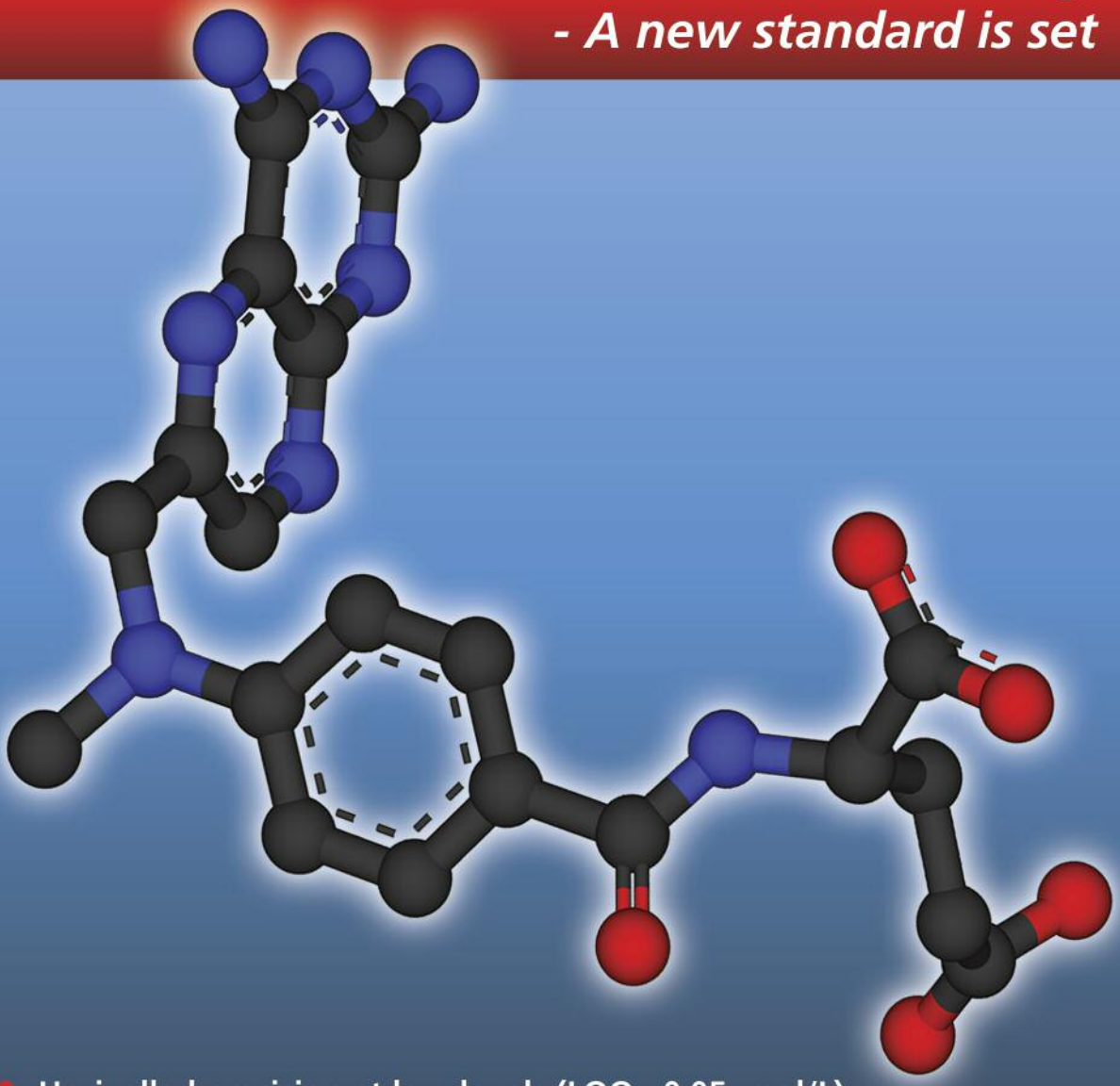
ACB News

The Association for Clinical Biochemistry | Issue 580 | August 2011

In this issue

Methotrexate Assay

- A new standard is set



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ACB News

The monthly magazine for clinical science

Issue 580 • August 2011

Front cover: Martin Myers, Peter Wheeler, Philip Hudson and Ian Barnes delivered an interesting session at Focus 2011 in Harrogate which is reported in this issue

Call for Nominations for Position of National Member 2011

In accordance with the provision of Articles 14 and Bye-law 6, nominations are called for the position of National Member of Council for a term of three years. There is one vacancy.

National Members may be asked to take on additional roles during their term of office.

Nominations for these positions, duly countersigned, should be made on the nomination form in this issue of ACB News and sent to:

ACB Administrative Office
130-132 Tooley Street
London
SE1 2TU

before 30th September 2011. ■

Sudoku

This month's puzzle

		C				I		
			S		T			
H				E				R
	H			R			C	
		I	Y		C	S		
	M			H			Y	
I				M				E
			E		R			
		E				T		

Last month's solution

S	C	I	E	R	M	H	Y	T
Y	M	R	H	C	T	S	I	E
E	T	H	Y	I	S	M	R	C
R	S	T	M	H	I	C	E	Y
I	E	M	T	Y	C	R	H	S
H	Y	C	S	E	R	I	T	M
C	H	E	I	M	Y	T	S	R
M	I	S	R	T	E	Y	C	H
T	R	Y	C	S	H	E	M	I

Old Film Now On Internet

Following the item in last month's ACB News about the early film of the Pathology Department at the Royal Hospital in Sheffield, clips have now been placed on the internet for viewing. You can find them online in the Wellcome Library catalogue. The links are as follows:

Part 1: https://catalogue.wellcome.ac.uk/record=b1750054~S3
Part 2: https://catalogue.wellcome.ac.uk/record=b1750050~S3
Part 3: https://catalogue.wellcome.ac.uk/record=b1750057~S3


Clinical Biochemistry Archive | 19

Seventeen Seconds of Movie Fame . . .

