LabMedNews

Association for Laboratory Medicine

AUGUST 2026

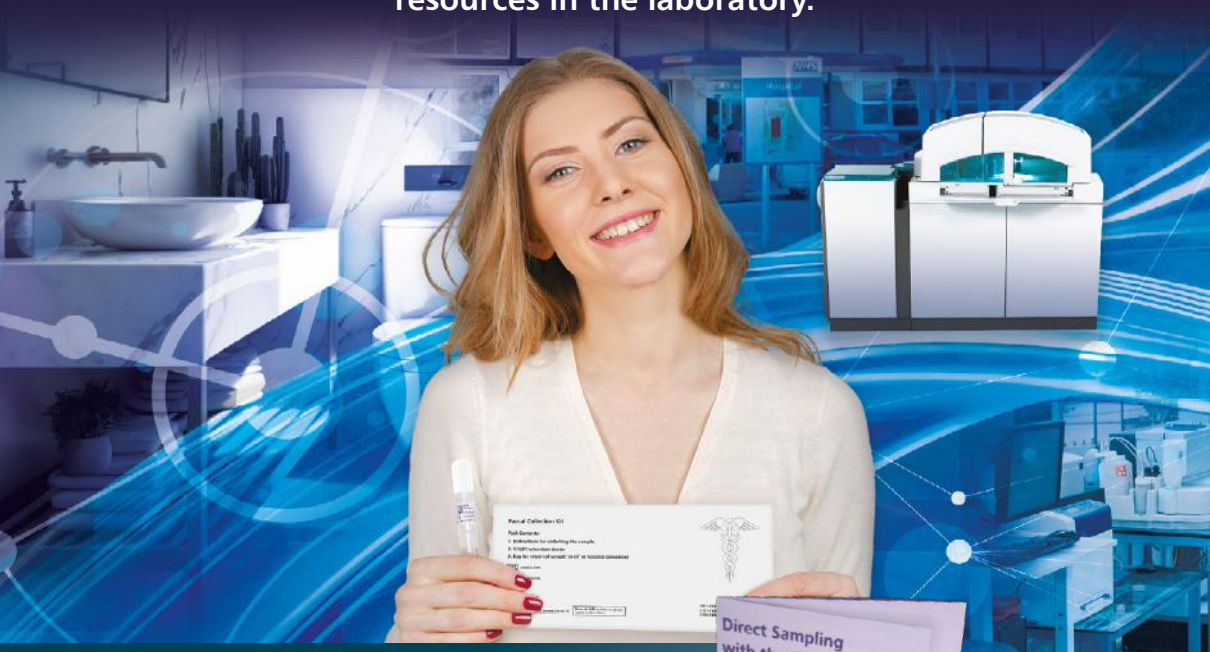
- Kevin Deans appointed as next president elect
- Research and Innovation Grant applications open
- Overview of LabMed learning resources
- LabMed National Audit Day 2026 bookings open now
- 73rd Annual General Meeting report
- LabMedUK26 Awards
- LabMedUK26 conference reports
- Latest PFLM group meeting report

NEW!

UKCA CALEX2 Patient Pack

Combined Calprotectin & Elastase Extraction – *One Tube, Two Tests*

Enable patients to efficiently prepare and send in their samples, ready for calprotectin and elastase testing, freeing up valuable resources in the laboratory.



Streamlined workflow – No more stool extraction!

CALEX provides pre-prepared, extracted samples ready for laboratory testing.

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Association for Laboratory Medicine

LabMed News ISSN 3033-3814

Front cover: Ian Godber and Kevin Deans

MESSAGE FROM THE CEO

VICTORIA LOGAN
Chief Executive Officer

I was at the Advancing Healthcare Awards this June, where LabMed is an official supporter. Divine Azange sat on the judging panel for us and was there for the ceremony also, meeting many of the finalists whose work he'd helped assess. Events like this are a good reminder of why it's worth putting yourself and your work forward for awards. It's easy to assume your project isn't award material, but celebrating what our members achieve matters, and seeing what colleagues elsewhere are doing often sparks ideas of your own. If you've been part of something you're proud of, look out for the next round of nominations and put it forward. On the subject of awards, congratulations to our Green Champions, who were awarded a highly commended certificate at the RCPath achievement awards, presented at their summer dinner in June.

