13 NEGLIGIBLE RISKS IN MANAGEMENT OF THE SUICIDAL TEENAGER ON A GENERAL ADOLESCENT UNIT. Andrea M. Marks (Spon. by Michael I. Cohen). Albert Einstein Coll.Med. Montefiore Hosp. & Med. Ctr., Dept. Peds., The Bronx, NY.

Suicide is a leading cause of death among adolescents. Despite the serious implications, little agreement exists as to the most appropriate management of the teenager who presents for acute care after surviving a suicide attempt. Since 1968, we admit all teenagers to a general medical adolescent in-patient unit for management and evaluation of their suicidal behavior. A review of the first 100 admissions was undertaken to determine the efficacy of this practice. The mean age of the patients was 16, 70% female. Ingestions accounted for 95% of attempts. During an average 6-day hospitalization, 12 patients required constant nursing observation for more than one day, while an additional 6 received tranquilizing medication. These patients caused no major disruption on the unit, and 82 adapted rapidly and unobtrusively to expected routines. Only 12 patients required subsequent transfer to in-patient psychiatric facilities because of an underlying psychosis and/or continued suicidal ideation. No successful suicide attempts or self-abusive acts occurred during this initial non-psychiatric hospitalization. Admission served both as an opportunity for the adolescent to "cool off" and for behavioral and social evaluation relevant to subsequent care. From this experience we believe that hospitalization on a general adolescent unit for survivors of suicide attempts 1) is safe; 2) permits meticulous medical care for poisoning; 3) usually adds no cost (special nursing) to ordinary hospital care; and 4) provides a stabilizing influence following a major life crisis.

14 EXERCISE PERFORMANCE OF ADOLESCENTS WITH ESSENTIAL HYPERTENSION. Dov B.Nudel, Norman Gootman, Sandra Brunson, Ronald I.Shenker, Bernard G.Gauthier and Alex Stenzler. SUNY at Stony Brook, Health Sciences Center. Long Island Jewish-Hillside Medical Center, Department of Pediatrics, New Hyde Park, N.Y.

Eight adolescent patients, 7 boys(15-19 yrs.) and a 13 y. old girl with essential hypertension of 1-5 years duration(mean 3 y.) were studied. Blood pressure(BP) ranged 150-170/95-110 at rest and none received any medication. Simple progressive exercise on a bicycle ergometer with increments of 25 Watt(W) every minute were performed until limited by fatigue. Expired air was measured with a pneumotach and integrated to minute ventilation. Fractional concentration of mixed expired gas was analyzed with a rapid responding O_2 analyzer. Oxygen consumption was calculated from the minute ventilation(STPD) and mixed exhaled O_2. Seven patients reached $\geq$95% of predicted maximal heart rate. Maximal systolic BP ranged 165-240mm Hg.(mean 199). Diastolic BP increased in 1, did not change in 5, and decreased in 2. Maximal working capacity(Wmax) ranged 150-200 W. Maximal oxygen uptake (MVO_2) was 2060 ml/min in the girl and 2535-3464 ml/min(mean 3072) for the boys(mean MVO_2 41.6 ml/kg/min). Anerobic threshold (AT) occurred at 100-175 W(mean 134) which was 50-88% of Wmax (mean at 81%). None of the patients had chest pain or ECG abnormalities. These preliminary data suggest that, in the majority, BP does not rise to very high levels, strenuous exercise can be permitted but Wmax is at the low normal range in spite of normal AT.

15 RELEASABLE INTRAGONADOTROPE POOLS IN NORMAL AND AGONADAL CHILDREN. E. O. Reiter, A. W. Root, and G. E. Duckett. Dept. Ped., Univ. So. Fla., Tampa, and All Children's Hospital, St. Petersburg, Florida.

LHRH evokes biphasic LH release in mature subjects but not in prepubertal children. To further examine the nature of pituitary LH and FSH secretion and sex steroid (E_2, T) modulation of early (I) and later (II) releasable gonadotropin pools, 100 µg synthetic LHRH was infused for 3 hr into 51 prepubertal (PRE) and 44 pubertal (PUB) children and 8 agonadal (Ag) girls (>11 yrs). A maturity-related LH increment (no sex difference) occurred. The ratios of I to basal (B) period increased from 2.2 in PRE to 4.8 in PUB ($p < .001$) while II/B increased from 4.8 in PRE to 10.6 in PUB ($p < .001$), suggesting a puberty-associated augmentation of the early and especially the late releasable LH pool. In contrast, for FSH, I and II are greater in the PRE than PUB with significantly more secretion in girls than boys. In girls, I/B fell from 5.6 in PRE to 2.6 in PUB and II/B from 15 in PRE to 3.4 in PUB ($p < .001$). Pool sizes and ratios to B correlated positively for LH and negatively for FSH with basal levels of E_2 in girls and of T in boys. In Ag, basal LH and FSH secretion was 10-20 fold greater than in PUB, with parallel LHRH-evoked responses. In contrast to normal children, a relatively greater increment occurred in pool I in Ag after LHRH. Conclusions: 1) Biphasic LH secretion, with a greater increment of II than I, was more apparent in PUB than PRE; 2) LHRH-evoked FSH secretion is greatest in PRE girls with a large pool II; 3) E_2 and T levels correlate with the releasable LH and FSH pools; 4) Ag have preferential augmentation of basal and pool I secretion.

