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

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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) + 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.

1052 PLANNING SURGERY IN CHILDREN WITH COMPLEX DISABILITY

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Background Surgery in children with complex disability is ethically and practically difficult. Many disabled children benefit from relatively simple surgical procedures but the risks can deter some surgeons from performing the surgery. Some families do not fully understand the potential long term dependence that may follow.

Patients and Methodology A clinic appointment was made with a single consultant (RRR). A detailed history and examination was followed by a discussion of the risks of surgery. Specific risks discussed included an estimate of the risk of post-operative ventilation, and ventilation for longer than one week. Options for that eventuality (ranging from a tracheostomy and full intensive care through to palliative support) were then explained.

Results Twenty one visits in 20 patients have taken place. In five patients a Do Not Resuscitate order was already in place or had previously been discussed. Medical diagnoses were varied. Surgical procedures included gastrostomy formation, PEG change and muscle biopsy. Two children died before surgery and three others decided against the planned surgery in view of the risks. Of the 16 operations that took place, no children required post-operative ventilation. Length of stay varied between 1 day and 5 days (median 1.5 days). Nine patients have subsequently died.

Discussion Preoperative discussions were helpful to both families and staff, and helped clarify expectations. Extubation was often carried out with the parents present and agreement on non-reintubation. We suggest that brief surgical procedures in complex disabled children can be well tolerated and benefits from careful discussion ahead of surgery.

1053 NEONATAL ABSTINENCE SYNDROME: AN EVALUATION OF AN INFANT HOME-BASED WITHDRAWAL PROGRAM (IHBW)

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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

	Conventional (N=125)	IHBW (N = 38)	Mean difference (95% CI) or p value
Maternal Age (yr)	27.6 (5.8)	29.2 (5.7)	1.12 (–1.0, 3.2)
Gestational Age	38.4 (1.5)	39.2 (1.3)	0.7 (0.2, 1.2)
Birth weight (g)	2929 (545)	3087 (355)	158 (–28,344)
NAS score before medication	8.6 (1.7)	9.3 (1.8)	0.7 (0.001, 1.4)
Days of hospital stay	39 (12)	19 (12)	–20.3 (–24.7, –15.9)
Total dose morphine (mg/kg/birthweight)	11.6 (5.6)	10.2 (5.4)	–1.4 (–3.4, 0.6)
Foster Care	27 (22%)	2 (5%)	0.02
Child Protection Involvement	75 (60%)	9 (24%)	<0.001
Data in mean (SD)			

Conclusion In selected families, IHBW reduces hospital stay in managing NAS, without increasing morphine dose. Concerns regarding infant welfare limit the number of infants suitable for this management pathway.

1054 NEONATAL ABSTINENCE SYNDROME: HAS THE ONSET OF SYMPTOMS CHANGED IN THE LAST DECADE?

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Background and Aims Neonatal abstinence syndrome (NAS) often presents in the first 72 hours of life. Observation of at-risk infants is important to ensure prompt treatment if necessary. In 1998 at this hospital, 90% of infants requiring treatment for NAS commenced in the first week after birth. We aimed to describe the commencement of treatment for infants with NAS in the last decade.

Methods We undertook a retrospective review of babies treated pharmacologically for NAS during 2001–2010 at The Royal Women's Hospital, Melbourne. Our guidelines recommend 7 days post-natal observation for infants at risk of NAS. Infants were admitted to the neonatal unit if they were felt to require treatment or had other neonatal complications.

Results 163 infants were treated for NAS; 85% and 8% of the mothers were hepatitis C and B positive respectively. In-utero substance exposure included opioids (97%), cannabis (29%) and benzodiazepines (25%). Over 90% of infants were treated by day 7 of life, most of whom had been admitted by day 5 (Figure). There were no differences in the age of treatment if the infant was exposed to opioids alone or multiple classes of drugs in utero.

Abstract 1054 Figure 1 Infants treated for NAS by day of life

Conclusion In the last decade, the timing of first medication for NAS is unchanged. Infants of chemically dependent mothers require a minimum of 7 days of in-patient observation.

1055 NEUROIMAGING PROGNOSTIC CATEGORIZATION IN NEWBORNS WITH SYMPTOMATIC CONGENITAL CYTOMEGALOVIRUS INFECTION (SCCI)

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Background and Aims In SCCI, Noyola's neuroimaging prognostic categorization is restricted to destructive abnormalities.

Objective To ascertain the predictive ability of a classification including destructive, developmental abnormalities and white matter signal changes on MRI.

Methods Population: Patients with SCCI born between 1993–2009. Setting: La Paz Tertiary University Hospital.

Design Prospective observational. Neuroimaging (US, CT and/or MRI) findings were graded by Noyola's and our scoring system (Table).

Abstract 1055 Table 1 Classification of neuroimaging

Score	Noyola's scoring system	New scoring system
0	No abnormalities	No abnormalities
1	Single punctate calcification and/or lenticulostriate vasculopathy	Same as Noyola and/or focal white matter signal abnormality on MRI
2	Multiple discrete calcifications and/or moderate-severe ventriculomegaly	Same as Noyola and/or diffuse white matter signal abnormality on MRI
3	Extensive calcifications and/or brain atrophy	Same as Noyola, neuronal migration disorder, corpus callosum dysgenesis and/or cerebellar hypoplasia

Blinded follow-up assessment included: neurologic examination, cerebral palsy scoring (GMFCS), cognitive evaluation (BSID-III, WPPSI-III or WISC-IV), behavioral assessment (CBCL) and evaluation of seizures, hearing or visual loss.

Results Twenty-six patients were included, 3 of which died. Mean age at follow-up was 8.7±5.3y (19m–18.0y), and 15(65%) surviving patients had moderate-severe disabilities. Our neuroimaging classification showed higher predictive ability than Noyola's (AUC 0.94±0.04 vs 0.89±0.06, Table).

Abstract 1055 Table 2 Predictive values for adverse outcome, scores 2–3

Scoring system	Sensitivity	Specificity	PPV	NPV
Noyola's	61%	100%	100%	53%
Present	83%	100%	100%	72%

Conclusions In SCCI, a comprehensive neuroimaging analysis including destructive and developmental abnormalities is highly predictive of neurodevelopmental outcome.

1056 MEGA CISTERNA MAGNA DIAGNOSTIC DILEMMA

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Background and Aim The prenatal diagnosis of posterior fossa dysgenesis remains challenging.

Mega-cisterna magna (MCM) is applied to prominence of the retro-cerebellar CSF space and may not be associated with abnormalities. The clinical significance of this finding varies. Diagnostic modalities of the MCM are by ultrasound and or MRI.

Our aim is to:

- Determine the Incidence of isolated dilated MCM in our population.
- Compare the accuracy of fetal ultrasound with postnatal neuroimaging.
- Report the associated central nervous system anomalies.

Method We identified retrospectively all reported cases of isolated dilated cisterna magna from 1/January 2007 till 31/7/2011.