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# Programme

**Registration Tea/Coffee from 09:15**

## **FIRST PLENARY SESSION**

*Chair: Mr Wilf Higgins, HSE*

**09:45 Chairman's Address**

Dr Ned Barrett, IEQAS / Mid Western Regional Hospital, Limerick

**09:55 Opening Address**

Mr Martin McDonald, Head of Workforce Planning and Professional Education, HSE

**10:15 IEQAS Annual Review**

Ms Patricia Howley, IEQAS

**10:25 EQA of POCT within Primary Care and the High Street Pharmacist**

Ms Annette Thomas, Cardiff and Vale NHS Trust / WEQAS

**11:00 – 11:30 Tea/Coffee**

## **SECOND PLENARY SESSION**

*Chair: Dr Geoff Chadwick, Associate Dean, General Professional Training, RCPI*

**11:30 Guidelines for the Safe Use and Management of Point of Care Testing in Primary and Community Care**

Dr Judith Martin, Irish Medicines Board

**12:05 Pilot study of POCT Lipids in Pharmacies – IPU/TCD Health Screening Study**

Ms Aisling Reast, Irish Pharmacy Union

**12:20 Survey of Point of Care Services in the Republic of Ireland**

Ms Ruth O'Kelly, The Coombe Women & Infants Hospital / POCT Consultative Group Sub-committee (ACBI, AMLS)

**12:40 – 14:15 LUNCH**

## 14:15 – 16:00 AFTERNOON WORKSHOPS (parallel)

### **CLINICAL CHEMISTRY WORKSHOP**

*Chair: Mr John Brady, IEQAS / OLCH Crumlin*

**14:15 Implementation of the international standardisation of the HbA1c assay in Ireland**

Dr Ned Barrett, IEQAS / MWRH Limerick

**14:45 Northern Ireland Regional Audit Group in Clinical Biochemistry**

Dr Mark Lynch, Altnagelvin, Tyrone County and Erne Hospitals

**15:15 Fresh Serum Survey**

Ms Hazel Graham, IEQAS

**15:25 Case Studies**

1. Dr Ned Barrett, IEQAS/MWRH Limerick
2. Ms Caroline Reilly, OLCH Crumlin

### **HAEMATOLOGY WORKSHOP**

*Chair: Ms Therese Driscoll, IEQAS / AMNCH Tallaght*

**14:15 Blood Cell Morphology scheme review**

Dr Kanthi Perera, Midland Regional Hospital, Tullamore

**15:00 Blood Transfusion – Labquality review**

Mr Gerry Judge, AMNCH, Tallaght

**15:15 Case Studies**

1. Ms Leona Gallagher & Ms Fiona Brady, AMNCH Tallaght
2. Ms Caitriona O'Shaughnessy, Beacon Hospital
3. Ms Michelle McNulty, St Vincent's
4. Ms Heather Baker, AMNCH Tallaght

# Acknowledgements

We would like to thank the following for their generous support towards the running of the Conference today:

## Major Sponsors:

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# Introduction

Now in our 27<sup>th</sup> year, IEQAS offers External Quality Assessment (EQA) schemes to Irish laboratory medicine, with the aim of achieving and maintaining the best possible quality through a continuous process of monitoring, education, training and support.

## **Steering Committee**

Barrett, Ned <sup>2</sup>	<u>Chairman</u> Consultant Clinical Biochemist, Mid-Western Regional Hospital, Limerick.
Shirley, Ivan <sup>1</sup>	<u>Vice-Chairman</u> Chief Medical Scientist, St Vincent's University Hospital.
Boran, Gerard <sup>3</sup>	Consultant Chemical Pathologist, AMNCH, Tallaght.
Brady, John <sup>1</sup>	Chief Medical Scientist, Our Lady's Children's Hospital, Dublin.
Carr, Alan <sup>1</sup>	Senior Medical Scientist, AMNCH, Tallaght
Graham, Hazel	IEQAS Quality Manager.
Howley, Patricia	IEQAS Operations Manager.
O'Sullivan, Niamh <sup>3</sup>	Consultant Microbiologist, Our Lady's Children's Hospital / Coombe Women's Hospital, Dublin.
Smith, Tom <sup>2</sup>	Principal Biochemist, St Vincent's University Hospital.

## **Associated Professional Bodies**

<sup>1</sup> Academy of Medical Laboratory Science

<sup>2</sup> Association of Clinical Biochemists in Ireland

<sup>3</sup> Royal College of Physicians of Ireland, Faculty of Pathology

## **Additional Sub-Committee members**

Blake, Ophelia	Principal Biochemist, St James's Hospital, Dublin.
Clarke, Frank	Lecturer, School of Biological Sciences, Dublin Institute of Technology.
Driscoll, Therese	Senior Medical Scientist, AMNCH, Tallaght.
Judge, Gerry	Chief Medical Scientist, AMNCH, Tallaght.
Murphy, Dympna	Chief Medical Scientist, AMNCH, Tallaght.
Nolan, John	Consultant Endocrinologist, St James's Hospital, Dublin.
Perera, Kanthi	Consultant Haematologist, Midland Regional Hospital, Tullamore.
Quirke, William	Medical Scientist, Mid-Western Regional Hospital, Limerick.
Reece, Rowland	Principal Biochemist, St Vincent's University Hospital, Dublin.
1 vacancy	Haematology Review Group

## **Operations Management**

Graham, Hazel, Quality Manager  
Howley, Patricia, Operations Manager  
Cooke, Anne, Scheme Administrator

# Abstracts

## **Opening Address**

*Mr Martin Mc Donald, Head of Workforce Planning and Professional Education, HSE*

## **Biography**

Martin McDonald was educated at University College Dublin, the University of Keele, the Institute of Public Administration and the Kennedy School of Government, Harvard University. He worked in the civil service for several years holding various positions in the Department of Education and in the Department of Health and Children. Following this he moved to the Health Service Employers Agency and, in March 2004, he was asked to join the change management team at the, then, interim HSE. He led the team involved in successfully managing the streamlining of specialist health agencies into the HSE upon their abolition as separate entities in December 2004. From the latter part of 2005 to June 2008 he served as National Director of Human Resource in the HSE prior to taking up his current role.

