

Reduction of General Childhood Mortality Following Early Oral Rehydration by Glucose Electrolyte Solution*

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Abstract

Oral rehydration using glucose electrolyte salt packets were extensively used following attacks of diarrhea in a village in Teknaf with a population of 7021. Crude mortality rate was brought down from 14 in 1976 to 10 in 1977 and 1978. The comparable neighbouring village with a population of 4,000 with similar socio-economic condition and attack rate of diarrhea but no oral rehydration had crude mortality rate of 13 in 1976 which increased to 17 in 1977 and 1978. During the period of observation lasting 18 months only three deaths in the experimental village were due to diarrhea compared to eight in the control village. The principal reason for the significant fall in the mortality in the experimental village may have been due to improvement of nutritional status in children who had early oral rehydration and who regained their appetite by having a shorter duration of illness.

DISCUSSION

M. R. Khan: Dr. Rahman, would you please give some more details on the rehydration formula designed for the rural areas? What is the attitude of the professional doctors towards it?

Rahman: The full formula of oral rehydration salt-glucose solution contains sodium chloride, potassium chloride, sodium

bicarbonate, and glucose or sugar. Use of salt (NaCl) and sugar is generally effective in mild cases but this does not compensate the great loss of bicarbonate in severe diarrheal cases. Professional doctors are found to help their patients with the formula.

M. R. Khan: What about the salt-mithai (gurr) mixture?

As desired by the Author, the full paper was not considered for Publication in this Proceedings.

Rahman: There is nothing wrong in it can very well be given if prepared in right proportions.

S. Ghosh: It is very difficult to train community and health workers in the right quantity of salt and water. It may be simpler to give in ready-made cups if these can be made cheap and easily available.

Rahman: Simple 'pinch' method is generally not very satisfactory as the pinch size varies from person to person, and even at times in the same person.

However, most households have measuring pots (e.g. for milk). These pots could be standardised for measuring the right quantity of water.

N. Byapari: I appreciate Dr. Rahman's study report on the use of 'ORS' at Teknaf area. I suggest that he should try with CRL's formula on 'ORS' by using the national resources like salt, sugar and bicarbonate. This would help avoid importing 'ORS' from abroad.

Rahman: We in our country produce salt and sugar, but bicarbonate has to be imported.