The new Lab Tests Online UK is settling in well, now seeing 700,000 to 800,000 visits a month. Off the back of LabMedUK26, we've grown our reviewer pool and we're looking forward to working with all the new volunteers who have come on board.

Our AI and Informatics Special Interest Group is growing. Thanks to Ed Wilkes and other members of the group for putting together our first AI and informatics online course: it filled all 30 places within the first month of bookings opening. We'll be running the pilot shortly and looking at how we respond to the demand that's clearly there for more learning in this area.

Bookings are open for the leadership and management training course in October. This year we welcome Alison Whitelegg and Rob Shorten, chair of the Immunology and Microbiology Professional Committees, who are helping chair sessions, and Ian Godber, who will open proceedings with an overview of the NHS across the four UK nations. Places are limited, so book yours now.

And on 30 September we're in Liverpool for 'enabling patient-centred sampling: total laboratory automation', bringing together key opinion formers to discuss shaping this fast-moving field and building it into future laboratory practice. The closing panel aims to set out a plan for a future workstream to move patient-centred sampling from concept to reality.

Thanks to members who also got involved on the stand at LabMedUK26 in Birmingham, where our EDI Champions ran a session attended by Divine Azange, Alan Courtney and Sofia Koussis. That feedback goes to the next EDI meeting to help us build our EDI work plan.

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KEVIN DEANS APPOINTED AS LABMED PRESIDENT ELECT

Kevin Deans has been appointed president elect of the Association for Laboratory Medicine. He will serve for one year in this position before taking up the presidency at the AGM in June 2027.

Kevin is a consultant chemical pathologist at Aberdeen Royal Infirmary and honorary senior lecturer at the University of Aberdeen where he has worked since 2010. His clinical interests span obesity, clinical nutrition and inherited metabolic disorders.

The leadership experience he brings to the role includes serving as service clinical director for clinical biochemistry in NHS Grampian, chairing the RCPath Clinical Biochemistry Panel of Examiners and co-chairing the local organising committee for the UK Congress on Obesity 2025. Within LabMed, Kevin has previously served as secretary and chair of the Scotland region, and as a director of the Association.

On his election, Kevin said:

> *"I approach this role with a deep awareness of the responsibility that will fall on me to continue the work of those who have gone before me. I share the Association's values of innovation, inclusivity and environmental sustainability, and I am passionate about increasing patient and public involvement in healthcare – an area I would like to see LabMed develop further.*
>
> *Our current strategic priorities reflect exactly the challenges and opportunities facing laboratory medicine right now. Supporting members to embrace digital tools and AI, ensuring best practice guidance reaches those who need it, raising the profile and influence of our clinical scientists and championing a workforce that is properly developed and recognised. These are the areas where LabMed can make a real difference and I am committed to driving progress across all of them."*

We warmly congratulate Kevin on his election and look forward to working with him in the years ahead.

RESEARCH AND INNOVATION GRANT APPLICATIONS OPEN 1 SEPTEMBER

Applications will soon open for the LabMed Research and Innovation Grants and we want to hear from you. Whether you're leading a multi-disciplinary project, collaborating across centres, or working with industry partners, this is your chance to turn your ideas into impact.

These grants support high-quality, original and ethical research that aligns with LabMed's values: innovation, sustainability and inclusion.

Funding available: Up to £8,000 per project

Eligibility: Open to all full fee-paying LabMed members

Applications open: 1 September 2026

Deadline to apply: 2 November 2026

If you've got a project idea, get in touch on 1 September.

Click here to read the guidance and apply.

