

**Canadian Hematology Society**  
**Société Canadienne d'Hématologie**



# NEWSLETTER

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**MARCH 2005**

**Canadian Hematology Society**

**Annual General Meeting**

**Metropolitan Hotel, Toronto**

*To be held*

**Friday, 24 June 2005**  
**8:30 am – 5:30 pm**

**Business Meeting: Friday, 5:00 pm**

**Editor Gail Rock**  
**Executive 2003-2005**

President: Armand Keating      Secretary-Treasurer: Sue Robinson  
Vice-President: Pierre Laneuville      Past-President: Gail Rock



**Bayer HealthCare**  
Biological Products Division

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## **President's Message**

### **Armand Keating, MD, FRCP (C)**

Dear Colleagues:

We can all recall events or plans that seemed to be particularly fitting at the time – you know, those that had a “right place at the right time” feeling. I have that sense about the scientific topic of the Annual Meeting of the Canadian Hematology Society to be held this year. I had an inkling in December 2004 when I realized that cord blood transplantation had come of age -from papers in the New England Journal of Medicine and at ASH. The US Congress was more prescient and had already earmarked \$10 million towards the establishment of an umbilical cord blood stem cell bank program for their country. They also commissioned the Institute of Medicine of the National Academies to recommend how this could be best implemented. The IOM report should be available shortly.

In Canada, we have contemplated establishing a national cord blood bank for some time but clinical outcomes after cord blood transplants remained a concern, especially for adults. The picture is now clearer and, I believe, more optimistic. Nevertheless, there are many issues to address: clinical, scientific, ethical, logistical, jurisdictional, financial among them. I hope that many of them will be aired, if not resolved, at the CHS Meeting, which we will conduct in collaboration with the Canadian Blood and Marrow Transplant Group. Internationally recognized experts will be there and we will have the benefit of hearing US, European as well as Canadian perspectives. Leadership from CHS, CBMTG and Canadian Blood Services, among other groups, will be necessary for this to move forward. My friend and colleague, Pierre Laneuville will ably carry this forward on behalf of the Canadian Hematology Society in his role as the incoming president.

And the title of our symposium? *Establishing a National Cord Blood Bank System for Canada*. It will be held on **June 24<sup>th</sup> 2005 in Toronto**. A detailed program will follow soon.

I really look forward to seeing you there.

Cheers, Armand.

[Note from the Nominating Committee – Dr. G. Rock, Past President, Chair](#)

[It is time for nominations for the new CHS executive. Pierre Laneuville will become President in June so we need to nominate a Vice-President. Please send your suggestions/nominations to the Canadian Hematology Society attention Nominating Committee at \[cag@ca.inter.net\]\(mailto:cag@ca.inter.net\) or mail to CHS 206-435 St. Laurent Blvd., Ottawa, ON K1K 2Z8.](#)

**THE CANADIAN STRATEGY FOR CANCER CONTROL ( CSCC )**

*Dr. Graham Pineo, University of Calgary*

The Canadian Strategy for Cancer Control ( CSCC ) had a couple of meetings in January. The first was the Human Resources Action Group(HR-AG) which is made up of four Task Groups..I'm on Task Group 11 on the Supply System. We are all looking at HR issues for the Cancer Work. Force and the news isn't good. Of the cancer care specialties only Radiation Oncologists and Radiation Physicists are in ample supply (about 16% of radiation oncologists go to the US each year because of lack of funded positions). All the rest are in short supply including: hematology ( adult and pediatric), medical, surgical and gyne oncology, oncology nurses and oncology pharmacists. We're not looking at any others. So far for physicians, we have only reviewed those in Royal College programs but including Visa students. As you know about 15-20 hematologists and oncologists come out of training programs each year but not all stay in Canada. This year only 6 are coming into hematology programs. Another group is looking at needs but nobody has got down to "ground level" to accurately determine who is where, how old, job description, etc. to have a handle on our actual needs. As you will see the CMA/RCPS Task Force 2 is not going to do that.

The CSCC held a large meeting in Aylmer on Jan. 31 involving more than 100 cancer advocates and made a plea for continued and increased funding to carry out a number of tasks including " a plan that would prepare and respond to shortages of healthcare professionals". Brent Schacter and Simon Sutcliffe co-chair the Governing Council of the Strategy and they are hopeful that money will be forthcoming...who knows?

At the meeting on Jan. 19-20 that I attended, Gavin Staurt who represents the Deans on Task Force 2 announced that this group would be winding up their activities by Dec. 2005. That means they will not undertake the detailed assessment of manpower in the specialties. They did a National Physician Survey which was reported in 2004. It showed crude data suggesting widespread manpower needs in most specialties but was mainly fixed on primary care. In fact the main mission for the rest of this year is to study various approaches to primary care to improve access for patients. We will not get any further information on Hematology manpower needs.

