

Background and Aims Preterm infants need effective pain management during and after the frequent painful procedures that guarantee their survival, whereas insufficient pain control may have negative impact on development of cognition, motor function and behaviour in preterm infants. The aim of this study was to assess the analgesic effect of lullaby music on pain score during venipuncture in preterm infants.

Methods 60 healthy preterm infants with a gestational age of 32–36 weeks randomly assigned to two groups in a double blind manner (30 in each group). For infants in experimental group lullaby music, with 40–50 db, was played 2 min before venipuncture. In control group, infants did not receive any intervention. For two groups, Two video systems were used to videotape the infant's face and monitor during study. pain scores were calculated by using Premature Infant Pain Profile (PIPP) before intervention, during the 30 sec after needle insertion, 30 sec after removal needle and 10th min after the end of venipuncture.

Results During the 30 sec after needle insertion, there was no significant decrease in pain score in experimental group to compare with control group ($p=0.075$) whereas 30 sec after the end of venipuncture, reduction in pain score was observed in experimental group ($p=0.0001$).

Conclusion In lullaby music group, reduction in pain score during venipuncture did not observe, but Immediately after the end of procedure, significantly pain score decreased. So duration of playing music can be affected on pain responses during venipuncture in preterm infants.

1904 THE EFFECTS OF CLOWN INTERVENTION ON FATIGUE IN CHILDREN WITH CANCER UNDERGOING CHEMOTHERAPY

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Background and Aims Many studies show that cancer-related fatigue is one of the most common symptoms experienced by children as a side effect of cancer therapy. This problem has recently grown considerably. Nurses involve in assisting children and parents to face illness and treatment procedures. The aim of this study was to investigate whether clown intervention could reduce fatigue in children with cancer undergoing chemotherapy.

Methods Ninety-nine children (aged 7–18 years) with cancer and with at least one cycle of chemotherapy, and one of their parents, participated in the study: during their hospitalization 54 of them interacted with clowns in the ward, while 45 children did not get them. Fatigue as measured by PedsQL Multidimensional Fatigue Scale and structured cognitive interviews on clown therapy.

Results The results emphasized the relevance of clown intervention on the reduction of fatigue in children. The study shows that in the sample that received clown intervention, the fatigue score was better than appears in the sample without the support of this activity (77.4DS±13.9vs49.3DS±9.9 $p=.000$), and that cognitive fatigue domain had the least affected (90vs62), compared with general fatigue (73.4DS±16.9vs49.2DS±12.4) and sleep fatigue (69DS±16.4vs37.3DS±11.5) domains. Age was a factor associated with a significant increase in the fatigue scores.

Conclusions Children that receive the clown's care has shown a lower fatigue. It is essential for healthcare professionals to consider the effect of chemotherapy on the children and to recognize the specific needs of this patient. Nurses should routinely screen pediatric patients for fatigue and intervene to minimize their impact using pharmacologic and nonpharmacologic strategies.

1905 "KEEPING THE FAMILY TOGETHER" VERSUS "THE WORST JOURNEY OF OUR LIVES": PARENTS TRAVELLING WITH REGIONAL PAEDIATRIC INTENSIVE CARE TRANSPORT TEAM

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Background From approximately 1.7 million children North West and North Wales (UK), 600–700 transferred annually from 31 hospitals into 2 regional PICs. PICS standards 2010 state "wherever possible and appropriate, parents should be given the option to accompany their child during transfer". Parental stress is increased by not being able to travel with their child (1). Pre-NWTS, unit-based PIC transport teams use of front-line ambulances precluded parents travelling with their child. North West and North Wales PIC Transport Service (NWTS) started November 2010, as single dedicated regional service. Our service level agreement with private ambulance provider states must have four seats to ensure minimum one parent can travel.

Methods Prospective audit of NWTS database (first year). NWTS staff questionnaire.

Results 558 parents (100%) offered opportunity to travel with their child, 328 accepted (58.8%).

Abstract 1905 Table 1

1 Parent	2 Parents	No Parents	Data missing	Team vetoed
287	41	123	56	4
51%	7%	22%	10%	1%

Pre-NWTS, staff voiced concerns particularly potential difficulties if child deteriorated during transfer with parents present. Post NWTS, majority of staff recognise positive benefits especially if child may not survive, and no adverse incidents reported relating to parents.

Conclusion Parental uptake of an opportunity to travel with their child is a ringing endorsement of our new policy. "NWTS not only kept our daughter alive, but kept our family together."

References 1 "The worst journey of our lives": parents' experiences of a specialised paediatric retrieval service. Intensive Crit Care Nurs. 2003 19(2):103–8 Colville G et al.

1906 ALL ABOARD: THE USE OF SIMULATION FOR EDUCATING THE MULTIDISCIPLINARY RETRIEVAL TEAM WITHIN THE SOUTH THAMES RETRIEVAL SERVICE

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Background This presentation will explore the evolution of retrieval team training from the inception of the service in 1998 to the present day.

Just as the service has expanded from its very early days when teams took plastic bags of potentially useful kit out in a taxi to the local hospitals so the training of teams has developed to ensure team members are as ready as possible for the varied experiences they may encounter when out on the road.

Method Recently we have introduced multidisciplinary simulation training where nurses, doctors and ambulance technicians are brought together and are exposed to realistic retrieval scenarios based upon real situations that teams have already encountered.

