

Dear Fellow Clotter

Welcome to the first ASTH newsletter for 2006. In this issue of the newsletter you will be brought up to date on preparations for the second full day Scientific Workshop to be held in Hobart on October 14. The preliminary programme is enclosed and more details can be found in the New and Emerging Technologies report. I would like to thank Bayer Healthcare, In Vitro Technologies, Medtel-Haemoscope and the International Society of Laboratory Haematology for agreeing to sponsor the workshop.

Also in this issue we have news from the Secretariat and a report from the President which includes details of the invited speakers for the Hobart ASM. Jim Thom has provided information about an opportunity for Scientist exchange and Michael Ray has reported on an evaluation of the CoaguChek® XS analyser recently performed at The Prince Charles Hospital, Brisbane.

Finally, please take note of the upcoming meeting schedule, in particular the 4th Asian-Pacific Congress on Thrombosis and Hemostasis to be held in Suzhou, China from 21-23 September 2006. The deadline for abstract submission is May 31st. You may remember that the Asian-Pacific Society of Thrombosis & Hemostasis (APSHT) has invited ASTH members to join their society. Membership is currently free for all ASTH members. The APSTH web site can be viewed at <http://test.congre.co.jp/apsth/index.html>

Thankyou to those members who contributed to this edition. We are planning another 2 issues of the newsletter in 2006. Any contributions are most welcome.

Emma Perrin

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FROM THE PRESIDENT

The main focus for the ASTH council over the past quarter have included sponsorship, the proposed new web site, and planning for the annual scientific meeting (ASM) in Hobart in October. Sponsorship continues to be sought from relevant commercial sector groups to support Society educational and scientific programmes. The three societies are currently taking a fresh look at sponsorship parameters, with the prime objective of retaining independence, impartiality and control over our awards and ASM content. We are planning to have the ASTH web sites professionally re-designed and developed. Currently there is one site in Australia for general issues and a separate web site, with its own domain name (asth.org.nz), for the discussion group. It is proposed that this be moved to become part of a modernised, user-friendly ASTH site. Plans for the Hobart meeting scientific programme are maturing. Daniel Owens is representing the ASTH tirelessly on the local organising committee, supported by the scientific programme committee chaired by Claire McLintock. We are pleased to confirm our international guest speakers: Professor Ted Tuddenham from the MRC/Royal Free Hospital, London, will be speaking on the factor VIII story and separately on tissue factor and Vitamin K epoxide reductase; David Wilcox from Milwaukee will provide leading edge data on gene therapy, with a focus on platelet disorders; And Saskia Middeldorp from the Academic Medical Center of Vascular Medicine, Amsterdam, will speak on thrombosis issues with a pregnancy focus.

February 2006 has witnessed significant milestones in the quest for a safer, more convenient alternative to warfarin for the management and prevention of venous thromboembolism. The major development programme for the direct thrombin inhibitor Ximelagatran was abandoned due to idiosyncratic liver toxicity. Bayer Healthcare hosted a meeting in Barcelona to review outcomes of the phase 2 treatment study of their oral direct factor Xa inhibitor. The pharmacokinetics of this agent have previously been established, with the time of onset similar to that of low molecular weight heparin at approximately 3 hours, relatively rapid offset, with elimination half life of 5-9 hours and no drug accumulation in healthy volunteers. While the detailed results of the DVT treatment study will be published soon, it seems the proof of concept for this drug has been demonstrated, opening the way to proceed with the phase 3 study, where attention will undoubtedly be focused on safety issues. At the same time, Boehringer Ingelheim has launched an international clinical trial of an oral direct thrombin inhibitor.

These exciting studies challenge conventional concepts of anticoagulant monitoring. For example, the significance of the INR traditionally used to monitor warfarin will have quite different implications when applied to the patient on the new direct protease inhibitors. In addition, with the

relatively rapid onset and offset of action of these drugs, trough rather than peak INR may have more relevance in terms of bleeding risk.

