PROMPT referral for diagnosis of cerebral palsy:
From current-practitioners to best-practices.

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BACKGROUND:
Early intervention and family education can optimize long-term outcomes for both the child and their family. Pediatric societies and Canadian policies widely endorse early identification of developmental disabilities by primary care practitioners (pediatricians, family physicians).

OBJECTIVES:
To develop expert-informed content for an educational knowledge translation (KT) tool intended for primary care practitioners and parents (e.g. smartphone Apps, YouTube clips, poster for waiting room), through the use of consensus methods.

METHODS DESIGN:
Two nominal group techniques (Debecq & Van der Ven, 1968) (Figure 1) were used to develop content for the KT tool: Nominal Group 1 (N=13) and Nominal Group 2 (N=13) participants were recruited to develop content.

RESULTS
Group 1 Research Question: “What are the early signs of cerebral palsy (CP) that should prompt referral for diagnosis?”
1. Six attributes were agreed upon.
   a. The child demonstrates a persistent hand preference beyond 12 months of age.
   b. The child demonstrates stiffness or rigidity in the leg between 6-12 months of age (e.g. child fails to bring their toes to mouth during diapering).
   c. The child demonstrates persistent flattening of the hands beyond 4 months of age.
   d. The child demonstrates a persistent head lag beyond 4 months of age.
   e. The child is not able to sit without support beyond 9 months of age.
   f. The child demonstrates any asymmetry in posture or movement.

Group 2 Research Question: “At the time children are being referred to a medical specialist for diagnosis, which health professionals other than physicians should children suspected of having cerebral palsy also be referred to?”
1. Five recommendations were agreed upon:
   a. Motor intervention specialist (PT and/or OT)
   b. Speech-language pathology (IC, Communication delayed).
   c. Audiology (IF parental concern and/or communication delay).
   d. Functional vision specialist (e.g. optometrist or OT) (IF vision concern (not fixing, following, tracking).
   e. Feeding specialist (e.g. OT, SLP, LCP) (IF feeding difficulties (e.g., poor sucking, swallowing, choking, not gaining weight).

CONCLUSION / SIGNIFICANCE
The use of a convenience sample of national (Canadian) and local (Montreal, Quebec) ‘content experts’ and ‘knowledge-users’.

FUTURE DIRECTIONS
The results of these two consensus groups are currently being validated through an online Delphi survey.
Approximately 50 international experts in the field of CP and child development (‘content experts’) are participating (Canada, United States, Europe).
This Delphi process will enable us to come to final consensus of ‘the attributes’ and ‘referral recommendations’ for the KT tool through an iterative sequential process.

IMPACT
Since almost half of children with CP do not have a complicated birth history, it is imperative that user-friendly KT tools are developed to enhance early-detection and referral-strategies by primary care practitioners.

The anticipated impacts of the PROMPT study are three-fold:
1. Primary care providers will have the knowledge and capability to detect attributes associated with CP early, prompting simultaneous timely referral to medical and rehabilitation specialists;
2. Rehabilitation specialists will be able to initiate therapeutic interventions much earlier at a critical period of brain development, optimizing outcomes;
3. Parents will be more rapidly informed and better engaged in the process of detection, and will benefit from early access to resources and family supports.

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- The American Academy for Cerebral Palsy and Developmental Medicine

Almost half of children eventually diagnosed with CP are born at term after an uneventful pregnancy or are premature by less than the gestational age cut-off for neonatal follow-up. Of note, when primary care practitioners eventually refer the child to a medical specialist for diagnosis, they do not typically co-refer the child to rehabilitation specialists, thus further delaying the intervention process.

A recent environmental scan of referral practices of physicians across Canada demonstrated that primary care practitioners refer children for diagnosis significantly later than medical specialists, and that certain subsets of children with CP experience greater delays. This study is part of a larger integrated knowledge translation (KT) project where the objective is to decrease these delays by increasing awareness of the early motor signs of CP amongst primary care practitioners and parents.

Participants:
A purposive sample of national and local experts representing various stakeholders:
- ‘content experts’ (e.g., child neurologists, developmental pediatricians, expert rehabilitation clinicians),
- ‘knowledge-users’ (community pediatricians, family physicians, parents of children recently-diagnosed with CP)

BACKGROUND:
Early intervention and family education can optimize long-term outcomes for both the child and their family. Pediatric societies and Canadian policies widely endorse early identification of developmental disabilities by primary care practitioners (pediatricians, family physicians).

Existing screening tools focus on delayed milestone acquisition, but do not delineate attributes related to an abnormal quality of movement essential to the timely detection of CP.

Parents of children diagnosed with CP have expressed their dissatisfaction associated with delays in the diagnostic process, with negative repercussions to their adaptive coping and health.

Current research in the field of early-identification of CP has focused on children at high-risk of CP (prematurity, perinatal asphyxia, and other neonatal intensive care unit [NICU] graduates).

OBJECTIVES:
To develop expert-informed content for an educational knowledge translation (KT) tool intended for primary care practitioners and parents (e.g. smartphone Apps, YouTube clips, poster for waiting room), through the use of consensus methods.

More specifically, to determine:
- What the early motor signs (clinical attributes) of CP are that should prompt earlier referral for diagnosis.
- To which rehabilitation specialist(s) children should be simultaneously referred when they are referred for diagnosis.

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