Although clinical issues are discussed during debriefing the team are also encouraged to explore the 'human factors' in each scenario and examine how they have influenced, both the outcome and dynamics of a situation, (Sherwood et al 2002).

All those debriefing have been trained in the correct techniques to ensure the participants and observers are allowed to reveal the learning points and sessions are all videoed and used during the debrief as appropriate, to emphasize particularly areas for development or highlight good practice.

Results Retrieval team members were initially apprehensive of this new approach to retrieval training but have found it useful giving positive feedback and encouraging colleagues to attend.

Conclusions We will continue to use this approach to provide well prepared teams who are clinically competent and aware of the human factors in every retrieval situation.

1907 POST-TRAUMATIC STRESS DISORDER AFTER DISCHARGE IN PEDIATRIC INTENSIVE CARE UNIT (PICU)

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Post-Traumatic Stress Disorder (PTSD) develops after exposure to an extremely traumatic event such as death, injury, or physical threat to self, family member, or other significant person.

Admission to a paediatric intensive care unit (PICU) with acute disease carries a high level of stress for families, as the disease is of sudden onset and is life-threatening. The incidence of PTSD (21%) was significant among parents well after their child was discharged from the PICU.

Symptoms of PTSD include

- reexperiencing the traumatic event through recurrent, intrusive recollections, repetitive play, or distressing dreams;
- avoidance of associations with the event through restricted affect and feelings of detachment; and
- hyperarousal symptoms such as sleep difficulties, poor concentration, irritability, aggression, and physiological reactivity to trauma-related events.

In addition to general hyperarousal symptoms, children may complain of stomachaches and headaches.

There have been many summaries and reviews of research published regarding the effects of hospitalization with these children. Findings indicate that the experience is, indeed, stressful and that children may experience fear phenomena, regression, sadness, separation anxiety, withdrawal, sleep disturbances, and aggressive behaviors. There was a positive correlation between PTSD symptoms in parents and

- PTSD symptoms in the child,
- length of admission and
- perceived threat of illness to the child's life.

In PICU admissions cause greater disruption to a child's life, with longer admissions, greater time off school and more paediatric out-patient contacts and hospital re-admissions in the 6–12 months after discharge.

1908 MANAGEMENT OF PULMONARY HYPERTENSION AFTER PAEDIATRIC CARDIAC SURGERY

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Introduction Treatment of pulmonary hypertension in children has significantly improved over the years. The Beatrix Children's Hospital serves as the nationwide referral center for these children. Of importance, pulmonary hypertension occurs in a considerable proportion of patients after cardiac surgery. Our paediatric intensive care unit admits approximately 180 patients annually after cardiac surgery. About 5% of these children develop pulmonary

hypertension. Its occurrence may significantly affect the post-operative disease course during the first 72 hours of PICU stay.

Aim The provide insight into early recognition and management of pulmonary hypertension after cardiac surgery.

Methods We have developed nursing protocols describing how to monitor and interpret haemodynamic parameters, and how to interpret laboratory and roentgenologic investigations. Special attention is paid towards the clinical appearance of the patient. Next to this, supportive tools such as nitric oxide and high-frequency oscillatory ventilation (HFOV) are inevitable.

Results A protocolized approach allows us to recognize complications after paediatric cardiac surgery early during PICU stay. As a consequence, early management is possible.

Nitric oxide and HFOV are used as a supportive intervention for managing pulmonary hypertension.

Conclusion A protocolized approach allows us to recognize complications after paediatric cardiac surgery early during PICU stay.

1909 THE EFFECTS OF TEACHING ON THE KNOWLEDGE OF MOTHER TO CARING FOR INFANT & CHILDREN AT HOME, FOLLOWING CARDIAC SURGERY

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Congenital heart diseases, are chronic illness in infants & children. This research is a quasi-experimental study investigating the impact of education on home care knowledge of sixty mothers with children undergoing heart surgery. Data collection consisted of a pre-test, posttest and retentional questionnaire that contain of demographic data of mother & her baby and multiple choice test relate to heart diseases, surgical treatment, complication and home care of babies. The mothers gained a positive mark for true answer, a negative mark for a false answer and a zero mark for an unknown answer. Data collection was conducted in before admission of babies, one week and one month after discharge. As for the case group teaching programs consisted of educational video films and a face to face teaching and educational booklet. For the data analysis a spss package & descriptive statistic were employed. To identify the level of mother's knowledge, mother's mark were classified as, good-moderate and weak. The result obtained showed that at pre-test. the subjects in the case group did not have a good level. As for the control group only 6.7% were evaluated as good level at pretest. At posttest and retentional phases scores increased to 100 and 96.7% respectively for the case group. Regarding the control group 6.7% were evaluated as good and dropped to zero at the retentional stage. However, comparison of the mean score at the posttest and retentional in both groups, showed a decrease of knowledge overtime. In conclusion the results of the present study significantly supports the impact of education on improving the knowledge of mothers on providing a better home care for children undergoing heart surgery.

1910 NURSING MANAGEMENT AND CARE OF THE CHILDREN ON MECHANICAL CIRCULATORY SUPPORT

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Background and Aims The number of children being hospitalized for heart failure (HF) is increasing and, in recent years, mechanical circulatory support (MCS) is gaining more importance in the treatment end stage HF. The use of these complex technology implies changes in nursing assistance with equally complex aspects of care. The aim of this work was to describe our experience in the