

55 EARLY IDENTIFICATION OF CEREBRAL PALSY IN PRETERM INFANTS. Arthur H. Parmelee, School of Medicine, University of California at Los Angeles, Department of Pediatrics.

In a prospective study of 137 preterm infants, 4 developed cerebral palsy (C.P.): 1 severe, 2 moderate, and 1 mild, as assessed at 2 years. Their birth weights (B.W.) ranged from 1340-2500 gms and gestational ages from 33-36 weeks. The means and standard deviations for the sample were 1927 gms \pm 456 and 33 weeks \pm 3. Very low B.W. and gest. age were not predictors of C.P. and only one C.P. infant had a low B.W. for gest. age.

All C.P. cases were diagnosed by poor motor and adaptive performances on the 9 month Gesell developmental test. All were clinically suspect at 3 to 6 months as were other infants who did not develop C.P. On a 4 month Gesell test all the C.P. cases had performance levels in the lowest 10% (13 cases) of the sample. Since five of these at 2 years are performing at normal developmental levels additional discriminators were needed.

All infants had assessments of obstetric and neonatal complications and a term (FMC) sleep polygraph with EEG. The C.P. infants were in the 35% with the greatest number of obstetric plus neonatal complications and in the half of these with deviant sleep polygraphs. Using this combination of obstetric and neonatal complications assessments and a neonatal neurophysiological measure, the term sleep polygraph with a behavioral assessment at 4 months, the Gesell test, only one other infant besides the C.P. cases was selected. This child is awkward and has some motor delay at 2 years.

56 GENDER AND MEDICAL CAREERS. Ellen M. Patterson, Marjorie L. Gillette and Frank A. Oski. SUNY, Upstate Medical Center, Syracuse, New York.

More women are currently entering medicine and more women select pediatrics as their specialty than any other branch of medicine. Some have expressed a concern that women do not devote as much time to practice as their male counterparts and thus the total number of pediatricians may not accurately reflect the actual number in practice. A survey of male and female graduates during the years 1956-1970 was conducted and compared with data from a similar survey of graduates from the period 1943-1956. Some of the results were:

	1943-1956		1956-1970	
	F	M	F	M
Continuity quotient	83.6	98.4	87.8	99.7
Avg hrs/wk	36.4	58.2	42.5	60.7
Avg annual income (\$1,000's)	11.7	31.6	30.3	39.2
Pediatrics (%)	23.4		35.8	

Although results indicate that women still spend less time in the practice of medicine than their male counterparts and interrupt their careers more frequently, our results indicate that women are devoting more time than previously and the number of women entering residency and post-residency training has increased. Women are also entering a greater variety of medical specialties and are being better paid for their time. The "sexual gap" is narrowing.

57 DEVELOPMENTAL AND NEUROLOGICAL OUTCOME FOLLOWING TREATMENT WITH HEAD CHAMBER CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP). T.H. Pauly, M.D. Cunningham, and N. S. Desai. (Spon. by C.C. Mabry) U. Kentucky, Dept. Ped. Lexington.

The developmental and neurological outcome in infants sustained on head chamber CPAP has yet to be assessed. A pressurized head chamber was used to deliver CPAP to 50 infants with the respiratory-distress syndrome (RDS). Birthweights ranged from 820 gm. to 3880 gm. (mean 2267 gm). CPAP was delivered via plastic head chamber with mean starting pressure of 4.8 cm H₂O and mean peak pressure of 5.4 cm H₂O. There was a 10% (5/50) incidence of pneumothorax. Other complications such as neck ulcers and hydrocephalus did not develop. Overall survival was 46/50 (92.0%). Adequate follow-up has been obtained on 38/46 (82.6%) of surviving infants. Follow-up observations included the Denver Developmental Screening (DDST) and neurological examinations at ages ranging from 6 mo. to 2 yrs. 32/38 (84.2%) had normal DDST and 35/38 (92.1%) had normal neurological examinations. 5 of the 6 infants with abnormal DDST were delayed only in gross motor development. 3 of 5 infants had normal neurological examinations while 2 had mild spasticity. The sixth infant was meconium stained at birth and had neonatal meningitis. He was delayed in all areas of the DDST and had marked spasticity. Ophthalmological examinations on 14/38 (36.8%) were all normal. Audiological evaluations on 20/39 (52.6%) revealed 17/20 (85%) with normal hearing while 3/20 (15%) had mild conductive hearing loss.

We conclude that head chamber CPAP is an effective means for treating RDS with low morbidity and mortality and minimal associated neurological sequelae.