An example of what last year's grant funded: a new test for spotting hidden alcohol-related liver disease

Lindsay Graham and the team at NHS Tayside used their 2025 grant to develop a blood test for whole blood phosphatidylethanol (PEth), a marker that shows up after drinking and stays detectable for weeks. It's used to work out whether a patient's liver disease is driven by their metabolism, their drinking, or both – a distinction that's hard to make from self-reported alcohol intake alone and one that determines how a patient should be treated.

The team built and validated a PEth assay on a Thermo Q-Exactive Focus mass spectrometer, working from a method limit of quantitation of 10 ng/mL and precision within about 4% CV at the concentrations that matter clinically. They then ran it against samples from NHS Tayside's PREDICT-SLD study.

Early results show PEth levels tracking closely with clinical diagnosis, and flagging at least one case of likely underreported drinking that would otherwise have been missed. Tayside is now one of only a handful of UK labs able to run the test, and the team is working towards accreditation to bring it into routine clinical use.

MEET DAVID KENNEDY, THE NEW CHAIR OF TRENT, NORTHERN AND YORKSHIRE

David Kennedy has taken up the role of chair of LabMed's Trent, Northern and Yorkshire (TNY) region. As chair, David joins LabMed Council as a director, sits on the TNY regional committee, and takes on responsibility for the region's scientific meetings, bursaries and links with national policy work. We asked him about the role.

What made you put yourself forward for this role?

I wanted to expand my professional relationships beyond my local area and be more in touch with regional and national developments.

What's one thing you want to change or improve in the region during your time as chair?

Encourage active participation by a wider group of people; this means more scientists from disciplines outside biochemistry, more participation by trainees and trying to meet the needs of all the sub-regions of TNY.

What's the biggest challenge facing laboratory medicine professionals in your region right now?

There are many factors increasing demands on clinical scientists' time: increased workload and complexity, increased focus on analytical performance, increased clinical engagement, demand optimisation, more education and training and so on. However, financial constraints limit the expansion of the workforce to meet this increase.

What would you say to a member about getting more involved with LabMed at a regional level?

There are many professional and personal benefits gained by interacting with enthusiastic scientist colleagues from a diverse range of backgrounds, especially when training. Building up a professional support network, lobbying senior healthcare leaders for change, working as a team to organise events – these are all valuable experiences to enhance your professional development.

How can members get involved or raise something with the committee?

Many of the regional committees have vacancies right now. Current positions can be found on our Get involved page or, if you do not see roles in your region, contact us at enquiries@labmed.org.uk for us to put you in touch with your local committee.

LEARNING RESOURCES AVAILABLE THROUGH LABMED

The Association for Laboratory Medicine (LabMed) strives to provide resources to enable members to maintain Continuing Professional Development (CPD), to keep up to date with the latest developments in the field and to facilitate training and development. The Publications and Communications Committee review these resources periodically and there is an ongoing programme to update the website, keeping the content current and relevant.

LabMed News

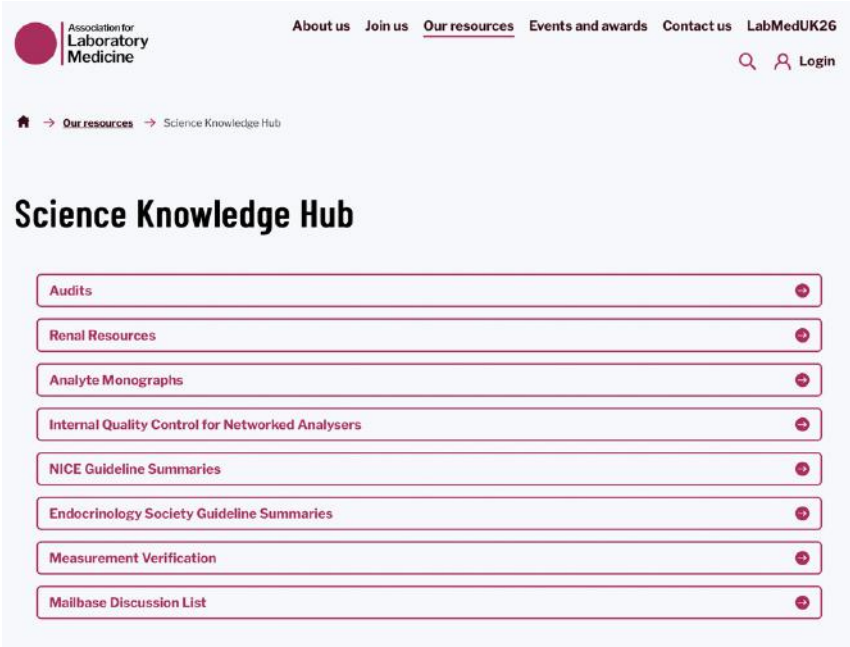
A bimonthly digital magazine aimed at providing an overview of key developments in the profession, celebrating achievements, reporting on matters that affect members such as meeting reports and situations vacant. More recently, the magazine aims to highlight selected key publications in the *Annals of Clinical Biochemistry* that may have a broad interest.