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Therefore, Task Force 2 will not provide any useful information. CSCC HR-AG may eventually come up with useful information on needs as well as the supply chain but the interest is primarily with hematologic malignancies in cancer centres. This will not help the CHS in the near future. I've delayed trying any separate initiatives to assess manpower pending report from CSCC and Task Force 2....that's not going to work. Any useful information on Hematology Manpower will have to be derived from other efforts. I think this means setting up a new manpower committee with a new chairman. I told Andy Padmos, Chair of the HR-AG Committee that a new representative would be appointed but I'll continue on until that happens. He mentioned Steve Couban as a possible candidate and you probably have some ideas as well. I'll be happy to pass on what information I have to get people started. The information on supply is quite easy to get from CAPER (Canadian Post-MD Educational Registry) which is maintained by the Royal College. The rest come from outside the country. The hard part is determining the actual needs across the country.

## **TRANSFUSION MEDICINE: The New CSA Standards**

### **Development of a Renewed Regulatory Framework for Whole Blood and Blood Components**

*Ms. Katherine Hanson, Health Canada*

Health Canada is in the process of developing a renewed regulatory framework for blood. This initiative will result in updated and/or new specific regulations that reflect the current practices and technology. The new regulatory framework will address requirements for the collection, processing, distribution, labelling, storage, adverse event reporting and use of human whole blood and blood components.

The current regulatory framework for whole blood and blood components is provided by the *Food and Drugs Act* (FDA) and *Food and Drug Regulations* (FDR). Whole blood and blood components are regulated primarily by Division 1A (Establishment Licences) and Division 2 (Good Manufacturing Practices) of Part C of the FDR. This legislative base is complemented by regulatory guidance documents which provide detailed interpretations of the regulatory requirements described in the FDR. Regulatory guidance documents include: guidelines, directives, standards and administrative policies.

The objectives of the new framework include: outlining clear and intelligible requirements, allowing for timely updating of the requirements as new technologies/products/issues emerge, and achieving greater harmonization in Canada related to the collection, handling and post market surveillance of whole blood and blood components. There will be opportunities for stakeholders to provide input into the regulatory framework as proposals for a new regulatory framework are refined.

A regulatory framework is generally comprised of laws and regulations which outline the legal requirements to be met. They may also be complemented by policies, standards, directives and guidelines. Key elements of a regulatory framework may include: clinical trials and pre-market requirements, licensing schemes, product safety standards, compliance and enforcement policies, post-market surveillance requirements.

Health Canada will use the *CSA Z902 Blood and Blood Components* (CSA Standards), which were published in June 2004 by the Canadian Standards Association (CSA), as one of several tools in the development of new federal regulations for whole blood and blood components. The CSA Standards, which are based on draft standards developed by a Health Canada Expert Working Group, outline specific requirements aimed at ensuring the safety and efficacy of whole blood and blood components. Health Canada funded the development of these “vein to vein” standards which include requirements for the collection, processing, record keeping, distribution, adverse event monitoring and reporting, and recall of whole blood and blood components. However, ensuring the safety and efficacy of whole blood and blood components in Canada is a shared responsibility, with aspects falling under federal and provincial jurisdictions. therefore, some portions of the CSA Standards fall outside of Health Canada’s authority. As part of the blood regulatory framework development, an analysis is underway to specifically identify, based on the activities being performed, the facilities and/or activities which will be subject to regulatory oversight by Health Canada in the future. These sections of the CSA Standards will be incorporated into the framework (either by referencing or by writing requirements directly into regulations) and will then become mandatory under federal regulations. Provincial and Territorial

governments will have the option of incorporating other parts of the standards which are under their authority into their regulations.

With the coming into force of the anticipated new regulatory framework, a time line for implementation of the new regulations and the associated compliance monitoring activities will be developed. Consultation with stakeholders will take place at regular intervals during the development of the regulatory framework.

CSA Z902 *Blood and Blood Components* may be obtained by calling 1-800-463-6727 or from the following website: <http://www.csa-intl.org/onlinestore/>

Information on the New Regulatory Framework for Blood and Blood Components may be accessed at the following Health Canada webpage:

[http://www.hc-sc.gc.ca/hpfb-dgpsa/bgtd-dpbtg/index\\_regulatory\\_e.html#BBC](http://www.hc-sc.gc.ca/hpfb-dgpsa/bgtd-dpbtg/index_regulatory_e.html#BBC)

Consultation activities will be posted at the following location:

[http://www.hc-sc.gc.ca/hpfb-dgpsa/bgtd-dpbtg/index\\_activities\\_consultation\\_e.html](http://www.hc-sc.gc.ca/hpfb-dgpsa/bgtd-dpbtg/index_activities_consultation_e.html)

## **The Recovery and Humanitarian Distribution of Currently Discarded Factor VIII and IX Proteins**

*David Page, Chair, WFH Blood Product Safety, Supply & Availability Committee*

In 2005, the World Federation of Hemophilia (WFH) estimates that approximately 75 percent of the world's hemophiliacs receive little or no replacement therapy to treat their bleeding.<sup>i</sup> The result is often death in childhood and, for those who survive, terrible pain and severe crippling.

A lack of knowledge about hemophilia, proper diagnosis and the unavailability of medical expertise are explanations for this situation; however, the WFH, with 107 member countries, has made major strides in the last decade to overcome these problems. Nevertheless, even where well-trained physicians are in place, a huge obstacle to adequate care is the shortage and the cost of replacement therapies, factor VIII and factor IX.

