

# World Neonatology and Child Care Meeting

October 25-26, 2018 | Prague, Czech Republic

## Special Sessions **DAY 1**



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## An introduction for Nedoklubko in Czech Republic



**Lucie Žáčková**

Nedoklubko, Czech Republic

**Introduction:** Neonatology is a young, dynamically developing field of medicine. Czech Republic is one of the countries that belong to the world leaders in the field of neonatal care.

Use of non-conventional ventilation modes, the application of exogenous surfactant, invasive and non-invasive monitoring of vital signs, application of nitric oxide and ultimately, implementing the Newborn Individualized Developmental Care and Assessment Program (NIDCAP) - these are only a few examples of practices that are currently part of the treatment of sick babies.

**Aims:** The aims of Nedoklubko to support mothers after premature birth with a small gift, encouraging message, an information booklet, book, magazine etc. (In 2015 in Czech Rep. was prematurely born about 8% of children - about 8470)

The project involves all 12 NICU's and some of Neonatal Intermediate Care Units (24 hospitals in total), we have about 20 coordinators. Emotional and psychological support for families after premature birth and involvement of the general public to help these families.

### Biography

Lucie Žáčková, is Chairwoman of Nedoklubko and she is director of parent organization Nedoklubko Lucie Žáčková which supports parents of premature babies.

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## Scientific Tracks & Abstracts

# DAY 1



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## Effect of moderate pressure body massage on neonatal jaundice in term neonates



**Swetha Ravi**

*Rainbow Children's Hospital, India*

**Background:** Neonatal jaundice (NNJ) is one of the most common morbidity encountered in early neonatal period. Infant massage, in which babies are massaged soon after birth, is a tradition that is common in India and many other countries. Currently, few publications supported role of preventing or decreasing need of phototherapy in NNJ.

**Aim:** The main aim of this study was to investigate the effects of infant massage on neonates with jaundice.

**Methods:** Full-term neonates after birth at Rainbow Children's Hospital were randomly allocated to either a control group or a massage group. The medical information for each neonate including total feeding amount, body weight, defecation frequency, and bilirubin level, were collected and the outcome was compared between two groups.

**Results:** A total of 346 babies were initially included in the study. One hundred and seventy-three were randomized as cases and 173 as controls. Reduction in bilirubin levels was more in massage group than the controls (though not statistically significant). Significantly, more weight loss was seen in controls compared to the cases in the study period ( $p=0.029$ ).

**Conclusions:** This study has noted that massage therapy in infants leads to reduction in bilirubin levels and also significant decrease in weight loss. It is therefore advised to routinely educate all the mothers regarding massage therapy and encourage its practice.

### Biography

Swetha Ravi has done her Fellowship in Neonatology from Rainbow Children's Hospital, Hyderabad. She also has worked for four years in the same department. Now, she is the Chief Consultant Neonatologist at Krishna Institute of Medical Sciences, Kondapur, Hyderabad, India, for the last two years.

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## Important cooperation during developmental care in NICU including golden hour principles



**Zuzana Tomaskova**

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Prague, Czech Republic

Developmental care is well known phrase in neonatal care. We all try to use NIDCAP concept and focus on developmental outcome in our preterm neonates. Despite all our knowledge we still have some gap in practice. It is very important to coordinate nursing and medical care together and thus improve our outcomes. We have many challenging situations in NICUs all around the world starting with delivery of ELBW neonates going through admission period and finally dealing with parental care in NICUs. During all these processes we should always think about developmental care and practice whether our procedures are necessary and whether we really try to support our neonates as much as we can. Time of delivery and golden hour after delivery are the most crucial periods for our neonates and we have to minimize hands on time for the most important procedures only. Many times we do not think about simple steps we should do before we touch our neonates such as initial touch, light protection, noise protection as well as pain and stress protection. If we all plan care together, respect each other in the NICU team we can reach the best outcome. Major role is the education of NICU staff and parents as well as willingness of our team to improve ourselves and whole NICU community.

### Biography

Zuzana Tomaskova is a Neonatal Nurse Specialist from Czech Republic, Prague. She studied NICU Nursing after her Pediatric Nursing Diploma and finished her Bachelor's degree at Edinburgh Napier University in UK. She started her career as NICU Staff Nurse and continued through NICU Head Nurse and Clinical Nurse Specialist. She is NRP Instructor, STABLE Provider and lectures at international conferences. Her main professional goal is to improve developmental care strategies in NICU and equalize nursing and medical site on the same level with the respect of all NICU team.

