

79

## BACK TRANSPORT OF INFANTS FROM NEWBORN INTENSIVE CARE UNITS (NICUS) FOR CONVALESCENT CARE. IS IT SAFE?

Terese M. Lynch, August L. Jung, Carol A. Kirgis, Carl L. Bose and Terri S. Erdman, (Spons. by M. Simmonds) Dept. of Peds., University of Utah Medical Center and College of Nursing, Salt Lake City, UT.

The clinical course of 55 back-transported (BT) infants was compared with that of 49 infants who remained at a regional perinatal center for convalescent care (NT). Although the mean birth-weight and mean gestational age of the BT infants was significantly less than that of NT infants (BT = 1614±522 gms and 32±2.7 wks, NT = 1902±626 and 33.1±2.5;  $p < 0.05$ ), the two groups did not differ in the incidence of respiratory disease, infectious complications, hyperbilirubinemia, patent ductus arteriosus, intraventricular hemorrhage, necrotizing enterocolitis, or days of assisted ventilation. The mean daily weight gain of the BT infants was significantly greater than that of the NT infants (BT=26±11 gms, NT=16.6±12,  $p < .001$ ). Four BT infants were retransferred to NICUs prior to discharge. The BT infants exhibited a significantly greater number ( $p < .05$ ) of new cardiovascular problems after transport. Following transfer, the BT infants did not demonstrate increased oxygen needs or increased incidence of feeding intolerance (emesis, abdominal distention, gastric residuals). No change in the frequency or nature of episodes of apnea and bradycardia occurred among the BT group. A comparison of the incidence of new respiratory, GI, metabolic, neurologic, infectious, and miscellaneous problems revealed no statistical difference between the two groups. We concluded that, when practiced within our regional perinatal system, back transport was safe.

80

## CYCLIC VOMITING SECONDARY TO OCT DEFICIENCY

John MacDonald, Karen N. Olness. Minneapolis Children's Medical Center, Department of Behavioral Pediatrics, Minneapolis, Minnesota.

When other signs or symptoms are absent, cyclic vomiting in young children frequently results in psychiatric referral that proves ineffectual. Clinical experience with two female grade school children with cyclic vomiting and hyperammonemia suggests an organic etiology. Protein loading studies in these children provoked hyperammonemia, orotic aciduria, and hyperaminoacidemia consistent with the diagnosis of OCT deficiency. Protein restriction resulted in clinical improvement and was well tolerated. We suggest that, when severe cyclic vomiting occurs in female children, the possibility of OCT deficiency should be considered before psychiatric referral.

81

## THE EFFECTS OF INTERVENTION WITH MOTHERS OF PRE-TERMS ON MOTHER-INFANT INTERACTION AND MATERNAL SELF-CONFIDENCE. Patricia P. Martin and Bhavesh L. Shah, Baystate Medical Center, Dept. of Ped., Purdue Univ.

Environmental variables, particularly mother-infant interaction are important contributors to predicting outcome for preterm (PT) infants. This study assessed the effects of hospital-based intervention with mothers of sixty PT infants (GA < 37 wks; weight < 2.5 Kg) on immediate and later outcome of mother-infant interaction and maternal self-confidence. There were three intervention groups: Group A - mothers participation in administering the Brazelton Neonatal Scale to her infant and interaction-skills training; Group B - provision of general information on PT's; Group C - routine hospital care control condition. The assessment instruments include a videotaped mother-infant interaction sequence, the Interaction Rating Scale (IRS) (17 behavioral items); a naturalistic home observation, the Beckwith Home Observation (BHO) (8 behavioral time-sampled items); and the maternal Self-Confidence Scale (MSC) (30 items).

Both repeated measured and multivariate analyses demonstrated that mothers in Group A scored higher than Group B who scored higher than Group C on IRS and BHO interaction ratings, at discharge and 1 month follow-up (IRS- A=28.2, B=20.7, C=15.7,  $P < .0001$  and BHO - A=64.6; B=41.9, C=34.7,  $p < .001$ ). Also infants in Group A scored higher than Group B who scored higher than Group C on IRS ratings at discharge and 1 month follow-up (A=16.8, B=14.2, C=12.9,  $p < .001$ ). No main group effects were found on measurement of maternal self-confidence.

