

AACPDm SUGGESTED FAMILY TRACK

Thursday, October 7, 2021

Mini Symposia (1:00pm-2:15pm EDT):

- **MS01: Making a Difference with the GOAL Questionnaire: Incorporating Family Priorities into Practice**

Jean Stout MS, PT, Elizabeth Boyer PhD, Pam Thomason MPT, Katie Walt PT, DPT, Andrew Georgiadis MD, Unni Narayanan MBBS, MSc, FRCS(C)

Learning Objectives:

1. Describe the unique nature of the GOAL Questionnaire and what it adds to functional outcome assessment;
2. Explain the validation process, scoring and interpretation of the GOAL Questionnaire across patients with different motor abilities;
3. Identify one or more pearls and pitfalls regarding incorporation of the GOAL Questionnaire into clinical practice;
4. Discuss how direct knowledge of family priorities related to functional tasks can augment and direct treatment planning.

- **MS04: Neuro-Orthopaedic Journal Club: Top Articles of 2020 in the Orthopaedic Management of Children with Neuromuscular Disorders**

Amanda Whitaker MD, Benjamin Shore MD, MPH, Jon Davids MD

Learning Objectives:

1. Use a standardized format for the critical analysis of scientific articles from the medical literature;
2. Be familiar with the most significant recent advances in the orthopaedic management of children with neuromuscular disorders;
3. Incorporate new techniques and technologies into clinical practice;
4. Appreciate current research trends in this area and be inspired to make a contribution to the body of knowledge!

Free Papers (3:00pm-5:00pm EDT):

Free Paper Session A: Basic Science/Technology

**Presenting author is underlined*

- **3:16-3:23 pm - A3: A Clinical Trial of Umbilical Cord Blood and Umbilical Cord Tissue Mesenchymal Stromal Cells in Children with Cerebral Palsy**
Jessica Sun MD, Laura Case DPT, Colleen McLaughlin DNP, Natalie Skergan CPNP, Joan Jasien MD, Mohamad Mikati MD, Jesse Troy PhD, Joanne Kurtzberg MD
- **3:24-3:31 pm - A4: Targeted Neuroimmunomodulatory Therapies for Functional Improvement in Cerebral Palsy**
Yuma Kitase MD, Nethra Madurai MD, Eric Chin MD, Shenandoah Robinson MD, Lauren Jantzie PhD
- **4:00-4:07 pm - A6: Augmentative and Alternative Communication and Interpreter Use for the Cognitive Assessment of Children with CP: A Question of Equity**
Elisabeth O'Regan BA, Ann Alriksson-Schmidt PhD, MSPH, Pia Ödman PT, PhD, Kristine Stadskeiv PhD, Maja Knudsen Cand.psychol
- **4:16-4:23 pm - A8: Eye Metrics in Children with Dyskinetic Cerebral Palsy During Eye-tracking Performance Compared to Typically Developing Children**



Saranda Bekteshi MSc, Petra Karlsson PhD, Inti Vanmechelen MSc, Marco Konings PhD, Tamaya Van Criecking PhD, Patrick Hellin OT, Jean-Marie Aerts PhD, Hans Hallez PhD, Els Ortibus PhD, MD, Elegast Monbaliu PhD

- **4:32-4:39 pm - A10: Creation of Evidence-based Resources to Support Pediatric Healthcare Professionals in Adapting Practices to Include Telehealth**
Zachary Boychuck OT, PhD, Dahlia Kairy PhD, PT, Tatiana Ogourtsova OT, PhD, Walter Wittich PhD, FAAO, CLVT, Annette Majnemer OT, PhD, FCAHS, Sara Ahmed PT, PhD