Larry J Kricka and Peter Wilding, Philadelphia, PA, USA

Is this the earliest film of a Clinical Biochemist at work in a laboratory?

Clinical Scientists Win Healthcare Scientist Awards

Staff working in the Department of Clinical Laboratory Sciences at Doncaster & Bassetlaw NHS Foundation Trust were amazed to receive the Department of Health Chief Scientific Officer's Award for Leadership. Their project showed how Clinical Biochemistry and Haematology were able to work together to provide a multidisciplinary out of hours service for Bassetlaw Hospital thereby securing and sustaining these vital services. The Departments merged to form the Department of Clinical Laboratory Sciences. A full 24 hour multi-disciplinary Haematology and Clinical Biochemistry service has now been achieved with massive benefits for staff and patients alike. The judges remarked on the excellent leadership skills displayed and were impressed with the collegiate approach in a project that showed ownership by all. The judges also congratulated the project team on achieving the delivery of the multidisciplinary service within six months. "There was a real possibility that the Haematology service at Bassetlaw would collapse and have to be provided by the Doncaster Royal Infirmary site 20 miles away. This would have meant a significant reduction in service to the patients of Bassetlaw, with increased test turnaround times and delays in the availability of cross-matched units of blood for transfusion."

Dr Shirley Spoors, Consultant Biochemist and Head of Department said, "The entry was originally entered for the Improving Quality and Demonstrating Impact category, but was shortlisted for the Chief Scientific Officer's Award for Leadership. It is a privilege and an honour to receive this award on behalf of all staff who have enabled this project to succeed."

Shirley Spoors, in the centre, with to the left, Alun Price and Jean Wardell and on her right Nicky Fleming along with Steve Watson, Jan Sobierai and Nick Dudding

The Advancing Healthcare Awards are in their fifth year, promoting and celebrating the outstanding achievements made by individuals, teams of allied professionals and healthcare scientists. Nicky Fleming, Life Sciences Professional Advisor, Department of Health, and special guest S J Watson, novelist and audiological scientist, presented the team with their trophies at a celebratory lunch at the Royal Garden Hotel, London on Friday 8th April 2011. ■

Focus on NHS Improvement

Next month we will be profiling some of the work that the NHS Improvement team has done in the area of pathology.

Over the past three years the NHS Improvement Diagnostics Team have been working with a number of pathology sites to test Lean methodology, to demonstrate the benefits both to pathology and the impact on the wider healthcare system using this methodology. Find out more next month. ■

Cardiac Marker Dialogues

13th October 2011
Hilton Grosvenor, Glasgow

08:00 Registration
09:15 Introduction
Alan Reid

Topic 1: Cardiac Troponin – Analytical and Clinical Issues Pertaining to High Sensitivity Assays

Chair: Dr Paul Collinson

09:30 Sensitive Troponins – Pros, Cons, and Impact on Every Day Clinical Practice
Dr James Januzzi
10:00 Sensitive Troponin in the ED: Golden Shot or Own Goal
Dr Nick Mills
10:30 Coffee
11:00 The A, B, Cs of Implementation of High Sensitivity Cardiac Troponin Assays into Clinical Practice
Prof Fred Apple
11:30 Dialogues: Moderated Breakout Session to Discuss Relevant Topics from the Morning Session
12:15 Lunch
13:00 Cardiac Troponin: Dialogue Session Outcome Summary

Topic 2: Markers of Heart Failure – Analytical and Clinical Issues Pertaining to the Measurement of BNP, NT-proBNP, pro-BNP and MR-proANP

Chair: Prof Fred Apple

13:30 Biomarkers in the Diagnosis and Monitoring of Acute Heart Failure
Dr Beatrice Drexler
14:00 Heart Failure Biomarkers: Current Evidence, Future Promise
Prof Robert Christenson
14:30 Dialogues: Moderated Breakout Session to Discuss Relevant Topics from Heart Failure Session
15:15 Coffee
15:45 Markers of Heart Failure – Dialogue Session Outcome Summary

Topic 3: Novel Biomarkers

Co-chairs: Prof Robert Christenson and Alan Reid

16:15 Novel Markers – The Baltimore View
Prof Robert Christenson
16:45 Novel Markers – The Minnesotan View
Prof Fred Apple
17:00 Novel Biomarkers in the ED – We Don't Need Another Hero
Dr Paul Collinson
17:30 Discussion/Open Session
18:00 Summing Up
Alan Reid
19:30 Conference Reception & Dinner

CPD Accreditation: Cardiac Marker Dialogues 2011 will be fully accredited for CPD schemes of the Royal College of Pathologists and the Institute of Biomedical Science.

To submit an poster abstract please go to the website meeting: **www.cmdmeeting.org.uk**

Registration Fees: Early Registration prior to 1st September 2011. Fees vary from Trainee at £120 to commercial at £360.

Further details from: Tel: 0141-201-5631 Website: www.ukneqas-cm.org.uk Email: alan@ukneqas-cm.org.uk

Deacon's Challenge

No 123 - Answer

A screening programme for Down's syndrome has a screen positive rate of 4% and a detection rate of 85%. Calculate the probability that a pregnancy judged to be at low risk will result in an affected child, given that the incidence of Down's syndrome at term is 1.84/1000 births in the absence of selective abortion. State any assumptions made.

