Early Risers in Glasgow

Focus 2002 Remembered in Photos

Clinical Sciences Review Committee - Suggestions Welcome
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This test is based on the unitary dry chemistry concept – AIA-Pack – where results can be produced in less than 18 minutes for cTnI, Myoglobin and CK-MB.
Poisoning and Laboratory Medicine

With the August ACB News, members of the association will receive a copy of Poisoning and Laboratory Medicine. This is the latest book in the Laboratory Medicine Series from ACB Venture Publications. This book has been jointly written by Dr Ian Watson from University Hospital Aintree in Liverpool and Dr Alex Proudfoot, who was the Director of the Scottish Poisons Information Bureau. Publication has been aided by an education grant from Dade Behring.

There has been a discernable shift in the causes of mortality and morbidity from poisoning encountered in Accident and Emergency Departments, probably due to the availability of readily utilisable agents. This book reflects a distilled UK perspective on poisoning and provides information on laboratory investigation and treatment options. It covers a core of poisons, for which detection and quantitation can change management. Additional copies may be ordered from the ACB office - see contact details on page 3 of ACB News. Alternatively, it may be ordered from any bookshop.

Poisoning & Laboratory Medicine
Authors: I Watson and A Proudfoot
ISBN 0 902429 30 2 £24.00
Published by the Association of Clinical Biochemists


Comment Now on Draft Modernisation Guidance

Last month we published the executive summary of “Pathology: The Essential Service”, the full text of which is available on the internet at:
www.doh.gov.uk/pathologymodernisation/essentserv.htm

Mike Hallworth, ACB Chairman, is co-ordinating the response of the Association to the Department of Health. Mike encourages members to make their own comments directly to the DoH, and would appreciate a copy to ensure the points are also included in the ACB response. Regional ACB and RCPath committees will also be arranging meetings over the summer to discuss the guidance either separately or together.

Pharmacogenomics: Improving Pharmacotherapy and Avoiding Adverse Drug Reactions
Robinson College, Cambridge
September 26-27 2002

There are still spaces on this joint ACB AACC run meeting

For further details please contact the ACB office
Focus 2003

Next year the Focus meeting is to be held in Manchester between 13-15 May. This meeting will celebrate the 50th Anniversary of the Association of Clinical Biochemists. It will be the first of a new style of Focus meetings which will incorporate an interactive forum with our corporate members and sponsored seminars in the scientific meeting.

Plans are progressing well for the meeting. The organising committee for the meeting is as follows:

- Gilbert Wieringa - Chairman
- Lesley Tetlow - Secretary
- Kath Brownbill - Minutes Secretary
- Terry Dyer - Treasurer
- Julian Barth - Scientific Programme
- Janet Horner - Scientific Programme
- Catherine Wardle - Social Programme
- Paul Newland - Publicity
- Kath Hayden - Publicity
- Karin Sherwood - Company Involvement
- Nikki Beeson - Conference Co-ordinator
- Sophie Cordiner - Conference Administration
- Mervyn Nicholas - Company Representative
- Euan Donald - Company Representative

If you have any comments about the meeting then do please approach the appropriate person on the organising committee.

EQA Pilot Scheme Funding: 2003

CPA would like to invite applications for the sixth annual round of EQA Pilot Scheme Funding. Bids will be welcomed both from established EQA providers and others. Applications must be received by CPA by 18th October 2002 and successful applicants will receive funding before the end of the current financial year.

Application forms are available from:
Miss Rachel Boyer
CPA (UK) Ltd
45 Rutland Park, Botanical Gardens
Sheffield S10 2PB
Tel: 0114-251-5800
Fax: 0114-251-5801
Email: office@cpa-uk.co.uk

ACB News Fax Machine

Please note that due to a huge increase in junk faxes the ACB News fax machine is not always switched on. Nearly all material for the magazine is now sent by email attachment which is the preferred way of receiving articles.

Do Not Miss . . .

Scientific Meeting to Celebrate the Work of Dr Hazel Wilkinson
Trent, Northern and Yorkshire Region
Tuesday 1st October 2002, Postgraduate Centre, York Hospital

- Current topics in thyroid disease management
- Haemochromatosis – genotype, phenotype or disease?
- Biochemical investigations in renal stone disease
- Geoffrey Walker Award presentations

Following the scientific meeting, there will be a dinner at The Grange Hotel in York to celebrate Dr Hazel Wilkinson’s retirement. For further details, please contact Ian Hanning, Meetings Secretary, ACB Trent, Northern and Yorkshire Region.
Tel: 01482-607716. E-mail: ian.hanning@hey.nhs.uk
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Website of the Month: Free Books for Doctors

http://www.FreeBooks4doctors.com
(or http://www.fb4d.com)

Thanks to Bob Flanagan at Guys and St. Thomas' for suggesting this month's site which is dedicated to promoting free on-line access to medical text books. This site appears to be a spin-off of the 'Free Medical Journals' site featured as a Web of the Month back in February, but as the title suggests, concentrates on books rather than journals.

I wasn’t aware of the sheer number of text books now available on-line, so I found browsing through this site very informative. Subjects covered in the 500+ books include drug interactions, endocrinology, gastroenterology and also specific diseases and conditions. You can even subscribe to the Book Alert service, which will email you with updates to the site. I found it an easy site to use, but a search facility would be a good addition to the site, as currently only an A-Z index by title is available.

- Don’t forget links to all past and present ‘Websites of the Month’ are available from the ACB website (www.acb.org.uk). If you wish to suggest a site for the ‘Website of the Month’, please submit a short review (150-200 words) to Ian Godber at Nottingham City Hospital (webmaster@acb.org.uk).
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25mg of bilirubin (C\textsubscript{33}H\textsubscript{36}O\textsubscript{6}N\textsubscript{4}) were dissolved in 4 mL of dimethyl sulphoxide. 200 mL of this solution was diluted to 250 mL with chloroform. This solution gave an absorbance of 0.502 when measured in a 1 cm cell against a chloroform blank. Given that the molar absorptivity of bilirubin under these conditions is 6.07 x 10\textsuperscript{4}, calculate the percentage purity of the bilirubin.

