●828 FIVE YEARS AFTER THE REPORT OF THE TASK FORCE ON PEDIATRIC EDUCATION - HAVE THINGS CHANGED? Howard L. Weinberger and Frank A. Oski, State University of New York, Upstate Medical Center, Syracuse, New York.

In its 1978 report the Task Force on Pediatric Education recommended a number of changes in residency training programs. These changes included: mandatory 3 years of training; limitation of any one subspecialty area to 6 months; expansion of training opportunities in child development, management of chronic handicaps, and the "New Morbidity," behavioral problems, school failure and adolescent medicine. In an attempt to determine if residency programs have really changed as a consequence of the report, a representative cross-section of residency programs was surveyed and the current content of programs was compared to that in the same institutions in the 1972-1975 era. Changes that were documented included: expansion of house staff numbers by 25-50%, elimination of "pyramid," increase in house staff salary by 60%, increase in vacation time, decrease in night call, increase in mandatory experiences in continuity of care. Little change could be found in the distribution of resident time between out-patient, in-patient, and nursery rotations. Mandatory rotations in adolescent medicine, child development, behavioral pediatrics have not increased as a result of the Report. Despite the Task Force Report, the content of residencies has not yet changed to prepare residents to cope with the "New Morbidity".

829 PEDIATRIC TRAINEES SELF-PERCEPTION OF PERSONALITY TRAITS AND INTERVIEWING SKILLS. EH Wender (spon. by G. Nathenson), Albert Einstein Col Med, Bronx, NY and JR Sargent, U of Utah Col Med, Salt Lake City, UT Improving interview skills is one goal of ped training. We hypothesized that videotape recorded interviews would allow trainees to realistically assess their own style and skill. This study evaluated accuracy and change in interns self-perception following individually precepted videotaped clinic visits over a 6 week period. Self-perception was measured by a self-administered scale consisting of 8 personality traits and 10 interviewing skills identified by polar opposites of each dimension. All interns completed the scale prior to the initial (time 1), and after the last (time 2), precepted session. At time 2, the faculty preceptor assessed the intern using the same scale. Data were available on 16 consecutive trainees. Interns' self-evaluation at time 1 and 2 were compared by an analysis of variance (ANOVA). Significant change in self-perception was noted for the 8 personality traits ($p<.01$) but not the interviewing skills. Preceptors' evaluation was significantly less favorable than trainees' self-evaluation at time 2 along one personality dimension (formal vs. playful, $p<.05$) and 4 interviewing skills (maintaining vs. shifting focus, $p<.01$; clarifying history vs. not, $p<.01$; use of transition statements vs. not, $p<.05$; and empathic vs. not $p<.05$). 5 interns indicating least change in self-perception were most discrepant with preceptors' evaluation. We postulate that this combination indicates little benefit from the training experience. We conclude that videotape recorded interviews improve accuracy of self-assessment in most trainees.

830 OUTCOME OF CHILDREN WITH MULTIPLE SYSTEM ORGAN FAILURE. James D. Wilkinson, Murray M. Pollack, Urs E. Ruttimann, Nancy L. Glass, Timothy S. Yeh, Lynne O. Marquess (Spon by Glenn Rosenquist). Geo. Wash Univ Sch of Med, Children's Hosp Nat Med Cntr, Depts of Peds and Anesth, Wash D.C.

Multiple system organ failure (OSF) in infants and children has not been studied. We hypothesized that (1) severity of illness (mortality) is associated with increasing number of OSFs and (2) the mortality associated with multiple OSF in pediatric patients would differ significantly from adult results. Methods: Physiologic data (pertaining to the C-V, respiratory, neurologic, hematologic, and renal systems) in 831 consecutive admissions to a pediatric ICU were analyzed daily. Criteria for OSF were rigidly defined (e.g. renal failure = BUN > 100, creatinine > 2, dialysis). Results: 467 (56%) of patients had 1 or more OSFs. Mortality increased directly with increasing number of OSFs ($p < .0001$) as follows: 1 OSF (n = 241) = 1% mortality; 2 OSFs (n = 142) = 11% mortality; 3 OSFs (n = 72) = 50% mortality; 4 OSFs (n = 12) = 75% mortality. There were no significant differences in mortality among specific OSFs or combination of OSFs. For the first 10 days of OSF, mortality was not associated with duration of OSF. The independece of mortality and duration of OSF is significantly different from published adult results ($p < .005$). Discussion: Mortality is significantly associated with increasing numbers of OSFs but not the duration of OSF or specific OSF combinations. The mortality for multiple OSF in pediatric patients is significantly less than in adults. Results of studies in adults ICU patients do not necessarily apply to pediatric patients.