FRCPath, Autumn 2010

Let TP = true positives = proportion of all results which are positive in Down's pregnancies

FP = false positives = proportion of all results which are positive in normal pregnancies

TN = true negatives = proportion of all results which are negative in normal pregnancies

FN = false negatives = proportion of all results which are negative in Down's pregnancies

Solution of this problem requires knowledge of TN and FN. Values can be determined from the information given:

Incidence of Down's at term = TP + FN = 1.84/1000 = 0.00184

The detection rate is the proportion of Down's pregnancies detected by the test = 85% = sensitivity

$$\text{Sensitivity (\%)} = \frac{TP \times 100}{(TP + FN)} = 85\%$$

Substitute (TP + FN) = 0.00184 and solve for TP:

$$\frac{TP \times 100}{0.00184} = 85$$

$$TP = \frac{0.00184 \times 85}{100} = 0.001564$$

and $FN = (TP + FN) - TP = 0.00184 - 0.001564 = 0.000276$

The screen positive rate (4%) is the percentage of all results which are positive. The remainder (96%) must be negative and will constitute both true and false negatives.

Therefore TN + FN = 96% (or 0.96 as a proportion).

The probability of a pregnancy judged to be at low risk (negative result) actually having Down's is the proportion of negative results that are false negatives:

Probability of Down's with a negative result =

$$\frac{FN}{(TN + FN)} = \frac{0.000276}{0.96} = \mathbf{0.0002875\ (i.e.\ 1\ in\ 3478)}$$

Question 124

A man admitted with nausea and confusion was found to have a serum sodium concentration of 107 mmol/L. Calculate the volume of 1.8% sodium chloride anticipated to raise his serum sodium to 125 mmol/L, and the rate of infusion expected to achieve a rate of increase of 0.5 mmol/hour (atomic masses: Na 23, Cl 35.5).

FRCPath, Autumn 2010

Pathology in an Age of Austerity . . . Lead or be Led!

Jonathan Berg, ACB News Editor

The last day of Focus brought together some key players in our world of pathology change, including two who have strong and clear messages. Dr Ian Barnes has now put pathology firmly alongside other key services in the Department of Health and that will clearly be a long-term legacy. Phil Hudson, Managing Director of Collinson Grant Healthcare, has developed an impressive understanding of clinical laboratories in the UK, his views are always supported by an evidence base, and most importantly he puts it all over in a friendly and slightly combative style.

Ian started by looking at implementation of the Strategic Health Authority driven Carter savings programmes. He reported that nearly all SHAs had submitted proposals to him for meeting the DofH targets, though it is clear not all are at the same stage of implementation. Plans, as we all know, require a saving valued at 20% of the total spend on NHS Pathology and this is reckoned to be around £500 million or £50 million saving per SHA. An overview of the current situation in the wider NHS saw a pause in reforms while the Government sought further consultation before deciding how to proceed. However, there is no reason to suggest that anything other than the current way of thinking will drive pathology forward. Ian felt it is very important that we are positive about the future. We must try and overcome historical

Participants in the Age of Austerity session included; Martin Myers, Peter Wheeler, Phil Hudson and Ian Barnes

Ian Barnes

structures and realise that changes are happening now not just in the UK but also around the world. We need to understand that we are in a period of instability and that this is likely to continue for some time.

Pathology cost improvement following on from Carter findings is founded on the following key elements:

- Lean working
- Formation of networks
- New testing strategies
- Better clinical pathways

Ian pointed out that the DofH had made much progress with SHAs in progressing regional plans. Indeed, all but one SHA now has what he considers to be a plan for structural change in place.

Long Contracts are High Risk

Regarding the private sector Ian felt that there would be further joint ventures and outsourcing.There were a lot of issues with laboratories proceeding with the procurement of new equipment and negotiating long term contracts, and this appeared to be something that the DofH strongly disapproved of. In particular, Ian alluded to those trying to take out long term contracts with diagnostic companies which he considered high risk as laboratories cannot presently guarantee work that far ahead. Procuring equipment independent of near neighbours was also deprecated.

With regard to primary care and pathology Ian sees a pathway-based approach as our future goal. There will certainly be consolidation, with general practitioner's having much more input into the service that they desire. There will be more competition but not, Ian felt, too much more. For general practice initiatives in point of care testing were seen as a part of the mix but would not solve everything.

Leadership Success

With regard to the work of the DofH itself, Ian cited the pathology leadership programme as a considerable success. Pathology Harmony, the work of Gifford Batstone on the Pathology Catalogue and also the Atlas of Variation were all areas where considerable progress has been made. Ian spoke briefly of the new NICE guidelines regarding ovarian cancer and CA-125 testing. Ian appreciated that this was to some controversial, but warned against laboratories refusing to undertake CA-125 analysis from primary care.

Left Shift on AfC

Addressing workforce issues there will certainly be a "shift to the left" on Agenda for Change bandings, with many more laboratory staff at AfC Band 2 to 4. Recent reviews of pathology departments have suggested that numbers of staff were doing work that should be assimilated to lower AfC bands.

Finally, Ian asked himself the question "Where am I going to go for the next year or two?" The answer to this rhetorical question was concentrating on service improvement, maintaining scientific input into Pathology and not allowing the service to be dumbed down. "We are where we are, and there are plenty of opportunities", was Ian's upbeat ending.