Free Paper Session B: Diversity, Equity and Inclusion/ Developmental

**Presenting author is underlined*

- **3:00-3:07 pm - B1: Perspectives of Children and Youth with Disabilities Regarding Their Experiences in Inclusive Education: A Meta-aggregative Review**
Tithi Paul BS, Wenonah Campbell PhD
- **3:08-3:15 pm - B2: Healthcare Resource Utilization by Children with Cerebral Palsy**
Maria Juricic BScPT, MRSc, Stacey Miller MRSc, BSc (PT), Jaimy Coates, Nandy Fajardo, Christopher Chapman MD, BSc, Eva Habib MPH, Kishore Mulpuri MBBS, MS, MHSc, FRCSC
- **4:00-4:07 pm - B6: Autism and ADHD Are Main Associated Impairments in Children with Cerebral Palsy**
Magnus Pählman MD, PhD, Kate Himmelmann MD, PhD
- **4:32-4:39 pm - B10: CO-OP Approach Improves Activity Performance and Participation – in Children with Cerebral Palsy and Spina Bifida**
Ann-Marie Öhrvall PhD, Caisa Hofgren PhD, Lena Bergqvist PhD, Barbro Lindquist PhD, Kate Himmelmann MD, PhD, Marie Peny- Dahlstrand PhD

Free Paper Session C: Orthopaedics

**Presenting author is underlined*

- **3:00-3:07 pm - C1: Epidemiology of Fractures in Children with Cerebral Palsy in Sweden: A Population-based Registry Study**
Gustaf Linton, Ann Alriksson-Schmidt PhD, MSPH, Gunnar Hägglund PhD
- **3:24-3:31 pm - C4: Calcaneal Sliding versus Calcaneal Lengthening Osteotomy for Valgus Foot Deformity Correction in Children with Cerebral Palsy**
Susan Rethlefsen DPT, Alison Hanson MPT, Tishya Wren PhD, Robert Kay MD
- **4:00-4:07 pm - C6: The Risk of Scoliosis in Children with Dystonic Cerebral Palsy Is Less Than in Children with Spasticity**
Supreet Deshpande MD, Rashmi Acharya, Mark Gormley Jr MD
- **4:08-4:15 pm - C7: Concurrent Hip Dysplasia and Scoliosis in Children with Cerebral Palsy: should We Fix the Hip or Spine First?**
Wade Shrader MD, Ali Asma MD, Armagan Can Ulusaloglu MD, Kenneth Rogers PhD, Mutlu Cobanoglu MD, Jason Howard MD, Suken Shah MD
- **4:32-4:39 pm - C10: The Impact of Preoperative Anxiety on Postoperative Pain in Patients with Cerebral Palsy Undergoing Orthopaedic Surgery**
Rachel Wahhab BS, Danielle Greig MD, Rachel Thompson MD

Free Paper Session D: Therapy/Tone

**Presenting author is underlined*

- **3:00-3:07 pm - D1: Treatment of Spasticity in Children and Adolescents with Cerebral Palsy in Northern Europe: A CP-North Registry Study**
Ann Aliksson-Schmidt PhD, MSPH, Gunnar Hägglund PhD, Sandra Hollung PhD, MS, Matti Ahonen MD, PhD, Guro L Andersen MD, PhD, Gudbjörg Eggertsdottir MScPh, Msc, PT, Mark Gaston, Reidun Jahnsen PhD, Ira Jeglinsky Kankainen PT, PhD, Kirsten Nordbye- Nielsen MSc, Ilaria Tresoldi MD, PhD
- **3:08-3:15 pm - D2: Efficacy of Incobotulinumtoxin/A Treatment for Children/Adolescents with Sialorrhea Associated with Neurological Disorders**
Steffen Berweck MD, Heakyung Kim MD, Marta Banach MD, PhD, Angelika Hanschmann MS, Michael Althaus MD, Marcin Bonikowski MD
- **3:24-3:31 pm - D4: Effect of Activity-based Training on Lower Extremity Contracture and Spasticity in People with Cerebral Palsy: A Systematic Review**
David Yang BSc, Caitlin Hurd MSc, MScPT, Diane Lorenzetti MLS, PhD, Jaynie Yang BSc(PT), MSc, PhD, Elizabeth Condliffe PhD, MD, FRCPC
- **4:00-4:07 pm - D6: What Is the Effect of Progressive Resistance Training in Muscle Function, Activity and Participation in People with Cerebral Palsy?**
Theofani Bania PhD, Nicholas Taylor PhD, Hsiu-Ching Chiu, Garyfallia Charitaki, Evdokia Billis

