

Paediatrics Practice Review™



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Issue 3 - 2022

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Abbreviations used in this issue:

ADHD = attention-deficit/hyperactivity disorder
IBD = inflammatory bowel disease
PBAC = Pharmaceutical Benefits Advisory Committee
PBS = Pharmaceutical Benefits Scheme
TGA = Therapeutic Goods Administration

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Welcome to the 3rd issue of Paediatrics Practice Review.

This Review covers news and issues relevant to clinical practice in paediatrics. It will bring you the latest updates, both locally and from around the globe, in relation to topics such as new and updated treatment guidelines, changes to medicines reimbursement and licensing, educational, professional body news and more. And finally, on the back cover you will find our COVID-19 resources for Paediatricians, and a summary of upcoming local and international educational opportunities including workshops, webinars, and conferences.

We hope you enjoy this Research Review publication and look forward to hearing your comments and feedback.

Kind Regards,

Dr Janette Tenne

Editor

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Clinical Practice

Integrated guidance to enhance the care of children and adolescents with familial hypercholesterolaemia: practical advice for the community clinician

Prioritising the detection of familial hypercholesterolaemia (FH) in children and adolescents has the potential to alter the natural history of atherosclerotic cardiovascular disease and improve long-term health outcomes. The FH Australasia Network Consensus Working Group developed this guidance paper to help raise awareness of paediatric FH and provide practical advice for the diagnosis and management of FH in children and adolescents. Recommendations are given on the early detection, diagnosis, assessment, and management of FH as well as genetic testing, including counselling. The Working Group advocates that universal screening should be considered in all children prior to puberty to increase the detection of FH prior to the development of early atherosclerotic cardiovascular disease. Practical guidance on management covers treatment of non-cholesterol risk factors and the safe and appropriate use of cholesterol-lowering pharmacotherapies. Recommendations for monitoring of treatment for children and adolescents with suspected or proven FH are also provided. The Working group emphasises the need for healthcare pathways for FH to be developed to meet local and regional healthcare requirements and resources.

[J Paediatr Child Health. 2022 Jul 15 \[Online ahead of print\]](#)

Adolescent suicide assessment and management in primary care

The objective of this study was to understand how suicide management occurs within the primary care setting in the US, with regard to follow-up assessments and referral practices. Data were collected for adolescents (aged 12–20 years) who endorsed a suicidal risk item while completing screening at an initial primary care visit. Additional data were then collected via retrospective chart reviews to analyse actions taken by the primary care physician at the youth's initial visit and follow-up visit within the next 12 months. A total of 200 adolescents endorsed a suicidal risk item at their initial visit and of these 39 (19.5%) were considered to be concerning by their primary care physician. Average age was 14.7 years and 72% (n=144) were female. At initial visits, statistically significant differences between suicidal concern and no concern groups were found in reporting active suicidal ideation, past suicide attempts, those who were referred to behavioural health counselling, and those who had a diagnosis of depression. Only 13% (n=25) of all patients who endorsed the suicide item were asked whether or not there were weapons in their home and primary care providers asked only 7% (n=13) of all patients whether they had a safety plan. Given the inconsistent follow-up for adolescents with a history of suicide concerns, the study authors proposed that guidelines are needed for practice improvement.

[BMC Pediatr. 2022;22\(1\):389](#)

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Patient and economic impact of implementing a paediatric sepsis pathway in emergency departments in Queensland, Australia

These researchers modelled the economic impact on the wider healthcare system of implementing a paediatric sepsis pathway (PSP) in emergency departments (EDs) across Queensland. The PSP assisted ED physicians to recognise sepsis earlier in the disease process, enabling more timely treatment and better adherence with the sepsis treatment bundle, with the ultimate aim of achieving improved clinical outcomes. The researchers performed a population-based, multicentre, data-driven simulation model and cost-benefit analysis of acute service utilisation before and after the implementation of the PSP. Aggregated hospital admissions for all children (age <18 years) with a diagnosis code of sepsis upon admission were compared for 16 participating and 32 non-participating hospitals before and after pathway implementation, with Monte Carlo simulation being used to generate uncertainty intervals. A total of 1,055 patient episodes before and 1,504 after implementation were compared. The overall impact of implementing the PSP was a substantial reduction in both non-intensive care unit (ICU) and ICU utilisation. When bed day values were assigned to these reductions, it was likely that the PSP was either cost-neutral or slightly cost saving for the healthcare system.