Annals of Clinical Biochemistry

Published bimonthly, this is the Association's flagship publication and an internationally renowned, peer-reviewed journal for the profession of clinical biochemistry, analytical biochemistry and laboratory medicine. It is also the official journal of The Dutch Association for Clinical Chemistry (de Nederlandse Vereniging voor Klinische Chemie, NVKC). The journal is also a member of the Committee on Publication Ethics (COPE).

RAV SODI

Consultant clinical biochemist, Department of Biochemistry, Broomfield Hospital, Mid & South Essex NHS Trust; and director of publications and communications, The Association for Laboratory Medicine, UK



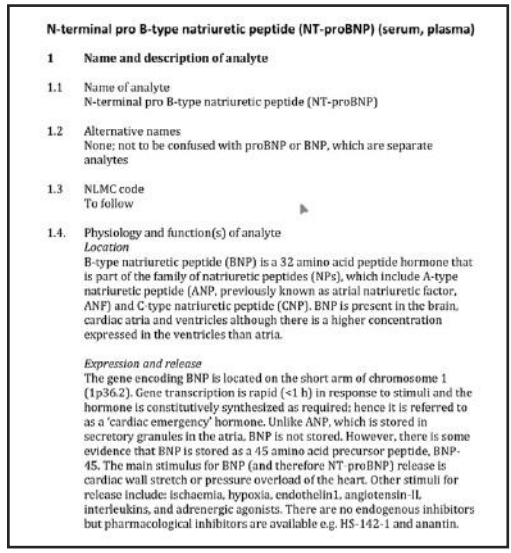
Science Knowledge Hub

This is a site on the LabMed website that houses results from national clinical audits, the analyte monographs, NICE guideline summaries, Endocrine Society Guidelines and the well-known measurement verification documents and analyses templates.

Analyte Monographs

These are peer reviewed descriptions of clinical analytes initially published as part of the National Laboratory Medicine Catalogue (NLMC), which has now ceased to be Royal College of Pathologists activity. They follow a prescribed template and provide all the relevant information for a given analyte. It remains a very popular resource widely accessed via the internet.

Currently it is accessible on the LabMed website under the 'Science Knowledge Hub' section but these will be incorporated into the Learning Academy Platform (see below) in due course. Many of these need to be updated and expanded and there will be a call for volunteers to help with this.



N-terminal pro B-type natriuretic peptide (NT-proBNP) (serum, plasma)

