

AHCDC Rare Inherited Bleeding Disorder Subcommittee Annual Report 2003-2004

Subcommittee Members

Drs. John Wu (Co-Chair), Margaret Rand (Co-Chair), Victor Blanchette, Christine Demers, Sara Israels, Walter Kahr, Brian Luke, Man-Chiu Poon, Linda Vickars, and Irwin Walker, and Ms. Pat Klein (Nurse Representative)

Data Manager

Ms. Dewi Clark

Established

2002

Background and Mandate

Inherited bleeding disorders other than Factor VIII and Factor IX deficiencies and von Willebrand disease can cause major health impairment and even death. Very little is known about the nature and optimal management of these disorders because of their low prevalence in the population. This subcommittee was established with the **mandate** to:

1. better understand these disease entities
2. enhance the delivery of comprehensive care
3. set up management guidelines
4. provide education
5. ensure the safety of product supply
6. further basic and clinical research on individuals with these disorders.

Progress and Future Plans

Following the pilot survey of coagulation factor deficiencies (Factor VIII, Factor XIII) and a platelet function disorder (Glanzmann thrombasthenia) in 2002, a full survey was done in 2003, that included a-/hypo-fibrinogenemia; deficiencies of prothrombin, Factors V, VII, X, XI, XIII, and α_2 -antiplasmin; combined deficiencies of Factor V & VIII; and Vitamin K-dependent factors, in terms of **coagulation factor deficiencies**, and glycoprotein deficiencies (Glanzmann thrombasthenia, Bernard-Soulier syndrome); storage pool deficiencies (gray platelet syndrome, Quebec platelet disorder, dense (δ) granule disorder, Hermansky-Pudlak syndrome, Chediak-Higashi syndrome, $\alpha\delta$ -granule disorder); familial thrombocytopenias (Wiskott-Aldrich syndrome, Fechtner syndrome, Sebastian syndrome, Epstein syndrome, Montreal platelet syndrome, May-Hegglin anomaly, undefined familial thrombocytopenias); and other, in terms of **platelet function disorders**.

This past year, with the help of Dr. Irwin Walker and Cecilia Stiles, upgrades have been made to CHR to allow entry of the disorders, and 338 patients with coagulation factor deficiencies and 179 patients with platelet function defects have now been entered. Of the patients with coagulation factor deficiencies, 44 (13%) have decreased fibrinogen (4 severe, 11 moderate, 14 mild, 15 unknown); 5 (2%) have decreased FII (1 moderate, 3 mild, 1 unknown); 11 (3%) have decreased FV (1 severe, 1 moderate, 6 mild, 3 unknown); 100 (30%) have decreased FVII (26 severe, 14 moderate, 59 mild, 1 unknown); 19 (6%) have decreased FX (1 severe, 3 moderate, 13 mild, 2 unknown); 120 (36%) have decreased FXI (5 severe, 9 moderate, 56 mild, 50 unknown); 38 (11%) have decreased FXIII (18 severe, 5 moderate, 7 mild, 8 unknown); and 1 has mildly reduced levels of both FV and FVIII. Of the patients with platelet function disorders, 37 (21%) have glycoprotein deficiencies (Glanzmann thrombasthenia: 29, Bernard-Soulier syndrome: 8); 34 (19%) have storage pool deficiency (gray platelet syndrome: 2; dense granule disorder: 18; Chediak-Higashi syndrome: 1; Hermansky-Pudlak syndrome: 5; empty sack syndrome: 1; release defect: 5; unknown storage pool deficiency: 2); 15 (8%) have familial thrombocytopenia (undefined); and 93 (52%) have another disorder (Ehlers-Danlos syndrome: 5; Noonan syndrome: 4; undefined: 84). An abstract describing these results will be submitted for presentation at the upcoming WFH meeting in Thailand. As well, these data will be posted on the CHR website imminently. CHR numbers will be distributed to Centres within the next month, and well as requests for validation of data. Diagnostic algorithms for platelet function disorders will be developed and posted.

Upgrades to CHARMS by Cecilia are almost completed, and this will allow for collection of patient data real time.

Other future plans include generating evidence-based management guidelines; summarizing our data for publication; encouraging basic and clinical research; and providing data for product usage.