APPENDICES

Clinical Practice Points on the diagnosis, assessment and management of attention deficit hyperactivity disorder in children and adolescents
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Electronic document

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Suggested citation


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Professor Vicki Anderson
Professor Kim Cornish
Professor Mark Dadds
Dr John Dowden
Professor Jon Jureidini
Professor Michael Kohn
Professor Helen Milroy
Associate Professor Nicole Rinehart
Ms Margaret Vikingur

NHMRC
Ms Cathy Connor
Ms Tanja Farmer
Ms Melissa Lawrance

Disclaimer

These CPPs are designed to provide general guidance to appropriate practice, to be followed subject to the clinician’s judgement and patient’s preference in each individual case. Each individual case requires due consideration of the child’s developmental stage and maturity, and consultation with their parents/carers and the multidisciplinary team involved.

These CPPs are based on expert consensus and their consideration of literature at the time of publication. The Commonwealth does not accept any legal liability or responsibility for any loss or damages incurred by the reliance on, or interpretation of, information contained in this guide.

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# Appendix A: Membership and Terms of Reference for the Expert Working Group

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<tr>
<th>Member</th>
<th>Relevant experience</th>
<th>Declarations of Interest</th>
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| **Professor Bruce Tonge (Chair)**<br>Child and Adolescent Psychiatrist<br>Emeritus Professor and past Head of Discipline of Psychiatry, School of Psychology and Psychiatry, Monash University, Melbourne | • Holds appointments as Clinical Advisor to the Southern Health Mental Health Program.  
• Member of the Boards of Neuroscience Victoria and Neuroscience Australia and Chair of the Board of Autism Victoria.  
• Research and teaching interests in developmental psychiatry with a particular focus in the areas of Autism Spectrum Disorders and behavioural and emotional disturbance in children and adolescents with intellectual disability, and treatment outcome studies in childhood anxiety and depressive disorders. | **Guideline development:**
• NHMRC  
• Autism Victoria  

**Consultancy:**
No commercial interests but consultancy for:  
• Department of Human Services, Victoria  
• Department of Health and Ageing  
• Department of Families, Housing, Community Services and Indigenous Affairs  
• Ageing, Disability and Home Care, Family and Community Services, New South Wales  

**Affiliations:**
• Chair, Victorian Mental Illness Research Fund Advisory Committee  
• Immediate past Chair of the Board of Autism Victoria  
• Neuroscience Victoria  
• Neuroscience Australia  
• Monash University  

**Research funding:**
• NHMRC  
• Australian Research Council  
• BeyondBlue  
• Rotary  
• Pratt Foundation  
• Dara Foundation  
• National Institutes of Health, USA  
• Financial Markets Foundation for Children  

**Honoraria:** NA  

**Conference attendance:**
Attendance at some professional meetings sponsored by:  
• Pharmaceutical companies  
• Natural therapies  
• Educational industries  

**Other potential conflicts of interest:**
• Author of a Developmental Behaviour Checklist. Profits go to Monash University.
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| **Professor Jon Jureidini**  
Professor of Psychiatry and Paediatrics, University of Adelaide  
Senior Child Psychiatrist, Department of Psychological Medicine, Women’s and Children’s Hospital, Adelaide  
• Published extensively and his research interests include child development and health, such as ADHD, children's play, Munchausen by proxy syndrome, physical illness and disability, and childhood depression.  
• Works to improve communication in medicine and health service delivery, and reduce the potentially harmful effects of misleading drug promotion. | **Guideline development:** NA  
**Consultancy:**  
• Paid consultant to Baum Hedlund representing Plaintiffs in class action against GlaxoSmithKlin.  
**Affiliations:**  
• Healthy Skepticism  
• Flinders University  
• University of Adelaide  
• The Women’s and Children's Hospital, Adelaide  
**Research funding:** NA  
**Honoraria:** NA  
**Conference attendance:**  
• Has attended meetings sponsored by pharmaceutical companies.  
**Other potential conflicts of interest:** NA |
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<td><strong>Associate Professor Nicole Rinehart</strong>&lt;br&gt;Associate Professor and Deputy Director of Clinical Psychology, Monash University, Melbourne&lt;br&gt;Consulting Clinical Child Psychologist, Melbourne Children's Clinic</td>
<td>• Published over fifty journal articles and six book chapters on autism, Asperger’s disorder and ADHD.&lt;br&gt;• Her vision is to bridge the ‘bench to bedside’ gap in autism so that the latest scientific data can be translated to useable information for clinicians, teachers and families.&lt;br&gt;• Has received grants from NHMRC, the Australian Research Council and international funding bodies.&lt;br&gt;• Currently supervises a large group of PhD and Research Fellows in the field.</td>
<td><strong>Guideline development:</strong> NA&lt;br&gt;<strong>Consultancy:</strong>&lt;br&gt;• No commercial interests but consultancy for Southern Health.&lt;br&gt;<strong>Affiliations:</strong>&lt;br&gt;• Melbourne Children's Clinic&lt;br&gt;• Autism Victoria&lt;br&gt;• Neuroscience Victoria&lt;br&gt;• Neuroscience Australia&lt;br&gt;• Monash University&lt;br&gt;<strong>Research funding:</strong>&lt;br&gt;• Several NHMRC grants for research in autism, ADHD and asperger’s disorder&lt;br&gt;• Australian Research Council grant for research on teaching sign language&lt;br&gt;• National Alliance for Research on Schizophrenia and Depression grant recipient&lt;br&gt;• Rotary&lt;br&gt;• Cure Autism Now US&lt;br&gt;• Wellcome Trust&lt;br&gt;<strong>Honoraria:</strong>&lt;br&gt;• Funding from Novartis.&lt;br&gt;<strong>Conference attendance:</strong>&lt;br&gt;• Attendance and presentations at professional meetings/conferences on autism sponsored by Janssen, Pzier, Nutricia.&lt;br&gt;<strong>Other potential conflicts of interest:</strong>&lt;br&gt;• Author of a Developmental Behaviour Checklist. Profits go to Monash University.</td>
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| Professor Mark Dadds  
Professor of Psychology, School of Psychology, University of New South Wales  
Principal Research Fellow of NHMRC | • Has developed, directed, and evaluated several family-based intervention programs for children, youth, and their families at risk for mental health problems.  
• Focuses on non-medication based treatments for families who are experiencing difficulties in the management of children with a range of behavioural and emotional problems. | **Guideline development:** NA  
**Consultancy:** NA  
**Affiliations:** NA  
**Research funding:**  
• NHMRC Project Grants in the following areas:  
  • genetic, biological, and behavioural markers of conduct disorders in children  
  • screening in Indigenous populations  
  • identification and treatment of early-onset behaviour disorders in children  
  • autism spectrum disorders  
• Centre for Clinical Research Excellence grant - anxiety and neuroscience  
• Australian Research Council – deficits in childhood onset mental health problems  
**Honoraria:** NA  
**Conference attendance:**  
• Invited to present at a conference sponsored by a pharmaceutical company in London in 2007  
**Other potential conflicts of interest:**  
• Published a parenting training manual which is accessible to parents of children with ADHD. |
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| **Professor Michael Kohn**                  | • Consulting paediatrician with research interests in neuroscience and ADHD.  
• Has undertaken a number of projects which investigate the neuropsychological and neurobiological aspects of ADHD and the effects of medications on them.  
• Uses a holistic approach to treatment.                                                                                                                 | **Guideline development:** NA  
**Consultancy:**  
• Paid to attend two meetings to advise the Strattera Advisory Board for Eli Lilly on adolescent’s adherence to ADHD therapy.  
**Affiliations:**  
• Sydney University  
• University of New South Wales  
• Sydney Children’s Hospital Network  
• Royal Australasian College of Physicians  
• Brain Resource Centre – consulting pediatrician  
• Brain Dynamics Centre – Head, ADHD research  
**Research funding:**  
• Research funded by NHMRC on anxiety and ADHD  
• Prior Australian Research Council grant investigating the diagnostic markers for ADHD at diagnosis and following treatment with stimulants  
• Co-investigator in a large international study (ISpot A study) on markers for ADHD and response to stimulant medication sponsored by Managed Care  
• Minor role in Eli Lilly LYFJ study on Atomoxetine  
**Honoraria:**  
• Received gifts and honoraria of less than $500 from non-pharmaceutical companies and institutions for speaking engagements and preparing educational materials.  
**Conference attendance:**  
• Has attended and presented at meetings sponsored by Janssen Cilag and Eli Lilly.  
• Received financial support from Janssen Cilag to attend a conference in Beijing in 2009 on young people’s mental health at which ADHD was discussed.  
**Other potential conflicts of interest:**  
• Has been paid to prepare post graduate teaching and training material by Janssen Cilag, and educational materials on ADHD by Zest and Medimart. |
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| **Ms Margaret Vikingur**  
Consumer representative | - Has family members with ADHD.  
- Teaching background in primary and tertiary institutions with post graduate studies in special education, researching in ADHD.  
- Works in the community to promote evidence based education about ADHD.  
- 17 years of experience volunteering with support, information and advocacy agencies for people with ADHD and associated conditions. | **Guideline development:** NA  
**Consultancy:** NA  
**Affiliations:**  
- President of Learning and Attentional Disorders (LADS), Western Australia. LADS has received unrestricted grants from Eli Lilly, Novartis and Janssen Cilag for educational purposes. These grants are acknowledged on LADS website and newsletters.  
**Research funding:** NA  
**Honoraria:** NA  
**Conference attendance:**  
- Attended a dinner meeting sponsored by Janssen.  
**Other potential conflicts of interest:**  
- In her capacity as a qualified teacher, delivers educational sessions about ADHD. |
| **Dr John Dowden**  
Editor-in-Chief of Australian Prescriber, Australia’s national journal of drugs and therapeutics | - Member of the Editorial Advisory Board of the Australian Medicines Handbook and also a member of the Board of Therapeutic Guidelines, where he has contributed to the development of treatment guidelines in psychiatry, respiratory medicine and general dentistry.  
- Has worked in hospital medicine and general practice in several countries and has postgraduate qualifications in several medical disciplines including community child health. | **Guideline development:**  
- Director of Therapeutic Guidelines Ltd. Chaired the Expert Group that developed the Psychotropic guideline, which includes a segment on ADHD. Therapeutic Guidelines is a not for profit company. Income from sale of the guidelines funds the development of future guidelines. A small percentage of the Therapeutic guidelines are sold to pharmaceutical companies.  
**Consultancy:** NA  
**Affiliations:** NA  
**Research funding:** NA  
**Honoraria:** NA  
**Conference attendance:** NA  
**Other potential conflicts of interest:** NA |
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<tr>
<td><strong>Professor Kim Cornish</strong> &lt;br&gt; Head, School of Psychology and Psychiatry, Monash University, Melbourne &lt;br&gt; Director, Developmental Neuroscience and Genetics Disorder Lab, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne</td>
<td>• Has made significant contributions to the field of ‘attention’ research and has published books and journal articles on attention, genes and developmental disorders.  &lt;br&gt; • Adopts an interdisciplinary focus incorporating a range of techniques (psychology, genetics, brain imaging, psychiatry, and neuroscience).  &lt;br&gt; • Aims to maximise the strengths of children so that they can achieve their full potential, whether they function at a normal level or face developmental difficulties.  &lt;br&gt; • Holds special appointments with McGill University in Canada, Zhejiang Normal University in China and the University of Nottingham in the UK.  &lt;br&gt; • Has a number of current research grants with the Australian Research Council, NHMRC, and the Apex Foundation for Research into Intellectual Disability</td>
<td><strong>Guideline development:</strong> NA  &lt;br&gt; <strong>Consultancy:</strong>  &lt;br&gt; • Paid by Novartis as a Research Advisor on Safety Board and efficacy of The AFO056 Trial in Fragile X Syndrome.  &lt;br&gt; <strong>Affiliations:</strong>  &lt;br&gt; • Monash University  &lt;br&gt; • McGill University – Canada  &lt;br&gt; • Neuroscience Victoria  &lt;br&gt; • Fragile X Association – Australia  &lt;br&gt; • Nottingham University – UK  &lt;br&gt; • ADHD Genetics Network  &lt;br&gt; • National Fragile X Foundation, USA  &lt;br&gt; <strong>Research funding:</strong>  &lt;br&gt; • Australian Research Council grant: research into genetics in carriers of Fragile X  &lt;br&gt; • NHMRC grants: research into autism and ADHD  &lt;br&gt; • Apex Foundation for Research into Intellectual Disability: rating scale for children with attention problem with different types of intellectual disabilities  &lt;br&gt; <strong>Honoraria:</strong> NA  &lt;br&gt; <strong>Conference attendance:</strong>  &lt;br&gt; • Attendance at some professional and research meetings sponsored by pharmaceutical companies and education industries.  &lt;br&gt; <strong>Other potential conflicts of interest:</strong> NA</td>
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| Professor Vicki Anderson                    | • Paediatric neuropsychologist with over 20 years’ experience. Her interests are in disorders of childhood that impact on the central nervous system, including both developmental and acquired disorders.  
• Primary research focus is understanding the impact of traumatic brain injury for the developing brain, and in identifying ways of preventing and treating the resultant impairments.  
• Has published over 100 papers in peer-reviewed journals, as well as two text books and has obtained numerous competitive research grants. | Guideline development:  
• Member of the former Guidelines Development Group for the Draft Australian Guidelines on ADHD, 2009.  
Consultancy: NA  
Affiliations:  
• Professorial Fellow, University of Melbourne  
• Department at Royal Children’s Hospital, Melbourne  
• Critical Care and Neurosciences, Murdoch Children’s Research Institute  
• Australian Centre for Child Neuropsychology Studies  
Research funding:  
• Funded by Naturel (Norwegian company) for cancelled clinical trial on effects of Omega-3 on attentional behaviours.  
Honoraria: NA  
Conference attendance:  
• On the organising committee of the ‘Youth Mental Health’ symposium (August 2011), sponsored by Jansen-Cilag, but receives no financial support for this role.  
Other potential conflicts of interest:  
• Author on an attention test – Test of Everyday Attention for Children (Pearson Publishers), from which she receives royalties. |
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| **Professor Helen Milroy**  
Winthrop Professor and Director of the Centre for Aboriginal Medical and Dental Health, University of Western Australia  
Consultant Child and Adolescent Psychiatrist, Specialist Aboriginal Mental Health Service, Department of Health, Graylands Hospital, Perth | • Descendant of the Palyku people of the Pilbara region of Western Australia.  
• Studied medicine at the University of Western Australia.  
• Worked as a General Practitioner and consultant in childhood sexual abuse at Princess Margaret Hospital for Children.  
• Has completed specialist training in child and adolescent psychiatry.  
• Current member of the NHMRC Australian Human Ethics Committee, Headspace Board and the NHMRC Aboriginal and Torres Strait Islander Health Advisory Committee.  
• Conjoint award recipient of the World Council for Psychotherapy's Sigmund Freud Award 2011 for contributions to the field of psychotherapy.  
• Research interests include holistic medicine, child mental health, recovery from trauma and grief, application of Indigenous knowledge, Indigenous health curriculum development, implementation and evaluation, Aboriginal health and mental health, and developing and supporting the Aboriginal medical workforce.  
• Past President of the Australian Indigenous Doctors Association and past member of the National Advisory Council on Mental Health and Western Australia Indigenous Implementation Board. | **Guideline development:**  
• On the Working Party drafting the Western Australian Mental Health Divisions policy document on ADHD, released 2001.  

