A COMPUTER ANALYSIS OF PATIENT ACTIVITY AND BLOOD PRODUCT USAGE IN COMMUNITY HOSPITAL HEMOPHILIA PROGRAM. R.A. Lipton and J. Chin. Long Island Jewish-Hillside Medical Center. New Hyde Park, New York, U.S.A.

This program evaluation assessed utilization of blood products and hospital services in 1975. One hundred eight hemophiliacs, 10 (0-4 years), 37 (5-12 years), 21 (13-18 years), 24 (19-30 years), 16 (30 years and over); 73 (Factor VIII), 20 (Factor IX), 12 (Von Willebrand's Disease), and 3 (Factor XI) were categorized as to their severity and their primary treatment mode: Home Care Prophylactic, Home Care Episodic, Hospital-based Prophylactic, and Hospital-based Episodic Care. The results showed that the major user of hospital services was the child, 5-12 years. Hospital-based patients used more hospital based services, i.e., emergency room, comprehensive clinic, and dental non-surgery than did home based patients. In terms of factor unit consumption per kilogram body weight, prophylactic patients used the greatest amount of blood product. Children on prophylaxis missed less school but adults on prophylaxis did not miss less work. Children on hospital modes of care utilized this medical service less in the summer than did their peers on home based care. These results provided direction for planning future programs and staffing. They suggest a need for increasing surveillance of Home Care patients to maximize their participation in certain hospital based services. The unexpected finding of decreased hospital based care during the summer warrants further study. The results suggest considering prophylactic modes of care in school aged children.

FLUCTUATIONS IN FACTOR VIII PROCOAGULANT, ANTIGEN AND VON WILLEBRAND FACTOR IN NORMAL INDIVIDUALS. H.C. Yang and C. Vaudreuil. The Memorial Hospital and The University of Massachusetts Medical School, Worcester, Massachusetts, U.S.A.

Fluctuations in the relationship among factor VIII procoagulant (VIIIC), factor VIII antigen (VIIIAG) and von Willebrand factor (vWf, ristocetin cofactor) were studied in two normal females (A&B) and one normal male (C). Biweekly fasting morning plasma samples were obtained over a three week period and assayed on 2 different days. The mean VIIIC/VIIIAG, VIIIC/vWf and VIIIAG/vWf ratios were not significantly different from each other ($p>.05$) in each of the subjects. However, there were marked day-to-day changes in the three ratios as indicated by the ranges.

		VIIIC/VIIIAG	VIIIC/vWf	VIIIAG/vWf
A	Mean ± S.D.	1.032 ± .158	0.871 ± .209	0.887 ± .109
B		0.951 ± .130	0.814 ± .133	0.830 ± .064
C		0.888 ± .186	0.671 ± .115	0.818 ± .064
A	Range	0.761 - 1.180	0.609 - 1.049	0.800 - 1.069
B		0.621 - 1.068	0.563 - 0.822	0.706 - 0.906
C		0.707 - 1.070	0.586 - 0.978	0.734 - 0.889

The results demonstrate that although the ratios among factor VIII procoagulant, factor VIII antigen and von Willebrand factor are relatively fixed, there are significant day-to-day fluctuations.

A FAMILY WITH AN UNUSUAL FORM OF FACTOR VIII DEFICIENCY. G. K. Dreher, C. A. Hall and W. J. Dodds. Albany Medical College, Albany, New York, and Division of Laboratories and Research, New York State Department of Health, Albany, New York, U.S.A.

The propositus presented with post-traumatic and post-surgical bleeding suggestive of mild hemophilia. The factor VIII level was 21%; the bleeding time and platelet function assays were normal. Although 6 other male family members had similar bleeding histories, coagulation workups had not been performed on these or other relatives. Forty-three members were therefore studied in detail with the following findings: (1) factor VIII levels varied from 7.5-85% (mean - 36%) among affected males. (2) normal factor VIII-related antigens, factor IX and XI levels, and prothrombin complex activities. (3) much better correlation between bleeding histories and degree of prolongation of activated partial thromboplastin times than factor VIII activities. (4) inheritance that appears to be X-linked except that 6/6 grandsons of a carrier woman were affected, whereas 0/4 daughters of affected men had decreased factor VIII activity. These results are only partially consistent with a diagnosis of classical hemophilia A and suggest a variant form of hereditary factor VIII deficiency.