Establishing breathing and oxygenation after birth is vital for survival and long-term health of premature infants. However, approximately 10% of premature infants require breathing support at birth. An international consensus and various national resuscitation guidelines suggest techniques and equipment for neonatal resuscitation. They all agree positive pressure ventilation is the cornerstone of breathing support in the delivery room.

A lung-protective strategy should start immediately after birth. To facilitate the early development of functional residual capacity, and improve oxygenation during the transition of preterm infants, sustained inflations, positive end expiratory pressure and continuous positive airway pressure (CPAP) should be applied at the initiation of respiratory support. Although sustained inflations (SI) are advocated as lung recruitment maneuvers and positive end expiratory pressure helps to maintain end expiratory lung volume, neither of these has been mandated in neonatal resuscitation guidelines. This presentation will provide an update on current literature about techniques and devices used during neonatal resuscitation. Initial respiratory support provided with either CPAP, SI, and positive pressure ventilation along with available devices (e.g. face mask, nasal prong, Guedel airway, Laryngeal airway mask) will be discussed. In addition, new insights about intubation and chest compressions will be presented.
Background Breastfeeding of preterm infants is not well researched in Denmark, although breast milk is of great importance for these infants because it protects against infections, decreases the risk for severe diseases (necrotizing enterocolitis and retinopathy), and breastfeeding strengthens bonding and attachment between mother and infant. Many factors can influence breastfeeding of preterm infants. Some are related to the mother and infant, while some are related to unit-specific factors at the Neonatal Intensive Care Unit (NICU). This study will highlight potential influencing factors.

Aim To investigate how many preterm infants are breastfed exclusively at discharge, and breastfeeding duration. To examine which conditions in infants, mothers and NICUs that affect breastfeeding of preterm infants.

Method A multicenter exploratory longitudinal survey on breastfeeding of preterm infants in all NICUs in Denmark with questionnaires answered by the mothers in beginning of hospitalisation and at the infants’ discharge, followed by telephone interviews in the infants’ first year.

Preliminary results More than 1400 preterm infants from 24 to 36 weeks of gestational age (mean 33 weeks and 4 days, SD 249 weeks) participated in the study. At discharge 68% were exclusively breastfed, 17% were partially breastfed and 15% were not breastfed. Further analysis will show which factors in infants, mothers and NICUs influence breastfeeding at discharge.

Conclusion Compared to most international research, preterm infants in Denmark have high breastfeeding rates at discharge from NICU.

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76 Psychological Symptoms of Adolescents with and without Chronic Illnesses

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Background and aims The aim of this study was to compare psychological symptoms of adolescents with and without chronic illnesses.

Methods A total of 380 students (255 healthy and 85 with chronic illnesses) were recruited for the study. Data were gathered by using the general information form and the brief symptom inventory (BSI) for adolescent. Mann-Whitney-U test were used in analyzing the information.

Results Results demonstrated that adolescents with chronic illnesses had higher scores on somatization (p<0.001) and lower scores on hostility (p=0.05). Girls with chronic illnesses had lower scores on depression (p<0.01), negative self-perception (p=0.05) and hostility (p=0.01) than healthy girls. Both girls and boys with chronic illnesses had lower somatization scores than peers without chronic illnesses.

Conclusions This research suggests the importance of mental health screening for adolescents with chronic illnesses and the need for clinical and community-based interventions to target modifiable lifestyle factors that contribute to psychological distress.

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68 Fatigue in Children Before and After Bone Marrow Transplantation: A Preliminary Data

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Background and aims Fatigue is described as one of the most frequent and distressing symptoms of cancer therapy but in children and adolescents it has received limited clinical attention. The aim of the study was to assess the change in fatigue scores during cancer treatment according to children’s, adolescents’ and parents’ perspectives and to describe the possible causes of fatigue.

Methods In this longitudinal descriptive study enrolled were 21 children (aged 8–18 years) (15(71%) boys and 6(29%) girls, with acute lymphoblastic (ALL66.6%) and myeloid (AML33.4%) leukemia, and one of their parents. Fatigue as measured by PedsQL Multidimensional Fatigue Scale the day before the first cycle of chemotherapy (T0) and after 30 days (T1) of induction chemotherapy (about 25 days after BMT).

Results Compared data pre and post chemotherapy children had significantly worse fatigue total scores (79.3±10.6 vs 42.9±8.5, p<0.000): general fatigue domain (77.4±14±4 vs 51.3±10.1, p<0.000), sleep/rest fatigue domain (76.4±15.5 vs 28.6±12.1, p<0.000), and cognitive fatigue was the better and similar domain pre and after BMT in child’s (77.1±11.2 ±9±69±17.5, p=0.000) and parents’ (86.3±12±68.2±21.4) perception. Children with ALL (41.7±12.9) had a worse fatigue than AML (45.6±6±7.6) and the fatigue parent’s perception about their children is worse than child’s perception (38.2±4.9).

Conclusions This study shown that cancer treatment increase significantly children’s fatigue levels. Nurses should frequently assess fatigue in children receiving chemotherapy and apply timely and tailored interventions to match the factors that contribute to fatigue and influence fatigue severity, further to identify the domains compromises and make correct nursing diagnoses. Management of fatigue during treatment will help children stay involved in age-related activities and meet developmental milestones.