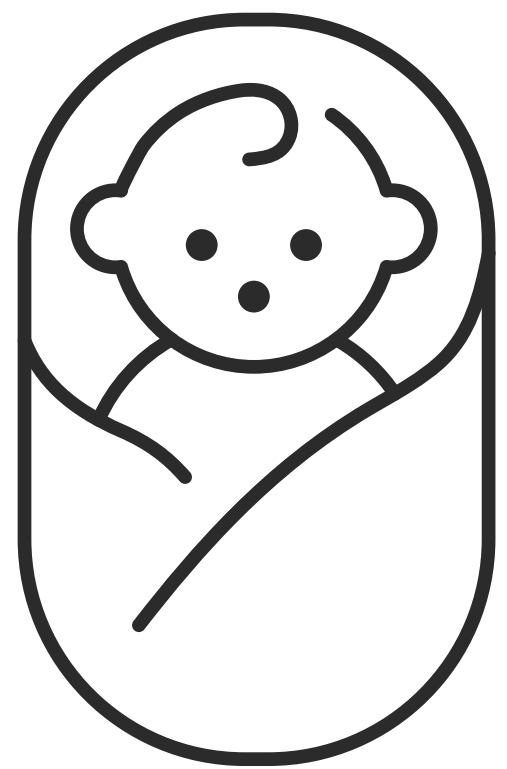




Antimicrobial and micronutrient interventions for the management of infants under 6 months of age identified with severe malnutrition: a literature review

BACKGROUND

Infants under 6 months (U6M) contribute significantly to the morbidity and mortality of severe malnutrition globally. Infants U6M are a unique population given their dependence on breastmilk or a safe, secure alternative, and the underlying aetiology of malnutrition in this group remains poorly understood.



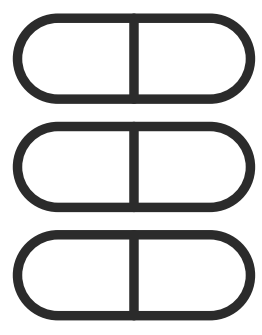
Nutrition agencies and health providers struggle to make programming decisions on which interventions should be provided to this group since there are neither published interventional trials, nor evidence-based guidelines focussed on this population.

METHODS

A **narrative literature review** was performed on systematic reviews, meta-analyses, and randomised controlled trials of **antimicrobial and micronutrient interventions in population groups relevant to infants U6M with severe malnutrition**. Outcomes of interest were safety and efficacy (mortality and morbidity) and consistency across studied populations.



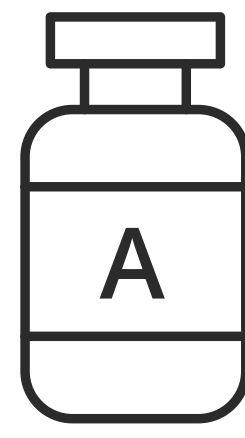
The following interventions were reviewed:



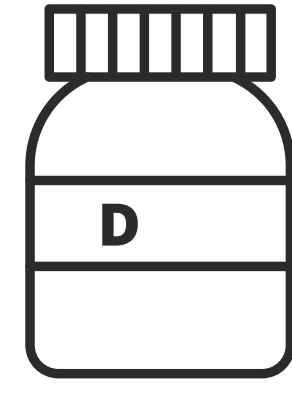
ANTIBIOTICS & DEWORMING



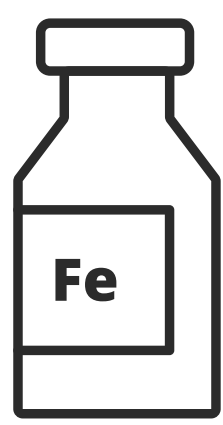
MATERNAL SUPPLEMENTATION



VITAMIN A



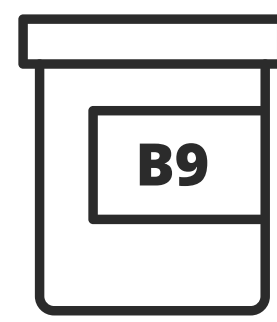
VITAMIN D



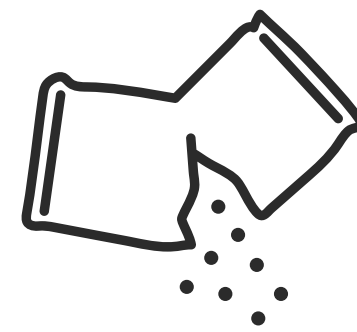
IRON



ZINC



FOLIC ACID



ORS

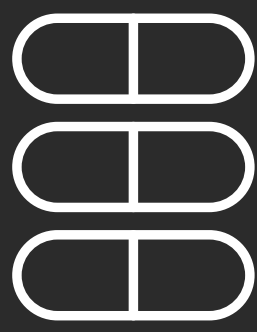
RESULTS

Ninety-four articles were included within this review. None of these studied interventions exclusively in severely malnourished infants U6M.

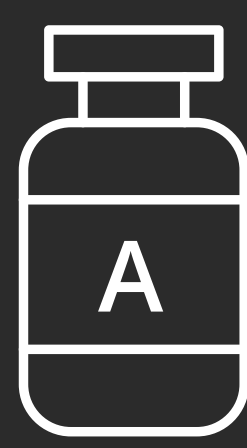
Only 64% of included articles reported on the safety of studied interventions.

We identified significant heterogeneity in how study populations were defined, interventions provided, and outcomes studied, making comparison of included studies challenging.

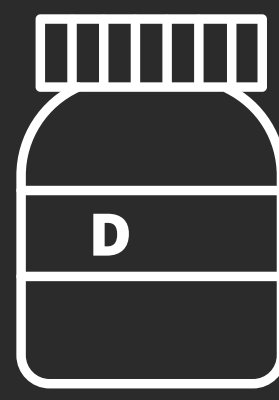
The following interventions showed consistency in safety and efficacy across included populations and should be prioritized for further research in infants U6M with severe malnutrition:



ANTIBIOTICS



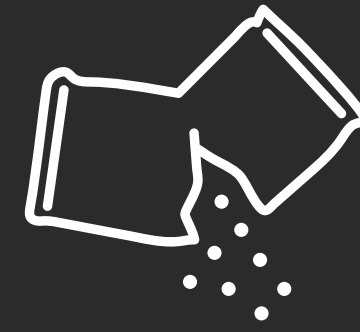
VITAMIN A



VITAMIN D



ZINC



ORS

CONCLUSION



The direct evidence base for medical interventions for severely malnourished infants U6M is absent. Our review identifies a specific **need for both accurate micronutrient profiling and interventional studies of micronutrients and oral fluid management of diarrhoea amongst infants U6M identified with severe malnutrition.**

Indirect evidence presented in this review may help shape interim policy, programming decisions, and the future research agenda for the management of severe malnutrition in infants U6M.