Having been involved in leading many change and modernisation programmes including rationalisation of acute hospital and other services, he was also central to the establishment of the partnership process within the health service. He has been a member and Joint Chair of the Health Services National Partnership Forum.

He has also served as a member of the Performance Verification Group (PVG) which has overseen implementation of the provisions of recent national pay agreement within the health service

# Annual Review IEQAS 2008

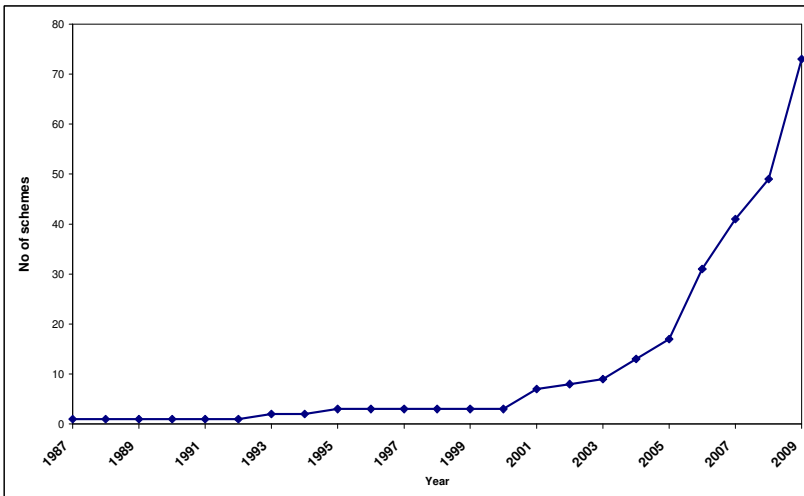
Ms Patricia Howley, Operations Manager, IEQAS

## Committee members: changes:

We would like to welcome Therese Driscoll, of Adelaide, Meath & National Children's Hospital, Hospital, Dublin, who has joined our Haematology Review Group.

## Schemes

The number of participants in all schemes registered with IEQAS has again increased. Twenty six new schemes were introduced in 2009 following requests from participants. We now have 628 different analysers in 72 schemes:



The current schemes are:

ABO & Rh grouping

Alcohol in serum

Ammonium Ion

Antibody screening/compatibility testing

Antiglobulin test, direct

Antistreptolysin titre

APTT, fibrinogen

Blood Cell Morphology

Blood Gas

Bordetella pertussis, antibodies

C Reactive Protein

C. difficile, culture & toxin

detection

Chlamydia pneumoniae, antibodies  
 Coeliac disease  
 D-dimer  
 Drug abuse screening & confirmation in urine  
 Drug monitoring (therapeutic drugs)  
 ESR  
 Faecal Blood  
 Full Blood Count  
 General Clinical Chemistry  
 H. pylori antibodies  
 H. pylori antigen detection  
 Haemoxymeter  
 HbA<sub>1c</sub>  
 HbA<sub>1c</sub> variants  
 Herpes simplex 1 & 2 antibodies  
 Histology PAP stain  
 Hormones/Haematinics  
 Infectious mononucleosis

Influenza virus A+B, antigen detection  
 Lipids and Lipoproteins  
 LMW-Heparin/antiFXa  
 Mycoplasma pneumoniae, antibodies  
 Myocardial Markers  
 Natriuretic peptides, B-type  
 Parasites in Faeces  
 Parathyroid hormones  
 Pregnancy Test  
 PSA  
 PT (INR)  
 Rheumatoid factor & citrullin antibodies  
 Rotavirus & adenovirus, antibody detection  
 RS virus, antigen detection  
 Thyroid gland antibodies  
 Urine, quantitative chemistry

### **New for 2009**

Angiotensin Converting Enzyme  
 Blood culture  
 Conjugated Bilirubin  
 CSF  
 Drug abuse  
 ESR for Alifax users  
 Faecal culture  
 Fungal culture  
 General Bacteriology  
 General Bacteriology 2  
 Gram stain Blood culture –  
 Gram stain blood culture +  
 Gram stain colonies  
 Measles virus antibodies

Mycobacterial culture & smear  
 Mycobacterial smear  
 Neisseria gonorrhoea culture  
 POCT Lipids scheme  
 Protein in CSF  
 Proteins, Immunochemical determinations  
 Synovial fluid crystals  
 Throat strep culture  
 Total Bilirubin  
 Tumour Markers  
 Urine Culture  
 Urine strip test B



## **Achievements and Plans**

ISO 9001: IEQAS achieved certification in February 2009 to ISO 9001:2008 standard.

Participant Satisfaction Survey: The survey was sent to all participants in March 2009; 97% of respondents were satisfied with the service provided by IEQAS. A report is included in this booklet.