**Consultancy:**  
• Child and Adolescent Psychiatrist, Specialist Aboriginal Mental Health Service, Graylands Hospital, Department of Health, Western Australia.  

**Affiliations:**  
• Centre for Aboriginal Medical and Dental Health, University of Western Australia  
• Fellow, Royal Australian and New Zealand College of Psychiatrists  
• Australian College of Health Service Executives  
• Child Death Review Advisory Panel, Ombudsman, Western Australia  
• GIJA Total Health Project, Telethon Institute for Child Health Research  
• National Aboriginal and Islander Child Care  
• Aboriginal Expert Panel, Department for Child Protection Western Australia  
• International Collaborative for Indigenous Health Research: Educating for Equity  
• Australian Centre for Post Traumatic Mental Health Multidisciplinary Panel  
• Member, Australian Indigenous Doctors’ Association  

**Research funding:** NA  
**Honoraria:** NA  
**Conference attendance:** NA  
**Other potential conflicts of interest:** NA |
Terms of Reference

The purpose of this committee is to consider the Draft Australian Guidelines on Attention Deficit Hyperactivity Disorder Guidelines, 2009 (the Draft Guidelines) and develop Clinical Practice Points (CPPs) to assist clinicians on the diagnosis and management of ADHD in children and adolescents.

These CPPs will provide interim advice until the evidence underpinning the Draft Guidelines can be updated and the ADHD guidelines revised. The decision making process for the development of the CPPs will be documented and transparent.

Members will:
1. develop Clinical Practice Points which guide clinicians on the management and diagnosis of ADHD in children and adolescents using a consensus based approach; and
2. use their expertise to identify new and emerging evidence on the diagnosis and/or management of ADHD.

Members of the Expert Working Group will:

• have relevant clinical experience in the diagnosis and management of ADHD in children and adolescence
• have demonstrated and relevant research credentials
• possess broad clinical experience
• be required to declare any conflict of interest on acceptance of membership to the committee which will be available to the public
• be required to consult with consumers.

This Working Committee will be effective for the period of 1 July 2011 to 31 June 2012.
Appendix B: Glossary

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<th><strong>Alerting</strong></th>
<th>The ability to achieve and maintain a high state of sensitivity to incoming information which is critical for optimum task performance.</th>
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| **Attention**         | A multi-dimensional construct with both behavioural and cognitive constructs.  
- *Cognitive description:* ‘attention’ is denoted as a complex set of cognitive processes that includes alerting, orienting and executive control.  
- *Behavioural description:* ‘attention’ is typically judged according to observations of overt on-task behaviour; however it also incorporates the concept of organisation. |
| **Case formulation**  | A hypothesis about the causes, precipitants, and maintaining factors of a child’s medical, psychological, learning, social, and behavioural problems. The case formulation guides management and treatment and serves as a base-line for understanding how symptoms change over time in a developmental context. |
| **Disorganisation**   | Frequent problems in locating needed items. |
| **Executive functioning** | A cluster of high-order skills, which include selective attention, behavioural planning and response inhibition, the manipulation of information in problem-solving tasks, and the regulation of behaviour. |
| **Holistic**          | A practice of medicine that focuses on the whole patient, and addresses physical treatment as well as their social, emotional, and spiritual needs. |
| **Hyperactivity**     | Restless and excessive levels of activity. |
| **Impulsivity**       | Premature and thoughtless actions.  
- *Behavioural aspects:* difficulties can manifest as difficulties in turn-taking, calling out frequently in class, speaking out of turn, acts before thinking, switching to a new activity without completing the current one, difficulty in following a sequence of events.  
- *Cognitive aspects:* difficulties can manifest as impulsive errors in writing or more general academics, or as perseverations that can impact a range of cognitive domains (e.g., language/speech, attention, motor). |
| **Inattention**       | Difficulty in concentrating for a sustained period or off-task behaviour as assessed by a clinician. A number of causes if inattention are recognised; ADHD is only one possible explanation. |
| **Motor activity**    | Includes co-ordination, motor planning and activity levels. Problems in motor activity manifest as clumsiness, poor writing skills, disorganisation, restlessness and fidgeting. |
| **Multidisciplinary care** | A group of health care workers who are members of different disciplines, each providing specific services to the patient. |
| **Multimodal approach** | Treatment strategies that may involve a combination of two or more interventions such as medication, behaviour therapy and social/educational management. |
| **Orienting**         | The ability to selectively attend. |
| **Organisation**      | Emphasises keeping track of materials. |
| **Overt on-task behaviour** | Emphasises visual fixation to task-relevant stimuli, such as a designated spatial location (e.g., worksheet, text book, blackboard), or person (e.g., parent, teacher, speaker), or event (trajectory of ball, onset of stimulus). |
| **Psychosocial interventions** | A therapeutic intervention using cognitive, cognitive-behavioural, behavioural or supportive interventions that is carried out by mental health professionals. |
| **Specialist clinician** | For the purpose of these CPPs, a specialist clinician refers to a paediatrician, child/adolescent psychiatrist or clinical or neuro-psychologist with specialist training and experience in child mental health and development and differential diagnosis. |
Appendix C: Overview of the CPPs Development Process

C.1 Background

The Draft Australian Guidelines on Attention Deficit Hyperactivity Disorder, 2009 (the Draft Guidelines), were developed by the Royal Australasian College of Physicians (RACP) who sought the endorsement of the National Health and Medical Research Council (NHMRC) in June 2009.

Council members could not recommend the CEO approve the Draft Guidelines as Council could not determine whether undisclosed sponsorship may have affected the findings of a large number of publications relied on for the Draft Guidelines. This was a result of Professor Joseph Biederman and Drs. Thomas Spencer and Timothy Wilens failing to report their industry-sponsored activities and subsequently violating certain requirements of their organisations’ conflict of interest policies. While Harvard Medical School and Massachusetts General Hospital have completed their investigations (with the outcomes being made known in July 2011), and the researchers have been sanctioned, the extent to which the conflicts may have impacted on the integrity of the research remains unknown. Despite repeated inquiries to the Harvard Medical School, NHMRC was unable to determine whether the integrity of their research would be investigated or made public.

As an interim measure and in consultation with the then Minister for Health and Ageing, the Hon Nicola Roxon MP, NHMRC released the RACP guidelines as a draft. The Draft Guidelines have been on NHMRC’s website since late 2009 pending the outcomes of the conflict of interest investigations. Whilst still a draft, this provided health professionals with a current guide to assessment, management and care of ADHD.

Acknowledging the absence of approved guidelines, and noting ongoing clinician and community concern about the use of stimulants as a treatment for children and adolescents with ADHD symptoms, NHMRC developed the Clinical Practice Points on the Diagnosis, Assessment and Management of ADHD in Children and Adolescents (the CPPs).

Clinical Practice Points were considered the most suitable product in this instance as the process of development is shorter than guidelines, and given there were concerns and ambiguity about the appropriate use of stimulant medication in the pharmaceutical management of children and adolescents with ADHD.

The CPPs are based on consensus of members of an Expert Working Group (EWG) on what constitutes good practice. NHMRC and the EWG acknowledge that a systematic review of the evidence would strengthen the integrity of the CPPs.

C.2 Expert Working Group (EWG)

On 1 July 2011, a multidisciplinary EWG was established to develop the CPPs. Individuals who had relevant experience and expertise with ADHD and were across the current literature were invited to join the EWG.

The membership, as listed in Appendix A, comprises a broad range of expertise and experience in child and adolescent mental health, neurological development, paediatrics, general practice and a consumer representative.

Members of the EWG were required to declare their relevant interests (perceived conflicts of interest as well as real interests) in writing, prior to appointment.
In accordance with NHMRC's committee meeting processes, the EWG at its first meeting reviewed and discussed their declared conflicts and agreed on how it would adjudicate and manage them. The Chief Executive Officer of the NHMRC, Professor Warwick Anderson, deemed that the declared interests did not impact on the integrity of the EWG.

EWG members were specifically asked to identify, to the best of their ability, potential or real conflicts of interest regarding:

- current or past employment or consultancy by an entity having a commercial interest in the assessment, diagnosis or management of ADHD
- any ownership interests (including ownership interests by a partner, dependent children or close family members) in any entity, the stock of which is not publically traded, which has a commercial interest in the assessment, diagnosis or management of ADHD
- any ownership interests (including ownership interests by a partner, dependent children or close family members), including stock options but excluding indirect investments through mutual funds and the like, valued at $1500 or more in any entity that has a commercial interest in the assessment, diagnosis or management of ADHD
- receiving or having received research funding from any entity that has a commercial interest in the assessment, diagnosis or management of ADHD, either personally or funding received by a partner, dependent children or close family members
- having been paid honoraria or received meals and beverages, travel, accommodation, entertainment, remuneration, educational event attendance or received gifts of value equal to or greater than $1000 per year or $3000 over a three year period from a guideline developer or any entity that has a commercial interest in the assessment, diagnosis or management of ADHD, either personally or received by a partner, dependent children or close family members
- affiliations or associations with any organisation whose interests are aligned with or opposed to ADHD
- involvement in the development or processes to formally endorse any ADHD guidelines.

EWG members were required to update their information as soon as they became aware of any changes to their interests. NHMRC ensured transparency by publishing these details on its website.

The Office of NHMRC (ONHMRC) developed an approach to manage any conflicts at each meeting. There was a standing agenda item where declarations of interest were called for and updates were recorded in the meeting minutes. Should EWG members identify a significant real or perceived conflict of interest, the Chair could decide that the member either leave the room whilst the specific area in which they were conflicted was discussed or the member could remain present in the room but not participate in the discussion, or decision making. There were no instances where the Chair was required to enact this responsibility.

C.3 Steps in the Development of the CPPs

The CPPs were drafted using a hybrid approach to consensus, comprising attributes of the Delphi and RAND/UCLA processes.

