

## **Medication Management for Attention Deficit Hyperactivity Disorder**

### **A brief guide for parents and non health professionals**

*Please note that this statement concerns medication treatment only. It is not intended to cover other important issues regarding ADHD such as causes, assessment, related problems or other forms of treatment*

#### **What is ADHD?**

- Attention Deficit Hyperactivity Disorder (ADHD) is a common developmental problem, which results in poor concentration and control of impulses. It can affect children's education and social skills, and also family functioning. If not treated, ADHD is associated with a high risk of future problems, including school difficulties, work difficulties, relationship problems, substance abuse and adult mental health disorders.
- ADHD is much more common in boys.

#### **How is it diagnosed?**

- ADHD is not simple to diagnose – there is no specific test for ADHD.
- ADHD symptoms require a detailed assessment.
- The diagnosis of ADHD must be made by a trained and experienced health professional, using information from the family and the school.

#### **Medication treatment**

- The single most effective treatment for the symptoms of ADHD is stimulant medication. The stimulants available in Australia are methylphenidate (eg. Ritalin, Ritalin LA, Attenta, Concerta) and dexamphetamine. These two medications have similar actions and side effects. Recently another type of medication called atomoxetine has become available to treat the symptoms of ADHD.
- Stimulants have been used for over 60 years, and became standard treatment for children with significant ADHD in the 1980s. Millions of children have been successfully treated with stimulants in many countries. Approximately 1-2% of Australian children are prescribed stimulant medication (although about 4-5% of children have ADHD overall).

#### **How do stimulants work?**

- Stimulants act by stimulating the parts of the brain involved in arousal and self-control. This helps focus attention, and may also help filter out unnecessary information.
- Stimulant medication is probably the most highly researched of any medication prescribed for children. Stimulants have been conclusively proven to reduce the symptoms of ADHD. They help with concentration, impulse control and overactivity in about 80% of children with ADHD. They are also effective for adults with ADHD.

#### **Other important treatments**

- Medication management should be one part of a broader approach to the child's difficulties. Other treatments include behaviour modification, classroom strategies to improve concentration and learning, and sometimes individual or family counselling.

## **More on Stimulant medications.**

### **Side effects**

- Side-effects of stimulants may include decreased appetite, poor weight gain, and difficulty falling asleep. Less common side effects include stomach-aches, headaches, and dizziness. Occasionally a child treated with stimulant medication becomes irritable, withdrawn or highly emotional. If side effects occur they are usually seen soon after starting, and can often be managed by changing the dose or timing of the medication. If more intense side-effects occur the medication can be stopped without needing to taper off the dose. Most children have no side effects at all.
- The stimulants are not addictive in the doses used to treat ADHD. Studies have shown that children with ADHD treated with stimulant medication are less likely to have problems with drug abuse use in their teenage years than children who are not treated, probably because they are more settled and less likely to take risks.
- The main concern with long-term use has been some decrease in height growth. The most recent long-term studies on this issue suggest that there may be a small reduction in height in some children treated with stimulants compared to similar untreated children. No other long-term effects have been identified, despite extensive use and research over many years.

### **Effects on the blood pressure and heart**

- Stimulant medication may cause a very small increase in heart rate and blood pressure. This is extremely unlikely to cause any problems for children with normal hearts. In certain situations children may require a heart evaluation prior to commencing stimulant medication:
  - Children with a known heart or blood vessel abnormality
  - Family history of sudden unexplained death under 40 years of age
  - Family history of heart muscle or heart rhythm problems
- A drug safety committee in the United States has recently examined whether there is an increased risk of 'cardiovascular events' including heart attacks, stroke or sudden death in children and adults taking stimulant medication, compared to the general population. The available data suggests the risk is slightly lower in children taking stimulants

### **Monitoring**

- Children taking stimulant medication should be monitored by their treating doctor. This should occur regularly in the early phase of treatment, and at intervals of no longer than 6 months while the child is taking stimulants. Height, weight, heart rate and blood pressure in particular should be monitored.