Clinical Chemistry Special Survey: IEQAS ran two samples using fresh pooled residual serum, to examine whether some of the analyser differences experienced with lyophilised material are due to matrix effects. The material performed well and a report will be presented at the Clinical Chemistry workshop. It is hoped to repeat this exercise at least once per year.

Audits: Two audits were conducted by outside groups with the assistance of IEQAS, primarily to maintain confidentiality:

POCT Audit: Nov 2008, to survey current practice in Irish hospitals. It was conducted by a sub-committee of the POCT Consultative Group, representing the ACBI, AMLS, IMB and RCPI Faculty of Pathology. The audit was coordinated by Ruth O'Kelly, Coombe Women and Infants University Hospital and a summary of the findings will be presented at our 2009 Conference.

TFT all-Ireland Audit: Mar 2009, to audit aspects of laboratory thyroid function testing (testing strategy, reference ranges, analytical sensitivity, assay interference and report comments). The audit will summarise current practice in Ireland against published UK Guidelines. The web-based audit was endorsed by the ACBI, AMLS, the Faculty of Pathology (RCPI) and the Northern Ireland Regional Audit Group in Clinical Biochemistry. Preliminary findings will be presented at our 2009 Conference.

POCT for Lipids – Pharmacies: IEQAS has facilitated a trial with the Irish Pharmacy Union and Trinity College for POCT lipid testing in over 30 pharmacies countrywide. Samples are being provided by WEQAS and IEQAS facilitate with the analysis of results. The aims and objectives of the trial will be presented at our 2009 Conference.

HbA<sub>1c</sub> standardisation: A Project Team has been established by the HSE Diabetes Expert Advisory Group to lead the

implementation of the international standardisation of the HbA1c assay in Ireland, with Dr Ned Barrett as chairman; Hazel Graham represents IEQAS on the team. Additional HbA1c distributions from IEQAS are planned for early 2009. Dr Barrett will present an update at today's conference.

Labquality Transfusion Schemes: There was some dissatisfaction with the way the samples have been presented by Labquality, in segments rather than tubes. Labquality has now sourced an alternative supplier who will provide samples in tubes from 2010.

We wish to thank all members of the Steering Committee and other sub-committees, for their continued support and commitment.

### **Biography**

Patricia Howley joined IEQAS in 1999, initially as Scheme Administrator, then as Scheme Manager, taking over as Operations Manager in 2007. Before a career break to bring up her children, she worked in Warner Lambert, Dun Laoghaire, in various roles as QC Chemist, Development Chemist, and Analyst in both QC laboratory Confectionary Plant and Microbiology laboratory in Pharmaceutical/Diagnostic plant. She has a degree in Chemistry from the National University of Ireland, Galway and recently achieved an MSc in Quality and Safety in Healthcare Management with Royal College of Surgeons in Ireland.

## **EQA of POCT within Primary Care and the High Street Pharmacist**

*Ms Annette Thomas, Director, Quality Laboratory, Cardiff and Vale NHS Trust/WEQAS*

### **Abstract**

WEQAS is the largest provider of EQA services for the Point of Care Testing (POCT) market within the UK and provide services to Secondary Care, Primary Care, Company Occupational Health providers and pharmacies.

In the UK, we have seen a steady increase over the last year in the number of diagnostic services provided within primary care and the high street pharmacist. Over 500 packages are sent weekly to our participants, with variable and multiple sample requirements. They are customised to meet the requirement of each client, i.e. sample provided per meter / per POCT site or per operator. The EQA programmes are designed for ward staff, primary care nurses, occupational health staff and pharmacists and covers: Training, external quality assessment and problem solving.

The aim of our programme is to provide support to POCT co-ordinators, to identify non compliant sites and improve the analytical performance of users. A Co-ordinator in each organisation is given a Group Administrator function and maintains the database for its own organisation. In the case of a high street pharmacy chain this would be the regional pharmacist, and within the community this role is often retained by the local laboratory. The role of performance surveillance is therefore devolved to each individual Co-ordinator at a local level and monitored nationally by the EQA organiser. The powerful database gives POCT Co-ordinators a wealth of information on method and analyser performance both within their own organisation and between organisations. The system can readily accommodate remote sites. The users can directly upload their results and access reports saving unnecessary data-entry time for the POCT Co-ordinator or EQA organiser. Distribution letters, non-compliance reports, poor performance reports and cumulative reports are generated from one system. The POCT Users Standard Report uses a simple traffic light system with clear action limits.

## **Biography**

Annette Thomas is a Consultant Clinical Biochemist and Director of the Quality Laboratory at the Cardiff and Vale NHS Trust, with over 30 years experience in Laboratory Medicine, 25 years of which has been in the field of Quality assurance as Scheme Organiser of WEQAS. In 2003 she was made Director of WEQAS, which has grown under her leadership to be one of the largest EQA Providers in the UK. She is passionate about EQA in ensuring that the service is continually improved to meet the challenges facing Laboratory Medicine. Education, improved IT, Pre and Post Analytical assessment and meeting the demands of new Technology have been the key drivers for our Service development in the last few years. She is an advocate of accreditation and WEQAS was the first EQA Scheme to be accredited by Clinical Pathology Accreditation (CPA) both under the old and new (ILAC- G13 / ISO Guide 43-1) standards. She is also an Executive Board member of European Committee for External Quality Assurance Programmes in Laboratory Medicine.