Fresh components such as cryoprecipitate—to treat factor VIII deficiency—and fresh frozen plasma—to treat factor IX deficiency—are locally-made products used in some countries where clotting factor concentrates are unavailable. Unfortunately, in addition to being less effective than clotting factor concentrates, especially in critical or surgical situations, these products cannot currently be subjected to robust viral reduction processes to eliminate the risks of HIV, hepatitis C (HCV) and other blood-borne pathogens. A study conducted in Venezuela demonstrated that the life-time risk of contracting HIV and HCV from fresh components administered on a regular basis in the context of hemophilia care is high.<sup>ii</sup> Clotting factor concentrates, on the other hand, when manufactured according to today's standards, have an excellent safety record with regard to known pathogens and are considered extremely safe drugs.<sup>iii</sup> Both factor VIII and IX concentrates are included in the World Health Organization's list of Essential Medicines.<sup>v</sup>

The challenge, therefore, is to increase the availability, at reasonable cost, of clotting factor concentrates in those countries where health expenditures do not currently permit their purchase on the open market.

At the same time, developed countries are switching to the use of recombinant factor VIII and IX concentrates. Six countries—Canada, Ireland, Iceland, Denmark, the U.K. and Australia—have already switched or are in the process of making the transition to recombinant products. Other developed countries have made a partial transition. As a result, in some of these countries, the factor VIII and IX contained in the plasma destined for fractionation is discarded.

For example, in Canada, 150,000 to 175,000 litres of plasma are processed annually and none of the factor VIII or IX is recovered for further manufacture. Assuming a low recovery of only 10 percent of the factor VIII in the plasma, this represents a total of 15 million IUs (150,000 litres X 100 IU/litre) currently lost in Canada alone. In the case of factor IX, the amount could be 30 million IUs (150,000 litres X 200 IU/litre).

Experts in the care of hemophilia have demonstrated that a consumption of only 1 IU per capita of factor VIII in a given country has a dramatic effect on health outcomes.<sup>vi vii</sup> Life expectancy is raised considerably. Crippling is reduced. Individuals are able to go to school and become productive members of society. The burden on families is lessened. Given an incidence of 1 in 10,000 births, therefore, the factor VIII contained in the discarded plasma of Canada alone, to use it as an example, would satisfy the basic factor VIII needs of a country of 15 million people, or 1500 people with factor VIII deficiency. This figure can be multiplied tenfold with regards to factor IX, with its higher yield and lower incidence.

As the use of recombinant factor VIII and IX becomes the standard of practice in more developed countries, the quantity of fractions containing factor VIII and IX that will be discarded by national not-for-profit blood transfusion services will only increase.

## **Vision of the World Federation of Hemophilia**

The WFH operates a number of country programs designed to improve hemophilia care through the training of medical personnel, the creation of specialized hemophilia treatment centres and the increased provision of safe, effective factor replacement therapy. Moreover, in a small but increasing number of countries (as of 2004, Mexico, Thailand, Lebanon, Jordan, Georgia, Azerbaijan, Egypt), through its Global Alliance for Progress, the WFH has negotiated multi-year agreements with governments to collaborate on the creation of national hemophilia programmes. Until now, the WFH has relied on generous donations of clotting factor concentrates from pharmaceutical companies in order to launch such programmes. Supply, however, is variable and unpredictable. The WFH needs, in addition to regular humanitarian product donations, a constant supply of clotting factor concentrates, which it can use to support its programmes in the developing world.

The WFH vision is therefore to find a way to recover the factor VIII and IX proteins in plasma which would otherwise be discarded, have them manufactured into safe, effective clotting factor concentrates using well-accepted processes, and distribute them through its country programs. The costs of the recovery of the proteins from plasma and the final manufacturing costs could be borne by the blood transfusion services, the fractionator, foundations, governmental international aid programmes, the governments of the beneficiary country, or by some combination of these. The WFH would be responsible for distribution.

### **Rationale for project**

- Many people with hemophilia around the world are dying or becoming crippled as a result of a shortage of safe, affordable and available factor replacement therapy.
- Many countries have physicians trained in hemophilia care who could monitor the appropriate use of the additional products.

- The World Federation of Hemophilia operates country programmes, which, with the addition of a predictable supply of clotting factor concentrates, can lead to long-term self-sufficient national hemophilia programmes.
- Donors in the developed world would be, we believe, extremely supportive that the factor VIII and IX contained in their donations be used on a humanitarian basis to save lives and limbs rather than discarded when not needed in their own countries.

### **Progress to date**

The Canadian Hemophilia Society has approached the blood system operators in Canada, Canadian Blood Services (CBS) and Héma-Québec, and received a commitment from CBS that it will work to find a way to maximize the use of these unused proteins on a cost-neutral basis to the organization.

A cursory evaluation of the potential in discarded Canadian cryo paste has been completed by a fractionator. Because of long time-to-freezing in the blood collection process or sub-optimal cryo removal in fractionation, or a combination of the two, the level of factor VIII was found to be low. This work needs to be re-done and solutions found.

Discussions have also been held with the Australian Red Cross and various fractionators. Interest has been expressed in the potential of the project and the desirability of recuperating valuable proteins that would otherwise be discarded.

### **Outstanding questions**

Many questions require answers before this vision can become reality.

