

**Aim** To analyse the major outcomes of babies born less than 31 weeks gestation.

**Methods** We extracted the data solely from the Badger system to analyze the outcomes of all babies less than 31 weeks gestation in the last 2 financial years (01/04/09 to 31/03/11).

**Results** A total of 860 babies less than 31 weeks gestation were admitted to the neonatal units in SWMNN in the last 2 financial years.

Abstract 1284 Table 1

	2009/2010	2010/2011	Total
n admissions < 31+0 weeks	437	423	860
n ventilated (%)	301 (68.8%)	287 (67.8%)	588 (68.3%)
n with CLD at 36 weeks CGA (%)	78 (17.8%)	62 (14.5%)	140 (16.2%)
n discharged home on oxygen (%)	20 (4.5%)	28 (6.5%)	48 (5.5%)
n with NEC (%)	111 (25.4%)	102 (24.1%)	213 (24.7%)
n with NEC that had surgery (%)	15 (3.4%)	21 (4.9%)	36 (4.1%)
n survived to discharge (%)	375 (85.8%)	382 (90.3%)	757 (88.0%)

**Conclusion** The Badger system has tremendously improved our ability to monitor trends in the major outcome of premature babies in SWMNN. This will help in improving the quality of care and resource allocation. The major limitation of such a system is that the quality of the data is dependent on the information entered in the first place. Therefore, we need to ensure the accuracy and completeness of the data entered.

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#### DEVELOPMENTAL DYSPLASIA OF THE HIP (DDH) AND MATURATION OF HIP JOINT: ANALYSIS IN UNSELECTED ITALIAN PEDIATRIC POPULATION

doi:10.1136/archdischild-2012-302724.1285

C Casini, C Bianchini, V Negro, F Biagiarelli, R Zambardi, C Filippelli, C Pacchiarotti, D D'Onofrio, MP Villa. *Sapienza University of Roma, Roma, Italy*

**Background** Developmental Dysplasia of the Hip (DDH) is an abnormal growth of the hip structures, regarding both osseous and soft tissues. While different factors are strongly associated and the overall frequency reported is between 1 and 5 cases per 1000, its aetiology and prevalence are not well established.

**Aim** Aim of our study was to assess the relationship between the presence of hip ossification core and hip dysplasia and to evaluate the overall prevalence of this disorder among our population.

**Methods** the same examiner performed hip ultrasonography (US) to all babies, using Graf method and a questionnaire about biological data was administered to all parents.

**Results** 947 US were performed to all patients between the 2° and the 22° week of life (493 male, 454 female) 934 US were normal, 10 showed physiological hip immaturity, only 3 demonstrated pathological hip conformation (2 with IIC grade and 1 with IV grade). The presence of hip ossification core doesn't correlate with DDH, nutritional factors and fetal presentation but had a strong relationship with birth weight and female sex.

**Conclusions** our data about the prevalence confirmed the previous results, (3.1/1000): The presence of hip ossification core is not related with DDH.

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#### ASSESSMENT OF RENAL AND INTESTINAL TISSUE CONDITION OF IUGR INFANT

doi:10.1136/archdischild-2012-302724.1286

<sup>1</sup>AA Akhundova, <sup>2</sup>NF Panahova, <sup>3</sup>SS Hasanov, <sup>3</sup>SA Gulieva, <sup>2</sup>NN Hajieva. *<sup>1</sup>Neonatology; <sup>2</sup>Azerbaijan Medical University, Baku, Azerbaijan*

**Background** As known, the main cause of IUGR is uteroplacental insufficiency accompanied by continuous hypoxia. The fetal circulatory response to hypoxia is a rapid centralization of blood flow into the brain, heart and adrenals at the expense of almost all peripheral organs, particularly the kidneys and intestines.

**Aim** To determine whether the IUGR has an influence on renal and intestinal function due to hypoxia-ischemia in the early neonatal period.

**Material and Methods** 39 preterm newborns (GA 29–36 weeks) have been studied. We compared IUGR (n=20) and non-IUGR newborns (n=19). Plasma and urine samples were taken on the 1<sup>st</sup>, 3<sup>rd</sup> and 7<sup>th</sup> day of infant's life. KIM-1, uNGAL and plasma TFF-3 concentration were assayed by IFA method.

**Results** Comparing the two group levels of uNGAL, KIM-1 and TFF-3 were significantly increased in IUGR group (39.9±7.4 vs 25.8±6.5 ng/dl), (1.6±0.2 vs 0.8±0.1 ng/dl) and (38.1±1.5 vs 20.7±0.9 ng/dl) in the first three days of life. Considerable decrease in the concentration of TFF-3 was observed on the 7<sup>th</sup> day of the study (26.3±1.5 vs 28.3±2.6 ng/dl).

**Conclusion** Increase of KIM-1 and NGAL demonstrate high risk of hypoxic-ischemic renal injury in IUGR infants, and high level of TFF-3 reflects compensatory mechanisms in intestine in response to tissue hypoxia, but decreased level of TFF-3 in the dynamics is an evidence of failure and rapid depletion of the protective mechanisms in IUGR newborns.

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#### DOES CORD SEPERATION TIME HAS AN EFFECT ON OMPHALITIS?

doi:10.1136/archdischild-2012-302724.1287

<sup>1</sup>H Ozdemir, <sup>1</sup>H Bilgen, <sup>1</sup>S Coskun, <sup>2</sup>A Topuzoglu, <sup>3</sup>A Ilki, <sup>3</sup>G Soyletir, <sup>1</sup>E Ozek. *<sup>1</sup>Marmara University School of Medicine Department of Pediatrics, Neonatology; <sup>2</sup>Marmara University School of Medicine, Department of Public Health; <sup>3</sup>Marmara University School of Medicine, Department of Microbiology, Istanbul, Turkey*

**Background and Aim** There is still controversy regarding the optimal umbilical cord care and the relationship between cord separation and omphalitis. The aim of our study is to investigate the impact of different umbilical cord care practices on the cord separation time and omphalitis.

**Methods** We included 514 newborns and randomly randomized them into six groups (Group 1: dry care (n:72); groups 2 (n:69), groups 3 (n:69) and 4 (n:76): a single application of 70% alcohol, 4% chlorhexidine or povidon-iodine in the delivery room, groups 5 (n:73) and 6 (n:62): a single application of 70% alcohol or 4% chlorhexidine in the delivery room and continued until discharge) and 421 of them completed the study. Umbilical cord was examined on the 2nd day and between 5–7 days of life for the signs of omphalitis. Babies were followed up for one month and cord separation time was recorded.

**Results** Cord separation time was the shortest for group one (6.40 ±1.36 day) and the longest for groups 3 and 6 (9.57±3.12 days and 9.58±4.07 days) (p<0.001). Omphalitis was detected in eight patients (1.9%) and there was no significant difference between the groups. There was no relationship between umbilical cord separation time and incidence of umbilical cord infection (p>0.05).

**Conclusion** Our study showed that the mean time of cord separation was significantly shorter (6.40±1.36 days) in the dry cord care group and the longest in both chlorhexidine groups. However, cord separation time did not have an impact on the rate of omphalitis.

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#### TOTAL OXIDANT LEVELS, TOTAL ANTIOXIDANT LEVELS AND PARAOXONASE LEVELS IN BABIES BORN TO PREECLAMPTIC MOTHERS

doi:10.1136/archdischild-2012-302724.1288