low- and middle- income countries (LMICs). Although severe acute malnutrition (SAM) is considered a more life-threatening condition, moderate acute malnutrition (MAM) affects a greater proportion of children globally, and unlike SAM, there are currently no WHO recommendations for MAM treatment. This systematic review and meta-analysis will aim to assess the effectiveness of product-based interventions, versus standard care, in the management of MAM in LMICs.

Methods Studies conducted in LMICs that compared the effectiveness of food-based products versus standard care in promoting recovery from MAM in children, were included in this review following a search of five databases. A mixed-methods approach was used to analyse data. Where appropriate, combined outcome data were analysed using random-effects meta-analyses, and assessed for heterogeneity. Descriptive analysis was also used to summarise findings on any reported information regarding the characteristics of children who recovered from MAM, versus those who did not recover. **Results** A total of seven randomised-controlled trials were identified for inclusion in this review. Of these, five compared a lipid-based nutrient supplement (LNS) with a fortified-blended flour (FBF), one compared two types of LNS, and one compared food-based supplements with nutrition counselling. There was some evidence that children aged 6–59 months with MAM who are treated with an LNS have an increased probability of recovery compared to children treated with CSB+/++ (RR 1.03, 95% CI: 1.00 to 1.06, $p=0.022$). Furthermore, treatment with an LNS was associated with a lower risk of persistent MAM at the end of a treatment programme, compared with CSB+/++ (RR 0.82, 95% CI: 0.71 to 0.95, $p=0.007$), and with a lower risk of progressing to SAM, compared to a blended food product (RR 0.87, 95% CI: 0.76 to 0.99, $p=0.042$).

Conclusions Supplementation with an LNS was shown to improve recovery and prevent non-response, progression to SAM and death compared to supplementation with a FBF. Further research is needed to determine the role of nutrition education in MAM management, and identify children at risk of failure to recover.

G263(P) MEDICAL STUDENTS, NEONATOLOGY AND THE WORLD

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Aim Neonatal mortality and morbidity remains to be a significant global challenge, as shown by The Lancet 'the Every Newborn Series'. Currently, 2.9 million newborns die annually, accounting for 44% of deaths in the <5 age group. Each year medical students embark on an elective, often to resource poor countries where neonatal healthcare is lacking.

This project aims to promote medical student's understanding of crucial neonatal topics, whilst exploring cultural attitudes, in order to improve neonatal health worldwide.

Method A literature search was performed to research the key aspects of neonatal global health that need improvement, and teaching theories. This allowed for development of a teaching course with evidence based teaching methods. Resources were created according to the literature search; visual presentations that would be able to be verbally explained, alongside

practical aspects and a written handout to be distributed at the end of the session.

Results Literature review helped focus specific teaching objectives, and develop a teaching package which would suit all styles of learning. Infections (such as tetanus and diarrhoeal illnesses), pre-term birth and intrapartum complications are the most common causes of neonatal mortality, alongside breastfeeding, kangaroo care, thermal care and cord care. These are effective, low cost interventions that will help students save lives and promote neonatal health.

Following the literature review of learning theories, a half day course was created with participatory sessions, based on the VARK model of education. Sessions will include visual, auditory, reading/writing and kinaesthetic modalities to ensure maximum retention.

Conclusion Prevention is better than cure – in any specialty, ensure a family have access to clean water and educate the family on the dangers of impure water and poor sanitation. Low cost interventions should be sought and used if there is a cheaper, evidence based alternative. When teaching, vary the way information is delivered in order to accommodate for different learning styles.

G264(P) MENB (BEXSERO) IMMUNISATION SIDE EFFECTS IN EXTREMELY PREMATURE INFANTS (<28 WEEKS)

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Background The UK on 01 September 2015 became the first country to introduce Meningococcal B (Bexsero) vaccine into the national infant immunisation programme. Bexsero is recommended for all infants as part of their routine vaccinations at ages 2, 4 and 12 months alongside other regular vaccines. Bexsero is highly immunogenic and is estimated to protect against 73%–88% of MenB strains causing invasive meningococcal disease (IMD) in England and Wales¹.

Objective We retrospectively evaluated tolerability of Bexsero vaccine on preterm babies in our neonatal intensive care unit.

Methods Retrospective observational study comparing tolerability of the vaccines in the two time periods, before (Period 1, $n=13$) and following (Period 2, $n=13$) the introduction of the new vaccine (Bexsero) in September 2015. We inspected the clinical status 48 hours prior to and 48 hours post immunisation to evaluate vaccine tolerance during these two time periods.

Results Before introduction of Men B vaccine, there was convincingly low levels of side effects in our babies following routine immunisation. After introduction of MenB vaccine, 46% (6/13) of babies became unwell within 24–48 hours of immunisation; 30% (4/13) needed escalation in respiratory support. 15% (2/13) needed rescue ventilation after Bexsero vaccination.

Conclusions We hypothesised that all babies immunised with Bexsero alongside regular vaccines will remain clinically stable and will tolerate the vaccines without any appreciable side effects. 46% of our babies became unwell following the combined MenB programme, raising speculations about safety profile of the Bexsero in preterm infants. Precautionary monitoring following vaccination is recommended. Larger studies are needed to ensure safety of Bexsero vaccine in pre-term babies.