831 GROWTH EXPECTATIONS AMONG PARENTS AND PATIENTS PRESENTING WITH SHORT STATURE. DM Wilson, PM Duke, LA Rountree, RL Hintz, RG Rosenfeld, Stanford University Medical Center, Department of Pediatrics, Stanford, CA.

Concerns regarding growth and adult stature are frequent pediatric complaints. To evaluate patient and parental estimates of current and expected stature among children presenting with a chief complaint of short stature to our pediatric endocrine clinic, we mailed a questionnaire to 101 consecutive families (patients 1-18 yr, 23 female, 78 male). Patients 11 yr and older (57) completed a similar questionnaire. When indicated, bone ages were obtained (47) and adult heights predicted (PAH). Parent and patient estimates of the child's current height (H) were very accurate (parent, r=0.99; patient, r=0.90) and their assessments of the child's H percentile (%ile) for age were moderately accurate (parent r=0.42; patient r=0.70). Parental estimates of the lower limit of normal adult H averaged 167.4±6.5 cm (±SD) for males and 154.5±8.0 cm for females (both at the 11th %ile for normal adult H) while estimates by the patient were somewhat lower at 165.6±11.3 cm for males (7th %ile) and 147.3±14.6 cm for females (1st %ile). The H desired for the child, expressed by parent or patient, clustered near the average normal adult H. Parent and patient estimates of the child's final adult H did not correlate with the PAH, however, with more parents underestimating final adult H then overestimating it. In general, both parents and patients accurately estimate the child's current H and appear to have an appropriate perception of normal H. However, their expectations of ultimate H are distorted, indicating the need for counseling on the range of normal growth patterns.

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● 832 IDENTIFICATION AND CLONING OF GENES RESPONSIBLE FOR MULTIPLE DRUG RESISTANCE H.T. Abelson, I.B. Roninson, N. Howell, P. Gros, A.J. Varshavsky, and D.E. Housman, Dana-Farber Cancer Institute, Boston, MA 02115 and Massachusetts Institute of Technology, Cambridge, MA 02139

A major obstacle in the successful treatment of malignancies is the emergence of drug resistance. We have chosen a Chinese hamster model system to study the gene(s) responsible for multiple drug resistance and the mechanisms by which they arise. To analyze DNA rearrangements, we used adriamycin(ADR)-resistant subclones of V79 cells, 77A and LZ which are resistant to a 5-fold or 3000-fold concentration respectively of ADR relative to V79, and C5, a colchicine-resistant subline of CHO cells which is cross-resistant to a 150-fold concentration of ADR. DNA from these lines was assayed for the presence of amplified sequences by a novel in-gel renaturation technique (I.B. Roninson, Nuc. Acids Res. 11:5413, 1983). Both LZ and C5 cells contain amplified DNA fragments, a subset of which were commonly amplified in these two independently selected lines, thereby suggesting that they contain the gene(s) responsible for a common mechanism of drug-resistance. We have cloned one of the commonly amplified fragments and shown that the degree of amplification of this fragment correlated with the degree of drug resistance. We have also used this fragment as a probe to isolate several phage clones from a genomic library of LZ DNA. Transcription of these clones is being analyzed. We are currently extending these studies to include an analysis of DNA from newly diagnosed and relapsed patients with leukemia.

833 A TISSUE CULTURE ASSAY FOR NEUROBLASTOMA DIAGNOSIS. F. E. Abrams, J. H. Feusner, J. A. Peterson, K. K. Matthay[1], and R. L. Ceriani (Spon. Bertram Lubin) Bruce Lyon Mem. Res. Lab., Children's Hosp. Med. Ctr, Oakland, and [1]Univ. Calif., San Francisco, San Francisco, CA.

A tissue culture assay has been used in our laboratory to establish a quick and accurate diagnosis of neuroblastoma in children. Neural process outgrowth from samples of tumor or bone marrow aspirate (BMA) grown on tissue culture plastic is considered diagnostic of neuroblastoma. We have applied this technique to the analysis of 19 specimens taken from 16 pediatric patients. Four samples developed long neurites in culture. Of these, light microscopic analysis of one tumor and two BMAs were positive for neuroblastoma; another BMA was initially negative, although microscopic evidence for neuroblastoma in bone marrow was demonstrated in this patient within a few months. In this latter case neuroblastoma spread to bone marrow was determined first by this method. In 13 samples neurite outgrowth did not occur. In 8 of these cases, non-neuroblastoma neoplasms were diagnosed. The remaining five samples were from neuroblastoma patients, although no evidence of neuroblastoma cells in the four BMAs and one pleural effusion was demonstrated by light microscopy. Two tumor samples failed to grow in culture. We conclude that the tissue culture assay offers a quick and accurate determination of neuroblastoma infiltration of affected tissue. This procedure additionally offers a means of collecting tumor samples and developing cultures for the testing of other new diagnostic procedures for small round cell tumors.