Annette has a keen interest in Quality Assurance of Point of Care Testing (POCT) and is Head of Service for POCT for the Cardiff and Vale NHS Trust, one of the largest teaching Hospitals in the UK. WEQAS POC Division also provides samples and support to other Hospitals within the UK, with the glucose Scheme being used in over 80% of NHS hospitals in the UK.

She is the lead scientist in POC for Pathology Modernisation in Wales and advises the Welsh Assembly Government on Point of Care issues. She also chairs the "All Wales" POCT Steering and Co-ordinators Groups, and the Cardiff and Vale NHS Trust POCT working group.

Annette's portfolio also includes the Reference Laboratory where they have been active in developing primary and/or secondary reference methods. This European wide service is provided to both manufacturers and EQA organizers in order to give stated, traceable, analyte values in calibrator, QC and EQA materials.

Annette is an expert member for the Association of Clinical Biochemistry (ACB) in dealing with press and media on EQA and POCT and is also a member of the National Audit Committee in Clinical Biochemistry and chair of the All Wales Clinical Biochemistry Audit Committee.

# **Guidelines for the Safe Use and Management of Point of Care testing in Primary and Community Care**

*Dr Judith Martin, IVD Product Manager, Irish Medicines Board.*

## **Abstract**

Point of care testing involves the performance of a test in the immediate vicinity to a patient to provide a rapid result outside the conventional laboratory environment. Recent advances in diagnostic technology and the delivery of healthcare services has resulted in an increase in the demand for and provision of point of care testing (POCT) in Primary and Community Care environments. While the concept of POCT in Primary and Community Care is not new, the complexity and variety of tests and instruments available and in use has evolved significantly.

The capacity to provide a rapid test result which can be acted upon directly permits increased clinical effectiveness and improved outcome for patients. However this is only true if the result delivered is accurate and reliable. These guidelines extend the principles outlined in the Guidelines for Safe and Effective Management and Use of Point of Care Testing, published in 2007, from hospital to community settings.

There are three different aspects to POCT testing; Diagnosis, Monitoring and Screening. Where POC testing is being used primarily for screening purposes as is usually the case in a pharmacy setting, then a robust system of patient consent, follow-up and referral should be put in place. POCT is not a replacement for conventional laboratory testing but rather a supplement to it. POC test results which are used for diagnosis or critical patient management decisions, or which give unexpected results should be confirmed by hospital laboratories to ensure accurate diagnosis and to facilitate correct patient management decisions.

It is recommended that these guidelines be adopted by those responsible for POCT in Primary and Community Care settings in Ireland to ensure that POCT is performed in a well structured and controlled manner to minimise the risk to public health and to ensure patient safety. A well-managed and properly governed system for the provision of POCT services has the potential to deliver considerable benefits to the Irish health service and to patients.

## **Biography**

Judith Martin is currently working as IVD Product Manager in the medical devices vigilance and compliance section of the Human Products Safety Monitoring Department of the Irish Medicines Board (IMB). In this role, Judith deals with vigilance and compliance issues relating to in vitro diagnostic medical devices (IVDs). Judith also represents the IMB at national and international events as required, such as the IVD Technical Group. Judith has been in this role for approximately 15 months. Prior to joining the IMB, she worked in the area of Technical Support with an IVD manufacturer for almost four years. Judith has an Honours degree in Biotechnology and she also previously worked in a Biotechnology company for 5 years, where she completed her Ph.D. and Post-doctorate studies in the areas of Biotechnology, Biochemistry and Microbiology.

## **Pilot study of POCT Lipids in Pharmacies -IPU / TCD Health Screening Study.**

*Ms Aisling Reast, Irish Pharmacy Union*

### **Abstract**

Health Screening services are offered in many community pharmacies throughout Ireland. Pharmacists are highly trained and accessible health care professionals and so community pharmacy is an ideal location for these services. As there is no current HSE policy on screening within pharmacies, those pharmacies offering this service are often doing so without accredited training, structured QA and auditing processes or uniformity of record keeping and referral. It is widely acknowledged that conditions such as high blood pressure, diabetes and high cholesterol are greatly under-diagnosed and so screening has a major role to play in health promotion and has positive economic consequences through early intervention. There are clear health service and population needs for the assessment of such a service in Ireland but there have been no large scale studies of screening habits and outcomes in community pharmacy in Ireland.

The Irish Pharmacy Union and Trinity College Dublin have set up a pilot study to evaluate the feasibility and impact of community pharmacy based screening services. EQA is a vital part of ensuring both the quality of results provided to patients and the quality of data for this academic study. The presentation will outline our pilot study and the role EQA has played to date within the study.

### **Biography**

Aisling Reast qualified as a pharmacist in 1999. She has a degree in Pharmacy from the University of Brighton and a Diploma in PR from the PRII. She is currently studying for an MSc in Community Pharmacy at TCD. She ran her own pharmacy for several years and her provision of extended services, such as health screening, led to the awarding of the IPOS Dublin Pharmacy of the Year in 2006. She has extensive experience in pharmacy education and teaches pharmacists, midwives, nurses and pharmacy technicians. She has a strong interest in expanding the role of community pharmacists and is a member of the IPU's Community Pharmacy Committee.

## **Survey of Point of Care Services in the Republic of Ireland**

*Ruth O'Kelly, on behalf of POCT Consultative Group Sub-committee (ACBI, AMLS)*

### **Abstract**

A survey of POCT services was carried out following the launch of the new "Guidelines for Safe and Effective Management and Use of Point of Care Testing" by the POCT Consultative Group representing the ACBI, AMLS, IMB and RCPI Faculty of Pathology.

