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A FOCUS ON HEALTH & MEDICAL RESEARCH FOR CHILDREN & YOUTH

Better systems
for kids with
mental health
problems

How the first
nine months
moulds the
rest of your life

Alcohol still
the leading
cause of harm
among young
people

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TRACKING THE QUALITY OF CARE FOR CHILDREN

When results from the CareTrack Kids project were published in one of the world's prestigious medical journals, the Journal of the American Medical Association (JAMA), the Editor-in-Chief of JAMA Network described it as "one of the most important papers in child health in the last 5 years".

Most Australian children will visit the GP or paediatrician at least once a year – however, the quality of this routine care is rarely assessed. The CareTrack Kids project, led by the Australian Institute of Health Innovation at Macquarie University, came about to fill this evidence gap.

A LANDMARK STUDY FOR CHILDREN'S HEALTHCARE

CareTrack Kids is a landmark national study investigating the standard of healthcare provided to children in Australia. With a broad range of partner organisations, CareTrack Kids examined 17 common childhood conditions, and measured adherence by GPs and paediatricians to clinical practice guideline (CPG) recommendations.

The project concluded that, among a sample of children receiving care in Australia, the overall prevalence of adherence to quality of care indicators for important conditions, hovering at around 60% on average, while good, and very good for some conditions, nevertheless showed room for improvement.

There was wide variation in adherence to guidelines by clinical condition, from almost 89 per cent adherence on average for the management of autism, to 44 per cent for tonsillitis. Children with tonsillitis, gastroesophageal reflux disease and upper respiratory tract infections received care least in line with guidelines. Mental health conditions, diabetes and head injuries received care most in line with

guidelines. (Rates for each condition are listed in Tables 1 and 2 and, for more detail, journal articles on most conditions are listed on the [website](#).)

In practice this means, for example, that greater adherence to CPGs could improve the care of children with gastro-oesophageal reflux disease. In 41% of cases, children under 1 year old with reflux who are otherwise healthy, and thriving are being treated with acid suppression medication at the first presentation. CPGs do not recommend this and, in fact, the evidence of effectiveness of acid suppression medication in infants is not strong and is associated with increased infections.

For children with diagnosed autism, care in line with CPGs was delivered almost 9 in 10 times. For example, one of the clinical indicators assessed revealed that most children are being appropriately referred to occupational therapists and speech pathologists.

NATIONWIDE RESEARCH

While strict adherence by a GP or paediatrician to CPGs is not always appropriate—some patients have more complex needs or special circumstances— we do know that the effective and timely use of guidelines contributes to a higher standard of care for the community. CPGs are based on level 1 or consensus evidence and provide valuable guidance in the majority of cases.

To do studies like this is very exacting and costly. In order to study best practice care, recommendations were first

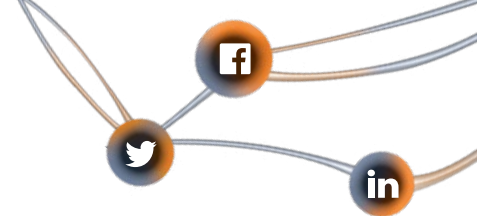


TABLE 1
Conditions treated most in line with clinical practice guidelines

Autism	88.8%
ADHD	83.6%
Anxiety	80.8%
Head injury	78.3%
Diabetes	75.8%
Depression	71.5%
Abdominal pain	69.9%
Croup	69.8%

TABLE 2
Conditions treated least in line with clinical practice guidelines

Tonsillitis	43.5%
Gastroesophageal reflux disease	52.8%
Upper respiratory tract infection	53.2%
Fever	53.5%
Otitis media (middle ear infections)	58.0%
Asthma	58.1%
Eczema	59.2%
Bronchiolitis	59.3%
Acute gastroenteritis	59.6%

extracted from CPGs for 17 common clinical conditions (see Tables 1 and 2 for the complete list).

For these 17 conditions, 479 quality indicators were identified by experts in each field for what could reasonably be expected to apply to children in Australia for the period of the study.

Then the medical records of 6,689 children (under 16 years of age) who visited emergency departments, were admitted as inpatients, or visited paediatricians and general practitioners in three Australian states were reviewed against the recommendations. Overall, 160,202 quality indicator assessments were undertaken.

WHERE TO NOW

While CareTrack Kids provides a clear picture of adherence rates to CPGs, and highlights areas for improvement, what it also reveals are the barriers to implementing high quality care.

Our health professionals are highly trained and dedicated, but the system needs modifying to support them.

Improvements could include advancing the design of electronic medical records in order to give clinicians ready access to real-time information. Also collecting patient data in a more structured way when the child is being treated may better support the clinician's decision making and provide richer information to their carers.

CareTrack Kids is the largest study of its kind and is only

the second study of large-scale evidence-based care delivered in paediatrics, the previous being published from US data in 2007. The findings from CareTrack Kids are similar to previous population-level estimates of quality of care for adults in the United States (55%) and the Australian Institute of Health Innovation's adult study undertaken in Australia (57%).

While the results from CareTrack Kids are as good as elsewhere in the world, Australia can do even better.

Authors: Professor Jeffrey Braithwaite, Founding Director, Australian Institute of Health Innovation; and Associate Professor Peter Hibbert, CareTrack Kids Program Director, Australian Institute of Health Innovation – Macquarie University