Same Story Needs Action Now

Collinson Grant Healthcare came to our attention first when they undertook studies of twelve Pathology Departments as part of the Carter Review. Now, Phil Hudson explained, the firm has undertaken over forty such reviews with a report about to be produced on a further sixteen in the West Midlands, (reported last month in ACB News). Phil gave a typically upbeat presentation. His first premise was that "I don't want to talk about data anymore!", though the audience was perhaps not so easily convinced! He felt that the changes advocated in Carter's reports and also in Collinson Grant studies more recently, have proved the point. Now, in 2011, it was time to do something about it.

Lead or be Led!

Phil pointed out some of the key political and practical issues facing us. The aim is for all Trusts to have foundation status by 2014, necessitating the requirement for a much more business orientated approach to healthcare. Tariff received by Trusts will effectively reduce and this will certainly impact on Pathology. Policy from the DofH is still evolving, but clearly the £500 million pathology savings targeted by the DofH will not go away. It is acknowledged that Foundation Trusts are not always easy to partner with. Of course Primary Care Trusts have difficulty now in entering into long term planning relationships with secondary care. Hospital Trust boards do clearly care greatly how much is lost if their current slice of pathology work is given to someone else. Even with these potential hurdles there appeared to Phil to be no case for a pathology laboratory at every hospital. Proposing consolidation Phil feels is entirely reasonable and desirable. The work of Collinson Grant has shown that every doubling of capacity gives a very conservative estimate of a 20% cost reduction.

Over the longer term Phil believes the current 150 large laboratories (in England) will reduce to somewhere between 25 and 50. The take home advice from Phil was:

- Firstly, you need to care much less about the structure of the organisation you work for.
- Secondly, consolidation needs to be accepted as the right way forward.

We also need to ask ourselves if we are training enough leaders for Pathology for the future. Phil ended by saying that " If you don't lead it is important that you support those who do or else you will face being led by people like Phil Hudson!". ■

Phil Hudson

Practical Advice on Current Issues

Owen Driscoll, Stoke and **Helen Ashby,** Wolverhampton

The hot topic session rounded off Focus and here Owen looks at Troponin and Helen at Vitamin D guidance from the UKs clear leaders in these respective areas

The use of diagnostic cut-offs and algorithms do not stay fixed, rather they evolve to reflect changes in the evidence base and changes in trends and attitudes. This led to the organisation of the Hot Topics session. The three talks in this session were viewpoints from three leaders in their field to help make sense of the developments in use of three biomarkers in laboratory diagnostics.

Professor Garry John discussed the use of HbA1c in the diagnosis of diabetes

HbA1c for Diabetes Diagnosis

After pointing out the potential inversely proportional link between average waist circumference and the thickness of televisions, Professor W Garry John (Norfolk and Norwich) kicked off by discussing the role of HbA1c. The accepted glucose cut-off values for diagnosis have changed a number of times. In 1979 WHO criteria included the measurement of glucose tolerance using 7.8 mmol/L as a fasting cut-off and 11.1 mmol/L as the cut-off two hours post glucose load. The fasting value was revised down to 7.0 mmol/L in 1997 along with inclusion of symptoms in the criteria and the introduction of impaired fasting glucose.

The use of HbA1c for the diagnosis of diabetes is the next development, albeit seemingly changing the definition of diabetes from hyperglycaemia to hyperglycation.

An HbA1c of 48 mmol/mol (6.5%) or greater is considered to be diagnostic of diabetes. What has precipitated this development? HbA1c has a lower intra-individual variation than both fasting and 2h post-load glucose values and has become the cornerstone of assessing the risk of developing diabetic complications. Improvements in the standardisation of HbA1c measurement (IFCC) have improved traceability. However, a patient who usually has an HbA1c of 4.5% will need a significant increase to reach 6.5% in contrast to a patient with a usual HbA1c of 6%.

The WHO recommendations have made it into NICE guidance in PH35 Public Health Guidance Preventing type 2 diabetes: population and community interventions. It has arrived so we must get used to the pitfalls and these have to be made aware to service users.

HbA1c results can be misleading. The ability of HbA1c to detect diabetes is affected in many common situations including:

- Iron deficiency anaemia
- Haemolytic anaemia
- Renal failure
- Rheumatoid arthritis
- Chronic liver disease
- Haemoglobinopathies

This requires the interpretation of the result alongside LFTs, full blood count, ferritin, haptoglobin, urea and creatinine.

Recommendations are HbA1c method specific and there is still significant analytical variation between laboratories. Further, people have different individual glycation rates, there are differences in glycation rates between ethnic groups and glycation increases with age. The guidelines fail to take into account the inter individual relationship between glycation and average glucose concentration. Professor John's feeling is that HbA1c should be used alongside existing criteria to avoid missing those patients with a glucose above
7 mmol/L, but with an HbA1c of 6.4% or less. However, the decision to diagnose still rests with the clinician.

