Implementation of Early Detection & Intervention for Cerebral Palsy Conference

Global Objectives:
1. Identify the discrete component of the guidelines for best evidence in early detection and intervention of cerebral palsy (CP).
2. Describe the current processes for diagnosis and intervention of CP in your setting.
3. Identify the strengths, weaknesses, opportunities and threats to implementing the guidelines in your program.
4. Develop a process flow to adapt the critical elements of the guidelines to your own high-risk infant follow-up setting.

SATURDAY: INTERVENTIONS

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<th>Workshop</th>
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| Development of Gait in the Under 3 with/without CP | • Overview of the development of gait patterns in infants with CP from a qualitative and quantitative perspective.  
• Quantitative evaluation and how the use of 3D gait analysis (kinematic/kinetic/EMG analysis) has changed how we understand, classify, and treat infants and children with CP.  
• Overview and case examples of interventions and best evidence for management that are driven by understanding gait patterns and development including underlying pathophysiology, planes of deformity and anatomical level. |
| Psychology and Parent Interventions          | • Review evidence base for current programs (e.g. Triple P, Legacy).  
• Discuss group versus individual model in parenting.  
• Identify challenges and solutions unique to your own healthcare system. |
| Feeding Intervention in the Early Years       | • Compare current program approaches with best practices for feeding intervention for high-risk infants.  
• Contrast pathophysiology and behavioral approaches with emphasis on synergy between the two.  
• Evaluate feasibility of interdisciplinary teams versus programs. |
| Speech and Language Interventions | Discuss role of assistive communication in early intervention.  
| | Assess language, communication, and behavior for each of the three interrelated topics; best evidence in standardized assessment will be reviewed.  
| | Feasibility of screeners versus assessments will be discussed.  
| | Q&A session will be focused on choices for all three in individualized settings. |
| Optimizing Sleep and Mitigating Pain in Infants with CP | Assess and monitor pain in infants with CP.  
| | Answer parent questions regarding non-pharmacological options for pain and sleep management.  
| | Conduct sleep screening and utilize evidence-based interventions to promote better sleep.  
| | Discuss new holistic approaches (e.g. Mindfulness REIKI). |
| Motor Interventions – Upper Limb | Compare the evidence for upper limb motor interventions and strategies in the 0-2 age group at high risk or with CP.  
| | Make informed choices about which can feasibly be implemented in your own program. |
| Motor Interventions – Gross Motor | Compare the evidence for gross motor interventions and upper extremity strategies in the 0-2 age group at high risk or with CP.  
| | Make informed choices about which can feasibly be implemented in your own program. |
| Enhancing Family Participation in the Early Years | Utilize best practice tools and approaches to assess the impact of an infant with special needs on the family.  
| | Engage the family on the healthcare team at the level which best meets their needs and gathers information essential to the healthcare team. |
| Cognition Assessments and Intervention | Contrast known evidence for sensory versus cognitive systems and interventions.  
| | Demonstrate interactions between maturation, neurodevelopment, and sensory experiences.  
| | Apply knowledge gained to clinical scenarios in multidisciplinary team of attendees. |
| Management of Tone Abnormality | Review evidence for tone management in infants pointing out gaps and lessons extrapolated from older children.  
| | Apply knowledge to clinical scenarios.  
| | Encourage discussion of options when evidence is lacking. |
| Hip Surveillance | Overview of evidence and literature.  
| | Review AACPDM Care Pathway for Hip Surveillance.  
| | Practical examples and worksheets that can be used in your clinic. |
| **Nutrition** | • Compare the validity of growth and nutrition metrics for children under 3 with CP.  
• Identify gaps in nutritional needs for infants with CP as early as possible.  
• Plan early, evidence-based nutritional interventions for infants with CP. |
| **Orthotics Update** | • Incorporate evidence-based orthotic and standing equipment use into the treatment options of your comprehensive program.  
• Discuss options for surveillance and intervention in orthopedics in 0-3 years.  
• Apply evidence of biomechanics discussed in previous sections in clinical scenarios. |
| **APPLES in Practice** | • APPLES is the only upper extremity intervention shown in a large randomized clinical trial to improve developmental skills, smoothness of reach and tactile processing in the brain of infants with asymmetric forms of CP, as early as 6 months of age. It also includes a form of constraint that is scientifically proven to be safe for sensory development and motor skills in infants.  
• The full intervention includes the following therapist-guided parent-administered components, started at a participant’s initial level of motor skill: (1) bimanual play with provided therapist training and suggested toys; (2) soft-constraint harness (the patented and freely available C-mitt) (3) reaching and exploration of the non-constrained hand for age-appropriate small toys in specific sensory environments; (4) reaching with a “sticky” (5) education of parents on progressive support and (6) on principles of positive parenting psychology, “just-right challenge,” positive reinforcement, transactional interactions and emotional availability.  
• Participants will learn about implementation of a multi-modal parent administered, therapists coached, upper extremity intervention for children with asymmetric cerebral palsy.  
• Kits and schedules will be provided as well as demonstrations and opportunities for practice. |

*ADVANCED Workshop Prerequisite: Previous attendance at our Early Detection Conference 2017 or 2018 required.*
### Selective Motor Control in Practice

*ADVANCED Workshop Prerequisite: Previous attendance at our Early Detection Conference 2017 or 2018 required.

- Explore the concept of selective motor control by discussing and establishing a collaborative definition of this construct.
- Video and case examples will be shown of children with decreased selective motor control, along with opportunities to clinically assess and interpret findings on a basic examination.
- The discussion will relate the neuroscience behind altered selective motor control, particularly in the developing infant, with a focus on animal and human research to support observations.
- Clinical tools, including targeted observations and validated outcome measures, to evaluate selective upper and lower extremity motor control in infants.
- Presenters will provide clinicians with ideas for influencing selective motor control in children with cerebral palsy in the early years and explore the potential of the nervous system to respond to intervention.
- Attendees will generate a framework for understanding selective motor control that will immediately influence their practice.

### HABIT for Toddlers

*ADVANCED Workshop Prerequisite: Previous attendance at our Early Detection Conference 2017 or 2018 required.

- HABIT (Hand-Arm Bimanual Intensive Therapy) is a form of intensive bimanual training for children with USCP using motor learning principles.
- Participants will learn about the Motor learning principles of whole-task and part-task practice.
- A review of the evidence including clinical trials of HABIT.
- Discuss appropriate toys and provide examples. Examples will be given of children are engaged in using both hands in bimanual play and functional activities.
- Opportunities for practice and demonstration.