The EWG first met on 11 July 2011. At this meeting the group discussed:

- the scope, purpose and audience of the CPPs
- the key areas to address to enhance effective assessment, diagnosis and management of ADHD
- the findings of a brief literature search conducted by ONHMRC which identified articles published since 2005 with a particular focus on systematic reviews and randomised controlled trials, on the assessment, diagnosis, treatment and management of ADHD in children and adolescents
- contentious areas which would benefit from a targeted search of current literature.
Following this meeting ONHMRC conducted additional literature searches on the areas identified by the EWG, namely the:

- appropriateness of diagnosis and assessment of suspected ADHD in children under 4 years of age
- long-term outcomes for children and adolescents receiving pharmacological management of ADHD with particular reference to stimulants
- neuroprotective and/or neurotoxic effects of stimulant medication in children and adolescents.

Members’ areas of expertise/clinical practice were utilised as well as evidence sourced from the literature searches, international guidelines and published literature brought forward by EWG members. Priority was given to referencing systematic literature reviews, meta-analysis and randomised controlled trials where possible.

ONHMRC compiled this additional information and prepared a draft which was circulated to the EWG out of session for individual comments. Dissenting views and comments were discussed at the second face to face meeting of the EWG on 23 August 2011 to further refine the CPPs.

Following this meeting, ONHMRC circulated the re-drafted ADHD CPPs to members for further comment and refinement. Consensus on issues was achieved through emails between members and the project team and discussion with the Chair. The final iteration of the ADHD CPPs was ratified by the EWG through an anonymous polling process managed by ONHMRC, with full consensus being achieved.

The draft CPPs, as ratified by the EWG, were considered by NHMRC’s Health Care Committee, and the Council of NHMRC who advised the CEO that they be released for public consultation.

Public Consultation

The public consultation period was advertised on the NHMRC website and in The Australian. Public consultation was conducted between 31 October 2011 and 28 November 2011. This included emailing targeted invitations to:

- nominees from the Royal Australian College of General Practitioners, Royal Australian and New Zealand College of Psychiatrists and the Australian Psychological Society and the Royal Australasian College of Physicians
- experts identified by the EWG
- members of the former Guideline Development Group for the Draft Guidelines.

A total of 136 submissions were received. These are available on NHMRC’s website at http://www.nhmrc.gov.au.

All submissions were read and summarised by ONHMRC, then discussed at a third meeting of the EWG held on 1 February 2012. References provided during public consultation were also discussed. An abridged and unidentified version of the submissions and the EWG’s response is at Appendix D.

Some of the issues raised in submissions prompted the EWG to request an additional review of current literature. In particular, current literature was sought on the rates of adverse reactions following stimulant use for ADHD symptoms, withdrawal in children/adolescents taken off stimulants, and the association between: giftedness and ADHD, use of stimulants and psychosis, suicidal ideation and/or suicide, use of stimulants and substance misuse.
**Expert Review**

Nominees were sought from the National Institutes of Health (NIH), USA, to provide expert comment on the public consultation draft of the CPPs. Dr Benedetto Vitiello, Chief Child and Adolescent Treatment and Preventive Intervention Research Branch, NIH, was nominated. Dr Vitiello had no interests to declare other than having published many scientific publications and attended conferences and presentations on ADHD over the past 20 years.

Dr Vitiello found the draft to be well supported by the current evidence and consistent with the most recent research findings. He did not find any statement that, in his view, needed revision or correction. Dr Vitiello provided a recent paper on whether prolonged childhood exposure to stimulant medication for the treatment of ADHD increases the risk for developing abnormalities in blood pressure or heart rate. This paper was considered by the EWG.

**Final Draft**

The CPPs were edited based on the EWG’s consideration of submissions, comments from expert review, and in light of the Chair’s consideration of the additional literature searches conducted by ONHMRC. In terms of the literature, priority was given to peer reviewed articles published after 2005, and to systematic literature reviews, meta-analysis and randomised controlled trials where possible.

The re-drafted CPPs were distributed to the EWG out of session for final comments, and provided to NHMRC’s Health Care Committee on 17 May 2012. On 5 June 2012, the Council of NHMRC recommended that the CEO approve and publicly release the CPPs.

The final product was approved by NHMRC’s CEO on 3 September 2012.
Note: submissions addressed multiple issues, so the same submission may be recorded multiple times.