1 Name and description of analyte

1.1 Name of analyte
N-terminal pro B-type natriuretic peptide (NT-proBNP)

1.2 Alternative names
None; not to be confused with proBNP or BNP, which are separate analytes

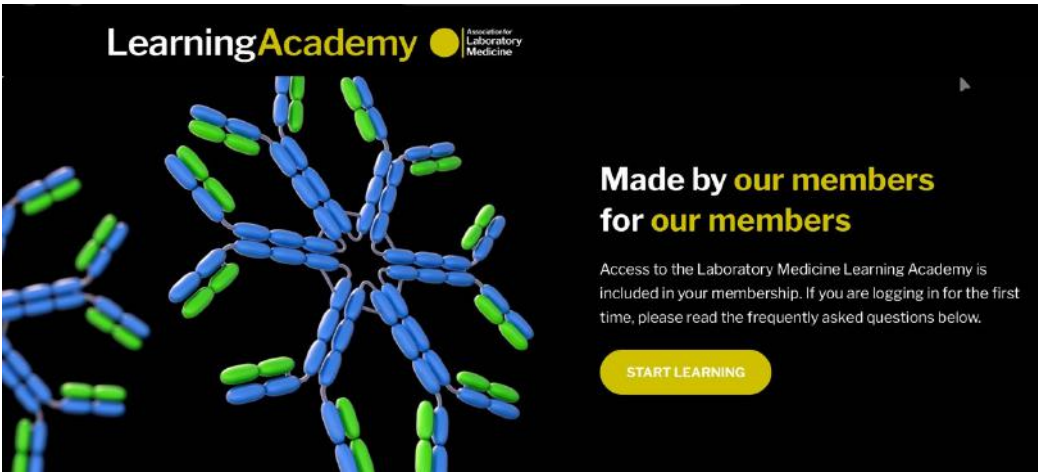
1.3 NLMC code
To follow

1.4. Physiology and function(s) of analyte
Location
B-type natriuretic peptide (BNP) is a 32 amino acid peptide hormone that is part of the family of natriuretic peptides (NPs), which include A-type natriuretic peptide (ANP, previously known as atrial natriuretic factor, ANF) and C-type natriuretic peptide (CNP). BNP is present in the brain, cardiac atria and ventricles although there is a higher concentration expressed in the ventricles than atria.

Expression and release
The gene encoding BNP is located on the short arm of chromosome 1 (1p36.2). Gene transcription is rapid (<1 h) in response to stimuli and the hormone is constitutively synthesized as required; hence it is referred to as a 'cardiac emergency' hormone. Unlike ANP, which is stored in secretory granules in the atria, BNP is not stored. However, there is some evidence that BNP is stored as a 45 amino acid precursor peptide, BNP-45. The main stimulus for BNP (and therefore NT-proBNP) release is cardiac wall stretch or pressure overload of the heart. Other stimuli for release include: ischaemia, hypoxia, endothelin1, angiotensin-II, interleukins, and adrenergic agonists. There are no endogenous inhibitors but pharmacological inhibitors are available e.g. HS-142-1 and anantin.

Laboratory Medicine Learning Academy Platform

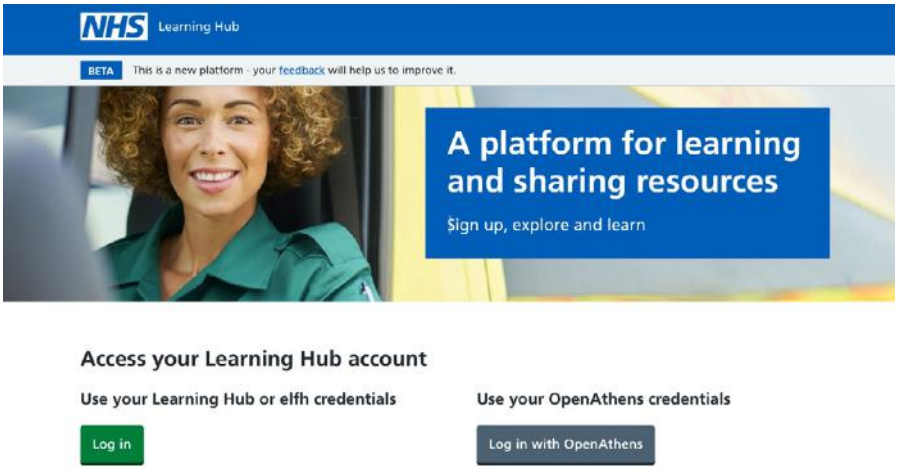
This is the Association's prima facie online digital platform, offering an accessible, interactive and practical learning experience tailored to meet the needs of laboratory medicine professionals. The platform will provide access to learning materials and allow users to track their progress, provide a community space for peer discussion and



