Welcome to our 7.3 unthemed issue. In today’s health care environment, the one constant we all face is change.

How we incorporate these changes into improved quality of care with improved outcomes at a sustainable cost is the challenge. This issue consists of articles that address complex care, chronic pain, prematurity and imaging, accelerometer in children, a systematic review of TBI on family functioning, obesity in Spina Bifida in Canada, along with RMT in Pompe’s and a case study.

Specifically, Banez et al. describe their positive outcomes from a combined inpatient/day hospital interdisciplinary pain rehabilitation program for children and adolescents with chronic pain and functional disability. While admission for chronic pain in children is rare, the chronic/amplified pain that these children suffer is both disabling physically and psychologically. While not all children in Banez’s study responded equally, they did find that an interdisciplinary approach is a successful model for treating this disabling condition.

In “Identifying premature infants at high and low risk for motor delays using motor performance testing and magnetic resonance spectroscopy (MRS),” Coker-Bolt et al. found that a short motor skill assessment may be representative of a longer standardized test and relate to brain metabolic function in key areas for motor movement and development. As imaging technology advances, we all face the challenge of correlating these results for patient’s disability and functional outcome.

The next article by O’Neil et al. titled “Measuring reliability and validity of the ActiGraph GT3X accelerometer for children with cerebral palsy: A feasibility study” suggests that the ActiGraph GT3X accelerometers are reliable and valid devices to monitor physical activity during walking in children with cerebral palsy and may be appropriate in rehabilitation research and clinical practice. To date, we have no accepted recommendations for physical activity in children with CP despite their decreased physical functioning as a result of their disease. These type of recommendations are required not only for children with CP, but also spina bifida, SCI, TBI, cardiac and other pediatric diseases.

Next, Rashi et al. provide us with a systematic review of “The impact of pediatric traumatic brain injury (TBI) on family functioning.” They reviewed 9 electronic databases and Google scholar – identifying a total of 9 studies concluding that moderate to severe TBI has a significant, long-standing impact on family functioning. Addressing the impact of disease on families is becoming more and more prevalent among health care providers as individual practitioners and systems provide family centered care.

We all would agree that obesity is both a national and international epidemic. This is also an issue among children with disabilities. In “An environmental scan of weight assessment and management practices in pediatric spina bifida clinics across Canada,” McPherson et al. evaluate the current practices across all the spina bifida clinics in Canada. They found that the health care providers lacked appropriate assessment and classification tools, and that communication across disciplines is required.

This is followed by “Effects of respiratory muscle training (RMT) in children with infantile-onset Pompe disease and respiratory muscle weakness” by Jones et al. They instituted an intensive respiratory muscle training (RMT) in two patients with Pompe disease over a 12-week period finding that RMT may be a beneficial treatment for respiratory muscle weakness.

We also have a case study on rehabilitation of Guillain-Barré syndrome and a commentary by Salem and Elods of the previously published “Wii-Hab in Critically Ill Children: A Pilot Trial (Published in PRM Volume 6, 4 2013).”

Each day, as clinicians and researchers, we strive to provide all of our patients with comprehensive, seamless and integrated care. These articles as a whole rep-
resent the diversity of patient care and provide some
guidance for current and future care in their respective
topics.

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