Friday, October 8, 2021

Mini Symposia (1:00pm-2:15pm EDT):

- **MS06: Driving Technology Development in the Right Direction: On y Va !**
Anna McCormick BMSc, MD, FRCPC, Elaine Biddiss MAsc, PhD, Jan Willem Gorter MD, PhD, Adam Scheinberg MBBS, DCH, FRACP, FAFRM, MMed, Joanna Butchart PT, MPT, MPH, Hana Alazem MD

Learning Objectives:

 1. Be introduced to the six F-Words in Child Development built upon the World Health Organization's International Classification of Functioning, Disability and Health (ICF) framework;
 2. Review scientific assessment of cutting edge technology including robotic gait trainers, social robots and mixed reality therapy games;
 3. Apply the F-words lens to these specific examples of technology;
 4. Participate in active discussion regarding how this framework can be utilized to drive the development of powerful cutting edge technology forward.
- **MS07: Hip Surveillance for Children with Cerebral Palsy: Strategies and Technologies to Overcome Barriers to Implementation**
Vedant Kulkarni MD, Jon Davids MD, Stacey Miller MRSc, BSc (PT), Kerr Graham MD, Amanda Whitaker MD

Learning Objectives:

 1. Describe the evidence for hip surveillance in children with cerebral palsy;
 2. Describe models for the implementation of hip surveillance that have been developed in multiple countries;
 3. List barriers and potential solutions to implementing hip surveillance within varying health systems;
 4. Understand resources and technology that can overcome common barriers for implementation of a hip surveillance program.

- **MS10: Management of Difficult Clinical Presentations of Hypertonia and Complex Movement Disorders in Children with Disabilities**

Mark Gormley Jr, MD, Tim Feyma MD, Patrick Graupman MD

Learning Objectives:

1. Be able to better understand difficult hypertonic and complex movement disorders and possible treatment options, including the importance of a team approach in patient management;
2. Understand when a deep brain stimulator can be useful in managing severe dystonic and dyskinetic conditions;
3. Understand which patients may be successfully treated with a ventral-dorsal rhizotomy or a selective dorsal rhizotomy;
4. Understand when intrathecal baclofen, phenol neurolysis, and botulinum toxin injections may be useful in treating hypertonic conditions.

Free Papers (3:00pm-5:00pm EDT):

Free Paper Session E: Complex Care/Early Development

**Presenting author is underlined*

- **3:24-3:31 pm - E4: Quantifying Neurodevelopmental Impairment: Cerebral Palsy and the Encephalopathy of Prematurity**
Karnika Mehrotra, Lauren Jantzie PhD, Alexander Hoon MD, MPH, Shenandoah Robinson MD, Eric Chin MD
- **3:32-3:39 pm - E5: Exploration of Cardiovascular Risk Factors During Childhood in Children with and Without Cerebral Palsy**
Theresa Sukal-Moulton PT, DPT, PhD, Xiaoyun Yang MS, Dana Coons BA, Amy Krefman MS, Norrina Allen PhD, MPH, Deborah Gaebler-Spira MD
- **4:00-4:07 pm - E6: Parents' Perspective of Receiving a Diagnosis for Their Child**
Stacey Miller MRSc, BSc (PT), Maria Juricic BScPT, MRSc, Jaimy Coates, Maureen O'Donnell MD, MSc, Kishore Mulpuri MBBS, MS, MHSc, FRCSC
- **4:24-4:31 pm - E9: Sleep Problems in Children with Cerebral Palsy and Their Parents: Results from the 24-hour Activity Checklist**
Raquel Hulst MSc, Jan Willem Gorter MD, PhD, Jeanine Voorman MD, Eveline Kolk MSc, Sanne van der Vossen MD, Anne Visser-Meily MD, Marjolijn Ketelaar PhD, Sigrid Pillen MD, Olaf Verschuren PhD
- **4:32-4:39 pm - E10: Home Health Nursing Care Utilization in Children with Medicaid**
Sarah Sobotka MD, MSCP, David Hall MD, Cary Thurm PhD, James Gay MD, Matt Hall PhD, Jay Berry MD, MPH