58 PROBLEMS DEFINED BY THE TRANSPORT CONFERENCE IN A RURAL PERINATAL PROGRAM. Alistair G. S. Philip, Jerold F. Lucey, James F. Clapp, and Barbara Chapleau. University of Vermont College of Medicine, Departments of Pediatrics and Obstetrics, Burlington.

One of the major strategies of the Vermont/New Hampshire Regional Perinatal Program has been the "Transport Conference." The purpose of this conference is to return to a community hospital to discuss the total management of mothers and their neonates (both at the community hospital and at the perinatal center). The team from the center consists of a nurse, an obstetrician, and a pediatrician, who meet with their counterparts who provide care at the community hospital. Ten items were found to recur throughout hospitals in the Vermont region.

1. Failure to recognize and refer high-risk mothers.
2. Failure to assess gestational age adequately prenatally (hence premature C. Sections and postmaturity).
3. Failure to give corticosteroids when premature labor noted.
4. Failure to assess the newborn after prolonged rupture of membranes.
5. Inappropriate orders and usage of oxygen.
6. Inappropriate use of sodium bicarbonate.
7. Inappropriate suctioning to prevent meconium aspiration syndr.
8. Recognition of infection, but failing to culture.
9. Recognition of hypoglycemia and pneumothorax, but failing to treat.
10. Failure to liberalize policies when babies referred back to community hospital.

59 THE COST OF LIVING FOR INFANTS \leq 1000 GMS. AT BIRTH. Jeffrey Pomerance, Christina Ukrainski, Tara Ukra, Cedars-Sinai Medical Center (CSMC), Dept. of Ped. and UCLA Sch. Med., Los Angeles (Spon. by B. M. Kagan).

In the 2½ year period between Jan. 1973 and June 1975, 75 infants weighing \leq 1000 gms. at birth were cared for at CSMC. Thirty infants (40%) survived. Nineteen of 27 infants tested (70%) appear to be neurologically and developmentally (Gesell) "normal" at 1-2½ years of age.

Records of hospital charges were available for analysis on 59 of 75 infants (79%). All charges were adjusted to Sept. 1976 rates and corrected for a 94% collection rate. Physician charges represented <5% of the total bill and were not included. Average length of survival for the 45 infants who died was 17 days (range 1-165). Average daily cost for these infants was \$879; average total cost \$15,145 (range \$72-\$124,627). Average length of hospital stay for the 30 surviving infants was 89 days (range 51-194). Average daily cost for these infants was \$479; average total cost \$40,287 (range \$10,744-\$106,050). Percentage breakdown of total cost for all infants was as follows: room charges-43%, ventilator and O₂ support-19%, blood gases-11%, pharmacy-9%, laboratory-8%, central supply-5%, x-ray-4%, miscellaneous-1%.

If the total cost for all 75 infants is used as the basis on which to calculate the cost of survival, then the average total cost per surviving infant was \$61,641. Average total cost per "normal" surviving infant was \$88,059. It is our belief that the outcome justifies this expense. Society, however, must be the ultimate judge.

60 KNOWLEDGE AND TRAINING GOALS OF PRIMARY CARE AND REGULAR INTERNS. J.T. Pozen, J.P. Swasey, J.R. Sorenson, J.J. Alpert, A.S. Cohen, Dept. of Ped. and Med., Boston City Hosp. and Dept. of Socio-Med. Sci., Boston U. Sch. Med.

As part of the long-term evaluation of BCH's primary care residency program, entering interns in pediatrics (N=13) and medicine (N=36) are assessed to see whether there are significant differences between primary care (PC) and regular trainees (PC) as they begin residency. Areas of assessment include cognitive knowledge (scores on the American Board of Pediatrics Pretest Exam, and Parts B and C of the American Board of Internal Medicine's Certifying Exam), and a training goals questionnaire. Aggregating board scores for 3 cohorts (N=147), median distribution analysis shows no consistent differences between PC and PC pediatric interns. For the 3 medicine cohorts, no consistent differences emerged on Part B (factual recall knowledge), while on Part C (patient management) PC interns scored somewhat lower as a group than PC interns. An important finding from the training goals questionnaire (1974,1975) is the high degree of comparability among PC and PC interns, including similarity between cohorts and between departments. One difference was the interest of 17/28 PC medicine interns in subspecialty and research training. These findings tend to contravene the suggestion that those entering primary care have different attitudes and cognitive knowledge than their peers in traditional pathways. Further evaluation will show whether significant differences do develop between PC and PC trainees during their 3-year residency.