



Annual Participants' Conference
2006

ABSTRACTS

Welcome to the IEQAS Annual Participants' Conference, this year marking the 25th Anniversary since IEQAS was established in 1981. There are a record 165 delegates registered for today's conference, representing 41 hospitals and related institutions; also colleagues in the industry, and biomedical science students.

We would like to thank the conference sponsors who have generously contributed to the cost of staging this event:

Claymon Laboratories and Roche Diagnostics.

Our thanks also to associate sponsors:

Olympus UK, Cruinn Diagnostics Ltd., Abbott Diagnostics, and to Serosep for their assistance.

Thanks also to the speakers who have given their time and effort to make this event an informative and hopefully enjoyable experience for all the delegates. Finally, we would also like to thank all the participants for their feedback during the past year and to all those who have participated in our surveys.

PLENARY SESSION

Opening Address: Prof Brendan Drumm, CEO, Health Service Executive.

(No abstract)

25 Years of IEQAS: Dr Ned Barrett, Mid Western Regional Hospital, Limerick, with Hazel Graham & Patricia Howley, IEQAS.

Ned Barrett covers the period 1981-2005: The Irish External Quality Assessment Scheme for Laboratory Medicine (IEQAS) was launched in May 1981. From the beginning, virtually all clinical laboratories in the state have participated in the scheme. The Scheme is educational rather than regulatory in nature. It monitors the quality of results reported in Irish Laboratory Medicine and offers professional advice and guidance as necessary.

The support of all the professional bodies in Irish Laboratory Medicine has been crucial to the success of the scheme. The IEQAS Steering Committee coordinates the work of various Haematology and Clinical Chemistry Review Groups and Specialist Sub-Committees. The demand for IEQAS services has grown considerably in recent years and presented new challenges for the Scheme and its staff.

Hazel Graham (2006): We introduced 10 new schemes in 2006, including Microbiology for the first time. There are 53 different institutions (mostly hospitals) currently registered in at least one of our 29 schemes. The number of participants submitting their results electronically has increased to >80% (from 33% in 2005); very few labs now require paper copies of their reports. This has significant impact on controlling costs, reducing the potential for inputting errors and helps to reduce turnaround time.

We ran three special surveys: Effect of variant haemoglobins on the measurement of HbA1c (Tom Smith); EQA requirements in Irish laboratory medicine (Alan Carr); and continued our Coagulation special survey (Mary Byrne). We have also initiated a blood cell morphology trial using digital microscopy. We plan a participant satisfaction survey shortly and always welcome your ideas for new special surveys or schemes.

Shortly after our 2005 Conference, we relocated to a more suitable office in Nutgrove Enterprise Park, Dublin 14. Frances Fitzharris continues to support us in the IEQAS office. We were lucky enough to have had financial support for a part-time Project Manager for 2005, filled very capably by Alan Carr (released on secondment from Peamount Hospital). We will Miss Dr Beatrice Nolan who resigned from the Steering Committee during the year. William Quirke has replaced Basil Crowe (both Mid-Western Regional Hospital, Limerick) as specialist reviewer for ESR and Infectious Mononucleosis.

The Changing Face of Quality: Where is Accreditation Now? Dr Peter Kelly, Mater Misericordiae University Hospital, Dublin.

(No abstract)

Ethical Issues for Laboratories: Dr Michael McDermott, Our Lady's Hospital for Sick Children, Crumlin.

Pathology services have traditionally operated away from the glare of publicity. However, recent high profile controversies have alerted the public to the critical role of laboratory professionals in the modern healthcare environment. Regrettably, these events have not always portrayed laboratories in a favourable light. In particular, revelations about post mortem practices caused considerable public disquiet and disapprobation when first aired in Ireland in late 1999. The revelations gave birth to Government sponsored inquiries and are likely to give rise to additional legislation regarding consent and information in the area of the use of human tissue for both diagnosis and research. For the majority of laboratory professionals, the reaction of the public and media to these normal laboratory practices came as something of a surprise. It has prompted considerable concern about the potential for a similar public perception of other routine laboratory procedures, should they be subject to the same detailed scrutiny as autopsy practice. In some cases, this concern has prompted individuals to question their ability to continue laboratory procedures that would have been previously characterized as an essential component of a quality program. This presentation briefly discusses laboratory ethics and the conflict that has arisen between the expectations of the public and normal laboratory practice.

Pre-analytical automation – experience with and potential pitfalls: David Stockwell, Morriston Hospital, Swansea.

The networked Chemical Pathology service for the West Glamorgan area in South West Wales has a large centralised laboratory at Morriston Hospital with satellite laboratories in Swansea and Neath hospitals. In 2002, an automated preanalytical platform integrated with chemistry and immunochemistry modular analysers was installed. Since that time, the laboratory has been the UK showroom site for Roche Diagnostics and has been host to more than 40 visits by laboratories in UK and Ireland.

Prior to 2002, the centralised Morriston laboratory operated complex manual preanalytical processes serving numerous stand-alone analysers. There were however significant problems and dissatisfactions with this approach. Processes were highly labour-intensive with unacceptable error rates, turnaround times and risk-assessment ratings. A decision was made to consolidate its bulk processing onto the single modular platform.

