

682 COMPUTER-BASED MANAGEMENT OF A PEDIATRIC SUBSPECIALTY CLINIC. Ernest M. Post, Roger E. Spitzer, and Robert A. Richman. SUNY Upstate Medical Center, Department of Pediatrics, Syracuse, New York.

To improve patient care and reduce the time required for administrative functions, we developed a computerized system for our Pediatric Endocrinology Clinic. Using a Hewlett-Packard 9845A mini-computer, we store background data and add new information accrued at each patient contact. We maintain a tabular record of past, current, and pending data for each patient and enter test results as they are received. Prior to each weekly clinic, we enter the names or hospital numbers of the scheduled patients into the computer and generate a patient list. For each patient the computer prints a customized guide sheet by assembling selected skeleton sentences from a list stored in memory. The subset of sentences chosen for each patient is retained, but can be modified as desired. The guide sheet instructs residents and students by highlighting the pertinent aspects of the history and physical examination and also serves as the draft of the letter to the referring physician. After the patient visit, we enter new findings, diagnoses, tests and treatment plans into the computer. A preliminary letter is printed and reviewed before the computer types the final copy on letterhead stationery. Implementation of this system has enhanced our ability to evaluate our patients, provided a new teaching instrument and reduced the time consumed by administrative tasks. It is applicable to other clinical settings and the programs, written in BASIC, can be adapted to equipment costing less than \$5,000.

683 ANTIBIOTIC USE IN PEDIATRIC PATIENTS IN A CITY HOSPITAL. Madu Rao, Vincent Ahonkhai, Minerva S. Victoria and Phillip Steiner. (Spon. by Senih M. Fkriq)

A four year prospective study (1977-1980) was done at Kings County Hospital, Brooklyn, to assess the impact of education of house officers and attending staff on the appropriateness of antibiotic usage in children on the pediatric medical wards. During the study, in the month of March every year charts were reviewed of children in whom antibiotics were used. In 1977, 30.9% of all admissions had antibiotics used. In these children 46.9% were judged as having antibiotics "not indicated". An intense educational program for the pediatric staff ensued consisting of lectures, chart audits and visits to the institution by at least two visiting professors in infectious diseases. As the table shows, in 1978 not only was there a significant reduction of antibiotic usage, there also was a significant decrease in the number of children in whom the antibiotics were "not indicated". Further, this significant improvement continued into 1979 and 1980. The study has been very gratifying in terms of house staff education and also the value of cost effectivity in the use of antibiotics in a city hospital

	1977	1979	P	1979	1980
Total No. of admissions	207	385		462	280
Number of children on antibiotics	64	59	<0.001	78	42
Antibiotics "not indicated"	30.9%	15.3%		16.8%	15.0%
Antibiotics	30	15	<0.001	12	5
"not indicated"	46.9%	25.5%		15.4%	12.0%

684 PRIMARY CARE TRAINING: A MULTI-SITE DATA COLLECTION SYSTEM - Alan A. Rozycki, M.D., Denise Polivy (Spon. by Saul Blatman, M.D.) Dartmouth Medical School, Dept. of Maternal and Child Health, Hanover, N.H.

Systematic data collection of residents' ambulatory encounters provides a mechanism for individual resident performance assessment, site evaluation, and educational program development based on the actual experience of residents in various settings. Although involvement at multiple sites can hinder standardized data collection, the Pediatric Primary Care Residency Program at the Dartmouth-Hitchcock Medical Center (DHMC) has implemented a multi-site system that collects data at the Program's four types of ambulatory settings - the DHMC ambulatory facility, rural pediatric private practices, rural child health programs, and the emergency department (ED).

Because all residents see patients at DHMC, the standard charge sheet was modified and adopted as the data collection tool for all sites. Entry and processing are contracted to the Cooperative Information Project of the Department of Community and Family Medicine, Dartmouth Medical School, a consortium of practices in Maine, New Hampshire, and Vermont whose goals concern development of innovative programs in practice management, quality assurance, medical education, and clinical cost-effectiveness research.

The data assist staff and faculty in the management and evaluation of the program by displaying the range and depth of trainees' experiences at the various sites. In addition, linkage to the COOP Data Project provides comparison of resident encounters with those of pediatricians in private practice in rural New England.

