

**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.

#### 1285 DEVELOPMENTAL DYSPLASIA OF THE HIP (DDH) AND MATURATION OF HIP JOINT: ANALYSIS IN UNSELECTED ITALIAN PEDIATRIC POPULATION

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**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.

#### 1286 ASSESSMENT OF RENAL AND INTESTINAL TISSUE CONDITION OF IUGR INFANT

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**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.

#### 1287 DOES CORD SEPERATION TIME HAS AN EFFECT ON OMPHALITIS?

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**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.

#### 1288 TOTAL OXIDANT LEVELS, TOTAL ANTIOXIDANT LEVELS AND PARAOXONASE LEVELS IN BABIES BORN TO PREECLAMPTIC MOTHERS

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**Aim** To investigate the oxidant-antioxidant status in babies born to preeclamptic mothers (BBPM).

**Method** The PON-1 (Paraoxonase), TAS (Total Antioxidant Status) and TOS (Total Oxidant Status) levels were measured in the cord blood and venous blood (7 day) of babies born to preeclamptic (n=31) and normotensive (N=25) mothers.

**Results** There was no difference between the two groups in terms of PON-1 and TOS levels in the cord blood and venous blood. However, the cord blood TAS levels were higher in BBPM (p=0.001); the TAS levels in the venous blood were higher in the control group (p=0.021). Furthermore, the cord blood PON-1 levels of babies born to severely preeclamptic mothers (n=18) were higher than those of babies born to mildly-moderately preeclamptic mothers (n=13) (p=0.042). There was no difference between cord blood TAS and TOS of babies born to severely and mildly-moderately preeclamptic mothers and the venous blood PON-1, TAS and TOS levels.

**Conclusion** The increased TAS level that was found in the cord blood of BBPM compared to that of the control group indicates that fetus is protected against oxidative damage caused by increased oxidative stress of the mother. Furthermore, the fact that the cord blood PON-1 level of babies born to severely preeclamptic mothers was higher than that of babies born to mildly-moderately preeclamptic mothers indicates the presence of a positive correlation between the severity of oxidative stress in the mother and the antioxidant protection of the baby. Our study is the first in the literature investigating PON-1 in BBPM.

1289

#### ASSOCIATION OF DELIVERY TYPE WITH POSTPARTUM DEPRESSION AND MATERNAL ATTACHMENT

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**Objective** There are contradictory findings in the literature about the effect of delivery type on postpartum depression and mother - infant interaction.

**Aim** The aim of this study was to investigate the relationship between delivery mode, postpartum depression and maternal attachment.

**Method** Forty vaginal delivery (VD) women and 40 cesarean delivery (SD) women were recruited to participate in the study. The Edinburgh Postpartum Depression Scale (EPDS) was used to screen depressive symptoms, and Maternal Attachment Scale (MAS) was used to detect maternal attachment. Social support was assessed by the Multidimensional Scale of Perceived Social Support (MSPSS).

**Results** We found no significant difference in postpartum depression and perceived social support between two groups. On the other hand, MAS scores were significantly lower in SD women.

**Discussion** Delivery mode had no impact on the development of postpartum depression. However SD may be associated with impaired maternal attachment.

1290

#### POSTPARTUM DEPRESSION IN MOTHERS OF INFANTS WITH VERY LOW BIRTH WEIGHT

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**Objective** Giving birth to an infant with very low birth weight (VLBW) is a major life event for a mother. Several studies have shown that mothers of these infants are at greater risk of psychological distress. The aim of this study was to investigate the level of depressive symptoms and to determine the associated factors among mothers who have infants with VLBW.

**Methods** The sample consisted of 105 subjects: 35 mothers of VLBW infants (< 1500 g), 35 mothers of low birth weight (LBW) infants (1500–2500 g), and 35 mothers of healthy term infants (> 2500 g). The Edinburgh Postpartum Depression Scale (EPDS) was used to detect maternal depressive symptoms. Maternal social support was assessed by the Multidimensional Scale of Perceived Social Support (MSPSS).

**Results** The mean EPDS score and the number of mothers with high depressive scores (EPDS>12) were significantly higher in mothers of infants with VLBW than in mothers of LBW and term infants. EPDS score was negatively correlated with birth weight, gestational age, and perceived social support and positively correlated with duration of hospital stay in mothers of infants with VLBW. Low birth weight and long hospital stay were found as predictors of postpartum depression in mothers of infants with VLBW.

**Conclusion** The birth and subsequent hospitalization of an infant with very low birth weight evoke psychological distress in mothers. Pediatricians should be more careful about depressive symptoms of mothers of infants with VLBW and should refer for counseling when it is necessary.

1291

#### MATERNAL ATTACHMENT AND POSTPARTUM DEPRESSION IN MOTHERS OF PRETERM INFANTS AND THE ROLE OF ATTACHMENT STYLE

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**Background** Preterm birth is a psychologically distressing experience for mothers of Preterm infants and a risk for the early mother - infant relationship.

**Aims** The aim of this study was to investigate the depressive symptoms and maternal attachment, and role of attachment style in mothers of preterm infants.

**Subjects** The study group consisted of 75 mothers of Preterm infants and the control group consisted of 75 mothers of full-term healthy infants. Outcome measures: Adult Attachment Scale (AAS) was used to determine the attachment style of the mother. Maternal depressive symptoms were screened by the Edinburgh Postpartum Depression Scale (EPDS), and maternal attachment was measured by the Maternal Attachment Inventory (MAI). Maternal social support was assessed by using the Multidimensional Scale of Perceived Social Support (MSPSS).

**Results** The mean EPDS score and the number of mothers with high depressive scores (EPDS > 12) were significantly higher and maternal attachment scores were lower in mothers of preterm infants than mothers of term infants. Mothers of preterm infants with insecure attachment style had higher EPDS and lower maternal attachment scores.

**Conclusions** Our findings suggest that postpartum depression and insecure attachment style of mothers may be a risk for maternal attachment in preterm infants' mothers. It would be important to screen depressive symptoms and detect attachment styles in