First calculate the concentration of bilirubin in the final solution:

\[ A = \varepsilon \times c \times l \]

Where

- \( A \) = absorbance = 0.502
- \( \varepsilon \) = molar absorptivity = 6.07 x 10\textsuperscript{4} cm\textsuperscript{-1}
- \( c \) = concentration in mol/L = ?
- \( l \) = path length = 1 cm

0.502 = \frac{6.07 \times 10^4 \times c \times 1}{6.07 \times 10^4}

Rearranging:

\[ c = \frac{0.502}{6.07 \times 10^4} = 8.27 \times 10^{-6} \text{ mol/L} = 8.27 \times 10^{-3} \text{ mmol/L} \]

Use this concentration of the final solution to calculate the bilirubin content of the weighed bilirubin:

The final solution was prepared by diluting 200 mL (i.e. 0.2 mL) of stock to 250 mL

Therefore concentration of stock = \( \frac{8.27 \times 10^{-3} \times 250}{0.2} = 10.34 \text{ mmol/L} \)

4 mL (the volume of DMSO the bilirubin was dissolved in) contains:

\[ \frac{10.34 \times 4}{1000} = 0.0414 \text{ mmol bilirubin} \]

Convert to wt of bilirubin:

Wt bilirubin (mg) = mmol bilirubin x MW

MW bilirubin = (33 x 12) + (36 x 1) + (6 x 16) + (4 x 14) = 584

Therefore wt bilirubin = \( \frac{0.0414 \times 584}{24.2} = 24.2 \text{ mg} \)

% purity = \( \frac{\text{Amount of bilirubin by assay} \times 100}{\text{Weighed amount of bilirubin}} = \frac{24.2 \times 100}{25} = 97\% \) (2 sig figs)

**Question No. 18**

A tumour marker X is used to guide a decision on chemotherapy after the resection of the main tumour mass. The concentration decays exponentially. If the half-life of the tumour marker is less than 75 hours, then this is indicative of tumour clearance and chemotherapy is withheld. If the half-life is greater than this, it indicates that residual disease is present and chemotherapy is indicated. The precision of the assay is such that measurements can be safely made at a precisely timed interval of more than 36 hours from two or more days after surgery.

The level of X at 50 hours post surgery is 1756 ng/L and at 94 hours it is 1050 ng/L. Calculate the half-life and indicate whether you can say with confidence whether chemotherapy needs to be given.

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ACB Training Course
Liverpool Hope Campus

Sunday 8th September
Arrive Hope Park Campus
Buffet 6.30 p.m.

Monday 9th September
Morning Session: Chair: Prof Alan Shenkin
08.50-09.00 Welcome and opening
  Prof Alan Shenkin
09.00-10.00 Calcium metabolism
  Dr Eileen Manning
10.00-11.00 Metabolic bone disease
  Prof Bill Fraser
11.00-11.20 Coffee
11.20-11.50 Magnesium
  Dr L Ranganath
11.50-12.20 Ionised calcium and magnesium
  Dr Nigel Lawson
12.20-12.40 Bone Cases
12.40-14.00 Lunch

Afternoon Session: Chair: Dr L Ranganath
14.00-15.00 Analytical aspects of metabolic bone disease
  Prof Bill Fraser
15.00-15.30 Analytical aspects of mineral ions
  Dr Tony Stott
15.30-16.00 Assignment and explanation
  Dr Charles Heyningen
16.00-16.20 Coffee
16.20-17.20 Review of bone cases

Evening
Go Kart Racing (including buffet)

Wednesday 11th September
Morning Session: Chair: Dr Eileen Manning
09.00-10.00 Physiology and disease considerations in the aged
  Dr David Wile
10.00-11.00 Laboratory aspects of neurological disease
  Dr Ian Hart
11.00-11.20 Coffee
11.20-12.20 Confusional states in the elderly
  Dr Cathy Jack

Tuesday 10th September
Morning Session: Chair: Dr Norman Roberts
09.00-10.00 Therapeutic drug monitoring
  Prof Back
10.00-11.00 Clinical toxicology
  Dr Ian Watson
11.00-11.20 Coffee
11.20-12.20 Drugs of abuse
  Mr Frank Tames
12.20-12.40 Drug/coma Cases
12.40-14.00 Lunch

Afternoon Session: Chair: Dr Ian Watson
Appreciations
14.00-15.00 Drugs of abuse clinic
  Dr Sue Rueben
15.00-16.00 Pharmacy
  Mr Adrian Brown
16.00-16.20 Coffee
16.20-17.20 Review of drug/coma cases
12.20-12.40 Cases
12.40-14.00 Lunch
14.00 Visit to Maritime Museum
15.30 Meeting resumes at Maritime Museum

Afternoon Session: Chair: Dr Tony Stott
15.30-16.30 Chromatography theory
   Dr Norman Roberts
16.30-17.30 Management lecture
   Prof Bill Fraser
17.30-18.30 Review of cases

Evening
Chinese Banquet in Shanghai Palace Restaurant on Liverpool Waterfront

Thursday 12th September
Morning Session: Chair: Dr Charles van Heyningen
09.00-10.00 Biochemistry of oncology cellular aspects
   Speaker to be arranged
10.00-11.00 Tumour markers
   Dr M Al-Jabouri
11.00-11.20 Coffee
11.20-12.20 Electrophoresis
   Prof D Perrett
12.20-12.40 Cases
12.30-14.00 Lunch

Afternoon Session: Chair: Dr Michael Diver
14.00-15.00 Chromatography applications - sample preparation for chromatography and gas chromatography
   Mr Tony Tetlow
15.00-15.30 Chromatography and applications of TLC
   Dr Emma Lewis
15.30 –16.00 Chromatography and applications of HPLC
   Mr Paul Newland
16.00-16.20 Coffee
16.20-17.20 Cases
19.30 Conference Dinner in Marriott Hotel at Liverpool John Lennon Airport with appropriate entertainment

Friday 13th September
Morning Session: Chair: Prof Bill Fraser
09.00-12.30 Hyponatraemia Workshop
   Dr Charles van Heyningen
12.30-13.00 Course ends/Departure

Course Organiser:
   Prof Bill Fraser

Cost £495.00

For registration pack contact:
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   Association of Clinical Biochemists
   130-132 Tooley Street
   London SE1 2TU
   Tel: 0207 403 8001
   Fax: 0207 403 8006
imagine that most of our profession - and I include myself - were unaware of the Department of Health’s Report Comprehensive Critical Care: A Review of Adult Critical Care Services [in England] when it was published in 2000:

http://www.doh.gov.uk/pdfs/criticalcare.pdf

The Department of Health issued a circular, HSC 2000/017 in May 2000, summarising plans for implementing the Report’s recommendations, and specified:

“A hospital-wide approach to critical care with services which extend beyond the physical boundaries of intensive care and high dependency units, making optimum use of available resources . . . A networked service across the NHS Trusts which together serve one or more local health economies, meeting the critical care needs of those within the network, minimising the need for transfer outside”.