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## Effect of nonpharmacologic pain control during examination for retinopathy of prematurity



**Gulumser Dogun**

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Turkey*

Effect of nonpharmacologic pain control during examination for retinopathy of prematurity: it was published in the "Journal of Obstetrics, Gynecologic & Neonatal Nursing, 46, 5, 709-715". This study was created for Master thesis by Şirin Bozlak. This study was of experimental design and was conducted to determine the effect of the nonpharmacologic application in preterm infant's pain control during premature retinopathy examination. The data for the research were obtained from 87 preterm neonates (29 swaddle - sucrose, 29 swaddle - breast milk and 29 swaddle - sterile water) who matched the case selection criteria and were being cared for in the neonatal intensive care unit of Istanbul University, Istanbul Medical School, Children's Health and Diseases Department, Division of Neonatology over the period June - September 2013. An information forms and premature infant pain profile forms were used in data collection. The data were evaluated with the chi-square test and one-way variance analysis using means, standard deviation, frequencies and percentage distribution. The study received human research ethics approval from the study site and from the ethics committee of Istanbul University, Istanbul Faculty Medicine. The parents provided written consent for the participation of their infants after being informed about the study in accordance with the guidelines issued in the declaration of Helsinki. During the eye examination pain scores was 9.1 in swaddle- sucrose group; 8.45 in swaddle- breast milk; 8.38 in swaddle- sterile water. The results of the research showed that all there were no significant differences in mean PIPP scores.

### Biography

Gulumser Dogun has completed her PhD from Istanbul University, Institute of Medical Science Child Health and Diseases Nursing and Post-doctoral studies from City University School of Health Sciences. She is the Head of Midwifery, Istanbul University-Cerrahpaşa, Faculty of Health Science. She has published more than 10 papers in reputed journals and five book chapters related with pediatric nursing.

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## The effect of biological factors on birth weight and gestation in South Indian newborns



**Grace Lalana Christopher**  
Grace Specialist Clinic, India

**Background:** Understanding the effect of biological factors on birth weight of newborns has public health importance because these indicators are associated with infants' health and survival and influence development and health in later life.

**Aim:** This is a retrospective study. The study was undertaken to determine the birth weight and gestational age characteristics in South Indian babies and correlated to biological factors.

**Materials & Methods:** A cohort of singleton live births, born from January 2015 to May 2017 was analysed to determine the mean birth weight and gestation and influence of various biological factors such as gender of baby, birth order, mother's age, obstetric complication such as PIH and Diabetes etc.

**Results:** Among a total of 2789 singleton live births, the mean birth weight was  $2873.73 \pm 498.6$  g, mean gestation was  $38.2 \pm 2$  weeks and low birth weight (LBW) <2500 g was 19.1%. The term, male, later births, older mothers above 30 years and

pregnancy including Pregnancy Induced Hypertension (PIH) and diabetes were associated with statistically significant higher birth weight  $P=0.001$ ,  $P=0.002$ ,  $P=0.0001$ ,  $P=0.001$ ,  $P=0.0006$  and  $P=0.0001$  respectively.

**Conclusion:** The mean birth weight and gestation for singleton live births in South India were determined, as well as the statistically significant impact of various biological criteria.

### Biography

Grace Lalana Christopher is a Consultant Pediatrician at Grace Specialist Clinic, Bangalore, India.

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## Cause specific management of shock in neonate



**Mohammad Monir Hossain**

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Bangladesh*

Understanding the pathophysiology of neonatal shock helps to recognize and classify shock in the early compensated phase and initiate appropriate treatment. Hypovolemic shock in neonate is usually due to antepartum hemorrhage, post-natal blood loss iatrogenic or secondary to disseminated intravascular coagulation or vitamin K deficiency or excessive insensible water loss in extreme pre-terms. Cardiogenic shock in the neonate may be caused by myocardial ischemia due to severe intra-partum asphyxia, arrhythmias, primary structural heart disease, and mechanical reduction of cardiac function or venous return secondary to tension pneumothorax or diaphragmatic hernia and disturbance of transitional circulation due to persistent pulmonary hypertension in newborn or patent ductus arteriosus in premature infants. Distributive shock caused by neonatal sepsis, vasodilation, myocardial depression or endothelial injury and obstructive shock is caused from tension pneumothorax or cardiac tamponade. The immediate aim of management of neonatal shock is to optimize perfusion and delivery of oxygen and nutrients to the tissues. The American College of Critical Care Medicine estimates that 60 minutes is the average time needed to provide adequate circulatory support and block the development of

shock. The first step in managing shock in the newborn during the first 5 minutes is to recognize cyanosis, respiratory distress and decreased perfusion. This should be followed immediately by airway access and ventilation to optimize oxygenation. Rapid peripheral, central venous or intraosseous accesses are of primary importance in the initial management of the newborn in shock. Any baby with shock and hepatomegaly, cyanosis or a pressure gap between upper and lower limbs should be treated with prostaglandin within 10 min of birth until congenital heart disease is excluded. Inotropes like dopamine, dobutamine, epinephrine and norepinephrine are indicated via IV or IO route before central access is achieved when myocardial contractility remains poor despite of adequate volume replacement. Delay increases mortality 20-fold.