Free Paper Session F: Gait

**Presenting author is underlined*

- **4:00-4:07 pm - F6: Long-term Evolution of Walking in Unilateral Cerebral Palsy: A 10-years Follow-up of 34 Children**
Alice Bonnefoy-Mazure PhD, Geraldo De Coulon MD, Stéphane Armand PhD
- **4:16-4:23 pm - F8: Gait and Mobility Outcomes After Multi-level Surgery for Youth with Cerebral Palsy: Differences in Rehabilitation Setting & Dose**
Nancy Lennon MS, PT, DPT, Christina Bourantas BS, Jason, Beaman PT, Tim Niiler PhD, Laura Owens MD, Wade Shrader MD
- **4:24-4:31 pm - F9: The Impact of Preoperative Factors and Surgical Burden on Postoperative Recovery of Walking Activity in Children with Cerebral Palsy**

Chris Church MPT, Isabel Biermann BS, Nancy Lennon MS, PT, DPT, John Henley PhD, Stephanie Butler DPT, Tim Niiler PhD, Wade Shrader MD, Freeman Miller MD, Jason Howard MD

Free Paper Session G: Orthopaedics: Hip

**Presenting author is underlined*

- **4:16-4:23 pm - G8: A Thousand Hips over Two Decades: What We Have Learned About Complications After Hip Surgery in Children with Cerebral Palsy**
Wade Shrader MD, Ahmet Imerci MD, Kenneth Rogers PhD, Jason Howard MD, Freeman Miller MD

Free Paper Session H: Technology

**Presenting author is underlined*

- **4:00-4:07 pm - H6: Power Training Improves the Sensorimotor Cortical Oscillations in Youth with Cerebral Palsy**
Morgan Busboom DPT, Anna Reelfs BS, Mike Trevarrow BS, Brad Corr DPT, Heidi Reelfs DPT, Sarah Baker MA, Hannah Bergwell BS, BA, Tony Wilson PhD, Noelle Moreau PT, PhD, Max Kurz PhD
- **4:08-4:15 pm - H7: Power Training Improves the Mobility and Somatosensory Cortical Activity of Individuals with Cerebral Palsy**
Hannah Bergwell BS, BA, Max Kurz PhD, Tony Wilson PhD, Sarah Baker MA, Heidi Reelfs DPT, Noelle Moreau PT, PhD, Brad Corr PT, DPT

Saturday, October 9, 2021

Mini Symposia (1:00pm-2:15pm EDT):

- **MS12: Cerebral Palsy: Moving Beyond the 'label' to the Ingredients**
Darcy Fehlings MD, MSc, FRCPC, Bhooma Aravamuthan MD, DPhil, Michael Kruer MD, Peter Rosenbaum MD, Bernard Dan MD, PhD
Learning Objectives:
 1. Understand that a CP diagnosis requires simultaneous thorough description of the associated clinical phenotype, etiologic risk factors, functioning, and developmental/health conditions;
 2. Describe the benefits and limitations of a 'diagnosis' of CP;
 3. Describe the distinction between a 'diagnosis' of CP and identification of etiologic risk factors for CP (such as prematurity or genetic variation);
 4. Discuss potential benefits and challenges in applying this diagnostic framework across specialties, communities and geographical contexts.
- **MS14: Spasticity Management, Contracture Prevention, and the Need for Orthopaedic Surgery: Emerging Evidence**
Jason Howard MD, Tandy Hastings-Ison PhD, Kristina Tedroff MD, Ph.D, Wade Shrader MD
Learning Objectives:
 1. Define spasticity in CP, in particular how it relates to its measurement and impact on gross motor function;
 2. Understand the pathophysiology of muscle contracture in CP, as described in the most up-to-date evidence;



3. Understand the pathophysiologic effects of botulinum toxin on CP skeletal muscle, and how these effects are modulated by dosage and frequency of injection;
4. Understand the impact of spasticity management on the development of muscle contractures and need for orthopedic surgery.

