

73 DEVELOPMENT AND OPERATION OF A REGIONAL INFANT DISPATCH CENTER (IDC). John F. Vogt, Paul Y.K. Wu, Joan E. Hodgman, and Warren Hawes. Univ. of So. Calif. Sch. of Med., LAC-USC Med. Ctr., Dept. of Ped. and Infant Health Unit (IHU), Calif. Dept. of Health, Berkeley.

With the establishment of regional perinatal programs an effective and rapid referral system for sick infants from primary to secondary and tertiary centers is needed. In accordance with Chap. 1173 Statute of 1974 of the State of Calif. an IDC was established at our NICU to serve a region with 185 hospitals with maternity services and 24 neonatal special care units (12 tertiary and 12 intermediate). The purpose of this report is to delineate the process of development, operation and interpretation of data obtained by the IDC in 1976. Individual and joint planning sessions were held with all the directors of the region's NICU's and staff of IHU to develop procedures for referrals and a uniform infant transport form. Medical and transport capabilities of each center and relative distances between centers were determined. A telephone communicating system operated by trained dispatchers 24 hrs. a day provides updated information on bed availability in participating centers, and assists in obtaining consultations from a panel of NICU nurses and neonatologists. Data collected provide information on neonatal transfers; patterns, distances, frequency and type of infants transferred. After 10 months of operation the data indicate an increasing utilization of the center for transfers. Analysis of data will provide information to assist in future development of health resources in the regions served by the IDC.

74 METABOLIC AND EMOTIONAL IMPACT OF AN ELEMENTARY DIET IN CYSTIC FIBROSIS (CF) Chun-I Wang and Lonnie K. Zeltzer (Sponsored by Maurice A. Kogut), Univ. So. Calif. Sch. of Med and Dept. of Ped., Children's Hospital, LA, CA
Parents of CF children are often over-enthusiastic to any new modality of management. This study reports adverse metabolic and psychological effects of a liquid formula in 4 children (ages 16, 13, 8 and 5 yrs) with CF who were placed on the diet by their parents. The 16 yr old developed recurrent hypoglycemia while the 13 yr old developed hyperglycemia and glycosuria, all of which disappeared upon returning to a conventional diet. Simultaneous determinations of blood glucose (BG), immuno-reactive insulin (IRI), and immuno-reactive glucagon (IRG) over a 5 hr period following the formula were compared with those following a standard glucose tolerance test (GTT). An exaggerated hyperglycemia (peak 226-486 vs 136-288 mg%) at 60' was followed by a 2nd peak at 2-4 hrs (120-178 vs 61-103 mg%). The IRI and IRG were all low and flat except in the 16 yr old, who had high levels. It is postulated that the high carbohydrates (85%) in the diet precipitated the higher peak of BG and that rapid absorption of aminoacids (8%) and fat (7%) may account for the prolonged hyperglycemia through continuous conversion to glucose. Only the 16 yr old consented to repeat tests on and off the formula. The 13 yr old refused to resume the diet. Parental fears prohibited the testing of the 8 and 5 yr olds on the conventional diet lest the children not return to the formula. All children accepted the diet to please their parents. However, both adolescents felt "trapped between the diet and death" and were relieved when the formula was discontinued for "metabolic" reasons.

75 IMPLICATIONS OF CHANGING PEDIATRIC HOSPITALIZATION RATES, Myron E. Wegman and Arthur J. Lesser, School of Public Health, University of Michigan and National Research Council/National Academy of Sciences.

This is a study of whether recent expansion of hospital beds, falling birth rates, advances in ambulatory care, higher hospital costs and varying bed occupancy have had adverse effect on proper hospitalization of children. A special NRC committee found serious shortcomings in available data, no clear evidence of an overall decline, but lowered occupancy in some hospitals. The committee recommends, inter alia, that children be distinguished from adults on hospital annual reports; that children be housed separately, not distributed among adult services; that academic pediatric centers, as key units, participate actively in regional assessment of needs and resources and in inter-hospital cooperative planning to provide primary care for all children and more sophisticated care for those needing it. In some areas there will need to be consolidation of pediatric beds in fewer hospitals, to strengthen care for all children as well as to support better teaching and research.