The NHS Modernisation Agency is running the implementation programme, with a national team to lead it. This has medical and nursing leads, the latter represent nurses, therapists and everyone else - including scientists. You can access information about the programme and send comments to the National Team on:


The intention is that communication within and between Trusts should be improved, expertise and the results of service improvement projects should be shared and local autonomy encouraged. Local networks are now in place throughout England, and information and contact details are on the Critical Care Programme website, above. Their operational details differ, but they all have a project lead who is the first point of contact. Trust critical care delivery groups, reporting to the Trust Board, should also now be in place and working in every Trust.

There was no pathology membership of the expert group which prepared the original report. They unfortunately appeared to be unaware of the crucial role of pathology in critical care services (two brief lines, paragraph 67), and, despite the emphasis on cross-professional working and “blurring the boundaries”, also appeared to have no understanding of the potential benefits of joint planning in developing diagnostic services. Therapy staff (Allied Health Professions - AHPs) also felt strongly about their omission and Fran Woodard, a speech therapist, persuaded the Modernisation Agency to support a National Advisory Group of Allied Health Professionals, which she chairs.
This started work early in 2001. Healthcare Scientists were approached later and I joined at its January 2002 meeting, along with Alan Wainwright, Training Officer at the IBMS, and Dominic Cox, Clinical Physiologist in the ITU at the Royal Free. There are now some preliminary moves to look at establishing a Healthcare Scientist subgroup of this AHP/HCS National Advisory Group, although I believe it is essential that we remain members of the main Group since it is our only official route to the Modernisation Agency Critical Care Programme Team, via Fran.

**Critical Care and Healthcare Professions**

By the time the three of us joined the Advisory Group, it had already prepared a document describing the contributions made to Critical Care by the various AHPs. The paper, “The Role of Healthcare Professions within the Critical Care Services” had been frozen for publication just before we joined, so unfortunately there is no contribution from Healthcare Scientists other than a mention in the introduction and a promise that we will be included in the next edition. A day conference to launch it was held in London on 11 June, with presentations from programme leaders on national strategy and priorities and by some of the professions on the AHP/HCS Advisory Group. There were also two workshops, one within professional groups to discuss issues from a professional perspective and another in local networks to discuss local issues.

I facilitated the professional workshop and got some interesting - if often rather depressing - feedback. Most of the healthcare scientists present were biomedical scientists, with some medical physics technicians, but very few clinical scientists (possibly related to the fact that the Agency had not used all the contact details I’d provided and had advertised the meeting only in the IBMS Gazette). What came over very plainly was that they generally did not know about or understand the programme and were quite negative about it. No-one appeared to know about local Critical Care Networks or Trust Critical Care Delivery Groups. Some more positive discussion included State Registration and the feasibility of “blurring the boundaries”, and the need for the pathology professions to be more proactive about getting involved in clinical teams and generally becoming more visible.

The Networks are dominated by the medical and nursing professions from the various member Trusts, with senior management membership too, but most have an AHP representative (who may also represent HCS), and some also have scientist representatives. There should certainly be pathology membership of all Trust Critical Care Delivery Groups, so poor communication within individual Trust pathology directorates may be one reason for the lack of awareness of their existence.

**Our Responsibility to Get Involved**

We know that pathology has a great deal to offer in developing critical care services, but rather than being negative about the fact that it took so long for the scientific professions to be involved, we should be taking a positive approach to getting involved in the implementation programme now. We must promote the clinical benefits of our active involvement and educate our clinical colleagues - within our Trusts and where possible via local
Clinical Care Networks too. The minimal and purely passive role of pathology services which the Comprehensive Critical Care Report apparently assumed has quite rightly caused dismay, but there is a lot we can do to raise awareness and promote our role. The more of us who do so locally, the better, as the need for better communication between us and the clinical areas is as much our responsibility as theirs. I suggest the following:

- Find out who represents pathology on your Trust Critical Care Delivery Group, what the Group is doing - and input some ideas.
- Find out whether there is regular pathology involvement in Critical Care teams, ward rounds, case discussions etc in your Trust. If not, suggest getting involved.
- Get details of your local Critical Care Network from the website, contact the project lead and ask when the next open meeting is. Attend one. Offer to present something on pathology’s role in critical care at a future meeting.
- Suggest some small projects - POCT, IT, QC/ QA, training, management - anything which involves pathology in critical care. The Programme encourages cross-professional working, so projects which promote this will be particularly welcomed (a good opportunity to highlight our professional expertise and how using it improves patient outcomes). No project funding is available from the Programme, but some MSc projects are likely to be suitable, or projects could be fairly easily built into current work, such as audits and plans for improving or developing services.
- Networks do have some funding for “learning events”, apparently. Enquire about this and suggest some pathology input.
- Find out about scientist representation in your Network; if there’s none, suggest that there should be as soon as possible (volunteer). If there is, make contact.