### General Comments

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| 11, 28, 29         | • CPPs do not go far enough in countering the claims made by the lay-media; which is the cause of “community concern”.  
                   • It is not only parents and teachers who misunderstand the condition, but misperceptions and lack of training in primary care practice. | • Noted. The Purpose and Scope has been clarified. The CPPs provide aim to provide advice and clarity to health professionals. They are not designed to address medical training or to respond to claims in the lay media. |
| 1, 2, 24           | • The CPPs are a useful overview and provide general principles.  
                   • They may be of use to general practitioners but are unlikely to benefit paediatricians and child psychiatrists in their management of ADHD because of their lack of depth.  
                   • The CPPs should include more (practical) detail, given that they are addressed to a wide range of professionals potentially involved in the assessment and referral of children with ADHD. | • Noted |
| 85, 101            | • There is a risk that the CPPs will open the door to anti-psychiatry sentiment which is destructive and unhelpful. | • Noted. No changes required. |
| 1, 110             | • The CPPs are out of touch with developments in knowledge and incongruous with “good practice”.  
                   • Inevitably a consensus process leads to very different outcomes framed within a varied set of intellectual domains than that expected from a more rigorous scientific process. | • Noted. It is stated in the CPPs that they were developed in short timeframes and due to the time constraints are based on expert consensus. The EWG acknowledge that a systematic review of the evidence would strengthen the integrity of the ADHD CPPs. |
<p>| 139                | • The repeated use of ADHD ‘behaviours’ and ‘symptoms’ is an insult to the parents of gifted children with inattentive ADHD. | • Noted. Additional literature sought on the association between ADHD and giftedness. |</p>
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| 3                  | • Many studies find a wide range of constructions for ADHD, its perceived causation, meaning and treatment that shows marked gender, nationality, ethnic, age, and clinician differences.  
• The CPPs should consider widening the recommendations to include a full assessment of young people and their parents/carers beliefs with regards to the meaning of the child’s behaviour for children from all backgrounds.  
• Maximum benefit can only be gained if clinical services are capable of taking into account the personalised meanings in all these domains for everyone attending who may be eligible for a diagnosis and the CPPs should state this. | • Text amended in several places in the CPPs. e.g. 3.2 amended to include a cultural and social assessment of the meaning and significance of the behaviours. |
| 150                | • Clinically, ADHD seems to be more common amongst Indigenous children. This is an area worthy of further formal investigation. | • Identified as an area needing further research in Appendix E. |
| 145                | • References to Aboriginal and Torres Strait Islander populations seem to be tokenistic. They provide no guidance as to what to do.  
• To cover the issue of culturally and linguistically diverse communities there should be a reference to Luk’s work on Asian perceptions of ‘acceptable’ levels of attention and activity. | • Amendments made to consider each child’s level of functioning relative to their social and cultural environments.  
• References to Luk’s work included. |
<p>| 29                 | • The brief sections on the management of pre-schoolers, educational approaches, and the long-term impact on society are disappointing. Other guidelines better address these issues. | • Noted. The CPPs complement not replace existing guidelines, policies and procedures. |
| 136                | • Should avoid Gen Y habit of adding ‘ness’ to all adjectives to make nouns, i.e. ‘impulsiveness’ should be impulsivity. | • Agreed. Changes made throughout. |
| 129                | • Too clinical; CPPs are incomprehensible in some areas. Wonder about the purpose of the CPPs and whether they correctly target the proposed audience or whether they are aimed at those educated in clinical psychology. | • Noted. As outlined in the Purpose and Scope, the key audience of the CPPs is General Practitioners, paediatricians, child psychiatrists, clinical and neuro- psychologists and allied health professionals. |</p>
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<td>3</td>
<td>• The CPPs are too subjective and open to interpretation of the clinician. Greater clarity and specificity is advised.</td>
<td>• The CPPs are not Guidelines, do not contain recommendations and are not legislated. The CPPs are designed to provide general guidance to appropriate practice, to be followed subject to the clinician's judgement and patient's preference in each individual case.</td>
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| 3, 11, 23, 144     | • The CPPs are too subjective and open to interpretation of the clinician.  
• Clinicians judgement cannot be wholly relied upon when blanket rules are placed upon them; there isn’t always time or resources to properly study each individual case.  
• Greater clarity and specificity is advised to counter prevailing misinformation.  
• The NHMRC should establish a scheme (or the like) to ensure that the CPPs are adhered to. | • The CPPs are not Guidelines, do not contain recommendations and are not legislated. The CPPs are designed to provide general guidance to appropriate practice, to be followed subject to the clinician's judgement and patient's preference in each individual case. |
| 96, 110            | • The disclaimer is controversial. On the one hand, it suggests that health professionals need to exercise due care to avoid legal action, on the other hand NHMRC is denying itself of responsibility for any injury, loss or damage caused by use of or reliance on the CPPs. | • As above |
| 148                | • The project sustained by J.Kramer is the “gold standard” for management of ADHD. | • Noted |
| 56                 | Resourcing for ADHD services is insufficient, e.g.  
• insufficient GPs with adequate knowledge  
• not enough paediatricians and psychiatrists  
• insufficient numbers of specialists who bulk bill which limits access to treatment in lower SES  
• limited access to slow release long acting stimulants due to PBS restrictions. | • The EWG acknowledges resourcing challenges. The EWG has asked NHMRC to consider a number of issues for further work that are beyond the scope of the CPPs (see Appendix E). |
| 29, 86, 96, 98     | • The criteria for choosing the expert reviewers is not explicit.  
• The conflicts of interest of the expert reviewers should be available before they review the document and be published. | • Appendices amended to make this information explicit. |
<p>| 29, 145            | • CPPs should refer to the Academy of Paediatrics 2011 Guidelines on ADHD, the Clinical Excellence Commission NSW survey, and the new Canadian Guidelines. | • EWG considered these documents. |</p>
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<td>9</td>
<td>• Thank you for allowing us to share in the public knowledge of this issue.</td>
<td>• Noted. No changes required.</td>
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| 2, 3, 24, 29, 42, 83, 84, 116, 126, 145 | Applaud the CPPs for:  
• being clearly written and helpful to clinicians managing ADHD  
• stating the potential impact of parenting competence/adverse environments  
• making a concerted effort to view the struggles that children and families face within the broader context of their lived experiences and to avoid the temptation to ‘dumb down’ this multi-faceted reality  
• stating the importance of considering the beliefs and practices of Indigenous and culturally and linguistically diverse factors in assessment and treatment  
• being consistent with scientific opinion in the field and the accepted mainstream modern approach to the assessment and management of ADHD and complementing the Draft Australian Guidelines on ADHD, 2009 (the Draft Guidelines)  
• reiterating the multidisciplinary approach in all Australian and international guidelines  
• promoting comprehensive and holistic approach to management, including educational and psychosocial management strategies  
• recording issues to be considered when using medication  
• being conservative, especially in regards to restrictions placed on medications and that they only be prescribed by specialists in the field  
• emphasising the potential long-term disability and need for continuity, ongoing monitoring and re-evaluation of treatment  
• providing modern references since the Draft Guidelines, particularly for complementary and alternative approaches  
• acknowledging the need for more research in some areas. | • Noted |
<p>| 57                 | • The CPPs should provide more detail on the findings of Harvard Medical School regarding the conflicts of interest. | • These conflicts impact on the Draft Guidelines rather than the CPPs. More information is provided on NHMRC’s website. |</p>
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| 2, 10, 11, 26, 28 29, 83, 96, 113, 145 | • CPPs should only be produced after comprehensive guidelines on ADHD are finalised.  
• The CPPs should follow the full ADHD Guidelines, once ratified, and should be a distillation of the Guideline’s main points.  
• As it stands, the process of first endorsing a consensus statement signals to our international colleagues that Australia is insecure and confused in its approach to guideline development for ADHD.  
• The CPPs are substandard and should not replace the Draft Guidelines.  
• The lack of evidence-based guidelines in Australia is a drawback for people getting adequate treatment.  
• The Biederman conflict of interest issues that prevented approval of the Draft Guidelines are inappropriately over scrutinised, e.g. none of the Biederman papers have been withdrawn, most are multi-author and many multi-centre, and all seem to have declarations of Conflict of interest included, and the NHMRC’s reticence to approve them is unprecedented internationally (e.g. US Academy of Paediatrics and new Canadian Guidelines continue to cite Biederman extensively).  
• Raises the issue if there is any scientifically valid reason for not ratifying the ADHD Guidelines which are evidence-based, comprehensive and high quality, and the recommendations are consistent with best practice and other international clinical guidelines on ADHD. | • Noted. The CPPs do not attempt to replace or act as a substitute for the Draft Guidelines, nor are they a summary of them. The CPPs were developed to provide clarity for health professionals in managing children and adolescents with ADHD.  
• The Draft Guidelines have not been approved by NHMRC. More detail regarding this decision is available on the NHMRC website. |
| 23, 57, 119, 122, 124 | • The status of Professor Biederman’s research is concerning, especially the question of its integrity.  
• Pleased that the Draft Guidelines were not approved by the NHMRC.  
• The Draft Guidelines should be removed from the NHMRC website. | • As above |
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| 2, 23, 85, 145    | • Some of the references in the CPPs reveal the widespread influence through citations of the extensive literature generated by Professor Biederman.  
• There are citations to Stephen Faraone, who has carried out much of his research with Professor Biederman’s. While it is important to retain these citations, it points to the hazards of the current position on the Draft Guidelines.  
• It remains possible that some of the information contained in the CPPs could be unfairly biased in favour of psychostimulant medication. | • Noted. |
| 14, 23, 26, 28, 87, 136, 145 | • It is unfortunate that adults have been neglected in the CPPs.  
• Many adults are affected and medical practitioners and the general public need more information.  
• Members of the Expert Working Group should have better representation from suitably qualified health professional in the diagnosis, treatment and better education of adult ADHD. | • Adult ADHD is beyond the scope of the CPPs. |
| 12, 40, 113, 122, 124, 134 | • ADHD is not a disease/medical condition.  
• ADHD symptoms may not indicate a mental illness, e.g. are about child not adapting to society and society’s expectation, a sign of the child wanting love and attention or being bored at school. | CPPs amended to clarify that:  
• all children can display active, impulsive and inattentive behaviour as part of normal development  
• the assessment of ADHD needs to consider cultural factors  
• current systems for diagnosing ADHD build in safeguards for unnecessarily diagnosing children by demanding concurrent criteria. |
<p>| 23, 145 | • The CPPs should include effective safeguards that reduce or limit a health provider’s scope when diagnosing ADHD, particularly a person who may be feigning ADHD symptoms either in themselves or their child, to gain access to otherwise illicit drugs such as dexamphetamine. | • As above. |</p>
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<td>3, 23, 44, 51, 59, 64, 74, 75, 84, 92, 114, 122, 124, 126, 138</td>
<td>• The causes of ADHD are unknown and it is important to make this explicit.&lt;br&gt;• It has not been established that brain abnormalities or chemical imbalances in the brain are associated with ADHD.&lt;br&gt;• Diagnosis is not useful; it is a matter of clinical judgement and does not tell you anything about either the cause or (as a result) what particular treatment is most likely to help a particular child.&lt;br&gt;• Therefore, the use of drugs cannot be justified.</td>
<td>• CPPs acknowledge that there is no one single known cause of ADHD. Its aetiology involves the interplay of multiple genetic, environmental and social factors.&lt;br&gt;• CPPs amended to state that regardless of whether the cause is explicable or not ADHD symptoms impact so adversely on the child or adolescent and their family that the symptoms cannot be left untreated.</td>
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<td>3, 23, 27, 44, 119, 136</td>
<td>• The sentence “children meeting DSM IV diagnostic criteria for ADHD are described as typically having brain development that is inconsistent with age matched peers, for example, slower rates of cortical thinning,” is unsubstantiated, misleading and should be removed.&lt;br&gt;• There are a number of confounds that complicate the picture in neuroimaging studies including IQ, the effects of exposure to medications (not just stimulants), differential maturation rates (as part of the normal spectrum), and consistent inconsistencies in the findings.</td>
<td>• CPPs amended to clarify that there is some support for inattention and impulsiveness having a biological basis. It is likely that this biological underpinning interacts with environmental and social factors.</td>
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<td>11, 42, 85, 126</td>
<td>• Insufficient attention is given to evidence supporting the genetic influence and inheritability of ADHD. For some children, their ADHD symptoms have a firm physiological basis and deserve pharmacological management.</td>
<td>• As above.</td>
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<td>86, 88, 114, 121, 147, 148, 150</td>
<td>• Often the underlying issues that need resolving are home or social situations (e.g. family dysfunctional, bullying at school), physical conditions (e.g. sleep problems, poor diet, exposure to toxic chemicals, allergies, eye sight problems, other undiagnosed medical conditions) or quality of parenting or education.&lt;br&gt;• Not taking these factors into account increases the risk of misdiagnosis.</td>
<td>• CPPs state that clinicians should always be mindful of seeking a more meaningful explanation of the child’s behaviour than simply labelling it as ADHD because it meets diagnostic criteria.&lt;br&gt;• More examples of these explanations have been added.&lt;br&gt;• The assessment section incorporates the need to assess the parent/carer/family and to be alert for any stress and/or impairment in parents/caregivers.</td>
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<td>24, 29, 104, 145, 150</td>
<td>• Children with foetal alcohol spectrum disorder (FASD) may present with behaviours symptomatic of ADHD, and FASD is often co-morbid with ADHD.</td>
<td>• 1.4 amended to list foetal alcohol syndrome as an example of a condition that may present with ADHD symptoms.</td>
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| 1, 2, 11, 145, 150 | • The terms used for some of the co-morbid conditions are out-dated.  
• The table of co-morbid conditions and differential diagnoses is confusing, incomplete and requires referencing. | • The table of differential or co-morbid conditions has been deleted.  
• Some examples are provided and overarching terms are used to capture a range of conditions, but it is not meant to be a complete list.  
• Co-morbid disorders are still referred to as they may require specific treatment strategies. |
| 2, 29, 101, 145   | • Would be useful to include the epidemiology, incidence and prevalence of ADHD in children and adolescents in Australia, and how it compares to other mental health diagnoses.  
• Worth referencing to Professor Michael Sawyer’s study as part of the National Mental Health Survey in 2000. | • CPPs amended to acknowledge the lack of recent national data on ADHD prevalence and it is noted that estimates of the prevalence vary according to the diagnostic criteria, measures used, ascertainment methods, and the cultural characteristics and demographics of the population.  
• Sentence added to reflect Sawyer’s findings.  
• Beyond scope to list prevalence of other diagnoses. |
| 11                | • Tendency to under diagnose and under treat ADHD deserves to be highlighted, especially in children with high IQ (>120) who are at risk of late or missed diagnosis. | • Assessment section amended to note that a cognitive assessment should be undertaken when indicated because cognitive issues, for example seen in children with intellectual disability or with exceptional cognitive abilities, can complicate ADHD symptoms and require special management considerations.  
• Management section amended to include the consideration of atypical cognitive abilities before commencing a child/adolescent on stimulant medication. |
<p>| 3, 27, 44         | • The sentence “ADHD also increases the risk of a range of adverse outcomes including educational, social, emotional and behavioural problems during childhood, and subsequent mental health, relationship, occupational, legal, and substance abuse problems in adult life,” is equivalent to saying dysfunctional behaviours cause dysfunctional behaviours and implies causation. | • Sentence amended. |</p>
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<td>42, 150</td>
<td>• CPPs imply that ADHD disappears as the child matures.</td>
<td>• Noted. No changes required. 1.6 states that many children diagnosed with ADHD will retain some ADHD symptoms or associated mental health problems into adolescence and adulthood.</td>
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| 2, 73, 83, 94, 96, 98, 140 | • Several members of the EWG that developed the CPPs, including the Chair, have no particular relevant experience in ADHD.  
• The EWG is not representative of practitioners in Australia who deal with the vast majority of children with ADHD. e.g.  
  – developmental paediatricians who specialise in ADHD are underrepresented as they, along with child psychiatrists, are largely responsible for diagnosing the majority of children presenting with ADHD symptoms and behaviours, and for prescribing ADHD medicines  
  – paediatricians are underrepresented, yet they are the main medical specialists assessing and managing ADHD patients in Australia  
  – school health services and general practitioners are underrepresented and work with children with mental health and behavioural problems on a daily basis  
  – no representation of specialists in complementary, alternative or natural medicines which shows a clear bias on behalf of the drug based pharmaceutical interests. | • Given the short timeframe in which NHMRC is developing the CPPs, a direct approach was taken in asking people to be part of the EWG who had experience with ADHD and were across the current literature. NHMRC approached five GPs who either did not respond or declined due to tight timeframes, existing commitments or the topic being outside their area of expertise.  
• The final EWG comprises a broad range of expertise and experience in child and adolescent mental health, neurological development and management of ADHD. The EWG represents diversity of expertise, experience and viewpoints on the management of ADHD. This includes a previously practicing GP, and a currently practicing paediatrician.  
• The CPPs underwent public consultation in November 2011 and received 136 submissions for the EWG’s consideration. This included comments from a wide range of Australian clinicians, including comments from GPs, paediatricians and naturopaths. |
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| 12, 48, 49, 51, 59, 65, 66, 67, 69, 73, 74, 75, 82, 86, 88, 92, 93, 94, 96, 98, 113, 118, 131, 134, 138, 140, 143, 147 | • The conflicts of interest of some EWG members are of concern and may cause a bias towards pharmacological interventions and against complementary and alternative medicines. e.g.  
- Professor Tonge is part of a clinical trial which involves giving antidepressants to children aged between 11 and 15 who refuse to go to school. Anti-depressants have warnings for the increased risk of suicide and self-harm. Truancy is not a mental illness.  
- Professor Kohn was a member of the ADHD drug Strattera (atomoxetine) Advisory Board for Eli Lilly and has been part of an Eli Lilly study on atomoxetine. Strattera has the strongest Australian government warning, alerting on the risk of suicide in children. He has received financial support from Janssen-Cilag (makers of Concerta, the most commonly prescribed ADHD drug in Australia), to attend a conference and was paid by them to prepare teaching and training material.  
- Margaret Vikingur organisation has received unrestricted grants from Eli Lilly, Novartis and Janssen-Cilag, the makers of Strattera, Ritalin and Concerta respectively. | • NHMRC has ensured transparency by publishing details of EWG members’ conflicts of interest in the Appendices and on NHMRC’s website.  
• Members of the EWG underwent a rigorous and open process to ensure all interests and potential conflicts of members were declared. The Chief Executive Officer of the NHMRC, Professor Warwick Anderson, deemed that the declared interests do not impact on the integrity of the working group and that the group represents diversity of expertise, experience and viewpoints on the management of ADHD.  
• Professor Tonge’s research is the Chief Investigator of an NHMRC and beyondblue funded randomised trial comparing the relative effectiveness of a psychological treatment to the addition of fluoxetine or a placebo compound for the treatment of persistent school refusal due to a severe anxiety disorder in adolescents. This study has approval of the Southern Health Research Ethics Committee and approval to use fluoxetine from the Therapeutic Goods Administration. |
## Diagnosis