There was a key development in the arena of primary haemostasis in February. Gerald Lasser and colleagues from ZymoGenetics and Baylor College have characterised a physiological protein CTRP-1 that is able to inhibit interaction of vWF protein with collagen (see article in BLOOD 2006;107:423-430). This finding gives new insight into the platelet adhesion mechanism, and introduces a novel potential for therapeutic inhibition in the setting of cardiovascular disease.

Mark Smith

SECRETARIAT NEWS

My first 4 months with ASTH have flown by, probably because I've been kept busy learning all about the Society, its activities and its members. My priority has been to process the 2005-06 memberships and almost 70% of members are now fully paid up. A renewal reminder notice was sent out at the beginning of March so if you have forgotten to renew, or even lost the paper work – it's not too late!

With most of the membership renewals processed, I'm turning my attention to 2 important issues. Firstly the new ASTH web site. Previously we have operated 2 sites, one for general information about the Society and one specifically for discussions. We aim to combine both these sites in to a new mega site with lots of up to date information about the ASTH, its Council and members, news, research and other activities and a secure members only section for discussions and membership details. The site will be the face of the ASTH to the outside world so we hope it will be bold and inspiring!

The second issue is that of the ASTH Workshop planned for 14th Oct, immediately prior to the HAA meeting in Hobart. The ASTH is planning a program which will provide a stimulating appraisal of new technologies and recent developments. We have contacted potential sponsors and are working to develop a trade display which will facilitate interactions between scientists and industry.

Through my role as Project Officer with AHCO I will be attending the World Federation of Haemophilia Congress in Vancouver towards the end of May and will be taking 4 weeks leave afterwards, during which time the ASTH office will be closed. The ASTH office will reopen on 28th June.

If you have any queries about membership and suggestions for the web site please give me a call or drop me a line.

Megan Sarson-Lawrence

NEW AND EMERGING TECHNOLOGIES GROUP REPORT

The first quarter of 2006 had been extremely busy with planning well advanced for the 2006 ASTH Scientific Workshop. I would initially like to thank Emma Perrin, Mark Smith, Megan Sarson-Lawrence, other members of the ASTH Council, Katherine Marsden and Daniel Owens who have assisted me so far with the organization of the Workshop. I would like to also thank those who have agreed to present on the day and to the sponsors who will support the day.

This full day Workshop will be held on Saturday 14th October 2006, the day prior to the start of the HAA meeting in Hobart. Using the feedback received from the Melbourne Workshop, we will again have three sessions: 1) Reviews, 2) New and Emerging Technologies and 3) Case Studies. More time has been allocated for the discussion of topics. While

speakers for the first two sessions have been confirmed, there are still opportunities to present case studies.

The first preliminary program of presenters and registration form are included with this newsletter, with a final program including sponsors to be confirmed and distributed by mid-year. Registration for the Workshop will be \$110 for members and \$187 for non-members (GST inclusive). If you would like further information about the Workshop, or would like to present a case study, please contact myself (m.adams@curtin.edu.au, +61 8 9266 4316) or Emma Perrin (Emma_Perrin@health.qld.gov.au, +61 7 3240 2053).

Best wishes.