The aim of this survey was to provide a snapshot of current services, to compare these services with those of the UK, and to provide a baseline for a further audit to evaluate the effectiveness of the new Guidelines.

A questionnaire was devised based on a similar questionnaire distributed by WEQAS in the UK; Irish distribution was facilitated by IEQAS. The questionnaires covered accreditation status, existence of POCT committees and Quality Management Systems and staff resources. 55 institutions received at least one questionnaire.

27 hospital laboratories replied (49%); 33% of the laboratories were accredited, 56% had a POCT policy and 44% had a QMS in place. There were 15 designated POCT co-ordinators but all except one had other duties. Laboratories provided POCT support as follows: Training (70%), Health and Safety (67%) and Maintaining documentation (56%). Most support was for blood gases and glucose analysis. Compared with UK results, Ireland gave similar support for blood gases, less for glucose and much less for urinalysis. In both UK and Ireland there was poor IT support. Comments from respondents predominately related to lack of resources such as POCT co-ordinator, no link staff on wards and lack of IT connectivity.

Compared to the UK, Ireland fared badly in relation to the availability of POCT policies and QMS. Resources for POCT were considered very scarce. Support for blood gas analysers was good, but poor for other parameters, and connectivity to LIS was limited. The majority of the respondents (21/27) were not happy with the service they supported.



## **Biography**

The POCT Consultative group subcommittee was set up to perform a survey of Point of Care services in Ireland. This survey coincided with the launch of the Irish POCT Guidelines: "Guidelines for Safe and Effective Management and Use of Point of Care Testing" by the POCT Consultative Group representing the ACBI, AMLS, IMB and RCPI Faculty of Pathology.

The committee consists of members of the ACBI and AMLS: Dr Jennifer Brady, Eileen Byrne, Dr Martin Healy, Katherine Hooley, Clare Mulligan, Keith Mulready, Paudy O'Gorman and Paula O'Shea, The presentation will be given by the chairperson of this sub-committee - Ms Ruth O'Kelly, Principal Biochemist at the Coombe Women and Infants University Hospital.

# Clinical Chemistry Workshop

## **Implementation of the international standardisation of the HbA1c assay in Ireland**

*Dr Ned Barrett, Consultant Biochemist, Mid Western Regional Hospital, Limerick and Chairman of IEQAS Steering Committee.*

### **Abstract**

The Health Service Executive has assigned the task of leading the implementation of the international standardisation of the HbA1c assay in Ireland to its Diabetes Expert Advisory Group (Diabetes EAG). The EAG has appointed a sub-committee to drive the project. The members of the sub-committee are: Dr. Ned Barrett (chairman), James Conway (Assistant National Director, Office of the CEO), Dr. Graham Roberts and Dr. Tony O'Sullivan. In addition, the Irish Endocrine Society nominated Dr. Obada Youisif as its representative on the sub-committee. The National Director of the National Hospitals Office has nominated Ms. Louise McMahon to the sub-committee.

The tasks assigned to the sub-committee include: the identification of target groups for communication; the selection of training modes and channels of communication; close liaison with the Irish External Quality Assessment Scheme for Laboratory Medicine; liaison with Healthlink and the providers of software for primary care practices; the selection of a date for the commencement of dual reporting of IFCC and DCCT results nationwide and the identification of opportunities for promoting better diabetes control in all people with diabetes.

A meeting with representatives of almost all laboratories providing HbA1c results was held in Dublin on 25th June. At the conclusion of this meeting a working group was formed to assist the EAG sub-committee. A detailed project plan has been completed.

The primary goal is that the HbA1c assay in all Irish clinical laboratories will be fully metrologically traceable to the IFCC Standard so that the primary result (IFCC) will be reported in mmol/mol and that the DCCT-aligned secondary result, expressed as % and reported alongside it, will be derived from it using the IFCC/DCCT Master Equation. A number of other goals could follow from this. These include the adoption of a national reference

range for HbA1c, the setting of standards of analytical performance and agreement on result turnaround times.

The means to achieve these goals will provide opportunities for the EAG to highlight the importance of good blood glucose control, as evidenced by HbA1c results, in the management diabetes.

### **Biography**

Dr Ned Barrett is Consultant Biochemist at the Mid-Western Regional Hospital in Limerick. He is a member of the Health Service Executive's Expert Advisory Group on Diabetes and is Chairman of the Steering Committee of the Irish External Quality Assessment Scheme for Laboratory Medicine (IEQAS).

# **Northern Ireland Regional Audit Group in Clinical Biochemistry**

*Dr Mark Lynch, Altnagelvin, Tyrone County and Erne Hospital*

## **Abstract**

Northern Ireland ACB Regional Audit Group: Originally formed in 2002 from the Regional Audit Group in Chemical Pathology. Currently meets twice a year with Clinical Biochemists, Chemical Pathologists and BMS representatives from all Clinical Biochemistry Laboratories in NI. ACBI observer also attends meetings. Chairperson sits on and reports to the National ACB Audit Group. Chairperson and Secretary serve for 3 years.

Audit topics covered since 2002 include: Sweat testing, Lipid testing, GI tests, Urinalysis, Pregnancy testing, Toxicology testing, Iron overload testing, CRP, Bilirubin analysis, CSF spectroscopy, Pleural Fluid testing, B12 / Folate testing, Porphyrin screening, Cryoglobulin testing, Urine myoglobin testing, Hypopacks, Aluminium requesting, Telephone limits, Delta checks, Bile acids, Faecal reducing substances, Thyroid Function Testing, Microalbumin testing, Albumin testing, Tumour markers. Current ongoing audits / surveys include: Pre analytical testing, TPMT and Free Light Chain requests.