I have been keeping the ACB Scientific Committee informed about Advisory Group meetings, as requested, but anyone else who would like to know more about the Group or the Critical Care Programme, or would like to put some views or ideas forward is very welcome to contact me on my email at Joan.Pearson@leedsth.nhs.uk
Simply go to www.dpcweb.com/uk

Tumour Markers from DPC
The CSRC has recently been formed from the amalgamation of the Analytical Investigations Standing Committee (AISC) and the Clinical Laboratory Investigations Standing Committee (CLISC). It is a standing committee of the ACB Scientific Committee, with a specific remit to promote a wider understanding of the practice of our profession by commissioning topical and relevant articles of interest to the clinical biochemistry community. Its membership consists of a dozen senior members of the Association who are invited to serve on the committee for a term of three years. Reviews are generally invited by the committee from leading national and international experts in a specific field. The committee works with the authors defining the scope and style of the article. Articles are usually, but not exclusively, published in the Annals of Clinical Biochemistry as either ‘Comments’, ‘Personal Views’ or ‘Reviews’. Potential topics might include reviews of laboratory (and non-laboratory)-based investigations and topics relevant to the promotion of best laboratory practice. For example, recently published reviews we have commissioned included the articles on PTH assays (Blumsohn and Al Hadari), Cystatin C (Newman) and Down’s screening (Holding). No doubt, those of you who are in training grades, or have sat the College membership exam, will be familiar with our output! Review topics are usually identified by the committee at our quarterly meetings.

Suggestions Welcome!

If you have a well thought-out idea that you feel we have not addressed through our joint committees (a complete list of ACB publications can be found in the front of the members handbook), we would be very happy to consider it, especially if you can suggest a suitable author. We might even ask you to contribute or invite you on to the committee! The committee exists to serve the profession - please feel free to contact us with any suggestions or any other comments relating to our activities.

Dr Edmund Lamb
Chairman CSRC
edmund.lamb@ekht.nhs.uk

Dr Allan Deacon
Secretary CSRC
allan.deacon@kingshc.nhs.uk
Focus 2002 Workshop Reports

Early Risers in Glasgow

By Richard Spooner, Associate Editor

Once again workshops proved to be very popular update sessions and the slightly reduced number meant they were booked early and well attended. For organisational reasons they appear slightly earlier in the year and once others return from annual leave we hope to publish some more accounts. Thanks to Emma and Gary for being so prompt.

Myeloma

Reported by Emma Davies, London

This review session was run by Richard Soutar, Consultant in Haematology and Transfusion Medicine at the Western Infirmary Glasgow. Myeloma is a plasma cell tumour with an annual UK incidence of 40 per million. The clinical presentation can be varied, however, common presentations include bone pain, recurrent or persistent infection, anaemia and renal impairment. The diagnosis is usually confirmed by demonstration of a paraprotein in serum or urine and/or lytic lesions on X-ray together with >10% plasma cells in the bone marrow. The effective diagnosis and management of myeloma requires a multi-disciplinary approach, and investigations include electrophoresis of serum and urine (followed by quantitation and immunofixation), blood film examination for red cell stacking and thrombocytopenia, x-rays and bone marrow analysis.

There are many difficulties faced by haematologists, including differentiating myeloma from monoclonal gammopathy of undetermined significance (MGUS) and identifying other conditions which are associated with the presence of paraprotein, such as non-Hodgkin’s lymphoma, autoimmune disease and amyloidosis. There are currently accepted criteria for distinguishing myeloma from MGUS, which are outlined in the Guidelines on the Diagnosis and Management of Multiple Myeloma and which were recently published by the UK Myeloma Forum. These guidelines can be accessed via www.ukmf.org.uk

Another important issue is when, and how, to treat myeloma. Treatment is only indicated in patients with symptomatic myeloma and is not indicated in MGUS. Treatment of asymptomatic myeloma should be delayed until there are signs of progression.

The use of ‘standard’ and ‘combination’ chemotherapy regimes in the treatment of myeloma has produced conflicting data, with little improvement in disease control or prolonged survival from the 1960s to the 1990s. However, the past decade has seen increasing use of high dose therapy with autologous stem cell transplant which has revolutionised treatment. The low mortality rate of this treatment makes it suitable for patients up to 70 years. Allogenic stem cell transplantation is controversial due to the high mortality rate. However, there is a lower risk of relapse and this potential benefit may justify its use in younger patients (<50 years). Patients relapsing after an allogenic stem cell transplant have been shown to respond to donor lymphocyte infusions. Recently ‘mini’ allograft approaches have been developed which are associated with a lower toxicity and mortality rate, making them suitable for a wider range of patients.

In patients >75 years, the treatment of myeloma is supportive. There should be an active approach to pain control in bone disease using analgesia, orthopaedic surgery and physiotherapy to maintain mobility. Long-term therapy with bisphosphonates has been shown to reduce skeletal morbidity, improve quality of life and reduce the need for surgery.
or radiotherapy. It is recommended for all patients with myeloma regardless of whether bone lesions are evident. Currently, clodronate and pamidronate are used, although the more potent zoledronate is currently undergoing evaluation. A degree of renal impairment occurs in up to 50% of myeloma patients, and management includes maintaining hydration, correcting hypercalcaemia, avoiding nephrotoxic drugs and dialysis if required.

Anaemia is present in 2/3 of patients at presentation and becomes more common with recurrent or progressive disease. The use of recombinant human erythropoietin has been shown to improve haemoglobin levels, reduce transfusion requirements and improve quality of life in myeloma patients.

Since almost all patients with myeloma will relapse, overall management should include plans to treat relapse. A number of novel therapies are being developed for this purpose, including the use of thalidomide, which is currently undergoing clinical trials.

This review session was concise and very informative and highlighted the huge advances made in the past ten years in the clinical management of myeloma.

Reference Ranges and Standard D9

Reported by Gary Maskall, Kidderminster

This was a very well attended workshop, with participants from across the globe. Alasdair McBain and Ian Hanning set the scene, and asked those present if they knew the origins of the reference ranges in their laboratory.

Most replied that they did, although very few had actually derived reference ranges themselves. Most appeared to be either the manufacturer’s recommended ranges (with and without local variations), or some gleaned from literature.

Participants had been asked to bring along reference ranges for a number of assays, including details of the analytical platform, and these were presented for free T4 and LH.

Whilst there was reasonable agreement at the lower end for both assays, there was considerable difference at the upper limits, these ranging from 18 pmol/l to 26 pmol/l for free T4 and 8 miu/L to 15 miu/L for LH. With such variation in these values, it was queried how results could be interpreted by laboratory staff, let alone by clinical users.

