

#### EDITORIAL

# Pediatric health, medicine, and therapeutics

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The idea of children as small adults with health care needs that can be managed by extrapolation from adult studies has now largely been abandoned. We now recognize that adult health and disease are closely linked to childhood factors and the critical and ethical importance of clinical research in pediatrics is increasingly being recognized. While funding and output from pediatric clinical research continues to lag behind health research in adults, particularly in the area of therapeutics, the last decade has thankfully seen a dramatic increase in the number of pediatric studies and particularly randomized controlled clinical trials (RCTs). Since the 1997 Food and Drug Administration (FDA) Modernization Act in the United States (US) and the subsequent changes in drug registration regulatory systems in the US and Europe, there has been a huge increase in the number of pediatric studies sponsored by pharmaceutical companies. In the United Kingdom, the Medicine for Children's Research Network was established in 2005 to address the lack of clinical studies in pediatrics. Over the first five years they reported an exciting increase in the number of high quality clinical studies and on their website they have a current portfolio of over 200 pediatric studies, half of which are RCTs and half are sponsored by pharmaceutical companies. Other countries particularly across Europe are also establishing similar programs.

This burgeoning pediatric research endeavor requires outlets in the medical literature. A quick search reveals only around 30 pediatric specialty journals compared with approximately 123 general medical journals, more than 150 cardiovascular journals, and 170 cancer journals. Much of the research effort in pediatrics may be published in general medical and other sub-specialty areas, but clearly there is a potential market for another pediatric journal. The medical literature has also seen a revolution in the free-to-air (open access) publications, which has improved access particularly for developing countries and for health care professionals at the point of care. Most of the pediatric specialty journals are free-to-air after a variable time (6 to 36 months), but few are free-to-air at the time of publication.

Over the last 25 years in clinical practice there has been a dramatic increase in the complexity of the pediatric clinical cases we see as a result of improved diagnostics, technologies, and available treatments. The medical literature along with clinical forums and networks provide our daily tool box for sharing experience and managing our growing number of complex cases. While good quality clinical trials and systematic reviews are of critical importance in medical care, for the most part they do not address the questions raised for the management of patients in the ever increasing complex

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end of the market. Can we improve the evidence gap for complex patients? I believe we need to collaborate more effectively to find new approaches to examine outcomes of interventions for rare disorders and to continue to improve outcomes for chronic complex disorders while avoiding spiraling treatment burdens for patients and their families. We need to better understand the determinants of long-term outcomes for complex cases, adapt our trial designs to cater for a changing clinical landscape, and to examine

the interactions between different therapeutic interventions. We will need rapid access at the point of care to the future literature that reports on these and other important evolving areas of health care.

Pediatric Health, Medicine, and Therapeutics is a new free-to-air pediatric specialty journal which is poised to fill some of these gaps in the literature, and we look forward to addressing these challenges with scientists, researchers, and health care providers in the future.

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