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MEDIA RELEASE

EARLY INTERVENTION FOR CEREBRAL PALSY: ENCOURAGING SIGNS

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EARLY identification of cerebral palsy in children is the key to early interventions that may improve the quality of life and natural history of the condition, according to the authors of a Narrative review published online today by the *Medical Journal of Australia*.

Cerebral palsy is a movement disorder encompassing a wide range of non-progressive neurological disabilities, and is the most common cause of physical disability in childhood. Although the incidence of cerebral palsy is declining in Australia, it affects about 2.1 per 1000 live births. Improved neuroprotective strategies, such as the use of maternal magnesium sulphate during labour, the use of maternal antenatal steroids, and better ventilation protocols in pre-term babies, may be responsible for the decline incidence, according to the review authors.

Dr David Graham (Concord Centre for Mental Health and the Kids Research Institute, Sydney), Dr Simon Paget (Children's Hospital, Westmead) and Dr Neil Wimalasundera (Royal Children's Hospital, Melbourne) searched Medline and EMBASE using the search terms "cerebral palsy" and "treatment" in order to identify Australian and landmark reviews and studies over the past 20 years, as well as articles that emphasise emerging treatment for cerebral palsy.

Evidence for the benefit of early intervention in cerebral palsy is weak but shows potential, the authors wrote.

"There are currently two multicentre national trials that are evaluating the effect of early intervention in infants identified to be at high risk of developing cerebral palsy," they wrote.

"GAME (goals, activity, motor enrichment) is a goal-oriented, activity-based, environmental enrichment therapy program that is designed for children under 6 months of age who are at high risk of developing cerebral palsy; and REACH (Rehabilitation Early for Congenital Hemiplegia) is a trial for children aged between 3 and 9 months who have been identified as having congenital hemiplegia; the study is designed to compare the efficacy of modified constraint-induced movement therapy with infant bimanual therapy."

The authors also identified a framework to help clinicians and families work towards improving the quality of life of children with cerebral palsy, called the "six Fs framework":

- **Function:** how a child performs an activity is not important, the goal is to allow them to try.
- **Family:** the family is the essential environment of the child and they know the child best; supports and resources for the whole family are vital to the child's health.
- **Fitness:** all children need to be physically active, regardless of the disability status; health promotion is more than a focus on remediating disability.
- **Fun:** childhood is about fun, and it is incumbent upon caregivers to find out what the child wants to do.
- **Friends:** social development is an important aspect of child development, regardless of ability; it is the quality of relationships that matters.
- **Future:** child development is all about becoming, and this encompasses the other five Fs; the goals and expectations need to be considered in light of the present realities."

"Early interventions with targeted therapies are showing promising results in altering the natural history of cerebral palsy as well as enhancing patient activities," the authors concluded. "There remain many challenges in the management of a child with cerebral palsy, but there exist a number of interventions with a good evidence base."

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