What was more concerning was that the extremes of these upper limits were quoted by laboratories using the same analytical platform!

There followed some discussion about the IFCC, NCCLS and CPA recommendations as to defining and identifying the source of reference ranges, including the recommendation that a minimum of 120 samples should be used to derive such ranges.

Alasdair McBain then went on to outline the approach that had been tried by Bayer Centaur users, where each laboratory had collected 10 patient samples and results, and had forwarded these to a central laboratory for both sample and statistical analysis (300 samples being collected in all). For free T4 this had confirmed the upper limit to be around 18 pmol/l, but it appeared that a number of laboratories had found it difficult to accept or implement this change to their ranges.

The meeting finished with participants being asked if they felt that this might be an approach the ACB could suggest as a way forward to deriving reference ranges. There was agreement that this seemed to be an acceptable alternative to each laboratory deriving its own ranges and would stand scrutiny by CPA when inspectors asked for confirmation of Standard D9 – Do you know the origin of your laboratory’s reference ranges?
Creatinine Clearance . . . Still Close to Many Hearts

It appears that creatinine clearance performed by conventional 24 hour urine collections is alive and thriving in all the 17 laboratories in South Thames that replied to the questionnaire sent by John Morton and reported in the April issue of ACB News.

Creatinine clearance has long been reported to be inaccurate in addition to problems associated with 24 hour urine collections. Its validity has been seriously questioned in the past\(^1\) and more recently\(^2\,3\). Several formulae have therefore been developed for estimating creatinine clearance from serum creatinine, thereby bypassing the need for 24 hour urine collection. However, they all have shortcomings because of inherent limitations in the use of creatinine as a filtration marker. The simplest and most widely used formula is the Cockcroft-Gault formula. This then raises the need for conventional creatinine clearances when this is not far superior to derived values from serum creatinine concentration (or indeed simple serum creatinine alone).

A more accurate and validated method for estimation of GFR from serum creatinine has been reported recently based on patient demographic variables and measured serum creatinine, urea and albumin\(^5\). Until a better marker for estimating GFR is widely available, it is essential that we do not mislead our clinicians into believing that by using a more cumbersome method they are somehow getting a more accurate answer than a result obtained by a far simpler method but no less accurate.

Dr Sudha Bulusu
Department of Chemical Pathology
Newham General Hospital
London
E13 8RU


Retiring with Grace

I have been to a number of meetings both national and regional over the last few months and whenever I get together with colleagues over a drink or two the conversation turns to retirement. Not as it used to be, who has been made compulsorily redundant, but that natural stage in one’s working life when it is time to retire gracefully.

Take me for example. I work in a northern University Teaching Hospital and life has never been the same after reorganisation two years ago. Although I am the Deputy Head of Department, financial controls mean that the autonomy of previous years has gone, producing a daily grind.

My thoughts turn increasingly to retirement and with all the packages gone, at 54 I need to bite the bullet of altruism and just go. Having worked outside the NHS in my early days I “foolishly” cashed in my superannuation to help buy our current house some 25 years ago. The mortgage is paid and the children have left home. In fact my first grandchild now speaks estuary English down in the southeast.

I am not badly off, having about £80,000 banked after the death of my in-laws and a cottage in the Lakes. My wish would be to up sticks and downsize, perhaps nearer the children, but my partner does not want to throw over the last quarter of a century’s home and garden improvements and the social circle.
for the uncertainty. I had anticipated being able to carry on acting for the local private hospital but I assume I would now lose my registration status on retirement.

Clearly I need to talk to an IFA about money, but I am unclear what happens to my pension if I go early and exactly what the new buzz words “family friendly policies” mean in such circumstances. Can I for example insist that, despite my senior position, part time opportunities are made available to me as I wind down? It would be fantastic to work 3 days a week in my last year or so.

Perhaps there is someone out there who has recently bitten this particular bullet who would be willing to tell his or her story?

Ageing C Grade

Editor’s Comment: We do not usually print anonymous letters but could not resist this one! Of course retiring and then doing locum work is one option that can be explored, though 54 seems a bit young for all this talk of pensions and cottages in the Lakes to me! Comments from fellow travellers along life’s path, especially those less worried about pensions, are welcome!

HST Posts a Great Success

I beg to differ with the view on HST posts expressed in the ACB News, May 2002. In judging whether fixed term low Grade B posts should be supported or abandoned, one needs to understand the reasons for their existence. The Grade A Training Schemes started in 1991 and were immediately successful in attracting high calibre trainees into a structured training programme, despite their being three year fixed term posts. Unfortunately, in the mid 1990s NHS Trusts were under severe financial pressures resulting in across-the-board cost-cutting exercises. As ACB Education Committee Chairman at that time, I know that many departments were forced to lose posts and these were inevitably at the lower rungs of the profession i.e. the very posts being sought by the Grade As. As a result, a significant number left Clinical Biochemistry and the NHS and sadly we lost some very able and promising young people. It was to stop this wastage that limited tenure HST posts were created. Regional Tutors and Heads of Department worked very hard to persuade Regional Training Consortia and Trusts to fund posts so that trainees could have secure employment with guaranteed training. The posts have been very successful in retaining trainees and the 50% loss rate quoted in the article must be several years out-of-date. In the North West, no-one has remained in an HST post for the full five years, as all have moved on to higher substantive posts. This should be lauded as a success rather than a failure as individuals progress their careers.

I do not claim that HST posts are the perfect solution but they have certainly succeeded in retaining the very able trainees we now have. The vagaries of Trust finances and the short-term local solutions used by them, despite the best efforts of local departmental heads, are too volatile to provide a secure basis for trainees at a vulnerable stage in their careers. With Workforce Confederations up and running and the NHS now realising the importance of workforce planning, HST posts may be succeeded by alternative arrangements. However until something better is devised we should not return to the situation of the mid-1990s.