76 ANALYSIS OF PSYCHOSOCIAL ASPECTS OF INTERNSHIP Edwenna R. Werner, Robert Adler, Ricki E. Robinson, Carl M. Grushkin, Barbara M. Korsch, Childrens Hospital of Los Angeles.

23 pediatric interns at CHLA, 1975-1976, participated in a project to assess the stresses of internship, to analyze changes in interns' attitudes to and behavior with patients, and to provide enrichment of internship. Data were obtained at beginning, middle and end of internship by means of questionnaire; ratings by chief residents; videotapes of intern-patient interaction; and a videotape test of interpersonal skill. Enrichment consisted of support groups and individual feedback about each intern's own videotape. Results indicated that end-of-year overall rating of interns by chiefs did not correlate with the pre-admission rank by the hospital admission committee, nor with the videotape test. Questionnaire responses were combined into clusters relating to attitudes toward various features of the interns' experiences. Significant ($p < .01$) changes from initial expectations to reported attitudes at middle and end-of-year included: increased stress perceived, increased confidence, decreased quality of life, decreased use of appropriate coping mechanisms and less positive view of associates. There were trends for general feelings about internship to become less positive, and for married interns to have more positive feelings about internship than single interns. There were no significant differences noted between male and female interns.

77 NALOXONE REVERSAL OF MILD NEUROBEHAVIORAL DEPRESSION IN NORMAL NEWBORNS AFTER ROUTINE OBSTETRICAL ANALGESIA, Virginia Williams, Bedford W. Bonta, Jeryl V. Gagliardi, Joseph B. Warshaw, Yale University School of Medicine, Dept. of Pediatrics, New Haven, Conn.

Narcotic antagonists are generally administered to newborns only if they exhibit evidence of cardiorespiratory depression in the delivery room following maternal narcotic analgesia. To investigate the presence of subtle narcotic depression, we have evaluated the effects of naloxone vs placebo in a double blind parallel group study in 43 normal term newborns whose mothers had received routine narcotic analgesia within 6 hrs prior to delivery. The infants were given an IM injection of 20 µg/kg naloxone after the 1 min Apgar, and the following parameters were compared: Apgar scores at 1 and 5 min., capillary blood gases at 1, 30, 60, 120, and 240 min., and Scanlon neurobehavioral assessments at 1, 4, and 24 hrs. No adverse effects were observed. Neither the Apgar scores nor the blood gases differed significantly between the two groups. The alertness score was significantly higher for the naloxone group at 1 and 4 hrs ($p < .05, .05$). The general score for the Narcan group was higher at 4 hr ($p < .05$) and 24 hrs ($p < .055$). Response to sound was significantly higher in the naloxone group at 24 hrs ($p < .05$). These data suggest that maternal narcotic analgesia may produce subtle changes in alertness and general behavior not reflected by Apgar scores or respiratory status. It may be advisable, therefore, to administer naloxone to most infants on a routine basis if birth is within 6 hrs of maternal narcotic administration.

78 USING BEHAVIOR THERAPY IN CONJUNCTION WITH PHARMACOTHERAPY IN TREATING HYPERACTIVE CHILDREN. Robert H. Willoughby, (Spon. by Robert M. Blizzard). University of Virginia Medical Center, Department of Pediatrics, Charlottesville, Virginia

Two boys diagnosed as hyperactive received behavior modification aimed toward increasing their compliance behaviors. Prior to, and during this program, both children were on a daily regimen of Ritalin, but both continued to show oppositional behaviors at home. The parents were reluctant to discontinue medication, so it was decided to use behavior therapy in combination with pharmacotherapy. Parents kept daily records of compliance behavior through a two-week baseline period (medication alone), and during a three month intervention period (behavior modification plus medication). Compliance to parental requests increased from an average of 40% on Ritalin alone to an average of 90% when behavior modification was combined with medication.

Accompanying this increase in compliance was significant decrease in parental activity ratings on the Werry-Weiss-Peters Activity Scale. Additional activity ratings obtained three and six months after discontinuing formal contacts with the therapist remained at this level.

It may be concluded from this study that medication was a far more effective agent for producing behavior change when combined with behavior modification, in the two children studied. Moreover, the results from these two cases suggest that medication alone may not be sufficient in treating the behavior problems often evidenced by hyperactive children.