Murray Adams

UPCOMING MEETINGS

MEETING	WHERE/DATES	CONTACT
XIXth International Symposium on Technological Innovations in Laboratory Haematology	Amsterdam, The Netherlands 25-28 April 2006	www.islh.org
Platelets 2006 Symposium	Ma'ale Hachamisha, Israel 11-14 May 2006	www.med.unc.edu/isth
19th International Congress on Thrombosis	Tel Aviv 14-19 May 2006	thrombosis2006@kenes.com
2006 World Federation Haemophilia World Congress	Vancouver 21-25 May 2006	www.wfh.org
52nd Annual Scientific and Standardization Committee Meeting	Oslo, Norway 28 June -1 July 2006	www.med.unc.edu/isth/SSC2006/
XXXI World Congress of the International Society of Hematology (ISH)	San Juan, Puerto Rico 9-12 August 2006	www.ish2006.org
18th International Society of Fibrinolysis and Proteolysis Congress	San Diego 27-31 August 2006	www.med.unc.edu/isth
4th Asian-Pacific Congress on Thrombosis and Hemostasis	Suzhou, China 21-23 September 2006	www.apcth.org.cn Deadline for abstracts May 31, 2006
British Society for Haemostasis and Thrombosis Annual Meeting	St Helier, Jersey 4-6 October 2006	www.bsht.bham.ac.uk
ASTH Scientific Workshop	Hobart 14 October 2006	m.adams@curtin.edu.au emma_perrin@health.qld.gov.au
8th HSANZ/ANZBT/ASTH Annual Scientific Meeting	Hobart 15-18 October 2006	www.cdesign.com.au/HAA2006
AIMS National ASM	Hobart 23-27 October 2006	www.aims.org.au
The American Society of Haematology 48th Annual Meeting	Orlando, Florida 9-12 December 2006	www.hematology.org
XXI ISTH Congress	Geneva, Switzerland 6-12 July 2007	www.isth2007.com
9th HSANZ/ANZBT/ASTH Annual Scientific Meeting	Gold Coast 14-17 October 2007	emma_perrin@health.qld.gov.au

Scientific Workshop: Preliminary Programme

Saturday 14th October, 2006

8.00-9.00 am	Registration and Tea/Coffee	
9.00-9.10 am	Welcome: Murray Adams and Emma Perrin	
9.10-10.30 pm	Session 1: Reviews	
	Speaker	Topic
	1. Emmanuel Favalaro (Westmead Hospital, NSW)	vWf and vWD – an update
	2. Tom Exner (St Vincent's Hospital, NSW)	aPTT – an update
	3. Robyn Coleman (Sullivan Nicolaides Pathology, Qld)	Is Warfarin Safe?
	4. Paul Harper (Auckland District Health Board, NZ)	Anticoagulant Near Patient Testing and Control
	5. Joanne Joseph (St Vincent's Hospital, NSW)	Assessment of Platelet Function and Activation
Morning Tea		
11.00-12.30 pm	Session 2: New Technologies	
	1. Michael Wheeler (Southern Health, Vic)	Clinically Significant Analyser Error Rates
	2. Margaret Aboud (Royal North Shore Hospital, NSW)	Ecarin Time Assay to Monitor Hirudin
	3. Ray Dauer (Austin Hospital, Vic)	ETP and Seal Oil
	4. Sarah Just (QHPS – Royal Brisbane Hospital, Qld)	<i>In vitro</i> Monitoring of FVIIa
	5. Chris Ward (Royal North Shore Hospital, NSW)	ETP; Thrombinoscope vs Fibrin Generation
	6. Paul Harper (Auckland District Health Board, NZ)	Internet Based Anticoagulant Monitoring
	7. Anna Denholm (Canterbury Health Laboratories, NZ)	Evaluation of the D-Dimer Assay (HaemIL)
Lunch		
2.00-3.30 pm	Session 3: Case Studies	
	1. Eng Gan (Southern Health, Vic)	Acute Fibrinolysis in Breast Cancer
	2. Sarah Just (QHPS – Royal Brisbane Hospital, Qld)	An Unusual Inhibitor
	3.	
	4.	
	5.	
	6.	
Afternoon Tea		
4.00-5.00 pm	Hot Topics and Discussion: Murray Adams and Emma Perrin	

Venue:

The Centenary Lecture Theatre, University of Tasmania, Hobart.

Cost:

Member: \$110 (including GST)

Non Members: \$187 (including GST)

Further Information:

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Emma Perrin: Emma_Perrin@health.qld.gov.au (07) 3240 2053

EVALUATION OF THE COAGUCHEK® XS FOR HOME MONITORING OF WARFARIN THERAPY

Michael Ray, Robyn Richard, Queensland Health Pathology Service,
The Prince Charles Hospital Laboratory, Brisbane.