Janet McMurray
Department of Clinical Biochemistry
Hope Hospital
Salford
M6 8HD
Forthcoming Meetings

ACB Southern Region Autumn Meeting

William Wells Atrium
The Royal Free Hospital
Pond Street
London NW3 2QG
Tuesday 24th September 2002

09:45 Coffee and Registration
10:00 Coffee and Registration
10:30 UFAE's Disease and the Biochemistry of Enzyme Replacement Therapy
   Dr Anya Burns, Consultant Physician, RFH
11:15 New markers of Alcohol Abuse and Their Use by DVLC
   Dr Marsha Morgan, Consultant Physician, RFH
12:00 Rhabdomyolysis
   Dr Steve Holt, Consultant Renal Physician, Royal Sussex County Hospital, Brighton - to be confirmed
12:45 Lunch and Exhibition
13:45 The effects of HIV and HAART on Mitochondrial Function
   Dr Mike Youle, Consultant Physician, Ian Charleston Day Centre, RFH
14:30 HAART to HEART
   Dr Devi Nair, Consultant Chemical Pathologist, RFH
15:15 New Cardiovascular Risk Factors
   Dr Naveed Sattar, Glasgow Royal Infirmary
15:30 Training and developing the Sub-Specialty of Metabolic Medicine
   Panel discussion – All speakers
16:00 Close

Meeting cost: £15 (free to grade A trainees).
Please contact: Helen Smith, Department of Clinical Biochemistry, Royal Free Hospital, Pond Street, London NW3 2QG.

Understanding Metabolic Medicine

Royal College of Pathologists
2 Carlton House Terrace
Thursday 12th September 2002

09.30 Registration and Coffee
Chairman: Dr Peter Galloway, Glasgow Royal Infirmary
10.00 Metabolic Medicine: An Overview
   Professor Alan Shenkin, Royal Liverpool University Hospital

10.20 Optimising Nutritional Support for Patients
   Professor Ian Broom, University Medical School, Aberdeen
11.00 Coffee
11.20 Metabolic Bone Disease: Chalk and Cheese
   Professor Bill Fraser, Royal Liverpool University Hospital

Adult Inborn Errors of Metabolism: Case Presentations
12.00 Porphyria
   Dr Mike Badminton, University Hospital of Wales, Cardiff
12.20 Purine Metabolism
   Dr John Duley, Guy's Hospital, London
12.40 The Investigation of Renal Stone Disease
   Dr Mick Henderson, St James' University Hospital, Leeds
13.00 Lunch
13.45 New Cardiovascular Risk Factors
   Dr Naveed Sattar, Glasgow Royal Infirmary
14.25 Metabolic Risk Factors and Complications in Diabetes Mellitus
   Professor Liz Trimble, Royal Victoria Hospital and Queen's University, Belfast
15.00 Tea
15.25 Training and developing the Sub-Specialty of Metabolic Medicine
   Panel discussion – All speakers
16.0 Close

Registration Fees: Members £80.00; Trainees/ Nurses/ Retired £50.00; Non-members £110.00.
Further information can be obtained from: Michelle Casey on Tel: 020-7451-6740. Fax: 020-7451-6701.
Email: michelle.casey@rcpath.org
You can also book securely online at www.rcpath.org

Human Prion Diseases: A Practical Approach

Royal College of Pathologists
2 Carlton House Terrace
Wednesday 16th October 2002

09.45 Registration and Coffee
Chairman: Dr D K Robson, Queen's Medical Centre, Nottingham

10.15 Chairman's Introduction
10.30 Molecular Biology of Human Prion Diseases
   Professor S Brandner, MRC Prion Unit, London
11.00 Pathology of Human Prion Diseases
   Professor W Ironside (National CJD Surveillance Unit, Western General Infirmary, Edinburgh

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Forthcoming Meetings

11.30 Coffee
12.00 Clinical Diagnosis and Epidemiology of Human Prion Diseases
   Dr R Knight, National CJD Surveillance Unit, Edinburgh
12.30 The Autopsy in Human Prion Diseases
   Professor J S Lowe, University of Nottingham
13.00 Lunch
Chairman: Professor J W Ironside, National CJD Surveillance Unit, Western General Infirmary, Edinburgh
14.00 Approaches to Decontamination of Prions
   Professor D Jeffries, St Bartholomew’s Hospital, London
14.30 Infection Control for Prion Diseases in a Clinical Setting
   Dr J Ridgway, University College, London
15.00 Tea
15.30 How do we Handle the Risks of CJD Transmission via Blood?
   Dr M Turner, Scottish National Blood Transfusion Service, Edinburgh
16.00 Developing New Diagnostic Tests and Treatments for Human Prion Diseases
   Dr M Head, National CJD Surveillance Unit, Edinburgh
16.30 Chairman’s concluding Remarks and Close
Registration Fees: Members £80.00; Trainees/ Nurses/ Retired £50.00; Non-members £110.00.
Further information can be obtained from: Michelle Casey on Tel: 020-7451-6740. Fax: 020-7451-6701.
Email: michelle.casey@rcpath.org
You can also book securely online at www.rcpath.org

Applications of Molecular Technology

Wilson Lecture Theatre,
Central Public Health Laboratory
Colindale Avenue, London
Thursday 31st October 2002
Joint ACM / AMM Scientific Meeting

10.00 Coffee and Registration
10.30 Molecular Detection of Antibiotic Resistance
   Dr N Woodford, CPHL, London
11.00 TB Typing and Resistance Markers
   Prof P Hawkey, Birmingham University
11.30 Molecular epidemiology of meningococci
   Dr E Kaczmariski, Manchester PHL
12.00 Using Proteomics to Explore Salmonella Survival
   Prof D O’Connor, University of Southampton
12.30 Lunch
1.30 Advances in Bioinformatics
   Dr J Green, CPHL, London
2.00 HIV Resistance Testing
   Dr P Cane, PHLS Antiviral Susceptibility Reference Unit, Birmingham
2.30 Hepatitis B Quantitation: Uses and Abuses
   Dr E Boxall, Birmingham PHL
3.00 Uses of Viral Load Assessments
   Prof V Emery, UCL, London
3.30 Closing remarks
   Prof W Irving, University of Nottingham
Registration for ACM/ AMM members: £20; non-ACM/ AMM members: £40. CPD accreditation applied for.
For further details and registration please contact:
Dr S Skidmore, PHLS Midlands, PRH, Telford TF6 6TF.
Tel: 01952-641222 ext 4353.
Email sskidmore@mids.phls.nhs.uk

Improving Working Lives For Healthcare Scientists and Allied Health Professionals

18 September 2002, Shaw Park Plaza, London

This one day conference organised by the Department of Health launches the new IWL toolkit for these groups and discusses next steps.