ACB National Audit of Thyroid Function: UK wide online questionnaire, Audit standards taken from section 7 of "The UK Guidelines for the Use of Thyroid Function Tests" published in 2006. 74 responses were submitted. Findings presented at FOCUS 09. Practice varies enormously between laboratories in almost all aspects audited. Still no clear consensus in the UK for provision of thyroid function tests, their reporting or follow up, despite the publication of the guidelines.

NI ACB Regional Audit of Thyroid Function: Questionnaire sent electronically to all 6 laboratories in NI offering TFTs. Audit standards taken from "The UK Guidelines for the Use of Thyroid Function Tests". 6 responses were submitted. Findings presented to Regional Audit Group in October 2006. Although practice did vary all laboratories were compliant with the majority of the selected guidelines. However a large number of specific issues were raised. Including: Frontline testing; Provision of FT3; Reference ranges (adult, age and pregnancy related); functional sensitivity validation; Free assay dilution; Sample stability data;

IQC; Follow up of unusual test results. A number of Recommendations for practice were agreed. Reaudit is currently ongoing.

IEQAS All Ireland Audit of Thyroid Function: Based upon ACB National (UK) Audit online questionnaire – see above. 15 responses were submitted. As with UK and NI, practice varies enormously between laboratories in almost all aspects audited. Still no clear consensus in Ireland for provision of thyroid function tests, their reporting or follow up, despite the publication of the guidelines.

### **Biography**

Dr Mark Lynch graduated with a BSc and PhD in Chemistry from Queens University Belfast. He trained as a Clinical Biochemist (ACB Grade A Training Scheme) at the Royal Victoria and Belfast City Hospital, during which time undertook an MSc in Clinical Biochemistry at Trinity College Dublin. Upon completion of training was appointed a Grade B Clinical Biochemist in the Royal Victoria Hospital during which time worked as a Visiting Scholar at the University of Virginia for two years. He returned to RVH and completed an MRCPPath. Mark has been working as Consultant Clinical Biochemist in Altnagelvin, Tyrone County and Erne Hospitals since 2003.

# **Fresh Serum Survey for General Clinical Chemistry**

*Ms Hazel Graham, Quality Manager, IEQAS*

## **Abstract**

We distributed two samples of pooled residual serum to determine whether differences between methods, occasionally seen for some analytes, were related to 'matrix effects' with commercially prepared EQA samples.

For most analytes, the fresh material performed better than commercially prepared material. However any general pool of patient serum will tend to result in near-normal levels, which does not fully challenge the methodology. Lithium level was zero and was excluded from analysis. This presentation will review the results in more detail.

Despite the relatively small numbers in each method group, it was very reassuring to note how results from the same commercially prepared sample were almost identical when run a number of months apart.

Fresh residual material is readily available and easily included in IEQAS schemes, as the number of Irish laboratories is relatively low. Suggested improvements would include protection from light to stabilise bilirubin, addition of lithium, and spiking the material to bring analyte levels into more challenging areas. As this would require additional resources, perhaps linking with a third-level institution would be an option.

## **Biography**

Hazel Graham has worked with IEQAS since 1992, as Operations Manager until 2007, when she took over the newly created role of Quality Manager. Previous work experience included 15 years in various laboratory/management related roles in Warner Lambert, Dun Laoghaire, Co Dublin (now Pfizer), manufacturer of sterile pharmaceuticals and diagnostic reagents. She has an honours degree in Biochemistry and a post graduate Diploma in Quality Control, both from Trinity College Dublin.

# Haematology Workshop

## **Blood Cell Morphology Review 2009**

*Dr Kanthi Perera, Consultant Haematologist, Midland Regional Hospital, Tullamore*

### **Abstract**

During the last year IEQAS circulated 6 morphology cases. Although the availability of slides is limited, we managed to send very informative slides to cover red cell, white cell and platelet abnormalities. The presentation will review some of the morphological abnormalities in each case with a brief review of the diagnosis, to include how you could arrive at the diagnosis.

### **Biography**

Dr Kanthi Perera graduated from the Faculty of Medicine, University of Colombo, Sri Lanka, initiated her post-graduate training in Sri Lanka and completed it at The Royal London Hospital in England. She was appointed as the first Consultant Haematologist in the National Cancer Hospital in Colombo and gave the leadership for the establishment of the first stem cell transplant unit in the country at the National Cancer Hospital. Dr Perera was hugely involved with both undergraduate and postgraduate teaching in the country. She moved to Ireland in 2001 and held a temporary consultant post in Mid-Western Regional Hospital, Limerick for 3 years and in UCH Galway for 9 months. Dr Perera carries out regular morphology teaching for SpRs and is a member of IEQAS Haematology Review Group.

## **Blood Transfusion – Labquality review**

*Mr Gerry Judge, Chief Medical Scientist Transfusion Laboratory, Adelaide, Meath and National Children's Hospital*

### **Abstract**

The Labquality external QA schemes are now well embedded in the Quality Management System of Blood Transfusion Laboratories in Ireland. In recent years more laboratories joined due to accreditation requirements. Fifty laboratories participate in the Direct Antiglobulin survey.

