**Background**

- In Canada, the average age of CP diagnosis lags behind international standards.\(^1\)
- For early detection of CP, Clinical Practice Guidelines (CPG) recommend the Hammersmith Infant Neurological Examination (HINE).\(^2\)
- CPGs recommend Baby Constraint Induced Movement Therapy (CIMT) to improve arm and hand function in infants with Hemiplegic CP.\(^3\)
- Early intervention for CP is critical to harness early neuromuscular plasticity.\(^3\)

**Research Objective**

To implement, evaluate and sustain change in clinical practice for early identification of HCP and an early intervention Baby CIMT program at five sites across Ontario.

**Sites**

- Sunnybrook Health Sciences Centre
- Kids Inclusive
- Children’s Hospital London Health Sciences Centre
- McMaster Children’s Hospital
- CHEO
- tvcc

**Methods: Knowledge to Action**

- Engaged neonatal follow-up programs, local rehabilitation/children’s treatment centres and community-based Occupational Therapists (OTs)/Early Interventionists (EIs) at five sites across Ontario.
- A Knowledge to Action Cycle Framework\(^5\) was used to implement an early identification to early intervention (Baby-CIMT) program.
- The Action Cycle has three stages:

  1. **Early Identification**
     - Referrals
  2. **Early Referrals**
     - HINE
  3. **Early Intervention**
     - Baby CIMT

  **Action:** Integrate the HINE in neonatal follow-up clinics.

  **Implementation Strategy:** Facilitated webinar on administering and scoring the HINE for neonatal follow-up clinicians. Support HINE uptake at monthly Community of Practice meetings to iterate process.

  **Outcomes:** Number of neonatal follow up clinicians using the HINE.

  **Action:** Neonatal follow up clinics refer infants identified at high risk for HCP to Baby-CIMT OTs at rehabilitation centres.

  **Implementation Strategy:** Established Baby-CIMT OT leads at each site. OT leads and neonatal follow up clinicians developed strategies to streamline referrals to Baby CIMT.

  **Outcomes:** Infant age at the time of referral; Number of referrals to the Baby-CIMT program

**Success Markers**

- Sites have completed initial steps for implementation, including:
  - Neonatal follow-up clinicians attended HINE webinar
  - Rehabilitation OT leads attended & facilitated Baby-CIMT webinars
  - OT leads completed Mini Assisting Hand Assessment (mini-AHA) training
  - Sites refined referral processes

**Next Steps**

- Support sites through monthly Community of Practice meetings.
- Collect data to assess program implementation.
- Develop Baby-CIMT online toolkit to sustain knowledge use.

**Impact**

- Improve access to early identification and treatment for infants across Ontario at high risk for HCP.
- Continue to evolve clinical practice for infants at high risk of HCP across Canada.

**References**