- **MS15: All the Moving Parts: Developing a Transition Program Using QI Methodology**
Unoma Akamagwuna MD, Jensine' Norman MD, Ameer Moreno MSN, APPRN, CPN, Jason Woodward MD, MS

Learning Objectives:

1. Describe and identify key components of a framework for change and apply them to developing a transition program;
2. Apply strategies to identify and integrate outcome measures of change using electronic medical record systems;
3. Apply strategies to engage and work with inter-professional colleagues during program planning and implementation;
4. Identify and discuss strategies to engage youth and increase self-management skills throughout the transition process.

Free Papers (3:00pm-5:00pm EDT):

Free Paper Session I: Early Diagnosis

**Presenting author is underlined*

- **4:32-4:39 pm - I10: Parents' Experiences with Home Activities During Early Intervention**
Afnan Gmmash PT, MS, PhD, Susan Effgen PT, PhD, FAPTA, Kimberly Wynarczuk DPT, PhD, MPH

Free Paper Session J: Gait

**Presenting author is underlined*

- **3:00-3:07 pm - J1: Effect of Orthotics on Balance in Cerebral Palsy: Traditional Solid AFO versus Ankle-foot Orthoses Footwear Combination:**
Kristie Bjornson PT, PhD, Stefania Fatone PhD, Michael Orendurff PhD, Chuan Zhou PhD, Garth Shippen BS
- **4:08-4:15 pm - J7: Goal Outcomes Assessment List (GOAL): Randomized Trial of Orthotic Management in Ambulatory Cerebral Palsy**
Kristie Bjornson PT, PhD, Stefania Fatone PhD, Michael Orendurff PhD, Chuan Zhou PhD, Garth Shippen BS

Free Paper Session K: Lifespan

**Presenting author is underlined*

- **3:08-3:15 pm - K2: The Progression of BMI Status over Time in Irish Ambulant Children with Cerebral Palsy**
Karen Brady MSc, Damien Kiernan PhD, Andrea Marron MA
- **4:32-4:39 pm - K10: Parents' Perception of Adolescence and Transition to Adulthood of Their Children with Cerebral Palsy: Designing a Service for Parents**
Ana Paula Silverio MSc, Marisa Mancini PhD, Fernanda Antunes OT, Priscilla Figueiredo MSc, Katia Bueno PhD, Marina Brandao PhD

Free Paper Session L: Therapy/Upper Extremity

**Presenting author is underlined*

- **3:00-3:07 pm - L1: A Meta-Analysis of Nonsurgical Interventions to Improve Upper Extremity Function in Children with Cerebral Palsy**
Kunj Jain BA, Yash Shah BS, Anugya Mittal BA, Amy Song BS, Lauren Hutnik BA, Vaishali Ravikumar BS, Anam Purewal BS, JenFu Cheng MD, Alice Chu MD
- **3:08-3:15 pm - L2: A Literature Review on Therapeutic Management of Upper Limb Dysfunction in Children with Bilateral Spastic Cerebral Palsy**
Giada Sgherri MD, PhD, Elena Beani PT, PhD, Giovanni Cioni MD, Giuseppina Sgandurra PhD
- **3:16-3:23 pm - L3: Mirror Movement Changes After Intensive Therapy in Paediatric Hemiplegia: A Randomized Controlled Trial**
Rodrigo Araneda PhD, Enimie Herman MA, Anne Klöcker PhD, Delcour Louis MA, Geoffroy Saussez PhD, Julie Paradis PhD, Daniela Ebner-Karestinos PhD, Yannick Bleyenheuft PT, PhD
- **4:00-4:07 pm - L6: The Role of Engagement in Upper Extremity Interventions for Children with Unilateral Spastic Cerebral Palsy**
Dalina Delfing MS, Larissa Hentrich BA, Karen Chin MA, Kathleen Friel PhD, Christine Imms PhD, Victor Santamaria PT, MS, PhD, Jaya Rachwani PhD, Andrew Gordon PhD
- **4:24-4:31 pm - L9: A Sit-to-stand Exercise Program for Children with Moderately Severe Cerebral Palsy: A Randomized Controlled Trial**
Sirawee Chaovalit PhD