Three surveys are issued annually in March, June and October. Each survey consists of 2 samples for: ABO and Rh D cell group, Reverse group, Antibody screen, Crossmatch and Direct Antiglobulin Test.

The samples are received directly in large plastic segments similar to those on a blood bag. The contents are usually transferred to tubes, in the laboratory, to facilitate ease of use. Labquality have plans to change to tubes in the future.

Testing is performed using the techniques in use in each laboratory. The methods listed are; tube, column agglutination Diamed and BioVue, Scangel, Griffols DG gel, and other.

Recording results has to be carried out as per Labquality system and differs from other systems e.g. (+) is an actual reaction strength. Interpretation is also different with the use of the word "unclear" to describe anomalous result. Results are plotted on a dot plot and your result is compared with results from another laboratory that uses an equal method. The number of users using the various techniques is recorded on the survey report.

Irish results are consistently of a very high standard with virtually all laboratories getting the expected reaction e.g. no errors in first 2 DCT surveys for 2009.

### **Biography**

Gerry Judge is Chief Medical Scientist in Blood Transfusion Laboratory in AMNCH, Tallaght. He has worked previously in St James's Hospital Dublin and Lesotho.



# Participant Satisfaction Survey

## Introduction

As part of IEQAS quality policy, a Participant Satisfaction Survey was submitted to all participants in April 2009. All information submitted was treated as confidential. Thank you to all who participated, we appreciate your ideas for our Conference and possible master classes.

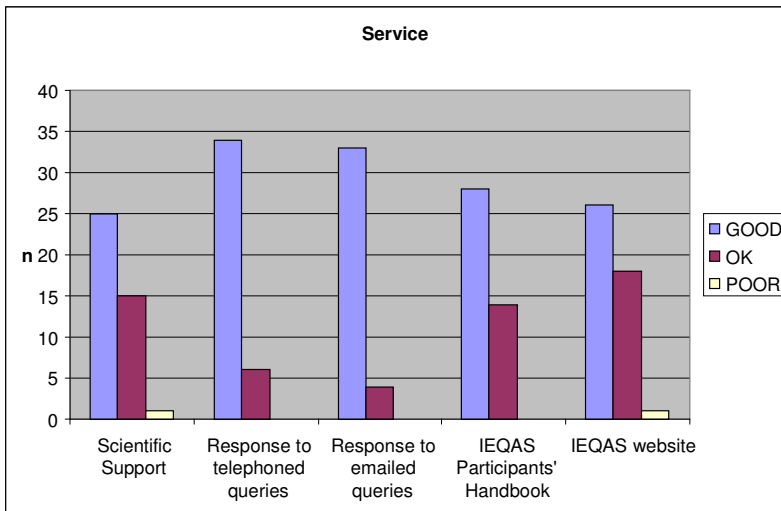
## Results

Survey forms were sent to all participants registered with IEQAS (n=140); in total 56 (40%) responded, although not all replied to each question. The majority of respondents were from Clinical Chemistry, Blood Transfusion and Haematology laboratories. Endocrinology, Coagulation, Immunology, Microbiology and Toxicology laboratories were also represented.

## IEQAS-operated schemes

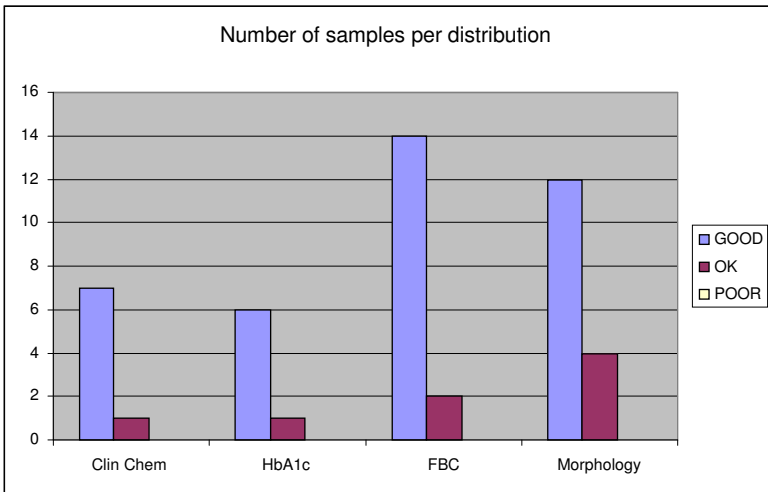
Participants were asked to rate IEQAS service under five different headings. The results were very encouraging. The following graphs summarise the findings:

### Service:

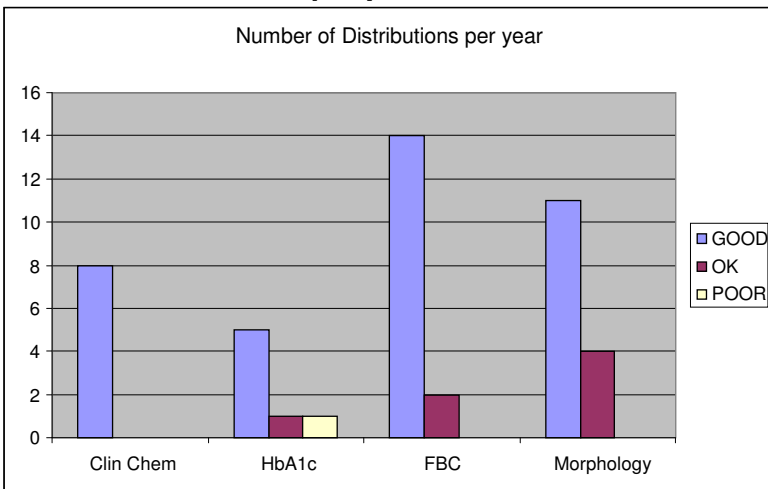


One participant was dissatisfied with scientific support but no details were given. Another participant was dissatisfied with the IEQAS website but no details were given.

