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

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

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.

1286 ASSESSMENT OF RENAL AND INTESTINAL TISSUE CONDITION OF IUGR INFANT

doi:10.1136/archdischild-2012-302724.1286

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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 1st, 3rd and 7th day of infant’s life. KIM-1, UNGL 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 (58.1±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 7th day of the study (26.3±1.5 vs 23.3±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 SEPARATION 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 or 4% chlorhexidine in the delivery room and continued until discharge) (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

doi:10.1136/archdischild-2012-302724.1288

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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 1st, 3rd and 7th day of infant’s life. KIM-1, UNGL 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 (58.1±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 7th day of the study (26.3±1.5 vs 23.3±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.
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 days) 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.

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 relationship between delivery mode, postpartum depression and maternal attachment.

Method Forty vaginal delivery (VD) women and 40 cesarean delivery (CD) 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.

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.