Using High Sensitivity Troponin

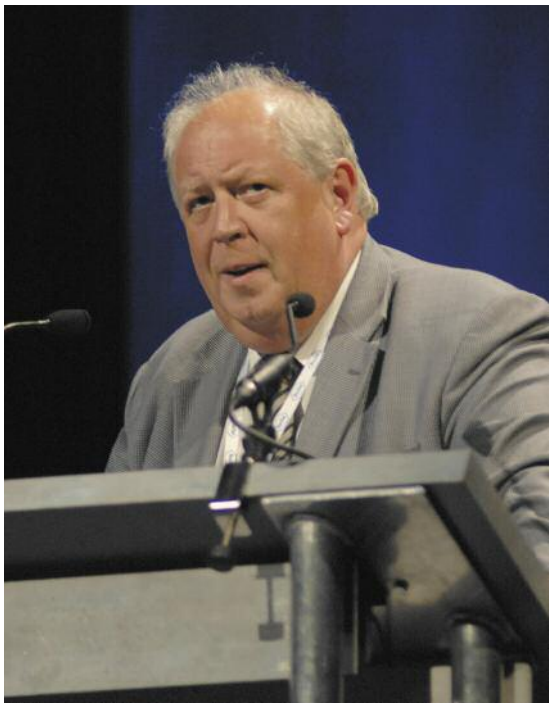
Developments in the diagnosis of myocardial infarction (MI) have in the past decade or more revolved around the use of troponin. Dr Paul Collinson (London) spoke about how troponins superseded other cardiac markers for specificity and sensitivity in the evolution of the diagnosis of MI. The universal definition of MI came about in 1997 giving a central role to troponin. The improved precision of high sensitive troponin assays (with 10% CVs well below the 99th percentile) have helped to better define the normal range and have a greater ability to detect relative change in the lower end of the analytical range.

With detection of MI the name of the game is early detection and avoidance of missed events and high sensitive troponins do just that. High sensitivity assays enable earlier detection of troponin elevation above the 99th percentile. Dr Collinson cited several studies including one which had implemented a higher sensitivity troponin assay and associated cut-offs which reduced mortality and morbidity as a result. Those with suspected acute coronary syndrome appear to benefit from the increased intervention resulting from lowering the diagnostic cut-off. Dr Collinson's assertions are that any detectable troponin is a poor prognostic marker even if the elevation is secondary to, for example, reduced eGFR, an independent risk factor for poor cardiovascular outcome. In contrast a troponin below the 99th percentile carries an excellent prognosis.

The use of dynamic changes helps distinguish non-ACS from ACS elevations. What constitutes a dynamic change in troponin result is the subject of much debate with studies reporting the use of delta troponins varying from 20 to 90%. This is a move away from using troponin as a 'yes or no' test to query elevation and a move to a more complicated/sophisticated interpretation. Dr Collinson displayed a number of diagnostic algorithms and recommended drawing up them up locally in conjunction with the cardiology department. The timing of the samples is important. This example using time 0 (on admission), 3 h and 6 h results and looking for: An increase of troponin to above the 99th percentile with at least a 50% change or for a troponin above the 99th percentile, a 33% change (and consideration of non ACS causes of those that don't change). The timing of the second troponin to 6 h was a compromise and may reduce with increased evidence, familiarity and confidence. The cut-offs are assay specific, but use of a high sensitivity assay is essential. The speaker suggested that the potential for missed diagnosis might see The Hague taking an interest in those laboratories not doing so and left with the final comment that the diagnosis of AMI is clinical, involving all of the data.

Vitamin D . . . Regaining Some Control

Professor Bill Fraser started his presentation by showing a graph of number of publications involving vitamin D against year of publication – the chart took off like a rocket. Every laboratory in the UK is reporting that requests



Professor Bill Fraser looks at current approaches which will help to ensure that vitamin D requesting is appropriate

for vitamin D have increased in the region of 50% to 200% per annum, confirming the current level of interest. He then told us of one laboratory in Denmark where requests were approximately 800 to 1000 samples per week! By posing the questions "why has requesting of vitamin D increased?" and "can we do anything to decrease the requests", he went on to revise the classical and non-classical actions of vitamin D. Classical actions are its effects on calcium homeostasis and the more subtle involvement in bone health and muscle function. Non-classical actions are the poorer outcomes seen in low vitamin D states in cancer risk, multiple sclerosis and immune function etc.

Non-classical actions of vitamin D are actually associations and do not prove causality. For example, it may be that low vitamin D is a marker for something else. He reviewed the original research showing the seasonal variation of vitamin D, before moving on to show us the latest graphs for repeat of these studies - seasonal variation is still present, but the overall baseline value of vitamin D has increased. As further weight behind the "why?" argument, he demonstrated that the measurement of 25-hydroxyvitamin D gives the best indication of a patient's vitamin D level, by showing the relationship between PTH, ALP, 25-hydroxy- and 1,25-dihydroxyvitamin D, adding it is important to measure both 25 hydroxyvitamin D2 and D3. Prof Fraser gave a cautionary tale of natural remedies for menopausal symptom relief containing D2, and gave us an insight into his own laboratory's practice where they see measurable D2 in around 10% and 30% of samples. Moving on to analytical techniques, he gave us a quick overview of advantages and disadvantages of tandem MS and immunoassay techniques. DEQAS data were presented to show the current accuracy of measurement, and problems encountered with NIST standardisation were discussed.

Bill then considered optimal vitamin D status, and a recent move by the all of the data to define adequate vitamin D as 75 nmol/L or above. If this level is achievable, he asked how often should we should check a patient's level and can we decrease test requesting. He showed data involving three groups on supplementation with either placebo or different concentrations of vitamin D.

Having told us that the half life of 25 hydroxyvitamin D is approximately 30 days, he demonstrated that it took six months for vitamin D levels to reach a steady state.

Key take home points included:

- 25 hydroxyvitamin D is the best measure of a patient's vitamin D status.
- It is necessary to measure Vitamin D to diagnose deficiency and insufficiency.
- Values assigned to deficiency, insufficiency and sufficiency of vitamin D are constantly changing.
- A high proportion of the elderly are vitamin D deficient.