Our laboratory evaluated the original CoaguChek® for INR testing in 1998 finding satisfactory agreement with the laboratory method up to an INR of 3.0. Consequently, our hospital purchased instruments for the Children's Ward and the Cardiac Catheterisation Laboratory. These are presently being replaced by the use of INR cartridges on i-STAT analysers (Abbott Diagnostics Division) thus providing a closer agreement with laboratory results (see ASTH newsletter, Vol 10, No. 1, April 2004). In addition, the i-Stat allows full patient identification, download to our LIS and centralised monitoring of quality control. However, the i-STAT is not for home use.

The cardiac transplant unit at our hospital often has patients on ventricular assist devices (VAD). These are external pumps that maintain the patients' circulation until a donor heart becomes available. These patients require Warfarin therapy that must be closely monitored. An ability to go home with their VAD has obvious psychological advantages for the patient as well as reducing the risk of infections but necessitates the home monitoring of Warfarin. To this end we evaluated the new CoaguChek® XS.

The CoaguChek® XS utilises electrochemical measurement of prothrombin time following activation of blood coagulation with human recombinant thromboplastin. The thrombin generated cleaves a peptide substrate so generating an electrochemical signal. Clotting time measurement is completed when the anodic current exceeds a defined threshold.

The reagent strip is warmed to 37 degrees centigrade in the analyser and a 10uL volume of capillary blood is added. A code chip supplied with reagent strips must be inserted into the instrument to supply ISI details.

The CoaguChek® XS now has a number of fail safe, quality control internal checks. Checks of the memory and calibration data are performed when powering on. When the dry strip is inserted, the instrument checks the strip code, expiry date and the use of the correct code chip. Other checks include temperature, blood application errors, battery levels and INR readings greater than 8.0.

For the evaluation, the company representative trained the chief phlebotomist, who in turn trained six other phlebotomists as well as two VAD patients. The phlebotomists performed the CoaguChek® INR when taking blood for routine INR requests and these results were compared to those from the laboratory. The laboratory tests were performed on an ACL Futura using Thromborel S that had been calibrated with the Helena 20 plasma INR calibration method. The VAD patients performed their own CoaguChek® XS INR tests.

The two methods agreed closely. The Passing-Bablok agreement test showing a slope not significantly different from 1.0 and an intercept of 0 (Fig 1).

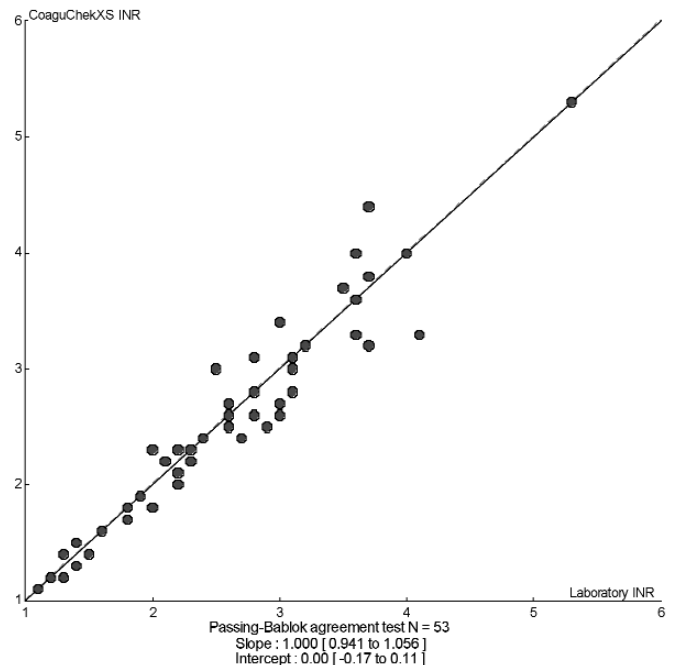


Fig 1. Passing-Bablok agreement test between the laboratory and CoaguChek® XS INR results

The difference plot showed the CoaguChek® XS result was on average 0.03 lower than the laboratory method (Fig. 2). However, at INR of 3.0 the difference could be as much as +/- 0.5 and one result at INR 4 differed by 0.7