### Biography

Mohammad Monir Hossain is currently working as Professor of Neonatal Medicine, NICU & Critical Care of Pediatrics at the Bangladesh Institute of Child Health (BICH) & Dhaka Shishu (Children) Hospital. He received his PhD from the University of Dhaka for his research work on Neonate Receiving Intensive Care in 2006. After his Graduation (MBBS) in 1987, he completed Doctor of Medicine in Pediatrics (MD) in 1997. He became a Fellow of Bangladesh College of Physicians & Surgeons (FCPS) in 1999 and Royal College of Physicians and Surgeons of Glasgow (FRCP Glasg) in 2009, Royal College of Physicians of Edinburgh (FRCP Edin) in the same year and Royal College of Pediatrics & Child Health (FRCPC), UK in 2010. Since 2001, he has been serving as Assistant Professor, Associate Professor and Professor at Bangladesh Institute of Child Health & Dhaka Shishu (Children) Hospital. He has authored several publications in various journals and books. His publications reflect his research interests in Critical Care in Neonatology. He was the Executive Editor of Bangladesh Journal of Child Health (BJCH)

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## Congenital anomalies among delivered and admitted neonates in Harari regional state hospitals, Harar, eastern Ethiopia, 2017: A retrospective cross-sectional study

**Hailemariam Mekonnen  
Workie**

*University of Haramaya, Ethiopia*

**Background & Aim:** Worldwide, congenital anomalies are the common problems that can cause an estimated 303000 neonatal deaths (7% of all neonatal deaths) in 2015. Congenital anomalies occur at a rate of 3-6% of all births or 1 in every 33 babies born with the incidence of 11.87 per 1000 live births. Thus, the aim of this study was to assess the prevalence of congenital anomalies among delivered and admitted neonates in Harari regional state hospitals.

**Methods:** An institutional based retrospective cross-sectional study was employed to assess the prevalence of congenital anomalies among 7,255 admitted and delivered neonates in selected Harari regional hospitals from December 18 to January 3, 2017. Three hospitals were selected by simple random sampling method. All the cards recorded from July 2016 to June 2017 were reviewed. Trained six data collectors and 3 supervisors were recruited. The collected data was cleaned and checked for consistency. Then entered into Epi-Data v3.5 and exported to SPSS v25 for analysis. Results were presented using result statements, tables, graphs, and charts.

**Results:** In this study, a total of 6197 babies (3248 males and 2949 females) were delivered in Hiwot Fana Specialized University Hospital (HFSUH), Jugol and Harar General Hospital. From these, 45 (0.73%) babies have developed congenital anomalies. Among them, 28 (0.45%) and 17 (0.28%) were males and females respectively. On the other hand, 1058 (671 male and 387 female) babies were admitted to HFSUH and Jugol Hospital. Among the total, 30 (2.84%) admitted with congenital anomalies, of these, 20 (1.89%) and 10 (0.95%) were males and females respectively. Overall, in this study, 7,255 neonates were delivered and admitted in the three selected hospitals from July 2016 to June 2017. From these, 75 (48 males and 27 females) of them had congenital anomalies that gave the prevalence of 1.03% (0.66% males and 0.37% females).

**Conclusions:** This study showed that the prevalence of congenital anomalies in Harar regional Hospitals was 10.3/1000 live births. Therefore, a collaborative effort is needed to tackle the problem, by regular antenatal follow-up, early prenatal diagnosis, and intervention and even planned termination and appropriate treatment after birth.

### Biography

Hailemariam Mekonnen Workie has completed his BSc in Nursing from Haramaya University and MSc in Pediatrics Health Nursing from Addis Ababa University School of Allied Health. He is the Coordinator, Lecturer and Researcher of Neonatal and Pediatrics Health Nursing Department at Haramaya University, a premier academic organization. He has won more than 6 big projects and published more than 2 papers in reputed journals and has been serving as Reviewer of PLOS-One.

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