There will be joint sessions on IWL and leadership, but for most of the day healthcare scientists and AHPs will be in separate sessions, reflecting different needs. For healthcare scientists, AHPs, their managers and employers, and HR managers this event will be packed with useful ideas for local action to tackle recruitment and retention challenges. The conference will be repeated at a northern venue.

To book a place call the conference hotline on 020 8334 4525
Clinical Pathology Department
Senior/Principal Clinical Scientist
£20,781 - £35,982 pa

The Clinical Pathology Department of Nottingham City Hospital NHS Trust, which is a combined Clinical Chemistry/Haematology Department, is inviting applications for a vacant Senior/Principal Biochemist post. This is a replacement post to specialise in the areas of Metabolic Biochemistry and Drug Analyses. You would be appointed as either a Senior Biochemist (starting salary between Clinical Scientist B points 8 to 16) or as a Principal Biochemist (starting salary between Clinical Scientist B points 17 to 22) dependent upon experience and qualifications.

To be appointed at the Principal Grade, it would be expected that you would already have developed expertise in Chromatography and Mass Spectrometry in relation to Metabolic Biochemistry and/or Drug Analyses, and already hold the DipRCPath or MRCPath. To be appointed at the Senior Grade, it would be expected that you would have the potential to develop this expertise, and be actively undertaking training for the DipRCPath. Ideally, you should also hold a higher degree (e.g. PhD) in a relevant subject.

This is a large, well-equipped CPA-accredited Department with an excellent reputation in training Clinical Scientists. There are strong Research and Teaching links between the Department and the University of Nottingham. The City Hospital has many specialised Clinical Units and will provide successful candidates with various opportunities for collaborative research. Quote ref: H562.

If you wish to discuss this post informally, please contact Dr Christine Marenah - Consultant Chemical Pathologist and Head of Department on (0115) 969 1169 ext. 45085 or Dr Nigel Lawson - Consultant Clinical Scientist on (0115) 969 1169 ext. 45079 or e-mail: nlawson@ncht.trent.nhs.uk

Application forms and job descriptions are available from our 24 hour Voicemail Recruitment Line tel (0115) 962 7672, or from the Department of Human Resources, Nottingham City Hospital NHS Trust, Hucknall Road, Nottingham NG5 1PB.

Closing date: 6 September 2002.
Interview date: 26 September 2002.

Nottingham City Hospital NHS Trust is an Equal Opportunities Employer. All posts will be considered for job share.

www.ncht.org.uk

Senior Clinical Biochemist - Higher Specialist Trainee, Rotational Post
Directorate of Laboratory Medicine, Department of Clinical Chemistry
Trust Grade 9: £20,192 - £25,690 p.a. (equivalent approx to Clinical Scientist B, Scale points 8-10)
Hours: 37.5 per week, 3-year fixed-term contract (job share applicants welcome)

Applications are invited for a Senior Biochemist training post in the Department of Clinical Chemistry at the above Trust. The appointee will spend 18 months in the specialist toxicology department at the Royal Hallamshire Hospital, working with advanced techniques with both ante- and post-mortem samples, in a laboratory with a national referral practice under the direction of Professor A R W Forrest. This will be followed by 18 months in general biochemistry at the Northern General Hospital, which provides the biochemistry service for the 1200-bed district general teaching hospital. This laboratory has particular interests in endocrinology, bone markers (for which it is a designated SAS centre), and trace metals.

The post is a fixed-term contract of 3 years, starting at a point on a Trust pay spine approximating to point 8 of the Clinical Scientist grade. The post would suit biochemists who have come to the end or are approaching the end of their Grade A (Whitley Council Grade) training and are looking for the chance to broaden their experience and continue their training towards MRCPath. The post offers wide experience in a stimulating environment with good opportunities for training towards MRCPath. Applicants should be state registered or seeking state registration, possess an appropriate degree and have a minimum of 2½ years’ experience on a Grade A training scheme.

For further information, please contact Mr I Marsh, on (0114) 271 2046, Professor A R W Forrest, on (0114) 273 8721, or Dr T A Gray, on (0114) 271 4309.

Please quote reference number: 425C. Closing date: 6th September 2002

Application form and job description available from: Human Resources Department, Sheffield Teaching Hospitals, 4 Claremont Place, Sheffield S10 2TB.
Tel: (0114) 271 2396 (24 hr recruitment line) E-mail: JobEnquiries@sth.nhs.uk
www.sth.nhs.uk
CONSULTANT CLINICAL BIOCHEMIST

Clinical Scientist Grade C
depending on experience and expertise

You will be required to work within the Chemical Pathology department of this large London teaching hospital with its extensive range of clinical specialties. A new hospital is currently under construction with a first phase completion scheduled for 2005. The department is fully accredited, well equipped and fully computerised. A comprehensive clinical biochemistry service is provided to the hospitals within the Trust and local general practitioners. In addition the department also houses a number of specialist units that offer reference services on a national and international basis.

You will join an existing team of consultant chemical pathologists/clinical scientists and contribute fully to all aspects of service delivery and management including the commissioning of services to the new hospital.

You will participate in the department’s heavy undergraduate and postgraduate teaching programme. Development of a specialist interest, which extends the department’s clinical and analytical expertise and which is consistent with the Trust’s clinical priorities, will be actively encouraged.

You must have extensive general experience in clinical biochemistry, be fully state-registered and possess the MRCPath or MCB. An established research profile and/or possession of a PhD would be an advantage.

For further information or to arrange an informal visit, please contact Mr Colin Samuell, Consultant Clinical Biochemist/Head of Service on 020 7679 9205.

Application forms and job description can be obtained from Recruitment Services, Ground Floor, Vezey Strong Wing, 112 Hampstead Road, London NW1 2LT. Tel: 0870 442 4529. Our recruitment lines are open Monday to Friday, 8am-7pm and Saturday, 9am-2pm. Please quote the reference number.