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| 2, 11, 56, 129    | • Australia is lagging behind the rest of the world in the diagnosis of ADHD.  
• Failing to accept the existence of ADHD is having a profound negative impact on Australian mental health policy and its ability to take major steps in the treatment of ADHD.  
• If ADHD is not recognised as a disorder, children with ADHD are unlikely to receive the assistance they need (at school, home and into adulthood) to achieve their full potential.  
• Burden of disease data would be useful to see the cost of ADHD on the community particularly of treatment vs non treatment.  
• Seems to be confusion about ADHD as a behavioural description, versus not all individuals who meet the criteria need medication.  
• Seems to be little incentive for parents who do not wish to medicate to pursue a diagnosis in relation to children who display obvious symptoms of ADHD.  
• CPPs amended to state that regardless of whether the cause is explicable or not ADHD symptoms impact so adversely on the child or adolescent and their family that the symptoms cannot be left untreated. |
| 11, 54,85, 139    | • Disagree with the sentence “A child who meets diagnostic criteria for ADHD may not be best served by making that diagnosis; their behaviour might be better understood as a reaction to more specific cognitive difficulties.”  
• It deters early intervention and prevention.  
• ADHD is a disorder with established validity.  
• There are risks of not diagnosing ADHD. Not diagnosing and treating ADHD may result in long term harm and has wide ranging implications for the individual, the family, and wider community.  
• If professionals rely on the CPPs, ADHD may never be identified, the correct ADHD medicine never introduced, and a way to reverse the chronic academic underachievement never discovered.  
• Sentence ‘a child who meets diagnostic criteria for ADHD may not be best served by making that diagnosis...’ has been removed.  
• CPPs amended to note the risk of not making a diagnosis is that the child may not receive appropriate management and care.  
• Implications for the individual, family, and wider community are acknowledged in 1.6. |
| 84                | • CPPs blur diagnostic criteria (a combination of symptoms and level of functioning) with aetiology. With a few exceptions, aetiology is not used as a criterion to define mental disorders.  
• Section amended. |
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| 23, 101            | • Would suggest that in the Australian context the physician should follow the DSM–IV criteria. ICD–10 diagnostic system is more restrictive and less widely used in Australia.  
• Hard to implement the CPPs when it refers to DSM-IV and ICD-10. On the other hand, one set of criteria may prevail at the expense of the other, depending on the context. | • CPPs amended to acknowledge differences in ICD-10 and DSM-IV criteria. |
| 139                | • Gifted children with ADHD are often extremely behaviourally compliant and difficult to spot in the classroom; many go unidentified.  
• The CPPs may dismiss the possibility of a gifted child who also has ADHD, receiving a diagnosis of ADHD.  
• Missed diagnosis of a disability results in a missed opportunity for early remediation and professional intervention.  
• The earlier a disability can be identified and addressed, the greater is the chance that it can be treated and remediated, or at least accommodated and supported. | • A thorough assessment, as promoted in the CPPs, should result in gifted children with ADHD being accurately diagnosed and managed.  
• 3.3 amended to note the importance of cognitive assessment when indicated because cognitive issues, for example seen in children with exceptional cognitive abilities, can complicate ADHD symptoms and require special management considerations. |
| 119, 122, 124      | • The DSM-IV should not be relied on.  
• DSM-IV panel members had financial associations with companies in the pharmaceutical industry which discredits the basis of the DSM as a diagnostic tool.  
• The ICD-10 criteria are more conservative and would see fewer children diagnosed. | Amended to acknowledge:  
• differences in ICD-10 and DSM-IV  
• that the current systems, such as DSM-IV-TR, specify the criteria for diagnosing ADHD including that there is clear evidence of clinically significant impairment in social and school functioning  
• the risk of not making a diagnosis is that the child may not receive appropriate management and care. |
| 5, 16, 41, 50, 52, 62, 65, 70, 72, 74, 75, 77, 82, 96, 102, 114, 117, 122, 124, 131, 142, 146, 147 | • ADHD is not a valid diagnosis or disease.  
• Diagnosis is subjective. There are no objective scientific measures or tests (e.g. blood test, physical examinations) to establish a diagnosis of ADHD.  
• Therefore, the use of drugs cannot be justified. | As above and CPPs acknowledge that:  
• a comprehensive assessment, including an assessment of the child’s physical health is essential to inform an individualised management plan.  
• the importance of a thorough assessment; not solely application of diagnostic criteria prior to commencing treatment. |
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| 3, 75, 82, 88, 114, 117, 124, 140 | • Evidence suggests that the potential negative effects of stigma and labelling should always be discussed with young people and their parents before a diagnosis is confirmed.  
• Labelling a child with ADHD has the potential to do harm, e.g. damages a child’s self-concept and creates self-blame, and denies children of their rights to expect protection, care, love and the chance to reach their full potential in life.  
• Labelling doesn’t resolve the issue. It becomes an excuse for both parents and children for not coping with the responsibilities of social interaction.  
• Children who display ADHD symptoms need to be treated as individuals not labels. | As above. |
| 23, 24, 57, 85, 101 | • The intense DSM debate and revision of DSM-IV for DSM V, should be mentioned and referenced. | Footnote added to state that the DSM-IV criteria are under review for the development of version DSM-V, but these changes will not be available until after the publication of the CPPs. If and when this occurs NHMRC may consider revising the CPPs. |
| 44, 75 | • Diagnosis and the prescription of medications for the treatment of childhood ADHD should be restricted to health professionals with sufficient accreditation and training, e.g. child psychiatrists or paediatricians who have been assessed as having achieved specific mental health competencies. | The EWG has asked NHMRC to consider investigating a number of issues beyond the scope of the CPPs (see appendices), including that there is not a uniform national approach to accreditation of specialist medical practitioners who prescribe stimulant medication for patients with ADHD. |
| 6, 7, 150 | • Disagree that diagnosis and management should be limited to a specialist clinician.  
• Not all psychiatrists and paediatricians are suitably trained in the management of ADHD.  
• Limiting to a specialist clinician will make it difficult for rural and remote people to access treatment in a timely and equitable manner.  
• GPs with special interests such as ADHD should be considered as specialist clinicians as GPs have a better understanding of family dynamics and history and are able to carry out reassessment in getting dosage right. The National Institute for Health and Clinical Excellence guidance on GP involvement is appropriate.  
• GPs with a special interest in the field could make the diagnosis in pre-schoolers, but it is always prudent to refer such children to a paediatrician. | The EWG has asked NHMRC to consider a number of issues beyond the scope of the CPPs (see appendices), including the need for on-going professional training for GPs working with children with suspected or diagnosed ADHD.  
Section 3.2 amended to include special consideration in rural and remote areas. |
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<tr>
<td>82</td>
<td>• Children who are the youngest in their grade are more likely to be misdiagnosed with ADHD.</td>
<td>• Sentence and reference added to acknowledge this.</td>
</tr>
<tr>
<td>73</td>
<td>• ADHD can be easily misdiagnosed even though children seem to fit set criteria.</td>
<td>• Noted. The CPPs acknowledge the importance of a thorough assessment; not solely application of diagnostic criteria.</td>
</tr>
<tr>
<td>11, 150</td>
<td>• A disproportionate amount of the inattentive-type seem to be girls; so they are not in trouble for difficult behaviours, but importantly not learning. • Therefore, potential for under diagnosis of ADHD in girls.</td>
<td>• No changes required. • CPPs mention the difference in symptoms displayed by boys and girls.</td>
</tr>
<tr>
<td>3</td>
<td>• Reference cited shows that there is speculation that girls may display more inattentive symptoms than boys, but it has not been found to be statistically significant.</td>
<td>• Sentence amended.</td>
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<tr>
<td>24, 29, 85</td>
<td>• Confusion and inconsistencies in regards to the term “pre-schoolers”.</td>
<td>• Term ‘pre-schooler’, amended to young children (under 7) throughout CPPs.</td>
</tr>
<tr>
<td>3, 44</td>
<td>• CPPs should not recommend diagnosis for pre-schooler/children under 7 years.</td>
<td>• As above.</td>
</tr>
<tr>
<td>3, 27, 29, 119, 150</td>
<td>• Must be explicit that preschool children are often perceived to have symptoms of inattention, distractibility or high activity, which can be normal for children in this developmental stage. • Diagnosis should not be made in pre-schoolers when diagnosis is especially subjective as ADHD type behaviours are entirely normal behaviours for young children. • Should wait until child is over 7 years old, after they have had at least one year of school and it is possible to assess how they have settle into the school environment.</td>
<td>• Text amended to highlight that significant caution is needed in diagnosing young children as the core ADHD symptoms are normal for children in this development stage, making it difficult to distinguish an impairment from normal developmental expectations. • CPPs amended to state that diagnosis may not be reliable (in children under 7) until the child has had at least one year in school which allows time to assess how they settle in more challenging social and academic environments (when ADHD symptoms may become less prominent).</td>
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## Assessment and Case Formulation

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<td>75</td>
<td>• CPPs state that children need to be observed extensively in a range of settings before arriving at a diagnosis, but in reality an assessment occurs within minutes and based on a brief hearing of parents complaints.</td>
<td>• Noted. The CPPs aim to influence best practice.</td>
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| 44, 81, 101, 124, 126, 145, 150 | • Fail to point out that clinicians should be aware of the possibility of ADHD being present in parents and/or siblings.  
• Clinicians have a responsibility to identify where family dysfunction, physical conditions (e.g. sleep, diet) and quality of education may be contributing to a child’s inattentive or hyperactive/impulsive behaviour and suggest supportive strategies.  
• Parent/carer burnout can be a major problem, especially for sole parents. Supporting parents/carers is an important role for GPs. | • CPPs amended to state that a child who meets diagnostic criteria for ADHD may not be best served by making that diagnosis. For example, their behaviour could be understood as a reaction to specific cognitive difficulties or family/environmental circumstances.  
• CPPs acknowledge the need to offer support to other members of the family. |
<p>| 3                 | • Delete the following sentence “It is suspected that a child or adolescent has ADHD” (p10), as it suggests ADHD is a concrete entity. Replace it with: “It is suspected that a child or adolescent has ADHD symptoms”. | • Agreed. Text amended. |
| 3                 | • Use of the word ‘dysfunction’ negatively labels parents behaviour, which may prove unhelpful. | • Noted. Dysfunction replaced with impairment. |
| 24, 101, 150      | • CPPs should outline suitable screening tools and instruments (e.g. SNAP Rating Scale, Strengths and Difficulties Questionnaire Vanderbilt Questionnaire) and make recommendations on the most useful instruments. | • It is beyond the scope of the CPPs to assess the reliability and validity of various screening tools. Tools may have some use in gathering information from a variety of sources such as parents and teachers but in using these tools the clinician should be aware of the psychometric properties and limitations of the tool which can act as a screening tool but is not diagnostic. |
| 6                 | • Should consider trained observers such as teachers, reliable family and friends rather than direct observation. | • Section amended to include observation of the child at school |
| 42, 150           | • Family history should be the first questions in the assessment process. Given that ADHD is an inherited disorder in many cases, it is essential to take a detailed family history. | • Noted. No change required. The list of assessments provided is not hierarchical. Family history is already advised under 3.2. |
| 54                | • Important to consider specific cognitive difficulties and family and environmental circumstances. | • Noted. No change required. This is already captured in the CPPs. |</p>
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<td>7</td>
<td>• Section confuses clear identification of ADHD alone versus with co-morbidities and the effect on the clinical presentation and treatment.</td>
<td>• Agreed. Text amended to clarify that symptoms of ADHD rarely occur in isolation and that assessment includes the identification of psychological, social, emotional and behavioural difficulties that might coexist with ADHD.</td>
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| 145, 150           | • Neuropsychological and cognitive assessment are unrealistic | • Noted. No change required. CPPs state that additional assessment may include appraisal of the child’s functioning including academic/cognitive status.  
• The EWG acknowledges difficulties with access but the purpose of the CPPs is to advise on best practice. |
| 3                  | • To encompass children from all backgrounds, the CPPs should consider widening their recommendations to include a full assessment of young people and their parents/carers beliefs with regards to the meaning of the child’s behaviour.  
• Maximum benefit can only be gained if clinical services are capable of taking into account the personalised meanings (e.g. of gender, nationality, ethnic, age) for everyone attending who may be eligible for a diagnosis. The CPPs should state this.  
• Provided specific examples of changes to text. | • Agreed. Text amended. |
| 77, 101, 114, 132, 150 | A complete and thorough medical and physical assessment is mandatory before a psychiatric diagnosis can be considered to:  
• identify an underlying physical condition including hearing  
• and vision abnormalities, manifesting as ADHD  
• identify co-morbidities, such as motor impairment  
• identify special talents and gifts  
• exclude other conditions that may mimic or cause some symptoms of ADHD  
• exclude potential contraindications to some medications, for example pre-existing cardiac problems. | • Agreed.  
• 3.1 amended to include an assessment of the child’s physical health.  
• 3.2 amended from ‘medical history’ to ‘medical, developmental and mental health assessment’ would include a motor assessment. |
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<td>150</td>
<td>• Baseline physical assessment can be collected by Practice Nurses, rather than GPs.</td>
<td>• Noted.</td>
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| 101, 150           | • Co-morbidities are almost “the norm” in children with ADHD. Therefore, when a diagnosis of ADHD is made, co-morbidities should routinely be sought.  
• The first task is to determine which condition is impacting most severely on the child’s life. The one with the greatest negative effects must be addressed first.  
• CPPs do not address the issues of managing ADHD where there is a co-morbid psychiatric disorder. | • CPPs discuss the importance of assessing for co-morbidities to determine appropriate treatment strategies.  
• The management section states that:  
  – the CPPs focus on ADHD symptoms rather than specific treatment of any underlying problems or associated co-morbid conditions  
  – a cognitive and/or mental health assessment be considered, when indicated, to highlight issues that complicate ADHD symptoms and require special management considerations. |
| 11, 27             | • The sentence about developing an effective plan involves educating the child/adolescent about the disorder has the potential to create self-fulfilling prophecies of failure and should be removed. | • Sentence deleted and 4.1 amended to state that developing a management plan involves empowering the child/adolescent and his or her family and carers by providing information on ADHD, its symptoms, impact, and the potential benefits and side effects of various management strategies. |
### Management

