Abstracts

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**Purpose** Even mild iodine deficiency may negatively affect cognitive performance, especially at a young age. Our aim was to investigate iodine status in very young children and to assess the importance of iodized salt in processed foods as an example for a country with voluntary salt iodization.

**Methods** 24-h urinary iodine excretion (UIE) as a marker of iodine intake was measured in 576 repeatedly collected 24-h urine samples (2005–2010) of 221 5–6 year old participants of the DONALD Study. Parallel 3-d weighed dietary records and measurements of urinary sodium excretion provided data on the daily consumption of the most important iodine providers in the children’s diet (iodized salt, milk, fish, meat and eggs). Time trends of UIE (2005–2010) and contributions of the different food groups were analysed by using linear mixed-effects regression models.

**Results** Median UIE of 71 µg/d in boys and 65 µg/d in girls, corresponding to an iodine intake of 82 and 75 µg/d, respectively (assumption: 15% non renal iodine losses) was below the WHO intake recommendations of 90 µg/d. Milk, salt and egg intake were significant predictors of UIE; milk and salt together accounted for >80% of iodine supply. Between 2003 and 2010, UIE decreased significantly by approximately 1 µg/year. The contribution of salt intake to UIE decreased from 03–06 to 07–10.

**Conclusion** In countries where salt is a major iodine provider, already modest decreases in the iodized proportion of salt used in processed foods may relevantly impair iodine status even in preschool children.

**VITAMIN B12 LEVELS OF 0–24 YEARS-OLD PEOPLE IN KONYA, TURKEY**

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**Background** It was reported that levels of vitamin B12 show racial differences. Therefore we wanted to determine normal serum levels of vitamin B12 in Konya region, Turkey.

**Methods** Totally 1109 samples of which 54 were cord bloods and the rest were 1055 healthy 0–24 years-old subjects who admitted to primary health centers. Vitamin B12 measurement was done at the biochemistry laboratory of Selcuk University Meram Medical Faculty with the orginal Beckman kits (Beckman Coulter, California-USA) by chemiluminesinas method.

**Results** The reference levels obtained for vitamin B12 at P 2.5-P97.5 range were; 127–606 pg/ml for girls and 127–576 pg/ml for boys. Reference level for the total study group was 127–590 pg/ml.

**Conclusion** The values reported in other studies are higher than our results. Vitamin B12 levels vary among countries. Using reference ranges of other populations may lead to inaccurate results. Therefore normal levels which will be valid for that population should be obtained.

**INFANTICIDE, ‘AFTER-BIRTH ABORTION’ AND RECENT PHILOSOPHICAL CONTROVERSIES CONCERNING THE VALUE OF NEWBORN LIFE**

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The Journal of Medical Ethics recently published an article by philosophers Guibilini and Minerva (1) arguing that the intentional killing of newborn infants was justified if the continued existence of the child represented ‘an unbearable burden for the psychological health of the woman or for her already existing children’, as well as if there were excessive economic burdens or disability. They argued that both fetuses and newborns do not have the same moral status as actual persons, since they lack self-awareness. Hence the destruction of a newborn life is morally justified if it is in the best interests of existing people. Although the position of Guibilini and Minerva is supported by several other prominent philosophers, including Michael Tooley and Peter Singer, I will argue that it is fatally flawed.

a) It is incoherent to argue that conscious self-awareness is necessary criterion for life to have intrinsic value,

b) The argument strikes at the heart of the central belief enshrined in the Universal Declaration of Human Rights, that all human beings possess inherent moral worth solely in virtue of their membership of the human species, and irrespective of their functional abilities,

c) Since self-awareness as an agent probably does not start to appear before 18 months of age, and may not be secure until the fourth year of life, the argument imperils not just newborns but a large proportion of the paediatric population!


**BURDEN OF CHRONIC EXPOSURE TO DIFFICULT ETHICAL DECISIONS ON CAREGIVERS IN SWISS NICUS**

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**Aim** This study explored the degree of burden of chronic exposure to difficult ethical decisions on health care providers (HCP) in Swiss level III NICUs.

**Methods** 224 questionnaires were sent to neonatologists and nurses of all level III NICUs. Demographic information, attitudes and behaviours towards ethical decisions, and the impact of those decisions on HCP’s health and private life were collected.

**Results** 82 neonatal physicians and 60 nurses (27 men, 85 women, overall response rate 50%) took part in this survey. Altogether, 78% stated that the ethical dilemmas/decision-making represent a burden to them. 87% experience this burden as momentary. In nearly 40%, this burden affects private life; in another 48% it occasionally impact on private life. 25% of physicians and 10% nurses suffer from exhaustion. Most of the respondents find relief from stress through their hobbies (70%) and discussions with family members and friends (74%). The most used coping strategies are debriefings after ethical discussions, team discussions and support from hospital pastoral care. Professional moderation of debriefings was only rarely available (10%).

**Conclusion** Chronic exposure to stressful situations represents a burden for the majority of HCP working in NICU environment. Exhaustion is far more frequent than physical and psychosomatic symptoms. Hobbies and social contacts are important coping strategies. Given the potential of chronic burden to not only affect health of caregiver but also to shape the attitudes of caregivers in daily neonatal intensive care medicine, the importance of team debriefings and support under professional guidance cannot be stressed enough.