Bill ended by stressing that in non-classical actions association is not causation and that more prospective studies are needed to prove the clinical benefit of high dose vitamin D are needed. He did, however, give us hope that for those patients on treatment, minimum six monthly retesting intervals could apply, which may help to reduce the number of requests coming through the laboratory. ■

James Crofts, a "lifer" at the Focus exhibition draws customers onto the IDS stand with his bone marker pen!

State Registration From An Applicant's Perspective

Darren Powell, Salford Royal Foundation Trust

State Registration is a formal process which we all face in our career to prove that we have acquired sufficient knowledge, experience and competence to work safely without supervision. It is thus considered a rite of passage for many trainees as well as being essential requirement for most posts at Band 7 and above.

The main part of the process of gaining State Registration (Registration with the Health Professions Council) is administered by the Association of Clinical Scientists (ACS) on behalf of the HPC, and the vast majority of trainee biochemists following the standard Clinical Science training route full time are eligible to apply after 4 years. This means the earliest you can submit your application is the September at the start of your 5th year.

Two Stage Application

The application is a two stage process involving firstly completing a portfolio which is submitted to the ACS along with your application form. Once the portfolio is accepted, you will be invited for a formal interview. Once you have successfully completed the ACS interview, you will receive a Certificate of Attainment, which can then be used for the second stage of applying to the HPC for State Registration.

Preparing your Portfolio

The ACS website (www.assclinsci.org) has an info pack explaining the application process, the application form, as well as a copy of the table of competences that must be included at the start of your portfolio, plus an example portfolio. There are different tables of competence for different sub-specialities of clinical science so make sure you have the correct one. The tables are also updated regularly so make sure you have the very latest version, as using an out-of-date edition will result in rejection.

The portfolio itself is large document collating information of all aspects of your training including details on your rotations and secondments, audits and project work, meetings attended, and presentations given. In many respects it can be considered to be a formal write up of your trainee log book. For each major aspect described, a piece of evidence must be provided to back up what you have written. Examples include letters of supervision, end of year assessments, abstracts of projects and presentations, as well training schedules and meeting certificates. You will then need to fill in the tables of competency cross-linking your text to a piece of evidence. The aim is to prove that you have achieved the required competences and have the evidence to back this up.

Portfolio Detail is Key

Do not underestimate how much work is required to complete your portfolio, so don't leave it until the last minute! Start a minimum of 1 month before the deadline to give yourself enough time to collate all the bits of evidence you need, request statements from past supervisors, write it up, show you supervisor and others around you who have recent experience of the process and then get it printed and bound!

Ideally, preparation for your portfolio should begin from the start of your training and not left until the end of your 4th year! Completing it will be much more difficult if you have failed to keep your trainee log book up to date with a comprehensive list of all your activities. Keeping a diary or list of all the departmental, regional, national meetings and courses you have attended and training/rotation dates is very useful! Also make sure you keep copies of all the conference and meeting certificates to include

in your evidence list. Cross-referencing your evidence to the list of competences can be tricky, as knowing what pieces of evidence are applicable to a particular competence is not always as obvious as it sounds. It is essential that you get to see the completed portfolio of someone who has recently gained State Registration as this can help you a lot!

There are strict criteria for the layout, formatting and binding of the portfolio. Three bound copies must be submitted along with your application form.

The Interview

Once submitted and accepted, you will be invited for an interview, which are typically held at the ACB head office in Tooley St, London. If lots of people have applied at the same time, they may also hold interviews in alternative locations and possibly on alternate dates, so be prepared to travel.

The interviews generally cover a fairly standard pattern of questions to establish your knowledge about the importance of state registration, questions about your background, your training, projects and audits you have completed and a series of technical and clinical questions to gauge that you know enough to deal with common problems in a competent and safe manner. It typically lasts around 1 hour.

Make sure you are familiar with every bit of information and piece of evidence that you have put into your portfolio as they can pick at the most minute detail you have included. If you don't know an answer, don't be afraid to say so! You will not be expected to know absolutely everything and one of the aims of the interview is to check that you aware of your limitations, and know when to ask for help.

Fees all Along the Line

Once you have passed the ACS interview, you will receive your Certificate of Attainment, and can then apply to the HPC for State Registration. You should expect to receive an answer from the HPC within a few weeks of submission. Unfortunately, a fee must be paid at every step.

You can then look forward to collecting CPD points to maintain your HPC registration. Currently it is not known how trainees graduating from the new MSC program will apply for State Registration. ■

Common Disorders Until Proved Wrong Guys!

Chris Duff and **Krithika Subramaniam**

This year's March ACB Training Course held at University of Birmingham's Conference Centre was an interesting mix of lectures, workshops and clinical cases. Interaction and audience participation made this training course a lively and engaging week.

Lectures

The week started off with an analytical theme, that included lectures on Fluorescence and Luminescence as well as Immunoassay techniques and the details of porphyrins methodology. The day ended with some audience participation in the form of an MCQ quiz on the topics covered in the lectures – it was clear from the results of this that some trainees had paid more attention than others!

Haematology for biochemists! We had a day of lectures outside of our comfort zones covering the important aspects of haematology that we come across as biochemists. Jo Sheldon introduced the theme with an overview of haematology which prepared us for Roberto Stasi's very useful guide to identifying and diagnosing different types of anaemia. Iron metabolism, red cells enzymes and coagulation were covered and the day was concluded with a look at the role of the laboratory in the diagnosis and treatment of leukaemia.

Most trainees will have had limited exposure to the management side of laboratory medicine. So the lectures focusing on leadership and management gave us an appreciation of different management styles and leadership skills, as well as tips on how to manage ourselves!