[Sci Rep. 2022 Jun 16;12\(1\):10113](#)

Clinical update: child and adolescent behavioural healthcare in community systems of care

This clinical update reviewed the literature on the principles, structures, processes, and outcomes of community systems of care relevant to the delivery of behavioural healthcare to children and adolescents. A search of the literature on this topic yielded 1,604 citations. References suggested by topic experts and identified via web searches increased the yield to 1,684 total citations, of which 1,184 were unduplicated. The number of citations relevant to the topic was reduced to 156 after review by the authors.

The systems of care approach, which arose in the 1980s, expanded child and adolescent behavioural healthcare from the core services of psychotherapy, pharmacotherapy management, inpatient psychiatric services, and residential treatment to include home- and community-based treatment and support services. This expanded approach also included promotion, prevention, and early intervention programmes as well as specialised services for very young children, youth, and young adults of transition age. These services and support mechanisms, which are delivered by a large multidisciplinary workforce, are governed by key principles including family-driven, youth-guided, strengths-based, and trauma-informed care; wraparound services in the least restrictive setting; a public health framework for service delivery; promotion of wellness and resilience; and elimination of health disparities.

Challenges and barriers faced by systems of care implementation include funding availability, workforce shortages, shortcomings in cross-systems collaboration, and variability in insurance coverage. Despite controlled studies having failed to provide convincing evidence of benefits from the whole systems of care approach, uncontrolled research has demonstrated greater access to care, positive clinical and functional outcomes, improved family functioning, and reductions in costs.

[J Am Acad Child Adolesc Psychiatry. 2022 Jun 07 \[Online ahead of print\]](#)

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Does the routine use of spirometry improve clinical outcomes in children? A systematic review

Although spirometry is recommended as an adjunct to enhance paediatric respiratory healthcare in many clinical practice guidelines, there is limited evidence confirming the benefits (or otherwise) of using spirometry from either clinician or patient perspectives. These Australian researchers performed a systematic review of the literature to determine the impact of spirometry on change in clinical decision making and patient-reported outcome measures. They included randomised controlled trials (RCTs) comparing the use versus non-use of spirometry during standard clinical review in children (aged <18 years) with respiratory problems. Using Cochrane methodology, a total of 3,475 articles were identified and of eight full-text articles reviewed only one study fulfilled the inclusion criteria. The single study, which involved two cluster RCTs of spirometry for children with asthma in general practice, did not find any significant intergroup difference at the 12-month follow-up for asthma-related quality-of-life and clinical endpoints. The findings were, however, limited by methodological weaknesses and high risks of bias. Given the paucity of data, the clinical benefits of spirometry remain unclear and, in the absence of higher-quality evidence, clinicians should adhere to current clinical practice recommendations.

[Pediatr Pulmonol. 2022 Jun 26 \[Online ahead of print\]](#)

Canadian consensus statements on the transition of adolescents and young adults with inflammatory bowel disease from paediatric to adult care: a collaborative initiative between the Canadian IBD Transition Network and Crohn's and Colitis Canada

The rising prevalence of childhood-onset inflammatory bowel disease (IBD) is increasing the need for a planned transition process for adolescents. The Canadian IBD Transition Network and Crohn's and Colitis Canada collaborated to develop a set of care consensus statements to provide a framework for transitioning from paediatric to adult care. Consensus statements of best practice for transition were drafted after focus group meetings and literature reviews. The statements were then discussed and systematically voted on by an expert panel (20 IBD physicians, nurses, surgeon, adolescent medicine physician) as well as patient and caregiver representatives. Consensus was reached when >75% of members voted in agreement. The statement was rendered a strong recommendation when >75% of members rated strong support. The expert panel generated 15 consensus statements (9 strong and 6 weak recommendations), the focus of which included transition programme implementation, key stakeholders, areas of potential need, and gaps in the research. The strong recommendations included:

- All adolescents and young adults with paediatric-onset IBD should attend a structured transition programme.
- Transition programming should be structured according to local resources and should reflect input from local key stakeholders.
- A paediatric-to-adult IBD transition of care programme should implement strategies for parents/caregivers to support and encourage the development of independence in adolescents and young adults.
- Healthcare professional training programmes should integrate training in transition and create opportunities for related knowledge and skill development.
- Individuals with paediatric-onset IBD undergoing transition of care to adult services should have access to a primary care provider.
- The timing of care transfer to adult services should be flexible.
- Paediatric and adult IBD transition teams should review the processes and structure of adult healthcare with adolescents and young adults and their parents/caregivers.

The consensus statements were considered to provide a framework for transition process implementation and can help guide the paediatric and adult healthcare teams in their efforts to successfully transition adolescents from paediatric to adult care. However, the generally low quality of evidence supporting these statements highlighted the need for additional controlled studies to investigate and more clearly define effective strategies for transitioning from paediatric to adult IBD care.