Monday, October 11, 2021

On-Demand Mini Symposia

- **ODMS02: How Do We Evaluate Children with Cerebral Visual Impairment? connecting the Dots: Diagnosis, Treatment and Maximizing Performance**
Karen Harpster PhD, OTR/L, Terry Schwartz MD, Linda Lawrence MD
Learning Objectives:
 1. Describe the current body of evidence for screening and assessment tools used with individuals with CVI;
 2. Describe current practices from multiple institutions for collecting a targeted history, administering validated screening and assessment tools to get a comprehensive vision assessment;
 3. Explain how to set up the environment and tasks during the functional vision evaluation to understand a child's vision functional vision in the real world;
 4. Understand how to translate/use the results of the multi-disciplinary evaluation to inform the individual's treatment plan at home, school and the community.
- **ODMS04: Sex in the CP – Sexuality and Life Span Care in People with Cerebral Palsy**
Heakyung Kim MD, Jan Moskowitz MSW, Nancy Lee MS, Susan Labhard MSN
Learning Objectives:
 1. Be able to understand the importance of including sex/ sexuality in assessments;
 2. Learn how to initiate meaningful conversation relating to sex/sexuality;
 3. Be able to understand physical challenges and limitation that people with CP experience related to sexual activity;
 3. Be educated on available treatment options for management of medical conditions that people with CP experience related to sexual activity;



4. Discuss adaptive means of seeking and having sex.

- **ODMS06: Pressure Injury and Wound Management in Children and Young Adults with Disabilities**

Supreet Deshpande MD, Mark Gormley Jr MD, Jennifer Wilhelmy APRN, CNP, Andrea Paulson MD

Learning Objectives:

1. Describe pressure injury classification, risk assessment, skin assessment, and preventive measures;
2. Describe the nutrition assessment and intervention, pressure relief, supportive cushions, and medical devices that help prevent and treat pressure injuries;
3. Describe pressure injury cleansing, debridement, and dressing, and treatments with biophysical agents and growth factors;
4. Describe the infection management and surgical treatments to manage pressure injuries, including antibiotic use, biofilm management, tissue transfers, bone resections, and bowel/bladder diversions.

- **ODMS08: An International, Multidisciplinary Symposium on Robotic Gait Training: Moving Forward Together, "On Y Va"**

Anna McCormick BMSc, MD, FRCPC, Hana Alazem MD, Hubertus van Hedel PhD, PT, Elizabeth Condliffe PhD, MD, FRCPC, Eduardo Rocon PhD, PEng

Learning Objectives:

1. Define robotic gait trainers (RGT) and describe their use within neurorehabilitation;
2. Describe a new and emerging robotic walker used in cerebral palsy and growing evidence regarding use;
3. Describe devices for over-ground robotic training citing methodology / early results;
4. Participate in interactive feedback regarding in neurorehabilitation. Where are we now and where are we going together?

- **ODMS11: Cerebral Palsy in the Genomics Era: Why, When and How to Pursue a Genetic Diagnosis?**

Francisca Millan MD, Michael Kruer MD, Julie Cohen ScM, CGC, Bhooma Aravamuthan MD, DPhil

Learning Objectives:

1. Understand fundamental genetic concepts, how these relate to clinical genetic testing for CP, and describe the evidence supporting genetic testing for patients with CP;
2. Evaluate a genetic test report and interpret different test outcomes (negative, positive and uncertain clinical significance).
3. Discuss the implications and challenges of genetic counseling for patients with CP and their families;
4. Identify patients who may benefit from genetic testing and customize patient management based on the results.

- **ODMS12: Innovations in Power Wheelchair Options: Benefits and Challenges**

Linda Krach MD, Jill Gettings MD, Jennifer Wilhelmy APRN, CNP, Britta Schwartzhoff DPT

Learning Objectives:

1. Describe 4 features available on power wheelchairs that can facilitate function, pressure relief, or transfers;
2. Describe issues that can contribute to the development of skin issues related to specific wheelchair features and list potential ways to mitigate the issues;
3. Give examples of patient characteristics that might benefit from a specific wheelchair feature;
4. Understand strategies to address third party payer questions about wheelchair features.