The results suggest that hospital based intervention with mothers of PT infants has a greater impact on enhancing mother-infant interaction than does routine hospital care on short term outcome.

82

## THE VLBW INFANT GOES HOME: IMPACT ON THE FAMILY. M. McCormick, J. Bernbaum, M. Stemmler, A. Farran.

Spon. by G.J. Peckham. Department of Pediatrics, Children's Hospital of Philadelphia, Pennsylvania.

The increased risk among VLBW infants for health problems throughout the first few years of life is well known. However, the effect of this continued ill health on the family has received less attention than the effect of the stress experienced during the neonatal hospital stay. Using standardized questions for assessing health status and health services use, and Stein and Riessman's scale on parental perception of the impact of the child's health on various aspects of family functioning, we have surveyed the families of children treated in our intensive care unit, a population which consists of outborn infants transported in from neighboring suburbs. The characteristics of the first 136 families interviewed were consistent with this suburban origin: 73% white, and 68% with private insurance. High scores indicative of parental perception of a substantial effect on family functioning as a result of child health problems were most frequent among the families of VLBW infants < 1 year of age, but were also observed among 25% of those whose child was > 2 years. The impact of child health problems appeared greater among that segment of the population which consisted of high-school educated, lower middle class families with two or more children, and was out of proportion to reported health status and health services use. These results argue for greater sensitivity to the problems that families with modest financial resources have in caring for their VLBW children and for approaches to lessening the stress on these families.

83

## INITIAL TELLING THE PARENTS OF A SEVERE BIRTH DEFECT: A TRAINING SEQUENCE. Eva T. Molnar, Antoine K. Fomufod (Spon. by Melvin E. Jenkins) from the Department of Pediatrics and Child Health, Howard University College of Medicine, Washington, D.C. 20059

Parenthood is a significant milestone in the development of adults, and regardless of their socioeconomic status, prospective parents generally anticipate the birth of a child with joyous expectation.

Following the birth of a baby with obvious physical disability, however, unusual events are set into motion: the growing mutuality between infant and mother, nurtured in utero for many months, seems suddenly extinguished. The air becomes heavy with silence. The parents feel apart, cheated, faulted and deprived.

Health professionals handling this crisis situation must be aware of the significant psychosocial events surrounding it. How the initial information of the child's condition is presented is most important; the pattern established can lead to continuing collaboration and compliance or antagonism and distrust. A training sequence developed by the authors and aimed at health professionals utilizes a commercially available film-vignette, and worksheets. The worksheets address the basic logistics of informing the parents as follows: who should tell to whom, when, where; how much to tell of the child's condition and what kind of follow-up to offer.

The participating audience completes the worksheets before and after viewing the film-vignette, and finally, there is a general discussion.

84

## COMPARATIVE STUDY OF THE SOCIOECONOMIC AND HEALTH PROFILE OF PARTIDIPANTS IN A HANDICAPPED INFANTS' PROGRAM WITH PERINATAL DEATHS AND WITH NORMAL NEONATES IN AN URBAN HOSPITAL. Eva T. Molnar, Verle E. Headings, Fariborz Rahbar, and Lennox S. Westney (Spon. by Melvin E. Jenkins) from the Departments of Pediatrics and Child Health and Obstetrics and Gynecology, Howard University College of Medicine, Washington, D.C. 20059.

Four groups of mothers and their infants were studied in an urban hospital, all with known risk status for neonatal mortality or morbidity: normal neonates (48 subjects) were a no or minimum risk group; the still borns (21 subjects) were at maximum risk for perinatal mortality; the population of the infant program (44 subjects) were handicapped at birth or at medium or high risk for future handicapping conditions. It was assumed that these four groups would differ significantly for a number of variables which assess social, economic and health characteristics of the mothers and health characteristics of the infants.

Data were extracted from the records of the infant program and the medical charts, and submitted to multivariate analysis, including discriminant function analysis.

The population of the study was found to be, as a result of the analysis, mainly homogeneous for social and economic characteristics but showed variability for health indicators. The health characteristics of the mothers that appeared to be significant predictors for membership in the four risk groups, were associated with the history of prior pregnancies and prenatal care. For the infants, gestational age and Apgar score at one and five minutes were predictors.