

Pediatric Audiology

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Marlene Bagatto, AuD, PhD



In the midst of an extraordinary time in public health around the world, I am pleased to share the work of my expert colleagues in pediatric audiology. With infant hearing healthcare activities slowing or even stopping, for now, researchers and clinicians took time out of their new routines to provide program information, data, clinical guidance, and supportive tools to broaden our knowledge of pediatric

audiology. Canadian audiologists are well-aware of the contribution of home-grown researchers and clinicians to this dynamic field, and we are fortunate to hear from many of them in this issue. We are matched and supported by our colleagues from the United States who contribute significantly to the evidence so that infants and children with hearing loss have access to the best possible care.

The first article from Marie Pigeon and her colleagues at CHEO in Ottawa describes a "world-first" endeavor between Ontario's Infant Hearing Program and Newborn Screening Ontario. The addition of hearing loss risk factors on the newborn heel prick blood spot has strengthened the level of screening and care provided to infants at risk for permanent hearing loss. You will learn about the specific hearing loss risk factors and the process involved from an audiologist, geneticist, and infectious disease physician; a truly one of a kind program.

Pat Roush, an audiologist and professor at the University of North Carolina, tackles the

challenging topic of managing infants and young children who have been identified as having auditory neuropathy spectrum disorder (ANSO). Characterized by its heterogeneous impact on speech perception abilities that do not align with hearing levels, ANSO has long been grouped in the pediatric audiologists' list of "challenging cases." The article sheds light on the diagnosis and management strategies for this population.

Another challenging case for pediatric audiologists is infants and young children who have mild bilateral hearing loss (MBHL). Clinical uncertainty exists regarding management with hearing aids due to a lack of scientific consensus. Ryan McCreery from Boys Town in Omaha and Elizabeth Walker from the University of Iowa describe a clinical strategy using the speech intelligibility index (SII) to assist pediatric audiologists in determining hearing aid candidacy for this population. Data from children who participated in the Outcomes of Children with Hearing Loss (OCHL) study are presented to support this innovative approach.

Pediatric audiologists love a challenge. As does Kristin Uhler and her colleagues from the University of Colorado and Northwestern University. They describe their work examining the impact of hearing aid signal processing in infants by using temporal envelope modification. Read how they conducted visual reinforcement infant speech discrimination testing on almost 50 babies wearing hearing aids and what they learned about infant speech discrimination abilities.

And if the baby is challenged by noisy situations while wearing her hearing aids, Susan Scollie and I describe practice recommendations for noise management in hearing aid fittings. Considering the advancements in noise management technology and applying what we know about auditory development and learning, it is possible to harness these technologies to help babies hear better in noise. This topic aligns well with Elizabeth Walker and her colleagues' article that explains the impact of well-fit hearing aids and consistent hearing aid use on language development.

Speaking of advancements in technology, Danielle Glista and her colleague from Western University describe their work engaging and empowering children and adolescents using connected hearing healthcare. They describe a mobile-based application used to understand the preference and performance of a prescription-based

noise management strategy in young hearing aid users. Tools like this are gaining momentum in an environment where connections are becoming increasingly virtual.

The personal connections we have with our young patients are important to us and the families we work with. These interactions support the development of the child and the well-being of the family, among other positive outcomes. To foster engagement of families in the early stages of hearing loss identification and intervention, Sheila Moodie, David Sindrey, and their collaborators developed videos that can be shared during in-office appointments and reviewed and shared later with other family members. You will read how these educational materials are a critical component of family-centred early intervention.

As the child matures, the pediatric audiologist has a responsibility to promote self-determination in their young patients with hearing loss. Dave Gordey from Oticon A/S describes the components of self-determination and how these skills can help children with hearing loss navigate challenging social and learning environments. This is critical for children with hearing loss to make the most out of their technology.

Finally, a review of the second edition of the Pediatric Audiology Casebook by Jane Madell, Carol Flexer, Jace Wolfe, and Erin Schafer is provided. With 64 new cases describing a range of clinical scenarios from diagnosis to managing vestibular issues, this tool showcases problem-based learning for clinicians and students alike.

In the face of unusual times, I am grateful for the continued contributions to pediatric audiology from amazing clinicians and researchers in North America. The translation of scientific findings to clinical practice is a unique characteristic of the articles within this special issue dedicated to pediatrics. This dynamic and challenging specialty of our profession is in good hands.