- What is the total quantity of factor VIII and IX contained in the different fractions being discarded around the world by countries such as those named above?
- Do national laws allow blood proteins collected from its own citizens to be exported for use in other countries?
- What blood collection practices are being used in these blood transfusion services in countries where these proteins are no longer needed that might reduce yields of factor VIII (and even IX) and to what extent, or that might affect the efficacy and immunogenic safety of the proteins?
- What regulatory hurdles exist before these fractions can be sent across borders to be manufactured? For example, do the national blood collection services possess licenses allowing them to send fractions to manufacturer X in another country?
- What regulatory hurdles exist for a manufacturer to send its finished factor VIII or IX to the WFH for distribution in a particular country? Can these products transit through the United States or Canada from where the WFH traditionally distributes its humanitarian donations? What obstacles exist to the WFH being a recognized distributor of the products?
- Do manufacturers have the capacity to process these additional quantities? Given the provision of the raw materials at little or no cost, what would be the manufacturing cost?
- Would certain manufacturers be willing to process factor VIII or IX for the WFH at cost or at a loss as humanitarian aid?
- Would international aid agencies be willing to support some of the costs of fractionation, especially for manufacturers in their home countries, given the large number of lives that can be saved?
- What are the liability issues for blood collection services, manufacturers and the WFH as distributor?

## Conclusion

The potential benefits of recovering factor VIII and IX proteins currently being discarded are great and long lasting. In discussions over several years, the WFH has heard of the many obstacles in the way of the realization of this project. It is now time to find ways around these obstacles. **For References see page 14.**

## HOW MANY UNITS OF PLATELETS SHOULD WE BE TRANSFUSING?

*Alan Tinmouth, MD MSc(Clin Epi) FRCPC  
University of Ottawa Centre for Transfusion Research, Clinical Epidemiology Program,  
Ottawa Health Research Institute*

In the early 1960s, the introduction of routine platelet transfusions as part of the supportive care for patients with acute leukemia led to dramatic reductions in bleeding complications. Since then, platelet use has increased steadily as part of the treatment for cancer and noncancer patients with thrombocytopenia. Currently more than 9 million units of platelets are transfused in the United States annually and more than 400,000 units in Canada. While there have been a number of landmark studies examining the threshold for prophylactic platelet transfusions and the benefits of leukoreduction<sup>1</sup>, until recently few studies had examined the optimal dose for platelet transfusions<sup>2</sup>. In the last few months, two randomized clinical trials that have examined the clinical outcomes of alternative platelet transfusion strategies have been published. In the first study<sup>3</sup>, we examined the effectiveness of lower dose platelet transfusions in patients with acute leukemia and patients undergoing autologous stem cell transplantation. In the second trial, a French group looked at higher dose platelet transfusions<sup>4</sup>. While neither trial is sufficiently powered to show a definite advantage for either low or high dose platelet transfusions, these trials do highlight the likely benefits and disadvantages of these alternative platelet transfusion strategies.

In the first trial<sup>3</sup>, 111 patients were randomized to receive 3 or 5 random donor platelet units as their standard prophylactic transfusion. In this clinical trial, which used a Bayesian design, we demonstrated a low probability of increased bleeding complications with low dose platelets. The percentages of patients with major bleeding events were similar in the low and standard dose group (10.7% vs. 7.3%). Patients receiving low dose platelet transfusions had an increase in the number of platelet transfusion episodes and a shorter time to the next transfusion, but received 25% fewer platelet units. In the second trial<sup>4</sup>, patients were randomized to receive a weight based transfusion of standard dose ( $0.5 \times 10^{11}$  platelets/kg) or high dose ( $1.0 \times 10^{11}$  platelets/kg) apheresis platelets. With the higher dose transfusions, the median time to the next transfusion was significantly longer (95 vs. 63 hours) and the number of transfusion episodes was significantly reduced. The higher dose group received 25% more platelets but this difference did not reach the level of significance. There were no differences in minor or major bleeding complications.

While the two studies may initially appear contradictory as they suggest alternative transfusion strategies, the findings from both studies are, in fact, very consistent. Most importantly, though neither study was sufficiently powered to detect important clinical differences in bleeding complications, no differences in the proportion of patients with major bleeding events were seen in either trial. As would be expected, the higher dose platelet transfusions resulted in a longer time to the next transfusion and a decrease in the number of transfusion episodes. A more interesting finding seen in both studies was the trend towards a decrease in the number of platelets

transfused with lower dose transfusions. As a result, choosing the optimal dose of platelets may in fact depend on the clinical setting of the transfusion. For outpatients, higher doses would be used to prolong the time to the next transfusion; whereas inpatients would receive lower dose transfusions to reduce total platelet utilization. Prior to implementing such strategies, we will need to confirm that there is not a difference in major bleeding events with the different transfusion strategies. There are currently two large randomized controlled studies underway which will be adequately powered to detect differences in bleeding complications with higher and/or lower dose platelet transfusions.

## References

Schiffer CA, Anderson KC, Bennett CL, Bernstein S, Elting LS, Goldsmith M, Goldstein M, Hume H, McCullough JJ, McIntyre RE, Powell BL, Rainey JM, Rowley SD, Rebutta P, Troner MB, Wagon AH; American Society of Clinical Oncology. Platelet transfusion for patients with cancer: clinical practice guidelines of the American Society of Clinical Oncology. *J Clin Oncol*. 2001;19(5):1519-38.