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| 3                  | • CPPs ambitious in their recommendations leading to the risk of reverting to using medication based strategies as there is a lack of resources to provide psychosocial interventions and it may be perceived that medication is better than doing nothing.  
• The CPPs should recommend that psychosocial are always tried first. | • CPPs have been restructured so that psychological approaches are discussed first.  
• Management section amended to state that the clinician should initially provide a program of management that is informed by the findings of a comprehensive assessment. This might be a psychosocial treatment alone initially, or it might include medication if justified by the assessment. |
| 3                  | • CPPs ambitious in their recommendations leading to the danger of ‘over-treatment’. When multiple professionals are involved in trying to remedy the same problem this can lead to confusion for the young person and/or their family and send the disempowering message that they need more help because the problem is severe and/or the young/person or their parents have few resources to help them solve or deal with the problems.  
• The CPPs should recommend one treatment at time. Where a second treatment approach is added this is done with active consultation between the clinicians providing the two treatments. Educational provision and support is separate to this, however, teachers’ opinions should always be sought. | • As above. |
| 44                 | • CPPs dismiss anything that is not a one-size fits all treatment, even though they acknowledge ADHD behaviours have multiple potential causes and require a higher standard of long term evidence from low risk treatments than that required from invasive inherently high risk treatments. | Disagree. The CPPs take a holistic approach to management and acknowledge that:  
• treating ADHD is usually not sufficient. Rather the clinician must try to make sense of the child’s problems, and wherever possible provide specific interventions for whatever is found to underpin the presentation  
• the management and treatment of the symptoms of ADHD is an ongoing process that requires ongoing review as the clinician strives to find a more precise explanation that provides specific treatment options for the child. |
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<td>29</td>
<td>• The CPPs reinforce the perception of ADHD as a behavioural disorder with only behavioural symptoms “treating the ADHD is usually not sufficient.” It recommends looking for associated learning, developmental, emotional and environmental contributions. However, these MUST be looked for at the stage of initial diagnosis. It tends to support the misguided view of the National Institute for Health and Clinical Excellence of treat the symptom first.</td>
<td>• Acknowledged that treating the symptoms does not necessarily treat the disorder. However, reducing ADHD symptoms can improve a range of outcomes. • Assessment section acknowledges that the clinician should always be mindful of seeking a more meaningful explanation of the child’s behaviour than simply labelling it as ADHD because it meets diagnostic criteria.</td>
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<td>51, 74, 75, 78, 94, 110</td>
<td>• The CPPs say they are holistic but it is just a rhetorical ploy. • Drug therapy should not be the first line of treatment. • Drugging children to change their behaviour is unreasonable and unethical. • Drugs cause brain damage. • Children can reach their maximum intellectual potential without drugs.</td>
<td>• Noted. The CPPs take a holistic approach to management which may include medication, psychosocial management strategies and, where appropriate, educational interventions. They acknowledge that not all people with ADHD will require, or benefit from, pharmacological management.</td>
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<td>24, 51, 79, 84, 90, 130</td>
<td>• Should highlight the need to consider a range of biological, psychological and social interventions. • Parents and teachers need education and information on all treatment options, including alternatives to drugs. • Prescribing stimulant medication in the absence of a comprehensive treatment plan is not acceptable.</td>
<td>• Text amended to state that parents/carers must be given information on the diagnosis and management plan, including any potential adverse effects of treatment in order to fully inform them and to have them make a decision regarding the treatment that is offered to their child.</td>
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<td>126</td>
<td>• Practitioners diagnosing and managing ADHD are aware of the wide variety of causes and seek to recommend management which will contribute to the wellbeing of the child or adolescent. • The practitioner considers the short and long term risks and benefits of any particular mode of treatment (pharmacological or other).</td>
<td>• Noted. CPPs reflect these points.</td>
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<td>11</td>
<td>• Treatment of children in homes with multiple sufferers is more challenging and needs to be acknowledged and accommodated.</td>
<td>• CPPs acknowledge that children and adolescents may need ongoing monitoring and review to ensure their management plan is appropriate for their current symptoms and family, social and cultural circumstances.</td>
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| 141, 150           | • The use of EPC and Mental Health Item Numbers, GP Management Plans, Mental Health Plans, GP Team Care Arrangements, Case Conference item numbers and attendance at school-based case conferences can facilitate management in General Practice and should be brought to GPs attention.  
• Improving behavioural and academic outcomes using individually tailored modifications to the educational setting are key outcomes of school-based case conferencing. | • CPPs amended to include GPs preparing a GP Management Plan and participating in school-based case conferences. |
| 29, 150            | • Inadequately discusses the roles of GPs. Should mention co-prescribing experience in Western Australia, WraparoundKids process and the Better Start program  
• Many GPs are extremely experienced in Community Child Health.  
• GPs are the main referrers for multimodal treatment, language therapy, occupational therapy and psychological services.  
• GPs who are Approved Psychostimulant Prescriber (NSW) are capable of managing the medication side of things (in less complex cases), as well as providing overall coordination of management. | • ADHD in itself would not be considered an eligible disability under the Better Start Program.  
• 4.2 amended to include school-based case conferencing rather than specific programs such as Wrap Around Kids.  
• 4.4.1 clarified to state that methylphenidate and dexamphetamine are Schedule 8 controlled drugs for which particular prescribing restrictions apply in most Australian States and Territories. Example given of NSW's restrictions. |
| 41, 42, 56, 145    | • The usage of stimulants must be carefully monitored and reviewed by medical specialists not GPs.  
• There are not many GPs who would be trained or experienced enough to take on the role of managing people with ADHD.  
• Who would provide GPs with the relevant training? | • The EWG has asked NHMRC to consider a number of issues beyond the scope of the CPPs, including that GPs have an important role in screening for ADHD, referral for specialist assessment, follow-up of treatment and support for parents. However there is a need for on-going professional training for GPs in this role and the consideration should be given to how this can be achieved.  
• 4.4.1 states that if pharmacological treatment is implemented, it should only be after a comprehensive assessment under the direction of paediatrician, child psychiatrist or neurologist.  
• 4.2 states that GPs may assess the child/adolescent's response to treatment and monitor for adverse effects of treatment and prompting a review of the diagnosis (which would be by a specialist clinician) if progress is not satisfactory. |
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| 101, 126, 145, 150| • Many children and adolescents will continue to need treatment into adulthood.  
• CPPs should address the issue of protocols for managing critical transition such as primary to secondary school, and the provision of services when transitioning to adulthood.  
• Access to an adult psychiatrist in a timely and affordable manner can be problematic, especially in rural and regional areas.  
• Children who are taken off stimulants need to be followed closely when they get to high school. The greater complexity of the work, plus the loss of routine associated with primary school, can see these kids struggling once again. | • CPPs acknowledge that particular care is needed in assisting adolescents in the transition to adult care.  
• The EWG has asked NHMRC to consider investigating a number of issues beyond the scope of the CPPs, including that for some adolescents it is difficult to access psychiatrists in a timely and affordable manner to assist them in the transition to adult care, especially in rural and regional areas.  
• CPPs amended to state that:  
  – transition periods should be considered when determining the frequency of review  
  – if trialling a period off medication this trial should last at least several weeks and begin at an appropriate time (e.g. not at times critical to development or schooling). |
| 150               | • In selected patients who are on multiple medications, the concern felt by both parents and prescribers can be reduced by the performance of a Home Medication Review by a Community Pharmacist. | • EWG is of the view that follow-up and review must be by a medical practitioner. 4.4.1 has been amended to state that the specialist clinician prescribing medication should regularly review the child as indicated with the support of the GP who should review the child more frequently, and when necessary supported by the pharmacist. |
| 1                 | • The draft CPPs appropriately situate stimulant medication in the armamentarium of current ADHD treatments. | • Noted. No changes required. |
| 49, 118, 122, 146 | • ADHD drugs are dangerous as demonstrated by the Therapeutic Goods Administrations (TGA) Adverse Drug Reaction Reports.  
• It should be mandatory that all adverse reactions to pharmacological management be reported to an independent authority not resourced by a pharmaceutical company.  
• These reports should be published and easily accessible to the public.  
• The pharmaceutical industry should publish their statistics and investigations be conducted if there are concerns. | • CPPs amended to remind clinicians of the importance of reporting adverse reactions. However, it is beyond the scope of the CPPs, to recommend a change in policy.  
• At present, the TGA encourages health professionals to report any suspected adverse reaction to a medicine, but it is not mandatory. It is difficult to estimate rates of these adverse events when reports are voluntary. |
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<td>141</td>
<td>• GPs are not responsible for initiating medication but may be involved in managing side effects. It would be useful to document the rates of side effects.</td>
<td>• No literature was found on the rates of side effects. The common side effects listed in the CPPs are consistent with those in other guidelines and reviews. • There is no national reliable data on rates of side effects, as reporting of adverse reactions is voluntary.</td>
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<td>18, 27, 30, 44, 77, 79, 92, 95, 112, 114, 138, 142</td>
<td>• The side-effects of stimulants often outweigh the benefits. • ADHD medications should not be used, or only be used when behaviours represent a significant risk to the immediate welfare of the child.</td>
<td>The CPPs acknowledge that: • Stimulants may have side effects. • When stimulant treatment is used, it should only be continued if there is demonstrated benefit in the absence of unacceptable side effects. • The use of clinical judgement is required to evaluate the harms versus benefits of stimulant use for each individual case upon discussion with the child/adolescent and their family/carers.</td>
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<td>4, 13, 56, 139, 148, 150</td>
<td>• CPPs should clarify misinformation on medication management. • The correct prescription and administration of ADHD medications (dexamphetamine and Ritalin) can benefit some sufferers and assist them to be functional and effective members of society (e.g. opportunities open up at school and in the family leading to improvements in marks and behaviour at school, relationships with family and peers, self-confidence). • Specialist clinicians should at least inform parents that promising results can be experienced, including by some gifted children. • Parents have the right to refuse medication for their child, but this can sometimes lead to poor results for the child. • Should avoid spending large sums of money pursuing unproven interventions, or others which still await vindication. • RACP (2006) handout regarding stimulant medication is a useful document to give parents/carers.</td>
<td>• CPPs amended to acknowledge that for some children diagnosed with ADHD, medication can reduce core symptoms and improve social skills, subsequently creating opportunities at school and home, and changing experiences from being developmentally destructive to ones that promote development.</td>
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<tr>
<td>54</td>
<td>• Appropriate treatment for ADHD is neuro-protective, and reduces the incidence of substance use, depression, and other serious sequelae in later life.</td>
<td>• More evidence needed to support this submission.</td>
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<td>27, 44</td>
<td>• The use of ADHD medications should be restricted to the short term (max. of 12 months).</td>
<td>• CPPs amended to note that if the maximum dose has been reached and feedback from parents suggests that there is no significant improvement after a month of treatment, then alternative treatments should be considered.</td>
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<td>8, 52, 114, 131</td>
<td>• The use of stimulant medication is unethical as the mechanism by which it is effective is unknown. This is against the National Statement on Ethical Conduct in Research Involving Humans.</td>
<td>• Methylphenidate and dexamphetamine are approved stimulants in Australia for managing ADHD symptoms. TGA has evaluated their safety, quality and effectiveness and determined that the benefits to people taking the medicine outweigh the risks.</td>
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| 65, 82, 89, 115, 124 | • Object to pharmacological medication being the first line of treatment.  
• It should be a requirement that:  
  – children/adolescents be reviewed by a child guidance professional prior to beginning on medication  
  – reasonable trials with other suggested interventions be trialled first, prior to initiating the use of stimulants. | • The CPPs do not recommend medication as the first line of treatment; they acknowledge that it is an option for some children/adolescents and if medication is to be used in management, stimulants are presently the first line of treatment.  
• CPPs amended to state that the clinician should initially provide a program of management that is informed by the findings of a comprehensive assessment. This might be a psychosocial treatment alone initially, or it might include medication if justified by the assessment. |
| 2, 36, 42, 85, 101, 126, 136, 145, 150 | The CPPs should discuss:  
• which medications are available in Australia, including non-stimulants, e.g. atomoxetine, clonidine  
• the two types of stimulants (dexamphetamine and methylphenidate), their common trade names and that they are Schedule 8 drugs that can ONLY be prescribed by paediatricians and psychiatrists  
• jurisdictional differences in diagnosing and prescribing stimulant medication  
• that there are short and long acting forms of stimulants  
• which medications to use in different settings  
• dosages  
• how to introduce and withdraw them. | • Text amended to state the two stimulants used in Australia and that their regulation is based on State/Territory laws.  
• Sentence added to note there are short-and long acting forms.  
• Beyond the scope of the CPPs to discuss non-stimulant medications. A footnote has been inserted to clarify this limitation of the CPPs.  
• Beyond scope to discuss dosage. This is discussed in other documents.  
• Text added to state that prescribers should be familiar with the pharmacokinetic profiles of all preparations available prior to prescribing and ensure that treatment and dosage is tailored effectively to the individual needs of the child/adolescent. |
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| 62, 72, 77, 118, 124 | • The prescription of ADHD drugs is to do with financial gain for pharma, doctors, psychiatrists.  
  • They have become a quick-fix for children not to take responsibility for their own behaviour, for parents to control their children and absolve themselves of guilt or responsibility, for teachers to subdue difficult children in the classroom, for physicians to offer some behavioural control.  
  • The use of stimulants to manage ADHD symptoms is not in the best interests of the child.  
  • With the belief that ADHD may continue into adulthood, it follows that children will be on drugs for life. This may reduce life expectancy (e.g. increased risk of suicide). | • CPPs do not advocate drugs for life. Rather, they suggest clinical assessment and review to ensure the management strategies remain appropriate and effective, a review of the diagnosis if progress is not satisfactory, and that stimulant treatment only be continued if it has demonstrated benefit in the absence of unacceptable side effects. |
| 70 | • Extremely worried about the use of psychotropic medications as prescribed for the treatment of various behavioural problems in children and adolescents. | • Noted |
| 24, 48, 52, 65, 74, 75, 77, 82, 89, 95, 98, 107, 114, 122, 124, 131 | • Informed consent must be achieved before commencing an assessment and treatment. This needs to include providing patients and their parents/carers with written information on the advantages and disadvantages, side effects and risks of all treatment options, including complementary and alternative treatments.  
  • If there isn’t evidence to verify that ADHD is an illness, informed consent cannot be achieved.  
  • The need for more parent education about medication is a recurring theme in clinical practice. | • Informed consent is implicit in the CPPs.  
  • CPPs amended to state that parents must be given information on the diagnosis and management plan, including any potential side effects of treatment in order to fully inform them and to have them make a decision regarding the treatment that is offered to them. |
| 93 | • Object to the use of drugs and/or behaviour treatment on children without a thorough medical check-up. | CPPs acknowledge:  
  • that a comprehensive assessment, including an assessment of the child’s physical health is essential to inform an individualised management plan.  
  • the importance of a thorough assessment and not solely the application of diagnostic criteria, prior to commencing treatment. |
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<td>• Most paediatricians do not have any training in psychosocial treatments and culturally sensitive practice and so tend to adopt a narrow medical model that limits their role to mainly diagnosis and treatment with medication.&lt;br&gt;• It should be emphasised that anyone involved in diagnosing and treating ADHD should have training in psychosocial treatment approaches and in culturally informed practice.</td>
<td>• The EWG has asked NHMRC to consider investigating a number of issues beyond the scope of the CPPs, including that there is not a uniform national approach to accreditation of specialist medical practitioners.</td>
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<td>3, 24</td>
<td>• The role of the GP is not limited to referring to other treatments when needed.&lt;br&gt;• Even if the doctor’s role involves mainly medication management, a thorough understanding of what other treatments are like and how they may fit in with families beliefs and practices is vital.&lt;br&gt;• Behavioural interventions have a role for children presenting with sub-threshold symptoms, or not meeting full diagnostic criteria.</td>
<td>• The EWG has asked NHMRC to consider a number of issues beyond the scope of the CPPs (see appendices), including the need for on-going professional training for GPs working with children with suspected or diagnosed ADHD.&lt;br&gt;• CPPs amended to state that if it is suspected that a child/adolescent has ADHD; and/or the child/adolescent has behavioural, emotional or cognitive symptoms causing significant and persistent impairment to them, the family or at school, the GP may offer parents/carers a referral to a parent training/education programme (this can precede a formal diagnosis of ADHD).</td>
</tr>
<tr>
<td>7, 126, 150</td>
<td>• Children diagnosed with ADHD, and their families may benefit from evidence-based psychological interventions, but the availability and affordability of suitably trained and experienced psychologists, counsellors and allied health and educational assessments and services, especially in regional and rural areas, is very limited.</td>
<td>• The EWG acknowledges difficulties with access, but the purpose of the CPPs is to advise on best practice. The EWG has asked NHMRC to consider a number of issues beyond the scope of the CPPs, including that there is a lack of multidisciplinary services available to children and adolescents with ADHD, particularly in rural and remote areas.</td>
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</table>
| 52, 66, 75, 88, 89, 99, 109, 114, 131, 134, 140 | • Starting children on drugs may cause dependency later in life.  
• A parliamentary inquiry into ADHD in Western Australia found a significant risk of eventual street drug abuse ultimately associated with early childhood dependency on stimulant drugs for ADHD. | • More evidence needed to support the association between stimulants and later drug misuse.  
• CPPs state that prior to commencing medication, the clinician should consider potential harms and adverse effects, including diversion of medications for misuse and abuse.  
• The Education and Health Standing Committee Inquiry into ADHD in Western Australia, 2004 found “that there have been no conclusive results from the studies undertaken on the connection between ADHD, stimulant medication and later substance abuse. Further, no science-based evidence was provided to the Committee of a causal link between undiagnosed ADHD and illicit substance misuse.”  
• CPPs amended to state that as methylphenidate and dexamphetamine sulphate are Schedule 8 controlled drugs, their manufacture, supply, distribution, possession and use is restricted to reduce abuse, misuse and physical or psychological dependence. |
| 150 | • Diversion is probably not as common as feared and shouldn't stop clinicians prescribing stimulants when indicated. The Schedule 8 safeguards, and Medical Board monitoring of individual doctors when their prescribing practices come to light, provide sufficient safeguards. | • Text added to acknowledge that methylphenidate and dexamphetamine sulphate are Schedule 8 controlled drugs and that their manufacture, supply, distribution, possession and use is restricted to reduce abuse, misuse and physical or psychological dependence. |
| 150 | • “When stimulant treatment is used it should only be continued if there is demonstrated benefit in the absence of unacceptable side effects” applies to all prescribed medications. Notwithstanding, it doesn’t hurt to remind prescribers and patients. | • No change required. |
### APPENDICES
Clinical Practice Points on the diagnosis, assessment and management of attention deficit hyperactivity disorder in children and adolescents

