

AHCDC Rare Inherited Bleeding Disorders Subcommittee Annual Report - 2009

Subcommittee Members

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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. Because most of these abnormalities, that encompass rare coagulation factor deficiencies and platelet function disorders, are rare, less is known about their natural history and optimal management. This Subcommittee was established with the **mandate** to:

1. better understand these disease entities
2. enhance delivery of comprehensive care
3. establish management guidelines
4. provide education to patients and health care providers
5. promote safety of product supply
6. further basic and clinical research directed at these disorders.

2008-2009

Following the success of a pilot survey in 2002, the Rare Inherited Bleeding Disorders Registry (RIBDR) was established in 2003 to allow tracking of patients in Canada with rare inherited bleeding disorders, i.e. inherited bleeding disorders other than Factor VIII and Factor IX deficiencies and von Willebrand disease. There are presently 1307 patients in the RIBDR, 746 with coagulation factor deficiencies and 561 with platelet function disorders; these results are posted on the Canadian Hemophilia Registry (CHR) website (www.fhs.mcmaster.ca/chr/; also accessible via the AHCDC website), with the 2009 update to be made imminently. (See Figure 1 for a summary of accrual of patients into the RIBDR since its inception and Table 1A and B for a summary of RIBDR patients as of March, 2009.)

As in previous years, the latest round of CHR numbers were sent to Centres along with requests for validation of existing data and registration of newly diagnosed patients; this e-mailing was done in the spring of 2009 by our Data Manager. Responses from the Centres resulted in increased accuracy of data and an 8% increase in registered patients over 2008. Upgrades had been made to CHARMS in previous years to allow for collection of data on patients with inherited coagulation factor deficiencies as well as platelet function disorders. Registry forms for both coagulation factor deficiencies and platelet function disorders are available on the CHR website.

Subcommittee material is posted on the AHCDC website under the Research sidebar, Rare Inherited Bleeding Disorders: updated diagnostic criteria for rare inherited platelet function disorders; and English and French versions of the second edition of "Disorders of platelet function. An information booklet for patients, families and health care providers", co-authored by Drs. S.J. Israels, M.-C. Poon and M.L. Rand on behalf of the Canadian Pediatric Thrombosis and Hemostasis Network. Recently posted is a diagnostic algorithm for platelet function disorders developed by Dr. Israels and now refined by Drs. Israels, Kahr and Rand; feedback on the algorithm will be welcome. A succinct guide for the use of the algorithm, along with further details on, for example, bleeding scores, blood films, platelet aggregation studies, etc., will be developed in the coming year.

Laboratories are being identified that can do specialized testing, including mutational analysis on specific coagulation factors and on platelet proteins.

In recognition of the rare inherited bleeding disorders, the Canadian Hemophilia Society held a National Workshop on "Living with a Rare Bleeding Disorder" on November 14-16, 2008 in Montreal, with 40 patients/parents of pediatric patients in attendance. The Workshop consisted of presentations by experts in the field, panel presentations by patients/parents of pediatric patients, and round table discussions/break out sessions facilitated by experts. Subcommittee Co-Chairs Drs. Wu and Rand presented on "Clinical Presentation and Consequences" and "The Canadian Rare Inherited Bleeding Disorders Registry", respectively, and facilitated a round table discussion on "Treatment of Rare Bleeding Disorders". The Workshop, the first of its kind, was very well received and appreciated by the community of Canadian patients/parents of patients.

To optimize classification of patients with the rare inherited coagulation factor deficiencies, Subcommittee members are working with international experts, including Drs. Paula Bolton-Maggs, Flora Peyvandi and Amy Shapiro, to establish an International Working Group in the Rare Inherited Bleeding Disorders that will address this and other unresolved issues concerning the disorders.

Other plans include: summarizing data for publication; generating evidence-based management guidelines; encouraging research, both clinical and basic; and providing data for product usage. Participation in international registries continues to require consideration/discussion.

Figure 1. Number of RIBDR patients, 2002-2009

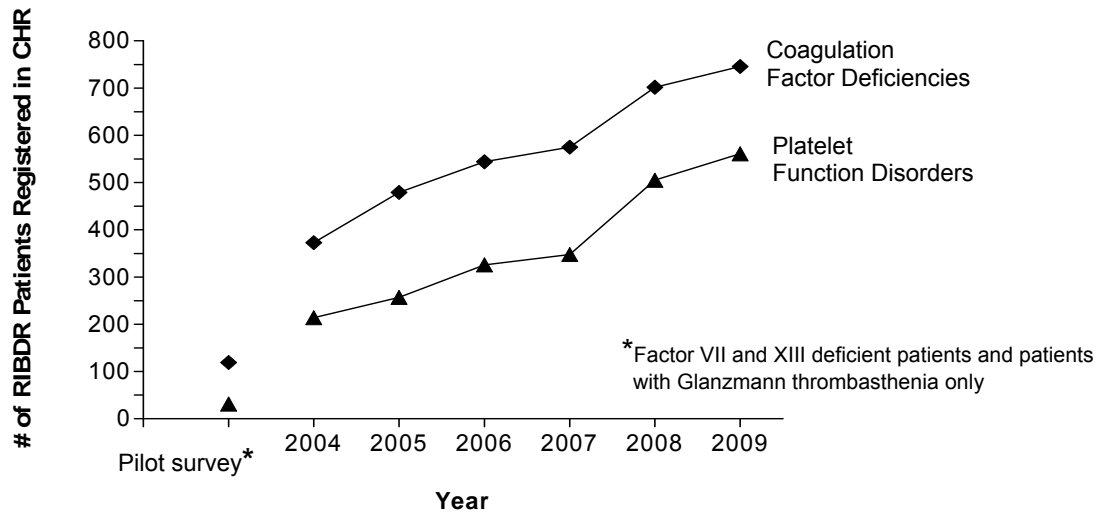


Table 1. RIBDR Patients as of March, 2009

A. Patients with Coagulation Factor Deficiencies (n=746)

Disorder	Total # of patients	Factor level			
		<1%	1-5%	>5%	Unknown
Dysfibrinogenemia	22	1	0	5	16
Factor I	73	8	24	26	15
Factor II	8	1	1	4	2
Factor V	45	5	3	31	6
Factor VII	220	31	26	159	4
Factor X	30	1	8	21	0
Factor XI	293	24	34	218	17
Factor XIII	50	32	6	6	6
Factor V/VIII	5	0	0	5	0

B. Patients with Platelet Function Disorders (n=561)

Glycoprotein deficiencies 76

Glanzmann thrombasthenia	49	Bernard-Soulier syndrome	27
Thromboxane receptor deficiency	0		

Storage granule disorders 106

Gray platelet syndrome	8	Quebec platelet disorder	38
Dense (δ) granule disorder	24	Hermansky-Pudlak syndrome	8
Chediak-Higashi syndrome	1	$\alpha\delta$ granule disorder	0
Empty sack syndrome	2	Platelet release defect	10
Storage pool deficiency undefined	15		

Familial thrombocytopenia 49

MYH9-related disorders	12	Wiskott-Aldrich syndrome	3
Epstein syndrome	1	Familial thrombocytopenia undefined	26
Fechtner syndrome	0		
Sebastian syndrome	0		
May-Hegglin anomaly	7		

Other 330

Noonan syndrome	31	Ehlers Danlos syndrome	7
TAR syndrome	1	Undefined platelet function disorder	291