Tinmouth AT, Freedman J. Prophylactic platelet transfusions: which dose is the best dose? A review of the literature. *Transfus Med Rev*. 2003;17(3):181-93.

Tinmouth A, Tannock IF, Crump M, Tomlinson G, Brandwein J, Minden M, Sutton D. Low-dose prophylactic platelet transfusions in recipients of an autologous peripheral blood progenitor cell transplant and patients with acute leukemia: a randomized controlled trial with a sequential Bayesian design. *Transfusion*. 2004;44(12):1680-2.

Sensebe L, Giraudeau B, Bardiaux L, Deconinck E, Schmidt A, Bidet ML, Leniger C, Hardy E, Babault C, Senecal D. The efficiency of transfusing high doses of platelets in hematologic patients with thrombocytopenia: results of a prospective, randomized, open, blinded end point (PROBE) study. *Blood* 2005;105(2):862-4.

## Mutations in Type 1 von Willebrand Disease (VWD)

*Paula James, MD, FRCPC, Queens University*

As every Hematologist knows, making a diagnosis of Type 1 VWD can prove challenging. Bleeding symptoms are often mild, inheritance patterns are not always clear, and there can be a great deal of fluctuation in VWF levels within an individual over time. It is not at all unusual to perform repeat tests without ever reaching a definitive diagnosis. Over the past number of years, there has been increasing interest in investigating and defining the genetic cause of Type 1 VWD in an effort to make the diagnostic process more straightforward. Significant progress in this regard has recently been made in Canada. **The Molecular Genetic Basis of Type 1 VWD** is a large multicentre study that has been made possible by the collaborative efforts of the Association of Hemophilia Clinic Directors of Canada (AHCDC). Samples from 194 families with Type 1 VWD were collected from across the country in Kingston, Ontario and genetic analysis was performed in the research laboratory of Dr. David Lillicrap.

To date, we have identified 50 different mutations in the VWF gene that lead to Type 1 VWD. Of particular interest, is a missense mutation in Exon 28; Y1584C (a tyrosine to cysteine at amino acid 1584) that occurs in ~ 14% of Canadian Type 1 VWD families. This mutation is the most common mutation that has been identified in the Canadian Type 1 VWD population, and has also

been identified as the most common Type 1 VWD mutation in a large European study of Type 1 VWD families. The identification of this mutation, as well as the ongoing work to identify other mutations of reasonable frequency will lead to an evaluation of how investigations for these genetic changes might be incorporated into a diagnostic work-up for Type 1 VWD in the future.

## **Hemophilia Comprehensive Care in Canada**

*Dr. Jerry Teitel, Prof. of Medicine, St. Michael's Hospital*

Hemophilia A and B are rare diseases, with a combined incidence of 1 in 5,000 male births. They were historically associated with high mortality and morbidity. It is therefore not surprising that the care for most patients with hemophilia became localized to specialized hemophilia comprehensive care clinics (often referred to as HTC, for hemophilia treatment centres). Pioneers like Levine in the USA, Strawczynski in Canada, and Macfarlane and Biggs in the UK demonstrated the value of HTC and of home infusion of hemophilia replacement products. The first comprehensive HTC in Canada was opened at the Montreal Children's Hospital by Dr. Hannah Strawczynski and colleagues in 1969. In 1975, this group published a two-year crossover study of home versus hospital-based treatment in 36 children with hemophilia A and B'. They found that children received treatment much more promptly and in much higher amounts while in the home care arm of the study (suggesting that they were under-treated when receiving hospital-based care), and that they missed much less school. The decentralized nature of health care in Canada, with authority vested in the provinces and territories rather than in federal agencies, precluded a national organizational approach as was implemented in the USA under the direction of the Maternal and Child Health Bureau. Nevertheless, the enthusiastic endorsement of the Canadian Hemophilia Society (CHS) and the principle of gratuity of clotting factor replacement therapy to patients and health care institutions promoted the widespread adoption of comprehensive care and home treatment in this country. By the 1980s, over 20 HTCs had been established in all ten provinces, most of them located in teaching hospitals affiliated with medical schools. The medical directors of all these programs are members of the Association of Hemophilia Clinic Directors of Canada (AHCDC), a professional organization through which they conduct collaborative research and surveillance studies, track product usage, generate guidelines and standards of care, provide consultative expertise to the operators and regulators of the blood system, and advocate on behalf of their patients.

The effectiveness of the comprehensive care model of hemophilia has been validated. In an unselected cohort of US hemophilia patients, those who received care in an HTC had a 40% lower risk of death and a 30% lower rate of hospitalization for bleeding than those who did not. It has also been demonstrated that regular prophylactic infusions of factor VIII or IX, which is becoming the standard of care in pediatric HTC, has the potential to prevent hemophilic arthropathy, which is the major cause of morbidity and disability in severe hemophilia. HTC-based care in Canada along with the support of organizations such as the AHCDC and the CHS has not only allowed our patients to achieve these clinical outcomes, but has also promoted high quality collaborative research. Canadian investigators are at the forefront of research into areas as diverse as optimally cost effective prophylactic regimens, molecular genetics of hemophilia, and surveillance for blood-borne pathogens.