### Number of samples per distribution:

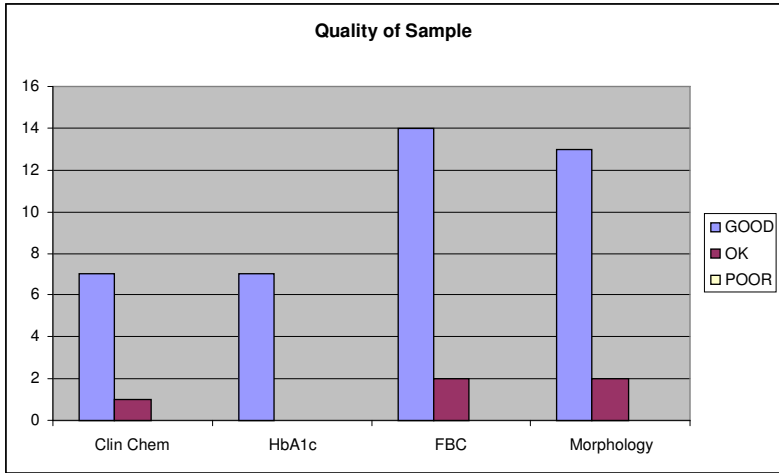


### Number of distributions per year:

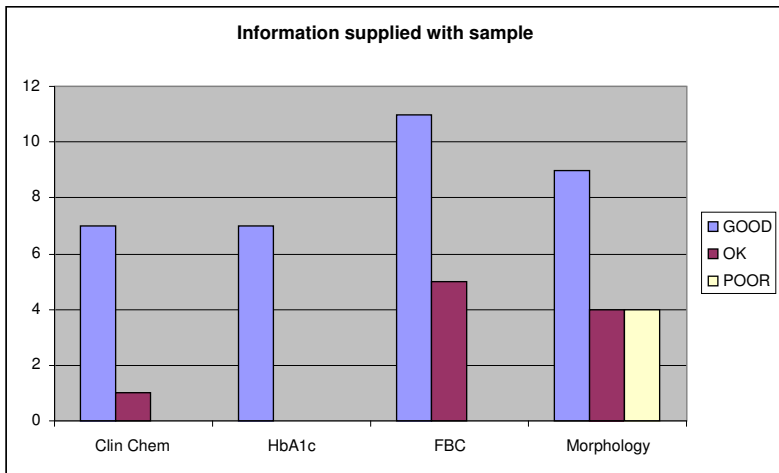


One participant was dissatisfied by the frequency of HbA1c distributions (4/year).

### Quality of Sample:

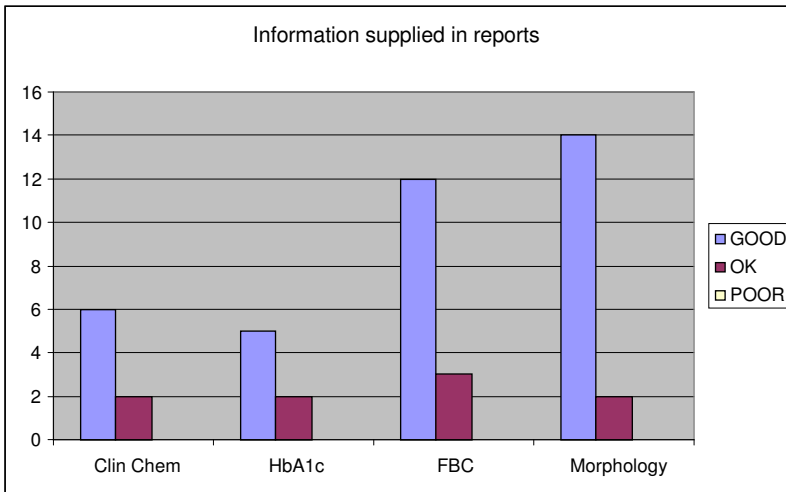


### Information supplied with sample:



Four participants were dissatisfied with the information supplied with the morphology scheme; comments suggested that more clinical details plus more FBC results would give a better reflection of the patient situation.

## Information supplied in reports:



## Labquality-operated schemes

Questions were asked separately for the Labquality operated schemes but many of the answers received applied to IEQAS operated schemes. We will inform Labquality about the findings especially where participants would like to see improvements/changes.

Most were satisfied with the number of samples per distribution and also with the number of distributions per year; however some participants (38%) requested more distributions for several schemes, i.e. Transfusion Antiglobulin Direct, ESR, Infectious Mononucleosis, Cardiac Markers, BNP and D-dimers. A minority (20%) were not satisfied with the quality of the sample, in particular, many in the Transfusion schemes would prefer if the sample was presented in sample tubes rather than in segments. Labquality has now sourced an alternative supplier who will provide samples in tubes from 2010. The majority (93%) were satisfied with the information supplied with the sample; also with the information in the reports (87%). However some found the reports complex and difficult to interpret.

## Conclusion

This was again an extremely useful survey and we are very encouraged by the general satisfaction of the vast majority of our participants, and with your very constructive suggestions.