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Guidelines Prepared by the ESPGAN Working Group on Acute Diarrhoea

Recommendations for Feeding in Childhood Gastroenteritis

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SUCCESSFUL MANAGEMENT OF GASTROENTERITIS

Successful management of gastroenteritis in children relies chiefly on the maintenance or restoration of adequate hydration and electrolyte balance together with maintenance of an adequate nutritional intake.

Earlier debate centred on the composition of oral rehydration solution (ORS), which was considered optimal (1). In 1992 the European Society of Paediatric Gastroenterology and Nutrition (ESPGAN) Working Group on Oral Rehydration Therapy (ORT) published guidelines for the optimal composition of ORS for use in the children of Europe. A hypoosmolar glucose-based 60mmol/L sodium solution was recommended (2). A solution with a similar composition has been subsequently found to have advantages over a 90 mmol/L sodium (World Health Organisation solution) solution for noncholera diarrhoea (3) even in children in a developing country. Oral rehydration solutions with similar composition are now widely used in Europe.

Until recently it has been established practice in Europe that children with acute diarrhoea should be starved
for 24 h, in the belief that this would decrease the severity and duration of the diarrhoea. In various forms, this practice still continues in many European countries (4).

However, firm evidence has now emerged favouring early refeeding of children during oral rehydration therapy in developing communities (5). Early feeding may decrease intestinal permeability changes induced by infection (6). It may also lead to better enterocyte healing and maintenance of disaccharidase activity (7). A meta-analysis of clinical trials on the use of non-human milk formulae in the management of acute diarrhoea concluded that lactose-containing diets do not need to be withdrawn in the vast majority of cases (8). Adverse outcomes occurred more often when patients had severe dehydration, previous treatment failures, or underlying severe malnutrition. Following studies in developing countries, recent studies in Europe have therefore examined the early introduction of a child’s normal diet rather than special formulae while the child is being treated with ORT (9–11).

This ESPGAN working group has recently completed a study comparing the effects of (a) complete resumption of child’s normal feeding with a lactose-containing formula after 4 h of rehydration with oral rehydration solution and (b) sole use for 24 h of oral rehydration solution and then resumption of normal feeding (12).

This study showed that early feeding did result in significant weight gain compared with the late feeding group but did not result in worsening of diarrhoea, prolongation of the duration of diarrhoea, increased vomiting, or lactose intolerance.

Taking into account these findings and the published literature, the ESPGAN working group recommends that the optimal management of mild to moderately dehydrated children in Europe should consist of (a) oral rehydration with oral rehydration solution over 3–4 h and (b) rapid reintroduction of normal feeding thereafter. At all times, breast-feeding should be continued as possible.

Supplementation with oral rehydration solution to compensate for fluid and electrolyte loss in the stool during continuing diarrhoea, as clinically indicated, will further prevent the onset of dehydration.

The use of lactose-free formulae in the vast majority of children appears to be unjustified. In Europe, today, lactose intolerance appears to be uncommon (13). The normal diet can be resumed without restriction of lactose intake in most cases. However, if diarrhoea does worsen on the reintroduction of milk, stool pH and/or reducing substances should be checked and lactose content reduced only if the stool is acid and contains >0.5% reducing substances suggesting lactose intolerance. Although lactose intolerance is less common than formerly, it can still be an important cause of postenteritis diarrhoea (14).

The World Health Organisation’s manual on management of the patient with diarrhoea recommends early feeding, and this is increasingly being practised in developing countries. It is hoped that this ESPGAN recommendation will help to establish this practice of early feeding in the management of gastroenteritis for the children in Europe.
REFERENCES


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