

taken to achieve a more harmonious working relationship to support ADHD patients. Funding for GPs with a special interest in this area to allow sufficient time for thorough assessment would need to be agreed.

Singapore and South Korea, with similar rates of ADHD to NZ, are developing a population approach in which GPs are central. They report that this is working well. What are we waiting for?

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New Zealand general practice should adopt population-based screening for attention deficit hyperactivity disorder (ADHD)

NO

Prevention of harm through screening is naturally a good thing to do—only a wouser would vote against it. However we work in a resource-limited system and so have to carefully consider where we should put our efforts. Over the years many new screening programmes have been proposed and then fallen by the wayside. As far back as 1968 the World Health Organization promoted a set of criteria to be met before a screening programme is adopted. These include: Is it a well-defined and important disease? Does the population want the screening? Do we have a sensitive and specific test to help differentiate those at risk? Do we have an effective intervention, is the screening likely to lead to harm rather than benefit? Do we have evidence of

benefit from randomised controlled trials? Do we have the resources to implement the screening programme?

So how does screening for attention deficit hyperactivity disorder (ADHD) stack up against these criteria? ADHD is a chronic behavioural disorder characterised by persistent hyperactivity, impulsivity, and inattention.¹ Its reported prevalence is greater in boys than girls, decreases with age and varies from country to country with the USA reporting as many as one in 20 children with a diagnosis of ADHD.² Many young people with signs of ADHD have comorbid conditions such as depression, conduct disorders, substance abuse and bipolar disease.¹ It is therefore difficult to determine what the natural history of ADHD is when many of the outcomes can be confounded by the comorbidities. Whilst we have quite good data on what happens to children with signs of

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ADHD,³ the progression and outcomes for adolescents and adults is less well documented. We do know that those with attention disorder in childhood are less likely to achieve academically, and are more likely to have accidents. There is also an association with ADHD, conduct disorders in childhood and later use of drugs.⁴ Given what we know about ADHD do we believe there is a demand for population-based screening in NZ? A number of screening programmes fail because of poor uptake. The Before Schools Checks includes a screening test for behavioural problems—and the uptake to date has been poor. I suspect the uptake by adolescents and adults would be even worse. We would certainly need studies to ascertain the likely uptake before embarking on a population-based programme.

One danger of a screening test is that it may lead to some patients being incorrectly labelled

rectly labelled as having a condition which may have lifelong implications.

The next key question is: do we have an effective intervention? Whilst there are good randomised controlled trials (RCTs) of a number of agents (e.g. methylphenidate, amphetamines, and desipramine) these are generally short-term studies and the outcomes measured are mainly reductions in symptom scores.⁶ No one has had the money to show that long-term use of methylphenidate has improved intellectual attainment, reduced driving accidents or helped with employment—the outcomes that matter. In the absence of long-term RCTs in a screened population it is unsafe to extrapolate the drug trials in highly selected populations to propose effectiveness. Longer term studies have shown large drop-out rates with older children being less likely to adhere to treatment.⁷ Thus the efficacy

The side effects of medication for ADHD are well recognised, but more important is their potential for abuse. Eleven percent of adolescents being treated in the USA reported selling their medication. Another concern is the harm generated by labelling a child or adolescent as having ADHD

as having a disorder and subsequently being unnecessarily or incorrectly treated. There are a number of screening tools for ADHD. Most are sensitive, but lack specificity. Consequently a second stage is required where those identified through screening are then reviewed and a diagnosis made. For ADHD this should involve a psychiatrist. It could be argued that general practitioners (GPs) are competent to accurately diagnose the condition. Whilst we do not know NZ GPs' views on this, a Canadian study suggested 95% of GPs would refer patients for a specialist opinion.⁵ I would suspect that most NZ GPs would want to have an expert opinion—to ensure there was not a misdiagnosis of another psychiatric condition, to ensure comorbid conditions had been appropriately picked up, and of course to make sure that people were not incor-

of treatment in a screened population is likely to be much less than that found in short-term RCTs with selected patients. Is screening likely to lead to harm as well as benefit? The side effects of medication for ADHD are well recognised, but more important is their potential for abuse. Eleven percent of adolescents being treated in the USA reported selling their medication.⁸ Another concern is the harm generated by labelling a child or adolescent as having ADHD.

Finally, do we have the resources to implement a screening programme? The MaGPIe study noted that GPs felt that managing mental health problems took more time, the costs were likely to be subsidised by the practice as patients were not prepared to pay the full costs, and more training was needed if recognition of mental health

problems was to be improved.⁹ We should also recognise that there is a shortage of psychiatrists with expertise in the area and so waiting lists for assessment and diagnosis are likely to be long. The opportunity costs both to GPs and mental health services are likely to be considerable and would require a reduction of activity in other areas.

Let my review not be construed as saying ADHD is not important or that GPs should not be involved in its management. Rather I am saying that in patients and families who present for help, proper diagnosis and ongoing long-term support should be available. But I would suggest that the greatest utility is achieved by concentrating on the most severely affected, who have been identified by parents and teachers as being in need of help. This does not mean we should leap into a screening programme.

In summary, I would argue that ADHD does not meet the criteria for a screening programme. It is poorly defined, is frequently associated with comorbid mental health conditions and the health impact is not well quantified. Does the population want the screening? This is not known, but uptake in children has been poor. Do we have a sensitive and specific test to help differentiate those at risk? A variety of tests are available, but different tests are better for different age groups, they are time-consuming and doctors or their staff would need training. In the hands of experts they are generally sensitive, but follow-up diagnosis is required. Do we have an effective intervention? There are a number of medications that have shown symptom reduction in short-term studies, but longer-term drop-out rates are high and the evidence of long-term benefit for outcomes that matter is poor. Is the screening likely to lead to harm rather than benefit? Adverse aspects of labelling and diversion of drugs into the illicit market are likely to be a problem. Do we have the resources to implement the screening programme? There is evidence that managing mental health problems takes more time, more training is required and the additional costs are likely to be borne at least in part by GPs.

Until we have evidence from RCTs conducted in general practice, the answer to the question 'Should we screen for ADHD?' is no.

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