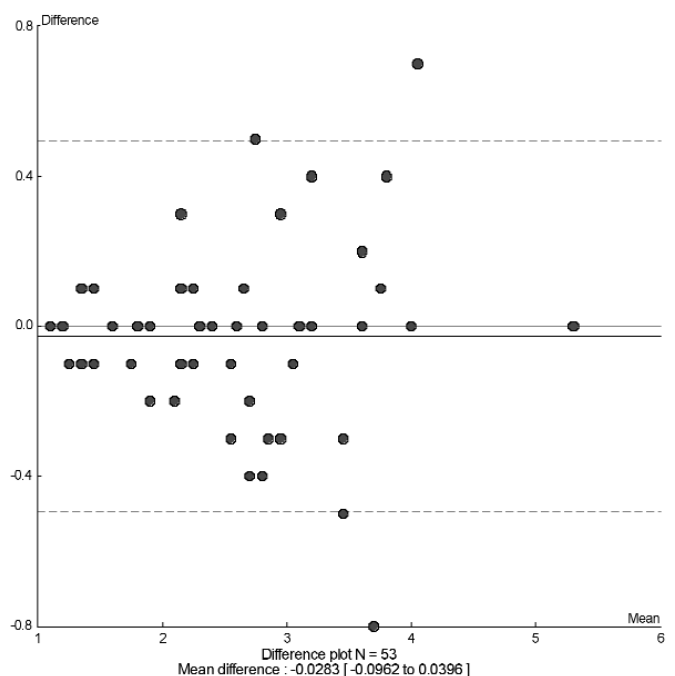


Fig 2. Bland Altman difference plot between laboratory and CoaguChek® XS INR results.

EVALUATION OF THE COAGUCHEK® XS FOR HOME MONITORING OF WARFARIN THERAPY *continued*

The VAD patients found good agreement between their own CoaguChek® XS INR results and those from the laboratory, and the clinicians were happy to allow the patients home using these monitors.

In conclusion, VAD patients who could demonstrate their ability to perform their own INR testing on the CoaguChek®XS and match their results to those of the laboratory could safely monitor their own INR at home. Beyond this situation the CoaguChek®XS shows promise for home monitoring of Warfarin therapy.

A soon to be released model requires two points of identification and can download results to a computer via an infrared interface, raising the possibility of these analysers being operated by suburban pharmacists who

are supplying the Warfarin. They could utilise one of the available treatment algorithm programs to advise patients on dosage.

Acknowledgements:

We would like to thank the phlebotomy staff for their assistance in this evaluation

Editors note. This report was published for scientific content and the interest of the readership. The above evaluation was carried out independent of the ASTH and any company or individual that may benefit or otherwise from the results. No conflict of interest is perceived or declared. Members are encouraged to submit short reports.

SCIENTIST EXCHANGE PROGRAM

The ASTH and its UK based counterpart the British Society for Haemostasis and Thrombosis are planning to develop an exchange program designed to enhance the experiences and opportunities of scientists working in the area of thrombosis and haemostasis. The scheme will involve a job exchange negotiated between Society members and their employers for a mutually agreed time period, between 6 and 12 months. The role of the Societies will be to facilitate linkages between appropriate members and provide documentation in support of the exchange. Such an exchange would lead to a sharing of information and skills

beneficial to individuals, institutions and Societies. It is envisaged that employing institutions in the country of origin would continue to pay salaries so that there is no loss in continuity of employment or conditions, nevertheless each exchange would have to be negotiated and considered individually. Incidental costs, including travel and accommodation, would have to be borne by the exchange participants, however it may also be possible to organize house swaps privately.

If you would like to explore the possibilities of this program further please contact Jim Thom on jim.thom@health.wa.gov.au

Annual Scientific Meeting

**Wrest Point Conference Centre
Hobart, Tasmania, 15-18 October 2006**

**Abstract Submission by Friday 14 July 2006
Early Bird Registration by Friday 18 August 2006
www.cdesign.com.au/HAA2006**

HSANZ
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