46 infants had normal neuromotor outcome at 12 months of age. 14 infants had abnormal outcome (2 mild/moderate impairment, 12 cerebral palsy, 4 ad mortem).

## Abstract 73 Table 1

MRI-findings	Normal 61,7%	WS 16,7%	BG/T 18,4%	G 3,3%
Normal outcome	37	8	1	-
Mild/moderate impairment	-	1	1	-
Severe impairment/death	-	1	9	2

**Conclusions** The development and severity of motor deficits due to perinatal asphyxia correlates to the pattern of brain injury seen on MRI. MRI provides valuable prognostic information in hypothermia-treated infants.

74 TRAINING AND CHECKLISTS; HOW TO SAFELY EVACUATE A NICU

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**Introduction** Evacuation is an uncommon and hard to practice event in a Neonatal Intensive Care Unit (NICU). Insecurity of untrained personnel can lead to disastrous incidents. To improve training and to recognize problems, a large multidisciplinary evacuation training was organized.

**Methods** The evacuation procedure was filmed by a professional film crew and edited into a 10-minute instructional movie. The film was shown to the full nursing staff. With lessons learned from this evacuation the current evacuation protocol was evaluated and several inconsistencies were identified.

**Results** During the training the current evacuation area proved unsuitable because of absence of the appropriate connections. Furthermore the staff trained was uncertain of their tasks during the training. Lastly essential equipment was hard to find. To increase awareness and regulate the procedure a checklist was developed. The coordinating nurse was made responsible for a weekly run through of the checklist. The instructional video will be shown to all new colleagues. Currently, a simulation computer program is being developed to routinely practice an evacuation in a safe environment.

**Conclusion** The local evacuation procedure should be well known among NICU staff. Multidisciplinary training is an important tool to identify the positive and negative aspects of the current procedure. A checklist can help to increase awareness and to the early identification of possible problems.

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## AGE APPROPRIATE CARE OF THE PREMATURE AND HOSPITALIZED INFANT: NURSING WORKFLOW EFFICIENCIES AND QUALITY CLINICAL OUTCOMES

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**Background and aim** Developmental care has been shown to decrease the length of hospital stay and hospital costs, improve weight gain and time to full enteral feeds as well as improve neuro-developmental scores at 9–12 months. Despite these benefits, there is inconsistent definition, application, and evaluation of developmental care practices in the neonatal ICU. The core measures for developmentally supportive care were developed as an evidence

based standard to mitigate the existing inconsistencies and have now been adopted by National Association of Neonatal Nurses (USA) as their new Guidelines for Age Appropriate Care of the Premature and Hospitalized Infant. This abstract will present the impact of these guidelines for practice on nursing workflow efficiencies as well as infant clinical outcomes.

**Methods** Using an observational cohort, a transformational educational intervention was introduced to a level III NICU framed by the core measures for developmental care. Clinical outcomes for infants less than 32 weeks gestation, NICU bed occupancy, NICU nursing FTEs and NICU patient length of stay are the measured variables.

**Results** Despite an increase in bed occupancy during the study period there was a decrease in patient length of stay with essentially the same number of nursing FTEs in both the benchmark group and the study group. Key clinical morbidities were significantly reduced as well

**Conclusion** Clearly defined, measurable objectives as defined by the core measures for developmentally supportive care favorably impacts not only clinical outcomes but also nursing workflow efficiencies and nursing satisfaction.

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## **VIRAL INFECTIONS IN NEONATES**

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Infections are an important cause of mortality and morbidity in the neonatal period. In the past viral infections were difficult to diagnose. Since the introduction of sensitive molecular methods such as polymerase chain reaction (PCR) in the identification of viruses the laboratory diagnosis of viral infections in neonates has been improved.

Viruses can be transmitted vertically (during the pregnancy or delivery) or horizontally (after birth). Cytomegalovirus is the most common cause of intrauterine infection worldwide leading to neurodevelopmental sequelae and hearing deficits. Herpes simplex virus (HSV) is the important cause of perinatal (during the delivery) or postnatal (after birth) infection. Recently it has been shown that various viruses which are transmitted horizontally (after birth) may also lead to life-threatening diseases such as sepsis and encephalitis. The recognition of these infections may be difficult because of their similarity with bacterial infections. The diagnosis can only be made if the proper PCR is performed. The consequences of systemic enterovirus, parechovirus or rotavirus infection in the neonatal period may be disastrous. In many infants severe white matter damage was documented on cerebral MRI, subsequently leading to neurodevelopmental delay. Because antiviral treatment is not available, preventive measures such as adequate hand hygiene must be taken into account in care of newborn infants.

During the presentation the epidemiology, clinical presentation, neuro-imaging (cerebral ultrasonography and MRI) and outcome of infants with various viral infections will be presented. Furthermore the preventive measures will be discussed.

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## COMPARISION OF TWO DIFFERENT DISTRACTION METHODS ON PAIN RELIEF OF CHILDREN DURING BLOOD DRAW

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**Background and aims** The procedures made by a needle are the most prevalent and important sources of pain for children. Then, this study aims to compare the effects of distraction by way of