OPEN

European Journal of Clinical Nutrition (2013) 67, S1–S2

www.nature.com/ejcn

INTRODUCTION

An introduction to the supplement 'A practical approach to the nutritional management of children with cerebral palsy'

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European Journal of Clinical Nutrition (2013) **67,** S1–S2; doi:10.1038/ejcn.2013.221

Keywords: enteral nutrition; disabled children; malnutrition

The aim of this supplement is to update the nonexpert on the current status of understanding in the field of nutritional assessment and management of children with cerebral palsy. Current published guidelines (usually in the form of 'position statements') on this topic are few and now several years old[1,2] and usually focused on gastrostomy feeding.[3–6] What follows is a report arising from a meeting of international experts held in Orlando in 2012. It is designed to provide health care workers who have to care for the feeding and management of children with cerebral palsy with a simple, practical and as far as possible evidence-based approach to nutritional management. It aims to cover the full spectrum of nutritional management in these children including diagnosis, treatment and psychosocial aspects.

The first chapter sets the scene and makes the important point that the successes of neonatal intensive care have also been accompanied by a steady throughput of children with neurological impairment in pediatric practice. Progress in supporting care (that is, respiratory and orthopedic) has also increased life expectancy of these children and led to the emergence of a large group of surviving children at risk to present with chronic malnutrition. Therefore, these are problems that are not going to go away and for which specific knowledge and expertise will be required to manage effectively.

In the second chapter, Drs Samson-Fang and Bell describe their approach to the assessment of growth and nutrition in children with cerebral palsy. They stress that the careful application of available clinical tools and recourse to repeated assessment can assist the clinician overcome some of the particular difficulties inherent in assessment in children with severe neurological impairment. They point to anthropometric assessment being the cornerstone of evaluation and highlight the strengths and weaknesses of some of the available tools such as the assessment of body composition from skin fold measurements. Special investigative tools such as dual-energy X-ray absorptiometry and bioelectric impedance are described as adjuncts to clinical assessment.

In both the second chapter and the contribution by Professor Arvedson, the authors list key questions that should be asked when taking the clinical history from the parent in order to properly assess the nature of the feeding difficulty, the nutritional intake and the safety of the swallow. Professor Arvedson describes a structured approach to the multidisciplinary assessment of feeding problems in children with cerebral palsy and characterizes the nature of dysphagia in these children and how to distinguish between sensory and motor disorders. She highlights the requirement to understand the consistency of food the child takes together with the bolus size and the time taken for feeding to occur. As far as the latter point is concerned, Professor Arvedson emphasizes the practical point that when mealtimes are taking longer than 30 min, on a regular basis, this is probably a signal of a feeding problem.

The fourth chapter describes in detail the nutritional management of children with cerebral palsy. There is no accepted method for estimating the energy needs of these children many of whom have low levels of physical activity resulting in energy expenditures between 60–70% of those of neurotypical children. This complicates the dietary advice but the point is made in this chapter that nutritional management is more than simply a consideration of calories and protein but must also consider micronutrients as well as fibre. Enteral tube feeding is frequently indicated in children with cerebral palsy with a functional gastrointestinal tract who are unable to meet their nutritional requirements orally. It requires, however, regular monitoring and assessing of tolerance and nutritional status, avoiding excess weight gain on the long term if energy intake is exceeding actual energy requirement.

Dr Craig then discusses the psychosocial aspects that surround feeding problems in these children. She describes the stress and isolation felt by many caregivers, usually mothers, whose everyday lives are dominated by the feeding difficulties of their disabled child. Particular attention is paid to the factors influencing parental decision making in relation to gastrostomy tube feeding when this is proposed by health care professionals. Finally, she provides a list of very practical tips on how to manage parents' expectation in relation to feeding, how to involve them in realistic goal setting and to ensure that they are provided with relevant and helpful information.

In the last chapter, the authors distill and condense the overall report into a series of practical recommendations intended to assist the health care professional in providing the optimum nutritional management for the disabled children under their care.

This supplement is provided as a professional service by the Paediatric Division of Nutricia Advanced Medical Nutrition.

CONFLICT OF INTEREST

FG has received consulting fees from Nutricia. PBS has received consulting fees from Danone Limited, lecture fees from Nestec Limited and Nutricia Limited, and grant support from Nutricia, the Castang Foundation and Sparks grants.

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This supplement was derived from a meeting with experts facilitated by Josephine Garvey and Annemiek Goedhart, held in Orlando in 2012.

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