**ETHICAL DILEMMA IN NEONATOLOGY**

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**Aim** To ascertain parents’ attitude, knowledge and awareness of the type of Surfactant used in the Neonatal unit to treat Respiratory Distress Syndrome and their religious perspective.
Method This is a pilot project where we emailed all the staff with different cultural background in one Hospital a Surfactant survey questionnaire seeking their opinion as a parent.

Results We received 151 responses of which 63% were from females and 37% were from males. The majority of people who responded believe in Christianity (62%), 24% did not disclose their beliefs. 8% believe in Islam and 6% believe in Hinduism. More than half of the responses were from non-medical staff (55%), doctors (23%) and nursing staff (22%). 74% who responded felt that the neonatal unit should stock all available types of surfactant and 79% responded that there should have been discussions regarding the different types of surfactant available and this should be included in antenatal counselling. Approximately 11% preferred either bovine or porcine surfactant based on religious beliefs, 36% preferred non-animal derived surfactant which was for personal reasons and 53% had no preferences.

Conclusion In the current multicultural society, it is necessary to consider cultural beliefs of all patients. Paediatricians and Neonatologists must respect patient’s and parent’s autonomy and beliefs and they must be given sufficient information in a way that they can understand and are able to exercise their right to make informed decisions about their care. There are medico legal implications for ethical issues.

1051 PARMA PAP PROJECT: A READY TO USE THERAPEUTIC FOOD FOR MODERATELY MALNOURISHED CHILDREN IN SIERRA LEONE doi:10.1136/archdischild-2012-302724.1051

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Background and Aims The Parma Pap Project started in 2008 as cooperation among Paediatric School, Human Nutrition Unit, Food Technology Laboratory, University of Parma and the NGO “Emergency”, with the aim to develop a ready to use therapeutic food for the home-treatment of moderately malnourished African children. Parma Pap is a mix of peanuts, palm oil, milk powder and sugar, with high energy density and a micronutrient profile specifically designed on the base of WHO recommendations.

Methods The study included 330 moderately malnourished children between 6 months and 5 years, whose families referred to the Emergency Surgical Centre in Goderich, Sierra Leone. Patients with a Weight-for-Height Z score (WHZ) between 70% and 80% were enrolled and randomized into two groups: one received Feeding Program Supplementations (FPS: corn flour, palm oil and milk powder) and Parma Pap, whereas a control group received only FPS. The clinical follow-up lasted 13 weeks. Weight, height and WHZ were checked weekly and children were treated for concomitant infections.

Results The WHZ improvements were higher in children fed the Parma Pap with respect to the control group (p<0.01, Mann-Whitney U-test for independent samples). A detailed analysis of approximately 200 drop-outs was carried out to identify the most relevant factors involved.

Conclusions Providing Parma Pap in addition to standard feeding in malnourished children in Sierra Leone was an effective strategy to improve growth and in quickly replete WHZ. Information about participant drop-out will help increasing compliance in future feeding studies.

1053 NEONATAL ABSTINENCE SYNDROME: AN EVALUATION OF AN INFANT HOME-BASED WITHDRAWAL PROGRAM (IHBW) doi:10.1136/archdischild-2012-302724.1053

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Background and Aims Conventional management of neonatal abstinence syndrome (NAS) often requires prolonged hospital admission, proving costly in both financial and social terms. However, safety issues often preclude the option of community-based withdrawal programs. We report the experience of our IHBW program.

Methods A retrospective audit was undertaken of infants older than 34 weeks gestation admitted to the Royal Women's Hospital Neonatal Unit for treatment of NAS between 2001–2010. Selected infants were offered the IHBW program from 2004.

Results 163 infants were admitted for treatment of NAS; 38 were managed on the IHBW program. 97% were exposed to opioids in utero. Morphine was used to treat 145 (89%) infants with 18 (11%) receiving either phenobarbitone or a combination of both.

Abstract 1053 Table 1 IHBW versus conventional management of NAS

<table>
<thead>
<tr>
<th></th>
<th>Conventional (N=125)</th>
<th>IHBW (N = 38)</th>
<th>Mean difference (95% CI) or p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Age (yr)</td>
<td>27.6 (5.8)</td>
<td>29.2 (6.7)</td>
<td>1.12 (1.1, 3.3)</td>
</tr>
<tr>
<td>Gestational Age</td>
<td>38.4 (1.5)</td>
<td>39.2 (1.3)</td>
<td>0.70 (0.2, 1.2)</td>
</tr>
<tr>
<td>Birth weight (g)</td>
<td>2929 (545)</td>
<td>3087 (355)</td>
<td>158 (–28,344)</td>
</tr>
<tr>
<td>NAS score before medication</td>
<td>8.6 (1.7)</td>
<td>9.3 (1.8)</td>
<td>0.7 (0.001, 1.4)</td>
</tr>
<tr>
<td>Days of hospital stay</td>
<td>39 (12)</td>
<td>19 (12)</td>
<td>–20.3 (–24.7,–15.9)</td>
</tr>
<tr>
<td>Total dose morphine (mg/kg/birth weight)</td>
<td>11.6 (5.8)</td>
<td>10.2 (6.4)</td>
<td>–1.4 (–3.4, 0.6)</td>
</tr>
<tr>
<td>Foster Care</td>
<td>27 (22%)</td>
<td>2 (5%)</td>
<td>0.02</td>
</tr>
<tr>
<td>Child Protection Involvement</td>
<td>75 (60%)</td>
<td>9 (24%)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
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Data in mean (SD)