

G265(P) GASTROENTERITIS AGGRESSIVE VERSUS SLOW TREATMENT FOR REHYDRATION (GASTRO STUDY): A DESCRIPTIVE ANALYSIS

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Aims The World Health Organisation (WHO) rehydration guidelines (Plan C) for children with acute gastroenteritis (AGE) and severe dehydration are widely practiced in resource-poor settings, yet have never been evaluated in a clinical trial. GASTRO study will compare the safety and efficacy of two rehydration regimens: standard rapid rehydration (Plan C) versus a slower regimen and inform definitions for outcomes of a larger phase III trial.

Methods GASTRO is a multi-centre, open Phase II randomised controlled trial of 120 children aged 2 months to 12 years admitted with severe dehydration secondary to AGE. Children with severe malnutrition, chronic diarrhoea and known congenital/rheumatic heart disease are excluded. Children are enrolled in 3 centres in East Africa and randomised 1:1 to standard rapid rehydration (WHO plan 'C' – 100 mls/kg over 3–6 hours according to age, plus additional boluses for children presenting in shock) or to a slower rehydration regimen (100 mls/kg given over 8 hours and without additional boluses). Primary outcome is frequency of adverse events. Secondary outcomes focus on measures related to assessment of severity of dehydration, and response to treatment.

Results Enrolment is ongoing. By 21 st September 2017 61 children had been enrolled. Baseline characteristics across the two groups are consistent: median age 9 months (IQR 7–14), 67% males, median duration of diarrhoea and vomiting is 3 days, the majority are lethargic, thirsty and irritable on admission (70%) and main features of dehydration are sunken eyes (100%), prolonged skin pinch (64%), reduced/absent tears (100%), dry/sticky mucous membranes (98%). Features of shock (cool peripheries, weak and fast pulse, and prolonged capillary refill) exist in 33% of the patients at admission, and no child had severe hypotension. Median weight loss is 5.7%. We have not completed recruitment and therefore cannot present outcomes at this stage.

Discussion There have been two main challenges when operationalising this trial. Firstly staff training and confidence with ensuring accurate fluid balance documentation. Secondly there has been slow recruitment as a result of national medical strikes and a severe drought across East Africa resulting in higher numbers of children fulfilling severe malnutrition anthropometric criteria and therefore being excluded.

G266(P) ADOLESCENT COHORTS ASSESSING GROWTH, CARDIOVASCULAR AND COGNITIVE OUTCOMES IN LOW AND MIDDLE-INCOME COUNTRIES

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Life-course studies are needed to explore how exposures during adolescence, particularly puberty, contribute to later cardiovascular risk and cognitive health in low and middle-income countries (LMIC), where 90% of the world's young people live. The extent of any existing cohorts investigating these outcomes in LMIC has not previously been described.

Methods We performed a systematic literature review to identify population cohort studies of adolescents in LMIC that assessed anthropometry *and* any of cardiovascular risk (blood pressure, physical activity, plasma glucose/lipid profile and substance misuse), puberty (age at menarche, Tanner staging, or other form of pubertal staging) or cognitive outcomes. Studies that recruited participants on the basis of a pre-existing condition or involved less than 500 young people were excluded.

Findings 1829 studies were identified, and 24 cohorts fulfilled inclusion criteria based in Asia (10), Africa (6) and South/Central America (8). 14 (58%) of cohorts identified were based in one of four countries; India, Brazil, Vietnam or Ethiopia. Only 2 cohorts included a comprehensive cardiovascular assessment, tanner pubertal staging, *and* cognitive outcomes.

Conclusion Improved utilisation of existing datasets and additional cohort studies of adolescents in LMIC that collect contemporaneous measures of growth, cognition, cardiovascular risk and pubertal development are needed to better understand how this period of the life course influences future non-communicable disease morbidity and cognitive outcomes.

G267(P) PROBLEMS OF DUAL VULNERABILITY IN NUTRITION; A QUALITATIVE STUDY OF OLDER PERSONS CARING FOR UNDER FIVE YEAR OLDS IN POST-DISASTER HAITI

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Situation Malnutrition plays a significant role in under-5 mortality rates following disasters. As such there is a need for an effective humanitarian response; in keeping with the social and cultural context. Older people play an important role in childcare in non-western societies, which often increases in displacement contexts. Until now policy in general, and nutrition programmes in particular, have focused on the mother-child dyad neglecting children not cared for principally by their mother.

Aim To gather information on possible barriers to older carers accessing nutritional services/support for the children they care for and explore ways to overcome these obstacles.

Method A qualitative approach was taken which aimed to explore the experiences of the carers themselves. Focus group discussions and semi-structured interviews provided data which was analysed using grounded theory approach.

Results Data collected showed that older carers have similar needs to other caregivers in emergency settings; needs which are often amplified by age. Moreover, many barriers to accessing services were elicited, including issues with targeting and advertising of nutritional programs, alongside physical and psychosocial barriers to assessing existing support. Participants generated potential solutions to each identified barrier as well as highlighting a vital need to address overall attitudes to older carers within INGOs and other service providers.