685 ACCIDENTAL INJURIES TO CHILDREN AND YOUTH IN RURAL FLORIDA. Martin L. Schulkind and Allan W. March,* Department of Community Health and Family Medicine, University of Florida College of Medicine, Gainesville.

In order to develop an accident prevention program for children, a review of injuries occurring in children seeking care at 3 North Florida rural health clinics was made. The clinics are located in 3 medically underserved rural counties and serve as their only medical facilities. The nearest full-service hospital emergency room is 30 miles from one clinic, and over 50 miles from the other two. The records of 230 children treated during the 4-month period were reviewed.

Of the 258 injuries or accidents reported, 2 were fatal. The most common non-fatal injuries were lacerations (30%), contusions (16%), sprains (12%), head injuries (10%), fractures (9%), and abrasions (7%). A miscellaneous group of injuries accounted for 18% of the accidents.

Accidents occurred more often in males (65%) than females (35%); 2% occurred in 0-1 year olds, 17% in 1-4 year olds, 20% in 5-9 year olds, 41% in 10-15 year olds, and 20% in 16-21 year olds. These accidents occurred most frequently while they were at play (50%); 10% occurred at work, 15% at school, 6% in auto accidents, and 19% of miscellaneous causes. 15% of the accidents resulted from athletic activity; of these 31% occurred in organized sports, 48% in physical education classes, and 21% in unsupervised athletics. A comprehensive accident prevention program will be presented to this selected group of children and youth and their parents for the purpose of reducing injuries.

686 CHILDREN AND YOUTH WITH RECURRENT INJURIES. Martin L. Schulkind and Allan W. March,* Department of Community Health and Family Medicine, University of Florida College of Medicine, Gainesville.

In a study initiated to identify causative factors for recurrent trauma in rural children and youth the charts of 51 patients treated at 3 university affiliated rural health clinics were reviewed. The patients selected had had 3 or more injuries occurring within the previous 5 years.

Of these injured children 7.8% were 1-4 years old, 11.8% 6-10, 41.2% 11-15, and 39.2% 16-21. Of the patients, 80.4% were male while 19.6% female; 86.3% were white and 13.7% black. There was a total of 244 incidents of injuries sustained by these patients during the study. Twenty-two injuries were fractures, 6 dislocations, 5 sprains, 11 head injuries, 56 lacerations, 56 contusions, 17 abrasions and 26 were other types including puncture wounds, eye injuries, burns, toxic substance ingestions, exposures to toxic chemicals, gunshot wounds, joint effusions, and ear drum injuries. The injuries occurred during these activities: 11 at work, 72 at school, 48 during competitive athletics, 24 in physical education classes, 18 in unsupervised athletic competition, 73 at play, 9 in automobile accidents, 7 in motorcycle accidents, 4 in bicycle accidents, and 23 in activities such as walking, stepping on glass, falling out of non-moving vehicles and windows, fingers caught in doors and windows, dropping objects on extremities, horseback riding and tending a fireplace.

A program to prevent recurrent injuries in these children which will include psychosocial as well as general education counseling is being developed.

687 OTITIS MEDIA WITH EFFUSION (OME): NATURAL COURSE IN UNTREATED CHILDREN. Richard H. Schwartz, Daniel M. Schwartz & Wm. J. Rodriguez.

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OME is observed in approximately 50% of patients after acute otitis media (AOM). Since concern about future dysfunction may lead to intervention such as tympanostomy tubes, it is important to gain information on the natural course of OME following AOM. To ascertain the frequency and duration of OME, 200 children < 5 years of age (110 boys and 90 girls) with AOM were enrolled in the study. All had: (1) normal tympanic membranes in the 6 weeks (w) preceding AOM; (2) OME after a 10-14 day course of antimicrobial therapy; and (3) pneumotoscopic and/or tympanometric follow-up for 16w after OME was noted. After antimicrobial therapy for AOM, 51% of children had OME. Examination at 2w intervals revealed a steadily decreasing number of children with OME: 4w, 46(23%); 6w, 30 (15%); 8w, 26 (13%); 12w, 19 (9.5%). By the end of a 4-month follow-up, OME was observed in only 12 patients (6%). The rapid resolution noted in these patients without antecedent longstanding OME suggests that in most instances OME is a self-limiting condition. However, consistent follow-up is necessary to identify those at risk for prolonged persistence of OME.