The monthly incidence rate for pneumonia and severe pneumonia declined over time (p=0.002 & p=0.001). Young age, urban residence, index admission with clinical signs of rickets and severe pneumonia, were associated with subsequent pneumonia. Index admission with diarrhoea and monthly weight-for-length z-score had protective effect. Protective effect of improving monthly anthropometric measures were evident from month two onwards. Proportion of pneumonia progressing to severe form declined with time (p=0.01) but there was no evidence case fatality ratios changed over time (p=0.41).

Conclusions Improving nutritional status during recovery correlates directly with reduced susceptibility, but not with case fatality of pneumonia.

PA-076 CAN HIV TREATMENTS INFORM OTHER CONTEXTS? A TRIAL OF AN ADDITIONAL INDICATION FOR CO-TRIMOXAZOLE PROPHYLAXIS

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Background Co-trimoxazole prophylaxis is part of HIV management of opportunistic infections. However, it is not known if co-trimoxazole prophylaxis can prevent opportunistic infections among other vulnerable population such as people with complicated severe acute malnutrition (SAM). It is unclear if and how nutritional recovery may reduce susceptibility to infectious diseases like pneumonia with co-trimoxazole prophylaxis. We share secondary analysis results of multicentre, double-blinded, randomised clinical trial (ClinicalTrials. gov, number NCT00934492) of daily co-trimoxazole prophylaxis among HIV non-infected children with SAM in Kenya.

Methods We recruited 1781 hospitalised SAM children and randomised to either daily co-trimoxazole prophylaxis or matching placebo for six months and followed up for 12 months. Our outcome of interest was risk of subsequent pneumonia after index admission discharge, defined using the WHO guidelines. To determine changing susceptibility after discharge, cox regression model with monthly weight-for-height and height-for-age z-scores as time-varying covariates were used to identify risk factors of developing pneumonia.

Results Overall, 257 children died, 122 (14%) among the co-trimoxazole group and 135 (15%) of placebo group; Hazard ratio (HR) 0.90 (95% CI: 0.71–1.16, p=0.43). There were 1257 episodes of pneumonia, 603 (21%) among co-trimoxazole group and 654 (22%) among placebo; HR 0.93 (95% CI:0.79 –1.08, p=0.34) during 1556.6 child-years of observation (cyo).