Closing date: 20 September 2002

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South Glasgow University Hospitals NHS Trust

BIOCHEMISTRY DEPARTMENT
The department has laboratories at the Southern General Hospital and Victoria Infirmary, the former of which includes the Regional Neurosciences Institute and the Scottish National Spinal Injuries Unit. Integration of the Biochemistry service, with the bulk of analyses being performed in fit-for-purpose accommodation on the Southern General site, as planned for mid 2003.

PRINCIPAL CLINICAL BIOCHEMIST GRADE B
Scale Points 17 - 22 (depending on experience)
Experienced Clinical Biochemist in possession of the MRC Path, required for this new post within the recently re-configured laboratory services in South Glasgow. You will participate in the scientific and clinical aspects of the service and contribute to clinical audit and service development. An interest in, and experience of, Endocrinology would be beneficial. You will be actively encouraged to develop areas of special interest and participate in continuous personal development. This post offers an excellent opportunity to develop your career within a changing and developing department. (Ref: VBIO056).

SENIOR CLINICAL BIOCHEMIST GRADE B
Scale Points 8 - 13 (depending on experience) - Fixed Term for Five Years
You will have recently completed, or be in your third year of Grade A, training in Clinical Biochemistry. You will be expected to contribute to the clinical services of the department, and to participate in clinical audit, quality assurance and service development. You will also be expected to develop an area of specialist interest, and as this is a training post, you will be encouraged to prepare for the MRC Path. (Ref: SBIO055).

Further information available from Dr Hutchison, tel: (0141) 201 1680, Dr Cruickshank, tel: (0141) 201 1682 or Mr Finlay, tel: (0141) 201 1928. Closing date: 10 September 2002.

Equal opportunities employers

For an application pack, quoting appropriate Ref, tel: (0141) 201 2867.

Clinical Biochemistry
Clinical Biochemist
Grade B (scale point 8-13 depending on qualifications and experience)
£27,658 - £27,052 p.a. inc.

The department provides the clinical biochemistry service to the general and specialist units of King’s College Hospital NHS Trust. These serve an inner-city multi-racial community catering for all specialties and there are additional Regional and Supra-Regional Units: the Institute of Liver Studies and Paediatric Liver Units (including transplantation), Renal Unit, Neonatal Unit and Neurosciences with multi-district specialties including Cardiology and Fetal Medicine. The department is a Supra-Regional Assay Service (SAAS) referral centre for trace metals, erythropoietin, porphyria and for steroid profiling. The department is well equipped with a particular interest in chromatographic and molecular biology techniques.

You will participate in the provision of the specialised services offered within the Department of Clinical Biochemistry, including those with SAAS status and will also participate in the authorisation of results from all sections. You should have completed a Grade A training scheme or have equivalent experience and possess an appropriate postgraduate qualification. You will be encouraged to study for MRCPath/research degree where appropriate and would be expected to develop a specific area of interest in Clinical Biochemistry.

For further information and application forms, please contact Dr Roy Sherwood (Consultant Biochemist), Department of Clinical Biochemistry, King’s College Hospital, Denmark Hill, London SE5 9RS. Tel: (020) 7346 3726.

Closing Date: 20th September 2002.

www.kingsch.nhs.uk

Working Towards Equal Opportunities
GENETICS CENTRE
SUPRAREGIONAL LABORATORY FOR GENETIC ENZYME DEFECTS

Clinical Scientist
Grade B 08-10 £23,534 - £25,239 p.a. inc.
Ref: A049

An opportunity exists in a busy laboratory for a Clinical Scientist to work on diagnosis of inborn errors of metabolism by enzymatic analysis. The laboratory provides a wide range of enzyme assays for diagnosis of lysosomal, peroxisomal and organic acid/amino acid disorders both post and pre-natally. It also provides carrier screening for Tay-Sachs disease in the Ashkenazi Jewish population.

You will work on many of the disorders in the laboratory's repertoire, carrying out both post and pre-natal diagnosis. There is close collaboration between the laboratory and the Cytogenetics and DNA diagnostic laboratories within the Genetics Centre, and with other groups studying inborn errors of metabolism at Guy's Hospital. You will be expected to have general training in clinical biochemistry and be interested in specialising in the field of genetic metabolic disease, for which purpose the post offers an excellent opportunity.

For further information, or to arrange an informal visit, please contact Dr A Fensom at Guy's Hospital on 020 7955 4646.

For an application pack, please contact the Recruitment and Medical Personnel Centre, 1st Floor, Counting House, Guy's Hospital, London SE1 9RT. Tel: 020 7955 5000 ext. 5096 (answerphone), or e-mail: Tracy.Strain@gstt.nhs.uk quoting reference number A049.

Closing date: 10th September 2002.

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Applications are welcomed from disabled people ¥ Equality of Opportunity is Our Policy

DEPARTMENT OF CHEMICAL PATHOLOGY

Clinical Scientist
Grade B 17-24 (depending on experience) £32,387 - £41,799 p.a. inc.
Whitley Council conditions apply
Ref: C480

The Department is situated on both Guy's and St Thomas Hospital sites and provides specialist services in bone, hormone lipid and paediatric biochemistry as well as a comprehensive routine service. An opportunity exists for a Clinical Scientist to work in the endocrine section situated at St Thomas Hospital. The section, which encompasses the Supra Regional Assay Service, carries out a wide range of hormone and tumour marker analyses. There is close clinical and research collaboration with the clinicians at both Guy's and St Thomas Hospitals.

You are expected to have a thorough knowledge of experience in biochemical endocrinology, preferably with research experience. The starting salary and grade will be dependent on qualifications and experience.

For further information or to arrange an informal visit, please contact Professor R Swaminathan or Dr M J Wheeler at St Thomas on 020 7928 9292 ext. 3542.

For an application pack, please contact the Recruitment and Medical Personnel Centre, 1st Floor, Counting House, Guy's Hospital, London SE1 9RT. Tel: 020 7955 5000 ext. 5298/5284 (answerphone), or e-mail: Caroline.Reeves@gstt.nhs.uk quoting reference number C480.

Closing date: 6th September 2002.

For more information on the Trust please visit our website: www.hospital.org.uk
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