



Information about Stimulant use in children and Adolescents

Stimulants are the first line medication for treatment of ADHD. 80% of children show a good response. There are 2 stimulants on the market: Methylphenidate (Ritalin, Ritalin LA, Concerta) and Dexamphetamine. The long acting dexamphetamine preparation is a pro-drug called Vyvanse. Literature reviews show that the best outcomes are with a combination of medication and behavioural management strategies for ADHD. Having said that, it is often prudent to trial non-pharmacological management first, especially for children with milder ADHD.

Stimulants need to be titrated to ensure that we are using the minimum dose necessary and side effects are minimised. When using Vyvanse, it is not necessary to first commence on short acting Dexamphetamine, and the medication is usually commenced at a dose of 30mg. When using all other short or long acting stimulants, my practice is to use a “start low, go slow” approach, giving a daily dose of Ritalin or Dexamphetamine and then assessing at the end of each week whether to increase it based on the degree of side effects and the response shown. Ideally this should involve communication by phone or email between the parent and teacher at the end of each school week. I recommend commencing Ritalin or Dexamphetamine on a Saturday and only increasing the dose weekly on a Saturday so that parents have 2 days on each dose to see the response and side effects before the child spends the week at school. I recommend commencing ½ or 1 tablet daily in the first week and then increasing by ½ a tablet in subsequent weeks depending on response; in other words, the dose should only be increased by ½ a tablet at the end of each week. If the patient is on an adequate dose from the point of view of ADHD symptom control or the side effects are becoming a problem, then the dose should not be increased.

Short acting stimulants like Ritalin or Dexamphetamine tablets generally last for 4 hours in most children. Long acting preparations usually last for either 6 – 8 hours (Ritalin LA) or 10 – 12 hours (Concerta or Vyvanse).

In terms of side effects, the most common is some appetite suppression whilst the stimulant is acting. Stimulants are like other short acting medications such as Paracetamol which commence actions 30 – 40 minutes after ingestion and then wear off after a period of time. They do not build up in the system and therefore there is no problem with patients being off medications on weekends or during the school holidays. Whilst appetite suppression can cause some weight loss this is usually short term and can be minimised by ensuring children eat a good breakfast with or before taking their morning medication, are given palatable and tasty lunch time food options, and are offered an additional meal when the medication is wearing off, often after school. Weight is something that needs to be monitored. Other side effects that can occur include insomnia, emotional lability, irritability, and transient abdominal pain, headaches or nausea when stimulants are first being commenced. There are very rare reports (1 in 500 000 per year) of priapism (sustained painful erection in boys) or of cardiac events in children with a pre-existing heart condition which is something that we screen for

on history, examination or sometimes ECG or cardiology consultation if warranted. Whilst a short acting Ritalin or Dexamphetamine trial will only show benefit in the mornings, the effects will be more sustained after a long acting preparation is commenced. When on short acting stimulants, it is important to emphasise when communicating with the teacher that only symptom improvement in the mornings should be expected, rather than the afternoons when the medication would have worn off. It is a PBS requirement to show a response to a short acting Ritalin before prescribing Concerta or Ritalin LA. When commencing on Ritalin or Dexamphetamine, I review patients after 6 weeks to assess response and discuss transitioning to a long acting preparation.