

temperature was lower in 20/30 patients, max decrease 1,3°C (before 37.1°C (36.3–37.9°C) vs. 36.6°C (35.9–37.4°C)).

**Conclusions** Early MRI scanning using an MRI incubator is a relatively safe procedure in clinically stable infants. Use of sedation was not associated with clinically relevant changes, although these findings warrant further investigation.

### O-163 DOES EARLY SCREENING LEAD TO HIGHER PREVALENCE OF PAEDIATRIC DELIRIUM?

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**Introduction** Early screening of paediatric delirium (PD) allows for early intervention if necessary. The aim of this study was to determine if early screening with the SOS-PD scale led to higher prevalence of PD in ICU patients.

**Methods** A prospective before-after study design was applied in a population of children aged >3 months and admitted for ≥48 h to the PICU. In the before-period the prevalence of PD was estimated in terms of the number of children with PD confirmed by the consulting psychiatrist. During the after-period nurses systematically assessed the children with the SOS-PD scale three times a day in addition to the psychiatric consultation (SOS-PD score ≥4).

**Results** 148 and 150 children were included in the before and after period, respectively. The prevalence of PD was 6.1% and 8.7% for the before and after period respectively (see Table). The relative risk of PD with early screening was 1:43 (95% CI 0.63 to 3.23). In 33 patients (22%) the SOS-PD score was ≥4 on one or more occasions. In 14 of these patients, the child psychiatrist was consulted. In the remaining patients the child psychiatrist was not consulted for the following reasons: only once a high score (n = 9), adverse effects of sedatives (n = 4), and underlying disease/motor restlessness (n = 6).

Abstract O-163 Table 1 Patient characteristics and prevalence of PD

	Before period – usual care (N=148)	After period – early screening PD (N=150)	p-value
Gender (F/M)	59/89	76/74	0.06
Age (months)*	37 (15-124)	54 (14-146)	0.22
Length of stay ICU (days)*	7 (4-13)	6 (4-11)	0.11
Prevalence of PD	9 (6.1%)	13 (8.7%)	0.40
Number of assessments per child*	-	9 (4-19)	-

\* Median (IQR)

**Conclusions** Systematic early screening of PD resulted in a higher incidence of PD and could contribute to timely start of treatment.

## Allergology

### O-164 SPECIFIC IMMUNOGLOBULIN E TO ARA H 2 AS PREDICTOR FOR PEANUT ALLERGY IN CHILDREN IN A GENERAL DUTCH HOSPITAL

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**Background** Specific immunoglobulin E (sIgE) to Ara h 2 is described as a potential factor for diagnosing peanut allergy in children. However for the Dutch children, limited data are available. In this study the diagnostic value of sIgE to Ara h2 for children in a general non-university hospital is evaluated and compared with the existing data.

**Methods** Data from 137 peanut sensitised children were collected retrospectively. The primary outcome was peanut allergy or tolerance confirmed by food challenges. Different possible predictors, including sIgE to Ara h 2 (n = 52), were identified by multivariate backward stepwise logistic regression analysis. All significant predictors were combined in a formula for prediction of peanut allergy. Different essential cut-off points were obtained by an ROC curve.

**Results** Multivariate analysis resulted in sIgE to Ara h 2 as only predictor for peanut allergy, with a discriminative ability of 0.87 (95% CI, 0.77–0.97). Sensitivity and specificity values of respectively 55% and 95% were found at a sIgE to Ara h 2 cut-off value of 4.25 kU/L. Hundred percent specificity was reached at a cut-off point of 5.61 kU/L. The mean (SD) sIgE to Ara h 2 level for allergic children was 21.49 kU/L (SD 30.65) compared to 1.07 kU/L (1.56) for tolerant children (p = 0.001).

**Conclusions** Specific IgE to Ara h 2 is the best predictor for peanut allergy in sensitised children in a non-university hospital, comparable to previously published data. These results are a step forward to a generalisation to the Dutch children population.

### O-165 PRENATAL EXPOSURE TO ENDOCRINE DISRUPTING CHEMICALS (EDCS) IS RELATED TO ALLERGIC SYMPTOMS IN 12 MONTH OLD CHILDREN

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**Background** In daily life, we are exposed to thousands of man-made chemicals. Some of these chemicals do have endocrine disrupting properties. Prenatal exposure to EDCs may interrupt the maturation of the immune system and lead to childhood allergies.

**Objective** To determine the relationship between prenatal exposure to EDCs and allergic symptoms in 12 month old children.

**Methods** Forty-two pregnant women were recruited at the first antenatal visit to the midwife. Exposure to four different classes of EDCs was determined in cord blood and breast milk: perfluorinated alkyl acids, PCBs, organochlorine pesticides and phthalate metabolites. Allergic symptoms at the age of 12 months was assessed by means of questionnaires. Gender, maternal BMI, parental education and parity were taken into account as possible confounders. Logistic regression analyses were carried out.

**Results** A significant positive relation was found between prenatal PFOS exposure and allergic symptoms in children at the age of 12 months (OR 4.84; p = 0.04). In addition, prenatal exposure to PFOA and MECP was positively related to allergic symptoms in 12 month old children, while a negative association was found for phthalate metabolites MEHHP and MEOHP. However, these associations were not significant (Table 1).

**Discussion** Prenatal exposure to PFOS is significantly related to allergic symptoms at the age of 12 months. Moreover, associations between exposure to several other EDCs and allergic symptoms in children of 12 months old have been found. In