The day on inborn errors of metabolism was started off with George Gray's advice on how a DGH can contribute to the early detection of various conditions. The very topical area of prenatal diagnosis was also covered as well as lectures on purine and pyrimidine metabolism and steroid hormones.

Workshops

The first interactive workshop of the week occurred on the management day and looked at what to do when things go wrong. Trainees were split into groups, each of which were given a different scenario (such as a bomb scare, total IT failure, power cut). The exercise involved each member playing the role of a certain staff group, something which some of us took more seriously than others! After deciding (or in some cases not!`) how to deal with the problem, a member from each group presented their plan of action back to all the trainees. On the whole, most groups came up with a logical and appropriate solution to the problem at hand, with not too many looks of 'what were you thinking' on the faces of the workshop organisers.

The final day of the training course comprised of two workshop sessions. The first, organised by Danielle Freedman, involved a group exercise on taking a patient history. With trainees posing as patients, the rest of us we tasked with have a stab at a diagnosis based on taking a history from the patient. Although generally well done, not everyone took Danielle's sound advice that 'common disorders are common', with some groups plumping for a rare endocrine conditions on the basis of a few vague symptoms, much to the amusement of many in the room!

Following on from this, trainees participated in an informative effective scientific writing workshop, delivered by Mike Hallworth. Amongst other things, it was clearly evident from this session that although Trainee Clinical Biochemists are very good at writing scientific abstracts, they would not, on the whole, make very good tabloid journalists!

Cases and Presentations

The week included a variety of fascinating and educational clinical case presentations contributed by trainees attending the course. Under the theme of Metabolic Disorders, trainees from specialist laboratories gave a series of case presentations. In addition, trainees from around the country gave a series of clinical case presentation on a variety of subjects ranging from maturity onset diabetes of the young (MODY) to autoimmune adrenal disease. All of the cases presented by the trainees were delivered to an incredibly high standard and highlighted the many interesting investigations that trainees are getting involved in across the country - a real highlight of the week!

Evening Activities

After a full day of haematology lectures, Tuesday saw the first planned social event of the week – Go-karting! This adrenaline fuelled event saw teams of trainees engage in some wheel-to-wheel action in a Le Mans style endurance race. After two hours of hard driving, and a close finish, the team comprising of Jonathan Grant, Briony Johnson, Neil Greig and Chris Gay came out top.

Wednesday played host to the traditional Trainees' Evening. Following dinner and all with drinks in hand, the trainees headed back up to the seminar room for the talks. The first

address, given by Francis Boa, updated everyone on the current situation of the implementation of the Modernising Scientific Careers initiative. Following her presentation, Francis answered a number of questions from the trainees. Next up, after a brief pit-stop at the bar for those who needed liquid 'refreshment', was Owen Driskell, a Senior Clinical Biochemist from Stoke-on-Trent who gave a talk entitled 'The Evolving Role of the Clinical Biochemist'. Amongst other things, Owen highlighted the issue of inappropriate testing and ways in which we, as biochemists, can try and counter this problem. He also touched on opportunities for biochemists to get more involved in direct patient care and how we should all try to 'get out there'!

In celebration of another fantastic training course, trainees attended a course dinner at Highbury Hall. This gave the chance for everyone to let their hair down, enjoying a smack up meal and a disco followed by those with real stamina by a trip to Birmingham's famous Broad Street.

The week in Birmingham proved to be a valuable learning experience and a great opportunity for trainees to be updated on various topics by experts in the field. A big thanks must go to all the speakers and the organising committee for putting on a brilliant event. ■

Association for Clinical Biochemistry West Midlands Region

Joint Scientific Meeting with the Royal College of Pathologists

Wednesday 9th November 2011

Think Tank, Millennium Point, Birmingham

Morning Session

- Robert Gaddie Award and RCPath President's Lecture
- Grade A Trainee Presentations for the Robert Gaddie Award
- Multidisciplinary Approach to Provision of Pathology Services

Afternoon Session

- Multidisciplinary Approach to Multiple Myeloma
- Multiple Myeloma – A Patient Perspective
- Shared Care Pathways and the Diagnosis of Multiple Myeloma and MGUS
- Tests for Polyclonal and Monoclonal Immunoglobulins in the Diagnosis and Management of Myeloma
- Myeloma - New Test for an Old Disease and New Application of an Old Test
- Molecular Techniques and Their Uses in Multiple Myeloma

To register, please go to www.acbwm.org.uk

Association for Clinical Biochemistry Council Nomination Form 2011

Election of National Member of Council of the Association for Clinical Biochemistry

We, the undersigned, being Members* of the Association nominate

Name .....

Address .....

.....

.....

for election as National Member of ACB Council.

Name 1. ....
Capitals Signature

Name 2. ....
Capitals Signature

Name 3. ....
Capitals Signature

I am willing to undertake the duties and responsibilities of this office if elected.

.....
Signature

.....
Date

* Please indicate if a Nominator is not an Ordinary Member. Every member other than a Corporate, Retired, Temporary Retired, Temporary, or Federation Member shall have one vote and is therefore entitled to support a nomination. Only Ordinary Members are eligible to hold office.