16 *N-ACETYLCYSTEINE THERAPY OF CHILDHOOD ACETAMINOPHEN OVERDOSE.* *Barry H. Rumack and Robert G. Peterson (Spon. by F. C. Battaglia) Univ. of Colorado Med. Ctr. Department of Pediatrics, Denver.*

573 cases of acetaminophen (APAP) ingestion (277 in children under 5 years) have occurred in the Rocky Mountain Region. There were four deaths, all in the adolescent age group, prior to 1976. A multiclinic open national study of N-acetylcysteine (NAC) therapy of APAP overdose since Sept., 1976 has resulted in 88 cases of APAP ingestion in the less than 5 year old. Of these, only 16 had taken more than 140mg/kg by history and would be considered to be at risk for toxicity. Two of these children, in fact, had evidence for toxicity by SGOT elevation and toxic plasma level.

Adolescents and young adults, in contrast, contributed 146 cases of APAP overdose with 56 cases in the 12 to 16 year group and 90 cases between the ages of 17 and 21 years. These cases were divided according to time following ingestion and first NAC dose as: I- 0 to 10 hours; II- 10 to 24 hours; and III- no NAC therapy. The data regarding peak SGOT values (IU/L) in each group are given below.

AGE (YEARS)	*TOXIC*			*NON-TOXIC*
	I	*II*	*III*	
12 - 16	*136±46*	*2310±910*	*1126±367*	*30±3.5*
(N)	*(15)*	*(12)*	*(3)*	*(26)*
17 - 21	*310±161*	*2626±618*	*3255±1446*	*27±2.1*
(N)	*(17)*	*(14)*	*(7)*	*(52)*

17 RISK-TAKING ATTITUDES AND BEHAVIOR IN HEMOPHILIAC AND NON-HEMOPHILIAC ADOLESCENT BOYS. Karen Russ and Glen S. Bartlett (Spon. by Nicholas M. Nelson). Penn State Univ Coll Med, M. S. Hershey Med Ctr, Dept Ped, Hershey, PA.

To evaluate the clinical impression that hemophiliac boys express a high level of interest in physical activities associated with a significant risk of major bleeds, a self-administered questionnaire was given to 17 hemophiliac (HPH) boys 11 to 19 years of age in a state hemophilia program and to 17 age-matched non-HPH (Control) boys at the same clinic. Scores for risk-taking attitudes (ATT), anticipated risk-taking behavior (ANT), and the likelihood of carrying out the behaviors (ACT) were calculated for 23 activities.

HPH boys neither express greater risk-taking attitudes (HPH ATT = 4.0, Control ATT = 4.9, ns), anticipate greater risk-taking behavior (HPH ANT = 3.4, Control ANT = 3.5, ns), nor are more likely to carry out the behavior (HPH ACT = .59, Control ACT = .64, ns). In contrast, HPH 15-19 years old appear more likely than younger HPH (11-14 years old) to carry out risk-taking behaviors (HPH: 15-19 ACT = .34, HPH: 11-14 ACT = .82, p .10) but are no more likely than Controls 15-19 to do so (HPH: 15-19 ACT = .34, Control: 15-19 ACT = .59, ns).

Hemophiliacs appear more likely to carry out greater risk-taking behavior as they get older, although they express no greater overall risk-taking than do control adolescents.

18 LONG-TERM FOLLOW-UP RESULTS IN CHILDREN AND ADOLESCENTS TREATED WITH RADIOACTIVE IODINE (131I) FOR HYPERTHYROIDISM. O. Peter Schumacher and Ali M. Safa (Spon. by William M. Michener). The Cleveland Clinic Foundation, Department of Endocrinology and Metabolism, Cleveland, Ohio.

The choice of treatment for Graves' disease in children has been controversial in recent years. 131I has been used in a limited number of children in adolescence with thyrotoxicosis. Our last complete report was published in The New England Journal of Medicine in January, 1975 on 87 cases. The purpose of this study was to evaluate the long-term results of 131I therapy in children. Patients younger than age 19 years treated over the last 28 years with a follow-up of 5 and more years were studied. There were 133 such patients who were treated at the Cleveland Clinic between October 1949 and December 1972. All but 2 were last evaluated within 2 years. The reproductive history of all patients was evaluated. Approximately one-half of the patients were married and had children. 108 of these children were examined. There was no difference in the fertility of patients compared with the normal population and their children were normal. The majority of patients were clinically euthyroid but were so because of taking thyroid replacement. Recurrent goiter was due to Hashimoto's thyroiditis. We feel that adequate doses of thyroid hormone replacement should be prescribed for life. In the absence of problems with this therapy, it may be that 131I will soon be the preferred treatment for children.