1. Strawczynski H, Stachewitsch A, Morgenstern G, Shaw ME. Delivery of care to hemophilic children: Home care versus hospitalization. *Pediatrics* 1975; 51: 986-91.

2. Soucie JM, Symons J, Evatt B, Brettler D, Huszti H, Linden J. Home-based factor infusion therapy and hospitalization for bleeding complications among males with haemophilia. *Haemophilia* 2001; 7(2): 198-206.
3. Soucie JM, Nuss R, Evatt B, Abdelhak A, Cowan L, Hill H et al. Mortality among males with hemophilia: relations with source of medical care. *Blood* 2000; 96(2):437-442.
4. Aledort LM, Haschmeyer RH, Pettersson H, Orthopedic Outcome Study Group. A longitudinal study of orthopaedic outcomes for severe factor VIII deficient haemophiliacs. *J Intern Med* 1994; 236:391-399.

## Panel Develops Guidelines for the Use of IVIG in Hematology

*Dr. Heather [Hume, Medical Director, Canadian Blood Services](#)*

A panel of expert hematologists from across Canada met in Toronto on March 10-11 to develop evidence-based clinical practice guidelines for the use of IVIG in hematological conditions. The panel was convened by the National Technical Working Group on Blood and Blood Products (NTWG), an advisory group to provincial and territorial Deputy Ministers of Health, working in collaboration with Canadian Blood Services (CBS).

The panel considered [a series of](#) questions with respect to [17](#) different hematological conditions. [The conditions were:](#)

- [Acquired Hemophilia/von Willebrand Disease](#)
- [Acquired Hypogammaglobulinemia](#)
- [Acquired Red Cell Aplasia](#)
- [Adult HIV-Associated Thrombocytopenia](#)
- [Aplastic Anemia/Pancytopenia](#)
- [Autoimmune Hemolytic Anemia](#)
- [Autoimmune Neutropenia](#)
- [Evan's Syndrome](#)
- [Hematopoietic Stem Cell Transplantation](#)
- [Hemolytic Disease of the Newborn](#)
- [Hemolytic Transfusion Reaction](#)
- [Hemolytic Uremic Syndrome](#)
- [Heparin-Induced Thrombocytopenia](#)
- [Idiopathic Thrombocytopenic Purpura](#)
- [Neonatal Alloimmune Thrombocytopenia](#)
- [Post-Transfusion Purpura](#)
- [Virus-Associated Hemophagocytic Syndrome](#)

[The questions considered were as follows.](#)

1. What are the prerequisite care options required before initiation of IVIG?
2. For initial use of IVIG:
  - a) what are the initial indications for use?
  - b) what regimen(s) ought to be used (grams/m<sup>2</sup>, intervals, duration)?
3. What are the criteria for chronic/continued use of IVIG?
4. For chronic/continued use of IVIG:
  - a) what regimen(s) ought to be used (grams/m<sup>2</sup>, intervals, duration)?
  - b) how should outcomes be assessed?

- c) how frequently should outcomes be re-assessed?
5. Are there any absolute or relative contraindications for IVIG use?
  6. What are the research priorities for IVIG?
  7. What is the role of IVIG relative to other care options (i.e., are there alternatives that should be recommended in place of IVIG)?

The evidence base considered by the panel included CBS-funded systematic reviews from the Chalmers Centre of Systematic Review at the University of Ottawa, evidence reviews produced as part of a CIHR-funded project entitled “The Appropriateness of IVIG” by Dr. Tom Feasby (University of Alberta) and his colleagues, and systematic reviews published by Australia’s National Blood Authority (these last are available online at [www.traqprogram.ca](http://www.traqprogram.ca)).

The panelists [reviewed](#) all of the conditions and arrived at consensus in most cases. [Based on the panel’s deliberations a guideline document is](#) now being drafted by a contract writer who works with Cancer Care Ontario’s evidence-based guidelines program. The draft will go back to the panelists for review, then will be circulated to all hematologists in Canada for an external review. The NTWG has a similar process underway for IVIG use in neurology and both guidelines documents should be finalized by the end of 2005. Once finalized, the recommendations will go to provincial and territorial health ministries who will be responsible for implementation in their jurisdictions. There are also plans to publish the guidelines.

Panel members include Dr. David Anderson (Halifax, Chair, representing the NTWG), Dr. Kaiser Ali (Saskatoon), Dr. Victor Blanchette (Toronto), Dr. Stephen Couban (Halifax), Dr. Lothar Huebsch (Ottawa, representing the, Canadian Blood and Marrow Transplant Group), Dr. Heather Hume (Ottawa, CBS), Dr. Anne McLeod (Toronto), Dr. Ralph Meyer (Hamilton), Dr. Catherine Moltzan (Winnipeg, NTWG), Dr. Susan Nahirniak (Edmonton, NTWG), Dr. Stephen Nantel (Vancouver), Dr. Graham Pineo (Calgary), and Dr. Gail Rock (Ottawa, representing the Canadian Hematology Society). The panel was assisted in its deliberations by Dr. Melissa Brouwers, an expert in clinical guidelines development and Director of Cancer Care Ontario’s Program in Evidence-Based Care.

