(SIDS). The aim of this study was to determine if evidence suggests that commercially available sleep movement monitors should be routinely recommended by healthcare professionals.

Methods A systematic literature review was undertaken to investigate the evidence for the efficacy of infant sleep monitors. The articles retrieved were then screened in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

Results Literature search yielded five relevant articles, a majority (80%) relating to SIDS. Two studies showed the monitor was effective in accurately detecting cessation of breathing but could not comment on their efficacy with regards to SIDS prevention. A study of 53 infants using the Babysense monitor after an Apparent Life-Threatening Event (ALTE) found the monitor accurately detected apnoea and bradycardia when compared to the cardiorespiratory monitor 'Intellivue MP20 Junior' by Phillips. Two qualitative studies reported that such devices were appealing to mothers.

Discussion The medical effectiveness and reliability of these movement monitors is still a matter of controversy. Commercial monitors may be comparable to clinical cardiorespiratory monitors in terms of detection of apnoea and bradycardia. However, no article could conclude that sleep movement monitors are an effective method of SIDS prevention. Instead, healthcare professionals should emphasise interventions proven to reduce the risk of SIDS such as positioning infants on their back to sleep, or smoking cessation. Further limitations of the devices included a high rate of false alarms.

Conclusion The systematic review revealed that there is no evidence that commercially available sleep movement monitors can prevent SIDS. Therefore, sleep movement monitors should not be routinely recommended by paediatricians. However, some of the studies have shown the potential for other uses for these monitors. There is some evidence to suggest that they may be of use for monitoring specific cohorts of infants, including those who have had a previous ALTE, or have cardiorespiratory risk factors. Further research into these areas is required.

GP173 USAGE OF PROBIOTICS IN THE TREATMENT OF GASTROENTERITIS IN THE PAEDIATRIC POPULATION – A SYSTEMATIC REVIEW

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Background Acute gastroenteritis is defined as a sudden onset of diarrhoea which in itself is the passage of 3 or more loose stools in a 24 hour period, or the passage of one or more bloody stools in the presence or absence of abdominal pain, fever, nausea and vomiting. Acute gastroenteritis is self-limiting lasting no longer than 2 weeks, however, it is a major cause of morbidity and mortality worldwide. Current primary treatment modalities include restoration of the acid-base balance, correction of electrolyte disturbances, and oral rehydration therapies. The aforementioned therapeutic regimens help to decrease morbidity and mortality, however, it seldom has an impact on the duration of the infection and its symptoms. Probiotics are believed to help reduce both the duration and severity of symptoms of gastroenteritis, however strain specific

efficacy and inter-strain comparison has not yet been established.

Objective The aim of this systematic review was to examine established original research to determine the efficacy of probiotics in treating acute gastroenteritis in the paediatric population. We examined the different strains of probiotics utilized and their associated outcomes in treating gastroenteritis.

Methods An Embase search was carried out with the help of a medical librarian. Two independent reviewers screened title and abstract, followed by full text review using the programme Covidence. All reviewer conflicts were resolved by a third party. Data was extracted from the included articles to determine correlation and effects of probiotics.

Results Of the 581 results obtained from the search, 11 studies were included for data extraction after applying the inclusion and exclusion criteria. Majority of the studies showed probiotics reduced duration of diarrhoea (8 of 11 studies), and a reduced duration of hospitalisation (6 of 11 studies). Notably, 2 papers reported adverse effects, such as fungaemia, in immunocompromised and ICU patients. The different strains of probiotics that were examined in the selected papers include *Saccharomyces boulardii*, *Lactobacillus casei*, and *Lactobacillus acidophilus*.

Conclusion Probiotics reduced the duration diarrhoea symptoms and hospitalization. Usage of probiotics was however accompanied by minimal side effects but not indicated in immunocompromised patients with gastroenteritis. However, further research needs to be conducted to determine the strain specific efficacy and dosage requirements for treatment of gastroenteritis using large scale double blinded randomized control trials.

GP174 ALLERGY-FOCUSED HISTORY QUESTIONNAIRE AND ASSESSMENT OF GENOTYPE OF POLYMORPHIC MARKER *RS182549* IN THE *MCM6* GENE ALLOW TO OPTIMIZE THE DIET FOR CHILDREN WITH INFLAMMATORY BOWEL DISEASES

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Children with inflammatory bowel disease (IBD) often receive a dairy-free diet during remission period without evidence, which adversely affects their nutritional status.

The aim Of the study was to optimize the approaches to prescribing diets for children with IBD

Materials and methods 180 children aged 1 to 17 years with IBD (90 patients with Crohn's disease and 90 – with ulcerative colitis) in clinical remission were included in this study. Testing of Lactase deficiency included Lactose Intolerance quick test (LIQT) and Real-time PCR, using fluorescent Taq-Man probes for analyzing the genotype of polymorphic marker *rs182549* in the *MCM6* gene. Allergy-focused history questionnaire, morphological study of biopsy specimens of the intestine with the counting of eosinophils, dairy products «open food challenge» (with fecal calprotectin assessment) were used for identifying of cow's milk allergy (CMA).