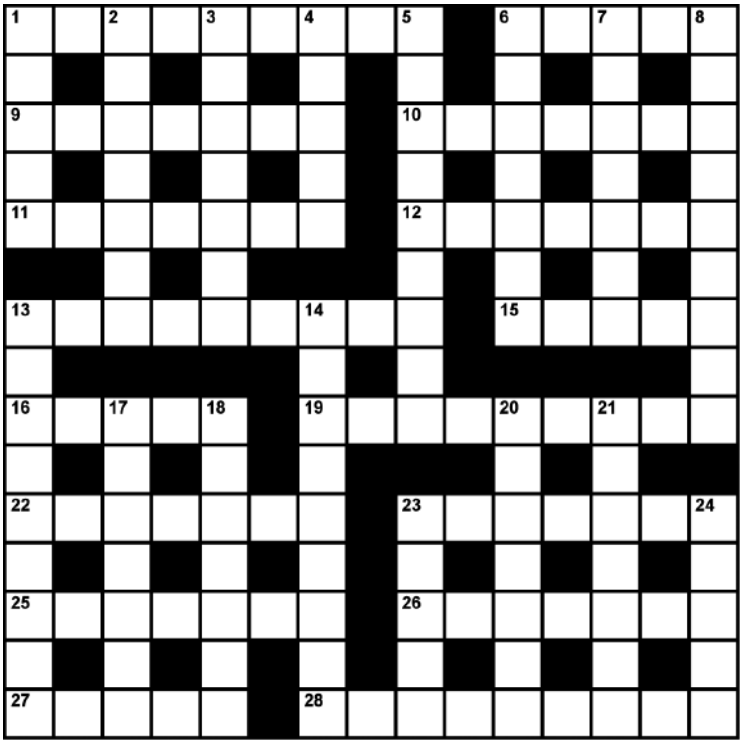
This form, duly countersigned, to be returned to
The Administrative Office, Association for Clinical Biochemistry,
130-132 Tooley Street, London SE1 2TU, before **30th September 2011**

ACB News Crossword

Set by Rugosa

Keep sane at coffee time with the ACB News Crossword. Always relating to the science and practice of Clinical Chemistry, you will never cease to be astounded by the convoluted mind of the ACB News Crossword compiler.

Prizes for your department: The first five correct solutions to appear on the ACB News fax machine (Fax: 0121-507-5290) will receive a copy of the new educational Calcium Cases CD-ROM by Aubrey Blumsohn, Christina Gray, Neil McConnell, John O'Connor, Anne Pollock & Roy Sherwood and which retails at over £50. Please state clearly the name and address of the Department that is entering the competition. Remember that ACB News appears first as a PDF on www.ACB.org.uk around the 7th of each month.



Across

The 1 across, 6 across is part of the work of 19, 23 across

1 Mention recommendation (9)
6 Roam prairie (5)
9 Sure old Ford had become corroded (7)
10 Turn entire abnormal relation to hollow organ (7)
11 Supply water at the ready made tea bar (7)
12 Feeling sorry for complicated pharyngitis, no rash (7)
13 'Fawlty' seashore hotel loses teal footwear (9)
15 Material of artist, distant but in view (5)
16 Some innumerate's even number! (5)
19 Forced apology about return of initial hypertension disorder (9)
22 Gymnast organised car boot sales – loses out (7)
23 Agreeable sound of a hymn or alternative rendition (7)
25 Polypeptide resulting in you and me returning pupil home (7)
26 Prepare rock pigeon stew without gin (7)
27 Follow in moss green suede shoes (5)
28 Rude offspring we hear but, as a woman, showed respect (9)

Down

1 Heard unfortunate gag? (5)
2 Generator break down (7)
3 Go over time in original career (7)
4 Encouragement repeated in Monty Python sketch (5)
5 Within a short afternoon, quieten slipping gear (9)
6 Juggling entertainer ain't out for record again (2-5)
7 One silo in New York collapsed with a loud bang (7)
8 Exigency of Greece, money circulated neglecting primary organizational economics (9)
13 Biochemical belonging to him; appreciation belonging to me (9)
14 Typhoon twister 99 lacking strength (9)
17 Stratagems follow against current pathogens (7)
18 Find out about undefinable diffuse clouds (7)
20 Duck lasers used up the creek? (7)
21 Specialty uses zoology to remove a little weight (7)
23 Some twitchy perfectionist is overexcited (5)
24 Joined, ordered to start dyke construction (5)

Last month's solution

www.nhslothian.scot.nhs.uk

NHS Lothian

Laboratory Medicine
(Clinical Biochemistry)

Senior Clinical Biochemist

Band 7

This is a replacement post in Clinical Biochemistry at the Western General Hospital. This Department provides a comprehensive test repertoire for acute admissions, inpatients and outpatients, and for GPs in its catchment areas. Specialist services provided include Antenatal Screening, Gastrointestinal Biochemistry and Specialist Endocrinology. Several of these services operate as tertiary referral centres. There are overall some 2.9 million tests on 429,000 requests at the Western General Hospital.

You will be a key member of the team both in the general work of the Department and with input into the Specialist Sections. You will make a full contribution to reporting rotas, clinical liaison and validation. There is considerable scope for developing specialist analytical expertise, and you will contribute to all aspects of service delivery including audit and research. The Western General Hospital is a teaching hospital with extensive University links and facilities on-site, and you will have the opportunity to contribute to Undergraduate and Postgraduate teaching. The development of a relevant research profile is also encouraged.

Applications are invited from enthusiastic individuals who would be willing to work as team members in centres of excellence. You should have undertaken Grade A training or be close to completion of this.

Informal enquiries and requests to visit the hospitals are very welcome and should be made to Dr Peter Ashby, Specialty Lead for Clinical Biochemistry, Western General Hospital on 0131 537 1891.

For an application pack please contact Recruitment on 0845 60 33 444 or email: recruitment@wlt.scot.nhs.uk

Please quote Ref: LABS/11/14/R1.

Closing date: 14th September 2011.

Stonewall DIVERSITY CHAMPION

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Deadline: 26th of the month prior to the month of publication

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