

Preventive strategies for diarrheal illnesses among children as seen at Moi Teaching and Referral Hospital – Eldoret Kenya

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Background:

Diarrhea carries a high mortality rate among children in sub-Saharan Africa. There is age dependent susceptibility to morbidity and mortality caused by acute diarrheal illness among toddlers and infants. The Integrated global action plan against pneumonia and diarrhea is among the key strategies aiming at reduction of mortality from diarrhea and pneumonia.

Methods:

This was a cross-sectional study describing the socio-demographic and clinical characteristics of the patients with acute diarrheal illness. The study sought to assess the uptake of the known global action plan for prevention of pneumonia and diarrhea prevention strategies, and their effect on the level of severity of dehydration. The study was conducted between November 2015 and June 2016.

Results:

311 participants, under two years of age were recruited with acute diarrheal illness. The male to female ratio was 1:0.7, with a median age of 13.2 months (IQR 8, 19). The uptake of the vitamin A supplementation was 73.6%, rotavirus vaccination 83.6%. Safe water 81%, sanitation 99%, use of ORS and zinc 69%. The uptake of exclusive breastfeeding was low at 57.5% and appropriate disposal of the child's last stool was also low at 64.3%. On bivariate analysis of clinical characteristics against the hydration status, measles vaccination and vitamin A administration were statistically significant. Use of zinc and low osmolality ORS was not statistically significant. Of the socio-demographic characteristics assessed, none were statistically significant. These included, exclusive breastfeeding, ongoing breastfeeding at the time of interaction, stool disposal method and presence of toilet facilities in the homestead. On logistic regression, those who had received vitamin A supplementation were less likely to develop severe dehydration compared to those who had not received vitamin supplement (OR 0.520; CI 95% 0.295,0.917, p=0.024).

Conclusion:

Vitamin A supplementation reduces the odds of severe dehydration in children under two and should be further intensified among children receiving other vaccinations. Other preventive measures for diarrheal diseases should also be intensified due to their recorded low uptake.

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