[J Can Assoc Gastroenterol. 2022;5\(3\):105–115](#)



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References: 1. SPINRAZA® Approved Product Information, 12 July 2021. 2. Day JW *et al.* "Longer-term experience with nusinersen in young adults with spinal muscular atrophy: Results from the CS2/CS12 and SHINE studies." Presented at the 72nd American Academy of Neurology Annual Meeting: April 25 – May 1 2020. Online. 3. Landmark NURTURE study of infants with spinal muscular atrophy (SMA) treated pre-symptomatically with SPINRAZA® (nusinersen) published in *Neuromuscular Disorders* [news release]. Cambridge, MA: Biogen; October 2, 2019. <http://investors.biogen.com/news-releases/news-release-details/landmark-nurture-study-infants-spinal-muscular-atrophysma>. Accessed November 6, 2020. 4. De Vivo DC *et al.* *Neuromuscul Disord* 2019;29:842-56. 5. Finkel RS *et al.* Interim report on the safety and efficacy of longer-term treatment with nusinersen in infantile-onset spinal muscular atrophy (SMA): updated results from the SHINE study. Poster presented at: Cure SMA 2019 Annual SMA Conference; June 28-July 1, 2019; Anaheim, CA. Poster P6. 6. Darras BT *et al.* Interim report on the safety and efficacy of longer-term treatment with nusinersen in later-onset spinal muscular atrophy (SMA): results from the SHINE study. Presented at: 23rd Annual Spinal Muscular Atrophy Researcher Meeting: June 28-30, 2019; Anaheim, CA. 7. Biogen. Data on file. 8. CS1 study record. <https://clinicaltrials.gov/ct2/show/NCT01494701>. Accessed November 2021.

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A review of clinical practice guidelines in the diagnosis and treatment of attention-deficit/hyperactivity disorder

Clinical practice guidelines (CPGs) have evolved during the last two decades from general consensus statements by experts in the field to highly structured instruments. Attention-deficit/hyperactivity disorder (ADHD) has been the subject of >20 CPGs created by governments and professional societies in the US and internationally. There is a reasonable level of consensus across these CPGs regarding the principles of the diagnosis and treatment of ADHD. Benefiting from a strong research base in ADHD, all CPGs emphasise the need for screening, a diagnosis based on history and standardised rating scales, as well as the use of evidence-based psychosocial and pharmacologic treatments. The CPGs vary in terms of their emphasis on the role of psychosocial treatment and the degree to which they address comorbid disorders in ADHD. Limited research indicates that ADHD CPGs do influence provider practice; however, there is no research on whether the changes in practice brought about by CPGs affect patient outcomes.

[Child Adolesc Psychiatr Clin N Am. 2022;31\(3\):569–581](#)

Diagnosis and management of asthma in children

This review paper summaries good clinical practice in the diagnosis and management of paediatric asthma, including discussion of current diagnostic challenges and predictors of life-threatening attacks and an outline of the similarities and differences among global paediatric asthma guidelines. Despite the high prevalence of asthma in children (14% worldwide), paediatric asthma outcomes are poor and many deaths are preventable. Due to diagnostic challenges, both overdiagnosis and underdiagnosis of paediatric asthma remain problematic. The aim of clinical practice should be to prevent asthma attacks occurring with appropriate maintenance therapy. Accurate diagnosis and management are critical to improve outcomes. Optimal asthma care extends beyond providing medication and should include patient and family education, in addition to supported self-management advice. Education on trigger avoidance, modifiable risk factors, how to self-medicate effectively, and actions to take during acute attacks via personalised asthma action plans (PAAPs) is essential. However, the use of PAAPs remains limited and a significant number of young people with asthma do not have one. Asthma attacks should be viewed as never events. Post-attack asthma reviews are a key opportunity to review maintenance medication and current symptom control. Failure to undertake a post-attack review, and to adjust treatment where appropriate, is likely to predispose patients to future attacks.

[BMJ Paediatr Open. 2022;6\(1\):e001277](#)

Regulatory News

PBAC recommendations

The PBAC made the following recommendation in its May Intracycle meeting:

- Changes to the restrictions of romiplostim (Nplate) and eltrombopag (Revolade) on the PBS to align with current treatment guidelines: children should be included in the updated restrictions by removing age limits.

Read more [here](#)

TGA – new registrations

A new generic **darunavir** (Darunavir Sandoz) is indicated in combination with other antiretroviral agents for the treatment of HIV infection in treatment-experienced paediatric patients aged 6 years and older, weighing at least 20 kg.