For more information, please contact Dr. Heather [Hume, Medical Director, Canadian Blood Services – Head Office, 1800 Alta Vista Drive, Ottawa, Ontario K1G 4J5, Phone: 613-739-2259, Fax: 613-739-2002, E-mail: \[heather.hume@bloodservices.ca\]\(mailto:heather.hume@bloodservices.ca\)](#)

## JOB POSTINGS

You are welcome to send job postings to the CHS if you are advertising academic or research posts. Please forward your job descriptions to us and we will advertise them on the CHS website. Relevant information should be forwarded to the CHS email address: [cag@ca.inter.net](mailto:cag@ca.inter.net)

### **St. Michael's Hospital**

#### **Head, Division of Laboratory Hematology**

Please forward your application, including curriculum vitae

And the names of three references to:

**Dr. Serge Jothy, Chief, Dept of Laboratory Medicine**

**St. Michael's Hospital, 30 Bond Street, Toronto, ON M5B 1W8**

**Tel: (416) 864-5972 Fax: (416) 864-5648 E-mail: [jothys@smh.toronto.on.ca](mailto:jothys@smh.toronto.on.ca)**

**Submit by 30<sup>th</sup> April 2005**

### **CALL FOR LETTERS OF INTENT ANEMIA INSTITUTE FOR RESEARCH AND EDUCATION RESEARCH AND DEVELOPMENT FUND**

The Anemia Institute for Research and Education is calling for Letters of Intent for its fifth Research and Development Fund competition. Letters of Intent must be submitted by **November 12, 2005**. For further information, please contact: Durhane Wong-Rieger, Telephone (416) 969-7435; by email: [durhane@anemiainstitute.org](mailto:durhane@anemiainstitute.org); or visit our website at [www.anemiainstitute.org](http://www.anemiainstitute.org).

**JERRY G. SCOTT DAY**  
**THURSDAY, JUNE 23<sup>RD</sup>, 2005**  
HOTEL TBA  
TORONTO, ON  
**1:00 PM – 5:00 PM**

**A G E N D A**

<b><u>TIME</u></b>	<b><u>SPEAKER</u></b>	<b><u>TITLE</u></b>
1:00PM	DR. JOHANN (HANS) HITZLER STAFF PHYSICIAN, DIVISION OF HEMATOLOGY/ONCOLOGY THE HOSPITAL FOR SICK CHILDREN ASSISTANT PROFESSOR, DEPARTMENT OF PEDIATRICS UNIVERSITY OF TORONTO	<i>“OVERVIEW OF PEDIATRIC ALL”</i>
1:40 PM	DR. VIKAS GUPTA ASSISTANT PROFESSOR, DEPARTMENT OF MEDICINE UNIVERSITY OF TORONTO STAFF PHYSICIAN, LEUKEMIA / BLOOD AND MARROW TRANSPLANT PROGRAM PRINCESS MARGARET HOSPITAL TORONTO	<i>“STATUS OF MINIALLOTRANSPLANTATION 2005”</i>
2:20 PM	DR. CATHERINE HAYWARD CAREER INVESTIGATOR, HEART AND STROKE FOUNDATION OF ONTARIO CANADA RESEARCH CHAIR IN MOLECULAR HEMOSTASIS HEAD, COAGULATION, HAMILTON REGIONAL LABORATORY MEDICINE PROGRAM ASSOCIATE PROFESSOR PATHOLOGY AND MOLECULAR MEDICINE, AND MEDICINE McMASTER UNIVERSITY STAFF HEMATOLOGIST, HAMILTON HEALTH SCIENCES AND ST. JOSEPH'S HOSPITAL	<i>“ACQUIRED VON WILLEBRAND'S DISEASE”</i>
3:00 PM	REFRESHMENT BREAK	
3:40 PM	DR. WES SCHREIBER LAB CONSULTANT PATHOLOGIST, VANCOUVER GENERAL HOSPITAL DIRECTOR, TUMOUR MARKER LABORATORY, BC CANCER AGENCY PROFESSOR, PATHOLOGY & LABORATORY MEDICINE, UNIVERSITY OF BRITISH COLUMBIA	<i>“HOW TO ORDER AND INTERPRET TESTS FOR PORPHYRIA”</i>
4:20 PM	TBA	
5:30 PM	DINNER -	CLOSED EVENT

**2005 Jerry G. Scott Day  
Toronto, ON  
Call for Abstracts  
Hematology Trainees (pediatric and adult)**

*There will be a \$1000.00 honorarium for the best paper by a trainee*

Jerry Scott Day is an educational and social event for hematology residents, fellows, and faculty from across Canada. This year's event will be held in Toronto, Ontario (Hotel TBA) on Thursday June 23, 2005 1-6pm. In the spirit of the skilled educator and clinician for which the day is named, a series of five to six presentations will be delivered by invited speakers, followed by a dinner.