<table>
<thead>
<tr>
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</thead>
</table>
| 2, 24, 49, 59, 65, 66, 75, 82, 89, 90, 96, 98, 99, 103, 114, 115, 118, 133, 140, 144 | • The side effects and potential harms of medication need to be more explicit and comprehensive.  
• Concerns about side effects of medication such as:  
  – fever, sore throat, headache  
  – blistering, rash, peeling, easy bruising, hair loss  
  – stunted growth  
  – insomnia  
  – neurological complications, vision problems, dizziness  
  – numbness, memory problems, disorientation  
  – stomach pain, nausea, vomiting, loss of appetite, weight loss  
  – aggression, restlessness, anxiety  
  – dyskensia, motor tics, seizures  
  – heart problems, hypertension, stroke and even sudden death  
  – brain atrophy  
  – psychosis, hallucinations, mania, delusions, suicidal ideations  
  – allergic reactions: hives; difficulty breathing; swelling of your face, lips, tongue, or throat. | • CPPs focus on the most common side effects and state that when stimulant treatment is used it should only be continued if there is demonstrated benefit in the absence of unacceptable side effects.  
• CPPs stress the importance of ongoing monitoring and review (including an assessment of side effects and particularly psychological symptoms), to ensure the management strategies remain appropriate and effective.  
• Literature search conducted on the association between stimulants and suicide.  
• CPPs amended to state that children with ADHD often have other mental health problems, such as depression, which may be associated with an increased risk of suicidal ideation. Therefore, a mental health assessment is important, where indicated, prior to commencing treatment.  
• Additional sentence added to reflect reports of psychosis or mania as a potential adverse reaction to stimulants used in children with ADHD. |
| 24, 44, 66, 99, 122 | • CPPs should have a warning in line with manufacturer’s product information. | • CPPs amended to state that prescribers should be aware of the side effects, allergies and contraindications of ADHD medications and provide parents and carers with this information.  
• Readers of the CPPs are referred to product information for further detail. |
| 150 | • A commonly observed phenomenon with all medications is that side effects noted early by the patient will often disappear within a short time. Therefore, provided that they are not too severe, it may be fine to persevere in the expectation that they will disappear.  
• When stimulants are commenced the process is often described as a “trial of stimulants”.  
• For the trial to be a valid one, it must have lasted for at least six weeks, and involve an average type of dose.  
• Feedback from school teachers is particularly important at this time. | • CPPs amended to state that if the maximum dose (after titration) has been reached and feedback from parents (and if possible teachers), suggest that there is no significant improvement after a month of treatment, then alternative treatments should be considered. |
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<tbody>
<tr>
<td>82, 121</td>
<td>• When side effects of pharma are offset against alternative treatments, one can question the validity and economic cost of pharma.</td>
<td>• Noted.</td>
</tr>
<tr>
<td>118</td>
<td>• The statement “Emotional disturbances such as anxiety or irritability may occur and symptoms generally resolve when medication is ceased,” dismisses the side effects of medication.</td>
<td>• Sentence deleted.</td>
</tr>
<tr>
<td>24</td>
<td>• Atomoxetine may cause liver damage and this should be mentioned.</td>
<td>• Beyond the scope of the CPPs to discuss non-stimulant medications such as atomoxetine. A footnote has been inserted to clarify this limitation of the CPPs.</td>
</tr>
<tr>
<td>2</td>
<td>• Consideration should be given to including discussion on “medication holidays”.</td>
<td>• CPPs already discuss a trial off medication.</td>
</tr>
<tr>
<td>118</td>
<td>• Recommend that assessment include a targeted cardiac history and a physical examination, including a careful cardiac examination, before starting therapy with stimulant medications.</td>
<td>• CPPs amended to state that if there are any abnormal symptoms, findings or history regarding cardiovascular status, appropriate investigation and referral should be organised before commencing treatment.</td>
</tr>
<tr>
<td>27, 118, 119</td>
<td>• Should remove the inaccurate and misleading statement that ‘the rate of sudden death in patients taking methylphenidate or atomoxetine is below background rates’.</td>
<td>• Sentence deleted.</td>
</tr>
<tr>
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| 3, 18, 23, 27, 41, 50, 66, 67, 75, 81, 88, 89, 96, 98, 110, 114, 118, 119, 122, 124, 131, 140, 144, 146 | • CPPs recognise but place insufficient weight on the absence of systematic, long-term, evidence as to the safety and efficacy of “ADHD” medications, especially in pre-schoolers.  
• The limited long-term evidence available suggests no sustained benefits of long term (several years) prescription of stimulants; there is a risk of exposing children to unnecessary harms.  
• This information needs to be made clear to parents.  
• With the long-term damage of medications being unknown, children should not be used as guinea pigs to trial stimulants.  
• Given there is no positive evidence of improved outcomes after many years of treatment:  
  – there is not sufficient evidence to warrant the use of medication in the long-term over a behavioural management or even a no-treatment option  
  – there should be moratorium on the use of stimulants in children with ADHD until more conclusive research is available  
  – the CPPs should keep a ‘first do no harm’ principle in mind. | • Additional literature on long-term outcomes of treatment and side effects associated with long-term stimulant use for ADHD were reviewed by the EWG and the relevant sections of the CPPs amended.  
• The EWG acknowledges the need for further research in this area, as outlined in the Appendix F. |
| 3, 122, 145, 150 | • More research is available on the long term effects of stimulants than those provided in the CPPs.  
• For example: McDonagh, Peterson and Thakurta, Drug Class Review on Pharmacologic Treatments for ADHD (2007), has not been included in the CPPs and should be. | • As above. |
<p>| 136 | • Clinicians should be advised that research on long term stimulant medication usage is lacking, but they have been used worldwide in many patients for many years, and therefore long-term use is a reasonable clinical option. | • Noted. |
| 136 | • Patients should be encouraged to occasionally reduce medication doses or cease them altogether under close clinical supervision, to see if medication is still needed in the long-term. | • The CPPs state that if it is indicated that a child/adolescent no longer requires stimulant medication, then the clinician would discuss trialling such a period off medication with the child/adolescent and their parents/carers and teachers. |</p>
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<tr>
<td>3, 24, 44, 101</td>
<td>• Stimulants are commonly prescribed for several years.</td>
<td>• There is no evidence to recommend a particular timeframe for ceasing medication.</td>
</tr>
</tbody>
</table>
|                    | • The CPPs should therefore make a recommendation on the maximum acceptable length of treatment with stimulants (e.g. 12 months), after which it should be discontinued. | • CPPs state that:  
  – if it is indicated that a child/adolescent no longer requires stimulant medication, then the clinician would discuss trialling such a period off medication with the child and their parents/carers and teachers.  
  – stimulants should only be continued if there is demonstrated benefit in the absence of unacceptable side effects.  
  – CPPs amended to note that if the maximum dose (after titration) has been reached and feedback from parents/carers (and if possible teachers), suggest that there is no significant improvement after a month of treatment, then alternative treatments should be considered. |
<p>| 2                  | • CPPs need to mention the importance of monitoring growth as an essential part of the assessment of effectiveness and side-effects of stimulant medication. | • This is included in the CPPs. |
| 24                 | CPPs should mention:                                        | • CPPs state for children under 7 years psychological, environmental and family interventions should be trialed and evaluated before trialing pharmacological treatment. Only in exceptional circumstances should stimulants be considered for this age group and in consultation with parents/carers |
|                    | • the limited information regarding effects of stimulant in pre-school children | • Additional sentence added to reflect Product Information. |
|                    | • that the current data on medication in pre-schoolers comes from only moderate to severe cases, therefore different severity criteria may apply for this age group |         |
|                    | • the need for lower doses and slower increase in pre-schoolers. |         |
| 3, 27, 44, 48, 51, | • The CPPs should be consistent with the drug manufacturer’s recommendation, in that they should not be used in children under 6 because their safety and efficacy have not been established. |         |
| 65, 66, 68, 88,    | • Therefore, stimulant drugs can never be deemed as part of “good practice” for any child under the age of 6. |         |
| 90, 92, 96, 98,    | | |
| 99, 118, 122, 123, 124, | | |
| 140               | | |</p>
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| 29, 85, 101        | • Pre-schoolers and school-aged children can be treated with evidence-based behavioural therapies.  
• The National Institute for Health and Clinical Excellence guidelines discuss that evidence is still needed for ADHD-specific strategies in the classroom and at home.  
• Cognitive Behavioural Therapy (CBT) is only effective in adults and older adolescents – there is no reference in this to Australian work by Caroline Stevenson. | • CPPs amended to clarify that the evidence base for parent-based psychological interventions in adolescents with ADHD is substantially weaker than in younger children, whereas CBT is more applicable to adolescents.  
• More references added to the psychological management section. |
| 88, 114, 120, 129, 139 | • There is too much pressure on teachers, schools and child care workers to be a facilitator or party to the diagnosing and drugging of children with ADHD.  
• There are problems with formal education that can cause ADHD type behaviour.  
• No matter how well-intentioned the majority of teachers, the present educational system is in no position to initially implement and to consistently deliver strategies such as those listed in the CPPs and does not have any capacity to provide additional classroom support to children with ADHD related distraction problems, particularly those with associated learning difficulties.  
• Resources should be spent on giving teachers the skills and support to deal with a variety of children’s challenging behaviours rather than singling out disorders.  
• There appears to be limited diagnostic resources available in Australia, particularly in Canberra.  
• The school education system in Australia, whilst supportive, does not have any formal capacity to provide additional classroom support to children with ADHD related distraction problems, particularly those with associated learning difficulties. | • CPPs acknowledge that only a specialist clinician can make a diagnosis of ADHD and while evidence of impairment should be gathered from multiple settings and informants, including schools and teachers, this is only one aspect of assessment.  
• It is beyond the scope of the CPPs to address issues with the education system. |
**Submission numbers** | **Extract of key themes in submissions (edited by project officer)** | **Action agreed to by Expert Working Group (EWG)** |
---|---|---|
132 | • Given the high prevalence of motor deficits with ADHD and the documented long term psychosocial effects of motor deficits, management of motor impairments should be specifically suggested in the CPPs.  
• Several studies show task oriented interventions are effective for children with ADHD and motor impairment. These interventions may be carried out by physiotherapists, occupational therapists, school teachers or parents but require planning and consultation with allied health professionals such as physiotherapists. | • 3.3 notes that a thorough assessment should consider co-morbid disorders that may require specific treatment strategies.  
• Sentence added at 3.3 to state that it is important to determine which condition is impacting most severely on the child’s life. The one with the greatest negative effects must be addressed first and sometimes before commencing treatment for the ADHD symptoms. |
12, 15, 16, 18, 20, 27, 40, 41, 43, 44, 45, 46, 48, 49, 51, 53, 58, 62, 63, 65, 66, 67, 68, 70, 73, 74, 75, 77, 81, 82, 90, 91, 92, 95, 96, 99, 100, 102, 103, 107, 111, 115, 117, 118, 121, 122, 123, 124, 130, 131, 133, 134, 137, 138, 142, 143, 144 | • Opposed to the sentence, “as with any medical intervention, the inability of parents to implement strategies may raise child protection concerns”.  
• It implies that if a parent doesn’t force their child to take ADHD drugs they could be referred to child protection authorities.  
• It breaches the child and parent’s rights.  
• Parents have the right to choose what is best for their child, including alternative options such as counselling, natural therapies and dietary changes and meditation | • Sentence deleted. The sentence in the draft CPPs was intended to mean that if the clinician suspects maltreatment, usual child protection protocols should be followed. |
6, 141, 145 | • The results of the Multimodal Treatment of ADHD (MTA) study are poorly reported in the CPPs.  
• Need to spell out what the MTA study is.  
• The references to it are incorrect.  
• The results of the study are confounded as some children in the medication stream are taken off medication and some children in the behavioural program are put on stimulants.  
• The CPPs give the impression that there is not much to choose between pharmacological and non-pharmacological strategies. | • Section reviewed by EWG and amended. |
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| 139               | • Applaud the inclusion of unproven remedies and therapies in section 4.6.  
• Parents can go for years and years trying one specious ‘solution’ after another when what they should have done in the first place is seek an accurate diagnosis from a properly qualified clinician and then be in a position to resolve and act on their child’s symptoms. | • Noted. |
| 2, 8, 27, 40, 41, 44, 48, 51, 59, 65, 66, 67, 68, 70, 71, 73, 74, 77, 80, 82, 86, 90, 91, 92, 93, 95, 96, 98, 99, 105, 109, 110, 113, 114, 115, 116, 118, 119, 120, 123, 130, 131, 133, 136, 140 | • Additional literature found and referenced.  
• The EWG believes it is advisable to await further good quality evidence, particularly on the benefits, harms and cost-effectiveness of the alternative treatments listed in the CPPs, before they can be recommended as effective treatments for the management of ADHD in children and adolescents.  
• EWG agrees with the conclusion of the recent review by the National Institute of Health and Clinical Excellence: “No conclusive new evidence has been identified to challenge the statement that elimination of artificial colouring and additives from the diet is not recommended as a generally applicable treatment for children and young people with ADHD. Although new evidence is available on the use of polyunsaturated fatty acids for treatment of ADHD symptoms, at this point, it may not be significant enough to warrant updating the current recommendation-that dietary fatty acid supplementation is not recommended for the treatment of ADHD in children and young people.”  
• Pharmacological section amended to note that the risks and benefits of medication and what to do if they have concerns about treatment, need to be directly discussed with the child/adolescent and their parents/ caregivers. Following this discussion, if drug treatment is not accepted by the child/adolescent or their parent/ carers, alternatives should be offered. |
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<tr>
<td>135</td>
<td>The solution is to promote “true nutrition,” i.e. You should:</td>
<td>• As above.</td>
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<tr>
<td></td>
<td>• drink only pure water</td>
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<td></td>
<td>• eat low fat products and raw food grown in mineral rich</td>
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<td></td>
<td>soils without chemicals</td>
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<td>• use young living therapeutic grade essential oils on a</td>
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<td>daily basis and other natural techniques (e.g. massage,</td>
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<td></td>
<td>homeopathic, chiropractic care)</td>
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<td>• use supplements that are not absorbed by the body. You</td>
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<td></td>
<td>should not:</td>
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<td></td>
<td>• cook with microwaves</td>
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<tr>
<td></td>
<td>• drink unfiltered water</td>
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<tr>
<td></td>
<td>• eat processed foods, artificial sweeteners, margarine, or</td>
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<td></td>
<td>beef from grain fed cattle in cattle lots</td>
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<td></td>
<td>• use synthetic essential oils and products containing</td>
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<tr>
<td></td>
<td>toxic/synthetic compound</td>
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<td></td>
<td>• use medications with known harmful side effects.</td>
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<td>136, 145</td>
<td>• “Mediation” should be “meditation”</td>
<td>• Agreed. Changes made.</td>
</tr>
<tr>
<td></td>
<td>• As above.</td>
<td></td>
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<td>35, 39</td>
<td>• If neurofeedback comes under the general heading of</td>
<td>• EWG agrees with feedback from the National</td>
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<td>biofeedback then the statement that this treatment is</td>
<td>Institute for Health and Clinical Excellence</td>
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<td>supported by low level evidence needs to be changed. There</td>
<td>Guideline Development Group in their consideration</td>
</tr>
<tr>
<td></td>
<td>is good evidence for neurofeedback as a clinical intervention for ADHD</td>
<td>of recent literature, i.e. while there is a</td>
</tr>
<tr>
<td></td>
<td>• EWG agrees with feedback from the National Institute for</td>
<td>growing body of evidence focusing on neurofeedback</td>
</tr>
<tr>
<td></td>
<td>Health and Clinical Excellence Guideline Development Group</td>
<td>for control of ADHD symptoms, this treatment is</td>
</tr>
<tr>
<td></td>
<td>in their consideration of recent literature, i.e. while there</td>
<td>fairly experimental at the moment. “Therefore, it may be pertinent to await</td>
</tr>
<tr>
<td></td>
<td>is a growing body of evidence focusing on neurofeedback for</td>
<td>further evidence, particularly on the benefits, harms and cost-effectiveness of this [neurofeedback] treatment.”</td>
</tr>
<tr>
<td>50</td>
<td>• Blood/urine/hair tests can rebalance the child’s biochemistry and return their behaviour to normal using the Dr Carl Pfeiffer protocols.</td>
<td>• Noted.</td>
</tr>
</tbody>
</table>
Appendix E: Literature Received During Public Consultation