A new generic **icatibant** (Fyzant) is indicated for symptomatic treatment of acute attacks of hereditary angioedema in adolescents, and children aged 2 years and older with C1-esterase-inhibitor deficiency.

A new generic **oseltamivir** (Osmivir; Oseltamivir str; Oseltamivir strides) is indicated for the treatment of infections due to influenza A and B viruses in adults and children (including full-term neonates) as well as for the prevention of influenza in adults and children aged 1 year and older.

A new generic **levetiracetam** (Levetiracetam medicianz; Levetiracetam medsurge) is indicated for:

- Use in epileptic patients aged 4 years and older, initially as add-on therapy, in the treatment of partial onset seizures with or without secondary generalisation.
- Monotherapy in the treatment of partial onset seizures, with or without secondary generalisation, in patients from 16 years of age with newly diagnosed epilepsy.
- Add-on therapy in the treatment of myoclonic seizures in adults and adolescents from 12 years of age with juvenile myoclonic epilepsy.
- Add-on therapy in the treatment of primary generalised tonic-clonic seizures in adults and children from 4 years of age with idiopathic generalised epilepsy.

Read more [here](#)

News in Brief

Survey of training experiences and clinical practice in assessment for autism spectrum disorder by neuropsychologists

In this survey of US neuropsychologists, 40% of respondents expressed the desire for further specialty autism spectrum disorder (ASD) training and the majority of respondents indicated that future neuropsychologists should receive training in ASD assessment during graduate school, internship, and/or post-doctoral fellowship. The 21-item survey regarding ASD assessment beliefs and practices was sent via email and accessed by 445 licensed psychologists who identified as neuropsychologists, with a total of 367 surveys deemed usable for data analysis.

[Clin Neuropsychol. 2022;36\(5\):856–873](#)

Creating and adapting an infection management care pathway in paediatric oncology

These Canadian clinicians developed a process to create care pathway templates across multiple supportive care topics in paediatric oncology based upon clinical practice guidelines (CPGs) and then refined and adapted the infection management care pathway for use at a single institution. Informed by seven CPGs, an initial iteration of the infection management care pathway template was created and then refined based upon 20 interviews with paediatric oncology clinicians. Many changes to improve its clinical usability were required to adapt the infection management care pathway template for use at a different institution.

[Support Care Cancer. 2022 Jun 22 \[Online ahead of print\]](#)

Position statement of the Australasian Paediatric Endocrine Group on the clinical care of children with DSD version 1.1 (27 June 2022)

In this position statement from the Australasian Paediatric Endocrine Group (APEG) on the clinical care of children with difference/disorder of sex development (DSD), which is the atypical development of the chromosomal, gonadal, or genital sex in an individual. The APEG acknowledges that some past clinical interventions led to harm and emphasises its commitment to collaborating with all stakeholders to achieve optimal outcomes in future. The APEG strongly recommends the development of national clinical practice guidelines and standards of care and establishment of a national clinical registry for children with DSD. The group also supports a mandatory requirement for multidisciplinary review of complex treatment decisions.

[Australasian Paediatric Endocrine Group](#)

Weight stigma in children and adolescents: recommendations for practice and policy

This article discusses weight stigmatisation in children and adolescents and the implications for nursing practice and policy. Weight stigma is associated with negative physical, psychological, and overall quality of life consequences. Awareness and understanding of the prevalence and negative impact of weight stigma in society and healthcare systems is important for the delivery of bias-free and high-quality healthcare to children and adolescents with obesity and their families. Nurses can become leaders in advocating for changes in health policy by considering their inherent biases related to weight and identify weight bias in their practice setting. Nurses are strategically well placed to advocate, educate, and begin to re-position the delivery of healthcare for children and adolescents with obesity.

[Nursing. 2022;52\(6\):17–24](#)



COVID-19 Resources for Paediatricians

[The Paediatric Society of NZ](#)
[Royal College of Paediatrics and Child Health](#)
[European Confederation of Primary Care Paediatricians](#)
[American Academy of Pediatrics](#)

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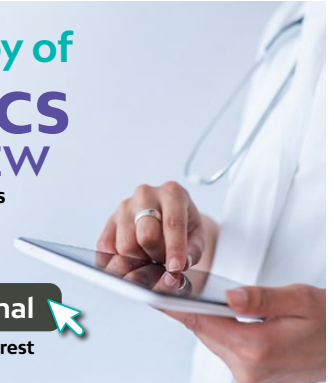
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