Material - Methods: Retrospective analysis of 120 records of VLBW newborns who were admitted to PICU within 13 months. Both score systems were applied on each child. The area under receiver operating characteristics (ROC) curves was used for comparison.

Results: Of 120 VLBW newborns, 88 (73.34 %) survived. Mean (SD) gestational age (GA) was 27.4 (2.5) weeks and BW was 1030g (351). Mean AS at 1. minute was 6,01 and at 5. minute 7,80. Significant difference couldn't be found between the areas under ROC curves of AS 1 (0,807) and of AS 5 (0,789). 5 point AS 1` value was optimal from the aspect of sensitivity (78.1) and specificity (70.5). 7 point AS 5` value was optimal from the aspect of sensitivity (68.7) and specificity (73.9). The CRIB had significantly greater the area under the ROC curve (0.972) than AS. 6 point CRIB value was optimal from the aspect of sensitivity (100.0) and specificity (87.5).

Conclusion: We found that CRIB has excellent predictive ability. CRIB predicted neonatal mortality significantly better than AS.

FCO11

THE USE OF SCORE FOR NEONATAL ACUTE PHYSIOLOGY (SNAP) AND BIRTH WEIGHT (BW) IN PREDICTION OF NEONATAL MORTALITY

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Background: SNAP was developed to assure a more accurate prediction of neonatal mortality then traditionally used means such as BW, gestational age etc.

Objective: We compared the ability of BW and SNAP as predictors of neonatal mortality.

Settings: Pediatric intensive care unit (PICU) at Institute for Healthcare of Child and Youth, Novi Sad, Vojvodina.

Material - Methods: Retrospective study based on medical records of 120 critically ill newborns who were admitted during 13-month period. SNAP was determined in the first 24 hours from admission to the PICU and calculated using an algorithm based on deviations from normal values of 26 physiologic parameters. The area under receiver operating characteristics (ROC) curves was used for comparison.

Results: Mean (SD) gestational age (GA) was 27.4 (2.5) weeks and BW was 1030g (351). 32 babies died (26.6%). The SNAP had the area under the ROC curve 0.846. 18 points SNAP value was optimal from the aspect of sensitivity (68.7) and specificity (92.0). BW had lower area under the ROC curve (0.732).

Conclusion: SNAP is useful predictive model, more accurate than BW in predicting of neonatal mortality.

FCO12

BILIRUBIN AND RETINOPATHY OF PREMATURITY

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Objective : Retinopathy of prematurity (ROP) is a proliferative vascular disease of retina. Many factors can influence its appearance, including free oxygen radicals. Recently there have been more and more studies which emphasises bilirubin antioxidative properties.

The aim of this paper is to check whether there is a connection between the level of bilirubin and the appearance of ROP.

Material - Methods : We have analysed medical data for 30 preterm newborns with ROP. Our control group also consisted of 30 preterm newborns with similar bodt and other parameters and other morbidity, with the exception that they didn't suffer of ROP.

Results : The average maximum bilirubin level in experimental group has reached 185 µmol/l on 6th day of life. The average maximum bilirubin level in control group was 204,45 µmol/l, also on 6th day of life. Different types of therapy had an influence on the bilirubin level and the appearance of ROP. The

average duration of oxygen therapy in experimental group was 37 days and in control group 27 days. Phototherapy lasted on the average 7 days in experimental group and 9 days in control. Vitamin E was administered longer in experimental than in control group.

Conclusion : According to our results, average maximum bilirubin level was lower in newborns with ROP, but this was not statistically significant. In our opinion, these kinds of studies deserve to be continued. This should bring the final proof of bilirubin antioxidative role in organism, as well as establish a protocol for hyperbilirubinemia treatment in prematurely born children.

FCO13

THE EFFECT OF NEONATAL RESUSCITATION TRAINING PROGRAM ON APGAR SCORE AS AN OUTCOME OF THE NEWBORN; A HOSPITAL BASED STUDY

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Background: Neonatal Resuscitation Training Program (NRP) based on American Association of Pediatric (AAP) has been introduced to pediatric resident in Padjadjaran University since 1998, to standardize knowledge and skills in order to reduce neonatal morbidity and mortality and increase successful resuscitation. The 5-minute Apgar score is the index of successful neonatal resuscitation and immediate postnatal outcome.

Objective: To evaluate the effect of NRP in Hasan Sadikin Hospital Bandung by examining Apgar score among the newborn.

Method: This is a retrospective two times period design (before training: year 1997 as group I, and after training: year 2000 as group II). The data was taken from hospital medical record and we include only newborn with normal birth weight and with abnormal presentation. We compared these two groups to find improvement on 5-minute Apgar score among severe asphyxiated newborns (1 minute Apgar score: 0-3) and we analyzed the data with X2 test, using SPSS 10.0 computer program.

Result: Group I had 84 subjects out of 1559 births, and group II had 107 subjects out of 2680 births. According to Apgar score, there was no significant difference in proportion of subjects between both groups (p> 0.1). From group I: there were 2 severe asphyxiated newborns and both of them showed improvement on 5-minute Apgar score (4-6). From group II: there were 7 severe asphyxiated newborns and 5-minute Apgar score are: 1 (14,3%) had low score (0-3), 3 (42,9%) had moderate score (4-6), and 3 (42,9%) had high score (7-10). All moderate asphyxiated subjects (group I, n=23; group II, n=22) improved on 5-minute Apgar score (7-10). These data showed no significant improvement on 5-minute Apgar score among severe asphyxiated subjects between both groups.

Conclusion: This study showed that training of NRP in our department did not improve the outcome of neonatal resuscitation yet. Evaluation on NRP should also be done in the Hospital outside the teaching Hospital.

FCO14

HOSPITAL NEONATAL HYPOTHERMIA: CHARACTERISTIC AND THE IMPACT OF NEONATAL RESUSCITATION TRAINING PROGRAM

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Backround: The newborn who was not thermally protected in the fist 10-20 minutes may loose body heat by 2-4∞C, and the baby would develop hypothermia. Risk factors to neonatal hypothermia were low birth weigh, prematurity, asphyxia, ill babies and babies delivered by mother with anesthetic drugs. It is assumed that proper and correct neonatal resuscitation will decrease the prevalence of neonatal hypothermia.

Objectives: To know the characteristic of neonatal hypothermia and to evaluate the impact of Neonatal