Notes:
The following references are excluded from this list and were not considered when developing the CPPs:

1. Articles published prior to 2005
2. Articles where the focus was beyond the scope of the CPPs (e.g. if the population group was adults or subjects without clinically diagnosed ADHD, if the pharmacological intervention was a non-stimulant)
3. Articles already referenced in the public consultation draft of the CPPs
4. Where the submission did not include sufficient detail to source the article
5. References to the Royal Australasian College of Physicians, ‘Draft Australian Guidelines on ADHD (the CPPs were developed as independently from these guidelines as possible)
6. Media articles, websites, blogs, u-tube clips, books (unless a focused chapter was provided).


Agency for Healthcare Research and Quality. 2011. Attention Deficit Hyperactivity Disorder: Effectiveness of Treatment in At-Risk Preschoolers; Long-Term Effectiveness in All Ages and Variability in Prevalence, Diagnosis, and Treatment. Comparative Effectiveness Review No.44.


Australian Psychological Society Neurofeedback and Psychology Interest Group. Nov 2011. Neurofeedback for the Treatment of Attention-Deficit/Hyperactivity Disorder (version provided had not yet been submitted to the Australian Psychological Society Board and therefore could not be used as a reference)


Coghill D. Attention-deficit hyperactivity disorder: should we believe the mass media or peer-reviewed literature? Psychiatrist. 2005; 29: 288–91.


Hazell P. In children with attention-deficit hyperactivity disorder who have been taking methylphenidate for at least 1 year, is there any evidence of harmful effects? *Evidence-Based Healthcare and Public Health*. 2005: 9(1): 10-15.


Clinical Practice Points on the diagnosis, assessment and management of attention deficit hyperactivity disorder in children and adolescents


Appendix F: Areas for Further Work

In developing the ADHD CPPs, the Expert Working Group identified the following issues as contentious in clinical practice and requiring further attention that was beyond the scope of the CPPs. These are listed below.

- There is not a uniform national approach to accreditation of medical practitioners to prescribe stimulant medication for patients with ADHD. It would be useful for the peak professional bodies to consider the desirability or otherwise of specialist accreditation for prescription of stimulants and other drugs for the treatment of ADHD.
- General practitioners have an important role in screening for ADHD, referral for specialist assessment, follow-up treatment and support for parents/carers. However, GPs require on-going professional training in this role and consideration should be given to how this can be achieved.
- There is a lack of multidisciplinary services available to children and adolescents with ADHD, particularly in regards to educational support, behavioural therapy, family therapy and psychological services. Availability is likely to be most limited in rural and remote areas.
- There is a need to improve the smooth, timely and affordable transition and assessment of adolescents with ADHD into adult services especially in rural and remote areas.

Areas for further research

In developing these CPPs, the Expert Working Group identified that a thorough review of the literature and/or further research would be beneficial on the following issues:

- How to appropriately diagnose and assess suspected ADHD in children under 4 years of age
- What are the outcomes and adverse effects for children/adolescents receiving psychological, educational or pharmacological (with particular reference to stimulants) management, of ADHD in the long-term (i.e. 3 years or more)?
- What are the neuroprotective and/or neurotoxic effects from the stimulant medication in children and adolescents?
- What is the prevalence of ADHD in Aboriginal and Torres Strait Islander communities and the effectiveness of various interventions in these groups?
- What is the optimal schedule for monitoring children/adolescents with ADHD, including factors for adjusting that schedule according to age, symptom severity, and progress reports?
- The effectiveness of alternative treatments (e.g. neurofeedback) in managing ADHD symptoms.