index) or z-score WFH (weight for height) from the time of admission to discharge. Logistic regression analysis was performed to determine risk factors of HAM.

**Results** We included 294 children in the study, with a mean age of 43.6 months. Conditions affecting upper and lower respiratory tract (32%) were the most common at admission followed by infectious diseases (21%) and gastrointestinal system conditions (10.5%). The prevalence of acute undernutrition (AUN) at admission was 25.5%. It was mild, moderate and severe respectively in 17%, 5% and 3.5% of cases. The prevalence of AUN at discharge was 34%. It was mild, moderate and severe respectively in 19%, 8% and 7% of cases. Duration of hospital stay ranged from 2 to 41 days with a median of 5 days. The prevalence of HAM was 28.6% (84/294) with a predominance in children aged <59 months (68/205) (33.2%). Weight loss was observed in 63.2% (186/294) of cases. The mean weight at admission was 15.7±12.9 kgs [2.2–80]. At discharge, the mean weight dropped to 15.3±12.8 kgs [1.6–77]. All age groups showed a reduction in weight during hospitalization; however, it was more common in children aged 12–24 months (61.8%). Weight loss was ≥5% in 82/186 (44%) of cases. Risk factors of HAM were: separation from mother during hospitalization (Odds Ratio (OR)3.44, 95%CI 1.13–10.48; p=0.029), fever during hospitalization (OR 8.94, CI 1.1–72.42; p=0.04), stop or decrease oral or enteral feeding during hospitalization (OR 1.47, CI 1.27–1.82; p=0.008). However, breastfeeding, absence of chronic disease and age over 15 months were protective factors against HAM.

**Conclusion** The prevalence of HAM in Tunisian children was high. Risk factors are multiple and their screening is essential for early and adequate management.

**P514**

**LATCHON: A MULTI-CENTRE, RANDOMISED CONTROLLED TRIAL OF PERINATAL SUPPORT TO IMPROVE BREASTFEEDING OUTCOMES IN WOMEN WITH OVERWEIGHT AND OBESITY**

1Eileen Ó Brien*, 2Sharleen O’Reilly, 3Lucile Sheehy, 4Lorraine O’Hagan, 5Denise McGuinness, 6Barbara Coughlan, 7Denise O’Brien, 8Rosie Murtagh, 9Marie Corbett, 10Michelle Walsh, 11Paula Power, 12Marie Woodcock, 13Amy Carroll, 14Stephanie Murray, 15Charnaine Scanlan, 16Elizabeth Dunne, 17Fionnuala McAuliffe, 18University College Dublin, Dublin, Ireland; 19National Maternity Hospital, Dublin, Ireland; 20Regional Hospital Mullingar, Westmeath, Ireland; 21St. Luke’s General Hospital, Kilkenny, Ireland; 22Westport General Hospital, Westport, Ireland

10.1136/archdischild-2019-epa.850

**Background** Breastfeeding rates in Ireland are among the lowest worldwide. At hospital discharge, 58% of infants are breastfed, with only 48% exclusively breastfed. At 3 months of age, 35% are fed any breastmilk. Women with a high BMI have lower initiation rates and duration of breastfeeding, which is a particular concern in Ireland given that 50% of women have a BMI of >25 kg/m² at their first antenatal appointment.

**Objective** The aim of the intervention is to improve breastfeeding rates using a previously-tested, multi-component intervention. The intervention will target attitudes toward breastfeeding, breastfeeding self-efficacy, and subjective norms around infant feeding with the aim of normalising the behaviour.

**Methods** This protocol is for a multi-centre, randomised controlled trial of perinatal breastfeeding support among women with a BMI >25 kg/m². Hospital discharge data, validated questionnaires and qualitative interviews will be used to measure outcomes and intervention effectiveness. Ethical approval has been sought and recruitment will commence in early 2019. Patients: Primiparous women attending the study site hospitals with a singleton pregnancy and BMI >25 kg/m².

**Intervention** The intervention will target mothers and their support partners and will span the perinatal period from late pregnancy to six weeks postpartum. Intervention components include: group antenatal education for prospective mothers and their support partners; individual education in the immediate postnatal period; professional support to six weeks postpartum; and weekly phone calls in the postpartum period from an International Board-Certified Lactation Consultant. The primary outcome is prevalence of breastfeeding at 3 months.

**Results** We anticipate that the intervention will be well-accepted and feasible to carry out within an Irish cohort based on results from the pilot trial among 100 women. Furthermore, essential formative qualitative work has been conducted to inform the intervention design and to ensure that it is contextually appropriate.

**Conclusions** The proposed intervention will be invaluable to policy-makers as it will provide insights into the specific interventions (e.g. antenatal group education, antenatal individual education, postnatal support) that are effective in improving breastfeeding rates for women with a raised BMI and will highlight the measures that would be most cost-effective to implement nationally.

**P516**

**THE POSITIVE CLINICAL CONSEQUENCE OF EARLY INTERVENTION OF COMBINED THERAPY (OMEGA 3 FATTY ACIDS AND B12 VITAMIN) ON CHILDREN UNDER 5 WITH VARIABLE FORMS OF CEREBRAL PALSY**

Khajik Yaqob*. Zakho General Hospital/Kurdistan Pediatrics Society, DUHOK, Iraq

10.1136/archdischild-2019-epa.851

**Background** Cerebral palsy is a common pediatric problem encountered in about 1:3 per 1000 born children and causing variable mental, motor and behavioral s dilemmas. Newly introduced trials of neurogenesis with different agents are now extensively evaluated.

**Objective** Our study was conducted to evaluate the neurotrophic response to B12 vitamin and omega-3 fatty acids in children diagnosed early with variable forms of cerebral palsy. The response was monitored both clinically and with C.T Scan as being a highly predictive tool for assessing cerebral palsy.

**Design** The study was carried out on 40 cerebral palsy patients; 26 (65%) out of them were girls, and 14 of them were boys, aged from 0 to 5 years old; from outpatient clinic at Zakho/Duhok General Hospital in Kurdistan Region-Iraq. Patients were treated and followed up for 6 months to one year. They were represented and adjusted by full history taking and clinical examination. Brain C.T scans was done for every patient to assess the degree of brain atrophy before starting this combined therapy, and every month for six months to one year.

**Results** The study revealed that early intervention of both omega 3 and B12 vitamin in children under 5 with cerebral palsy (cp) shows great response based on clinical examination.
and CT scan findings. After combined therapy, 80% of children with delayed speech delay have very good response and improvement, 77% of children with delayed milestone and hypertonia, and 87% with delayed walking have positive clinical outcomes. Both sexes have equal response to combined therapy. Such findings were obtained as a result of early treatment and diagnosis of children with (CP). In addition, improvement in CT scan results was obtained. 84% of treated children have great improvement in their neuroimaging results from moderate/severe forms of brain atrophy to mild form of brain atrophy after being treated and followed up for 6 months-1 year.

Conclusions The damaged brain sites based on CT scan results, showed progressive improvement in response to B12 and omega-3 fatty acids upon daily supplement throughout 6 months to one year. B12 vitamin and omega-3 fatty acids are valuable therapy for children with various forms of cerebral palsy particularly when being linked. The greatest improvement in speech and motor development was significantly observed in about 32 patients (80%) of treated children with combined therapy. Others have less response to combine therapy as being presented and diagnosed beyond 1 year of age (16%)