**Similar to previous years, we will be choosing three top abstracts of resident research (hematology residents only) for presentation at the Canadian Hematology Society luncheon on Friday, June 24, 2005. An honorarium will be awarded to the best presentation. We ask that residents submit abstracts (1 page) to our office below by no later than Friday June 10, 2004.**

## ABSTRACT FORMATTING

1. Abstracts should be no more than 500 words in length and fit onto a single page.
2. Abstracts must be 12 point font.
3. Type title in capital letters, authors' names and affiliations in capitals and lowercase.
4. Underline all authors' names, indicate presenting author with an asterick(\*).
5. The abstract should include the purpose of the investigation, methods, results and conclusions
6. High quality diagrams or tables may be included.

## DEADLINE

**June 10<sup>th</sup>, 2005**

## SUBMISSION INSTRUCTION

Submissions by fax or email are accepted.

Please include the following information with your submission.

1. Corresponding Trainee

Signature: \_\_\_\_\_ Training Institution: \_\_\_\_\_

Name: \_\_\_\_\_ Year of Training \_\_\_\_\_

Tel #: \_\_\_\_\_ E-mail: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

### Please send to:

**Dr. Christine Chen** – U of T  
Adult Hematology Training Program  
Princess Margaret Hospital  
Dept. of Med Onc & Hem 5-220  
Toronto On M5G 2M9  
Tel No: (416) 946 –2827/Fax No: (416) 946 – 4563  
Email: amy.sgourakis@uhn.on.ca

## UPCOMING EVENTS

- Apr 21-24, 2005      **2005 CSTM Joint Conference, Banff, Alberta, Canada**  
*Mountains, Moguls and Modern Advances in Transfusion Medicine*  
 Contact: Gwen Clarke, Co-Chair CSTM 2005 planning committee  
 gclarke@cha.ab.ca or Jason Acker, Chair of the Scientific and Abstract  
 Subcommittee for further details about submitting your abstract:  
[jacker@ualberta.ca](mailto:jacker@ualberta.ca) Deadline Call for Abstracts: February 1<sup>st</sup>, 2005
- Apr 27–30, 2005      **American Society for Apheresis (ASFA) 26<sup>th</sup> Annual Meeting – Hyatt  
 Regency Chicago, IL, USA**  
 Contact: American Society for Apheresis  
 3900 East Timrod Street, Tucson, AZ, 85711-4170 USA  
 Tel: 1.520.327.8584; Fax: 1.520.322.6778; Email: [asfa@dakotacom.net](mailto:asfa@dakotacom.net);  
 Website: [www.apheresis.org](http://www.apheresis.org) Deadline Call for Abstracts: December 31<sup>st</sup>, 2004
- Apr 27-29, 2005      **Canadian Apheresis Group (CAG), Millcroft Inn, Alton, Ontario  
 26<sup>th</sup> Annual Meeting – Hyatt Regency Chicago, IL, USA**  
 Contact: CAG Office for further information:  
 Tel: 1.613.748.9613; Fax: 1.613.748.6392; or Email: [cag@ca.inter.net](mailto:cag@ca.inter.net)
- Jun 2-5, 2005      **10<sup>th</sup> Congress European Hematology Association (EHS), Stockholm, Sweden**
- Sept 22 – 24, 2005      **5<sup>TH</sup> Princess Margaret Hospital Conference, *New Developments In Cancer  
 Management, Marriott Eaton Centre, Toronto.***  
 Contact Coleson Chase, Imedex Inc., 1-770-751-7332 Fax 1-770-751-7334  
 or Email: [c.chase@imedex.com](mailto:c.chase@imedex.com)
- Dec 3-6, 2005      **47<sup>th</sup> Annual Meeting and Expositon - American Hematology Society (ASH),  
 New Orleans, Louisiana, USA**

### The Recovery and Humanitarian Distribution of Currently Discarded Factor VIII and IX Proteins (Continued)

#### References (David Page)

- <sup>i</sup> Report on the WFH Global Survey 2003, World Federation of Hemophilia, Montreal, February 2004.
- <sup>ii</sup> Bruce L. Evatt, MD, Centers for Disease Control and Prevention, Atlanta, Georgia, U.S.A., Harland Austin, D.Sc., School of Public Health, Emory University, Atlanta, Georgia, U.S.A, Graciela Leon, MD, Arlette Ruiz-Sáez, MD, and Norma de Bosch, MD, Banco Municipal de Sangre, Centro Nacional de Hemofilia, Caracas, Venezuela.
- <sup>iii</sup> Mannucci. P.M. The Safety of Plasma-Derived Versus Recombinant Concentrates, *World Federation of Hemophilia Occasional Papers*, No. 5, September 2004.
- <sup>iv</sup> Tabor E. The epidemiology of virus transmission by plasma derivatives, clinical studies verifying the lack of transmission of hepatitis B and C viruses and HIV type I. *Transfusion* 1999;39: 1160-8.
- <sup>v</sup> 13<sup>th</sup> WHO List of Essential Medicines, April 2003  
<http://www.who.int/medicines/organization/par/edl/eml.shtml>
- <sup>vi</sup> Evatt BL, Robillard L: Establishing hemophilia care in developing countries: using data to overcome the barrier of pessimism. *Haemophilia* 2000; 6: 131-134.
- <sup>vii</sup> Larsson SA: Life expectancy of Swedish haemophiliacs, 1831-1980. *British Journal of Haematology* 1985; 59: 593-602.