of the medicines methylphenidate, atomoxetine and dexamfetamine for attention deficit hyperactivity disorder (ADHD) in children and adolescents. NICE was asked to provide guidance that will help the NHS in England and Wales decide when methylphenidate, atomoxetine and dexamfetamine should be used.

What is attention deficit hyperactivity disorder?

ADHD is associated with three main types of behaviour. People with ADHD may find it difficult to pay attention, or have overactive behaviour and be impulsive, or have all of these symptoms together. People with ADHD often have other problems as well, such as conduct and learning disorders, anxiety, depression, epilepsy, tic disorders (coordinated twitching) and Tourette's syndrome. It is estimated that 5% of school-aged children and adolescents in England and Wales may have ADHD.

ADHD can have serious consequences for children and their families and carers. It may lead to low self-esteem, emotional and social problems, and underachievement at school. If it continues into adolescence and adulthood, it can cause ongoing social problems, and may lead to drug misuse, unemployment and involvement in crime.

What are methylphenidate, atomoxetine and dexamfetamine?

Methylphenidate and dexamfetamine are medicines known as central nervous system stimulants. Atomoxetine is a different type of medicine known as a selective noradrenaline uptake inhibitor. It is thought that they act on parts of the brain to help a person to control how they react to what is going on around them. Although they have been shown to be effective treatments for ADHD, the exact way that they work within the body is not clear.

The main side effects of methylphenidate and dexamfetamine are insomnia (sleeplessness), nervousness, headache, decreased appetite, stomach ache and other stomach problems, and effects on the heart and circulation such as fast heart rate, palpitations and small increases in blood pressure. The main side effects of atomoxetine are stomach ache, decreased appetite, feeling and being sick, waking early in the morning, irritability and mood swings.

What has NICE recommended on methylphenidate, atomoxetine and dexamfetamine for attention deficit hyperactivity disorder (ADHD) in children and adolescents?

During the appraisal, NICE's Appraisal Committee read and heard evidence from:

- clinical studies of methylphenidate, atomoxetine and dexamfetamine
- doctors with specialist knowledge of ADHD and its treatment
- individuals with specialist knowledge of the issues affecting people with ADHD
- organisations representing the views of people who will be affected by the guidance (because they have, or care for someone with, the condition or because they work in the NHS and are involved in providing care for people with the condition)
- the manufacturers of methylphenidate, atomoxetine and dexamfetamine.

The evidence is summarised in the full guidance and additional information about the studies can be found in the assessment report for this appraisal (see 'Further information' section for details).

NICE has made the following recommendations about the use of methylphenidate, atomoxetine and dexamfetamine to treat ADHD in children and adolescents within the NHS in England and Wales.

If it is decided that a child or adolescent needs treatment with medication for ADHD, methylphenidate, atomoxetine and dexamfetamine are all recommended as possible choices. When deciding which to use, doctors should consider the following:

- whether the child or adolescent has other conditions such as epilepsy
- the side effects of each medicine
- 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.

Treatment with methylphenidate, atomoxetine or dexamfetamine 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.

What should I do next?

If you or someone you care for has ADHD, you should discuss this guidance with your or their doctor or specialist.

Will NICE review its guidance?

Yes. The guidance will be reviewed in March 2009.

Further information

The NICE website (www.nice.org.uk) has further information about NICE and the full guidance on methylphenidate, atomoxetine and dexamfetamine for ADHD in children and adolescents that has been issued to the NHS. The assessment report, which contains details of the studies that were looked at, is also available from the NICE website. A short version of the guidance (a quick reference guide) is available on the website and from the NHS Response Line (phone 0870 1555 455 and quote reference number N1010).

If you have access to the Internet, you can find more information about ADHD on the NHS Direct website (www.nhsdirect.nhs.uk). You can also phone NHS Direct on 0845 46 47.

National Institute for Health and Clinical Excellence

MidCity Place
71 High Holborn
London
WC1V 6NA

www.nice.org.uk
N1011 10k 1P Mar 2006
ISBN 1-84629-182-8