Significant technological and organisational change was needed. This included staff retraining on the technical aspects of the equipment and a fundamental redesign of sample processing and workflow within the laboratory. In addition, information technology solutions were implemented to allow the centralised service to be fully integrated with its surrounding satellite laboratories.

This presentation will detail the functions and benefits of implementing a centralised laboratory service utilising an automated preanalytical/analytical modular platform. It will detail potential pitfalls encountered over the last 4 years and the locally developed solutions designed to overcome common problems and enhance functionality. The future direction of the service will also be discussed particularly its potential to deliver All Wales Pathology Modernisation objectives.

Workshop A

IEQAS Survey - Effect of Variant Haemoglobins on the Measurement of HbA1c: Dr Tom Smith, St Vincent's University Hospital, Dublin.

The concentration of haemoglobin A1c (HbA1c) provides a means of assessing long-term glycaemic control in diabetic patients and correlates well with the risk of developing chronic diabetes related complications. A clinical intervention threshold, HbA1c <7%, necessitates accurate measurement of HbA1c for effective management of patients. Laboratories strive to employ methodology that is accurate, precise and reliable. However, despite satisfactory performance with specimens from the vast majority of diabetic patients, several of the methods in use are prone to interference from variant haemoglobins.

This IEQAS survey assessed the accuracy of HbA1c measurement in diabetic patients harbouring relatively common haemoglobinopathies. Data will be presented to illustrate the analytical impact of some of these haemoglobinopathies on the level of HbA1c reported by participating laboratories. In addition, a reporting strategy to aid the clinical interpretation of HbA1c levels in patients with haemoglobinopathies will be presented.

IEQAS Survey - EQA Requirements in Irish Laboratory Medicine: Alan Carr, Peamount Hospital, Dublin.

This workshop summarises the survey findings with a discussion of the Clinical Chemistry laboratory EQA requirements. See the Survey Report for details.

eGFR: National Renal Strategy and the Implications for Laboratories: Dr Liam Plant, Cork University Hospital, with discussion panel led by Peter Gaffney, AMNCH, Tallaght.

Liam Plant will introduce the National Renal Strategy and its implications for laboratory. There will then be a discussion led by Peter Gaffney: the imminent requirement for eGFR calculation with creatinine results has once again focused our attention on the accuracy of creatinine measurements, and how best to calculate eGFR. Overcoming the limitations of the most widely used creatinine method (Jaffe) is a major challenge to laboratories, kit manufacturers, and standardisation bodies. The effect of the difference in creatinine results from disparate analytical methods can have significant influence on the eGFR value reported.

The MDRD derived calculation has been recommended by the US, UK and Irish kidney associations, but there are a number of variants if this calculation and it is important that we choose the correct one. This talk will describe how the laboratory in Tallaght hospital chose a strategy for the calculation of eGFR using a variant of the 4V MDRD equation.

workshop B

IEQAS Survey - EQA Requirements in Irish Laboratory Medicine: Alan Carr, Peamount Hospital, Dublin.

This workshop summarises the survey findings with a discussion of the Haematology, Transfusion and Coagulation laboratory EQA requirements. See the survey report on our website www.iegas.ie for details.

Blood Cell Morphology review: Dr Niamh O'Connell, AMNCH, Tallaght.

All IEQAS Blood Cell Morphology samples since the 2005 conference will be reviewed and discussed.

IEQAS Coagulation Survey 2005 & 2006: Mary Byrne, NCHCD, St James's Hospital, Dublin.

This presentation summarises the survey findings for the Coagulation Special distributions in 2005 and 2005.

The WHO Classification of Leukaemia, historical perspective and where we go from here: Joe Vaughan DIT, Kevin St., Dublin.

The lecture will review the development of leukaemia through the ages and how technology initially played no part and how, after World War Two, major developments occurred in the treatment of leukaemia. The development of treatment regimes was followed with a greater understanding of the disease process. This led to the development of the FAB classification for which we were thankful as the system seemed robust for some time. Difficulties arose due to the use of improved technology which had increased sensitivity. This led to the WHO Classification of leukaemia. The lecture will illustrate some of the changes that have been identified and what it means to the cell. The lecture will conclude with what might be the future in the diagnosis of leukaemia.

Blood Cell Morphology Digital Microscopy Pilot- Update.

(No abstract) A brief update on the plans for the digital microscopy pilot

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Steering Committee

Mr Des Kenny (Chairman)	Dr Ned Barrett	Mr John Brady	Mr Alan Carr
Ms Hazel Graham (Operations Manager)	Dr Gerard Boran	Mr Ivan Shirley	Dr Niamh O'Sullivan
Ms Patricia Howley (Scheme Manager)	Prof John O'Leary		
•Academy of Medical Laboratory Science		•Association of Clinical Biochemists in Ireland	
	•Faculty of Pathology, Royal College of Physicians of Ireland		

Additional advisors / specialist reviewers

Ms Mary Byrne	Mr Frank Clarke	Ms Therese Driscoll	Mr Gerry Judge
Ms Nora Kinsella	Prof John Nolan	Ms Dympna Murphy	Dr Kanthi Perera
Mr William Quirke	Mr Rowland Reece	Dr Tom Smith	