knowledge sharing, it is mobile-friendly and provides certification to recognise learning achievements thereby facilitating CPD. The platform aims to evolve to meet the needs of the laboratory medicine professionals including training modules covering management and laboratory practical skills, clinical cases relevant to laboratory medicine and live training sessions. This platform is now live on the LabMed website under the section 'our resources'.

Learning Lab

Developed by the Association for Diagnostics and Laboratory Medicine (ADLM) of the USA, the Learning Lab is an award-winning learning platform combining the latest content with the most efficient, engaging and effective mode of learning. Using adaptive learning technology, each course adapts to your personal goals, learning pace and knowledge gaps to allow you to focus on only what you need to learn. With over 110 advanced courses and over 80 basic courses across the entire field of laboratory medicine, this platform is arguably the *de facto* standard for clinical biochemistry education. This is now available to all members of the profession via the ADLM website.



Pathology Portal

The Royal College of Pathologists (RCPath) in aegis with NHS England have developed an innovative learning platform to support trainees, practising pathologists and interested parties. The Pathology Portal also uses the adaptive learning technology to enhance learning. It has the ability to view whole slide images, has teaching sessions and quizzes. It is at present most developed for histopathology, cytology, haematology and related specialities but there is a growing collection of resources in other disciplines. LabMed fully endorses this platform and it can be accessed via the NHS Learning Hub.

European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) syllabus course

This is a comprehensive course designed to aid knowledge acquisition and preparation for national examinations. It was designed by the EFLM to support harmonisation of postgraduate education of specialists in laboratory medicine in Europe. It consists of more than 40 modules and over 300 lectures covering the breadth of laboratory medicine. The lecturers are mostly delivered by practising professionals in laboratory medicine. The course can be accessed via the EFLM website.

LabMed funds EFLM Academy access for our fee-paying members, we update this annually. If you've recently joined and don't have access yet, get in touch.

LABMED NATIONAL AUDIT DAY 2026

Friday 16 November – Royal College of Pathologists, London or via live webcast

Join us for LabMed's National Audit Day 2026, a focused one-day event highlighting the latest national audits shaping laboratory medicine. This year's programme centres on the findings from this year's audits – the poisoned patient and lipid testing and lipid prescribing guidance.

Why attend?

Book here

- **Hear firsthand** about current and future national audits and how they're shaping best practice.
- **Engage in discussion** with peers and national leads on improving quality across laboratory medicine.
- **Network with professionals** and explore audit posters from across the UK.
- **CPD opportunity** – supporting your continued professional development.

Ideal for clinical scientists, consultants, audit leads, trainees, quality managers and anyone involved in diagnostics or service improvement.

Call for abstracts

Poster and oral presentation submissions are now open. Share your audit work and contribute to national learning.

Deadline: **5pm, Friday 18 September**

Read guidelines and submit here.

LABMED HOLDS ITS 73RD ANNUAL GENERAL MEETING

The Association for Laboratory Medicine held its 73rd Annual General Meeting on 10 June 2026 at the Eastside Rooms in Birmingham. A milestone this year was that it was the first AGM to incorporate the former Federation of Clinical Scientists into the LabMed AGM, reflecting the ongoing evolution of the organisation.

Annual Report adopted

Members received and adopted the Annual Report for the year ending 31 December 2025, presented by president Ian Godber, alongside the Association's accounts and balance sheet for the same period presented by director of finance, Ben Nicholson.

New governing documents approved

In a positive step forward for the Association's governance, members passed a Special Resolution to adopt updated Articles of Association. The new documents, developed by a dedicated Task and Finish group drawn from Council and supported by specialist governance advisers, consolidate and modernise the Association's governing framework.

Officers elected and members recognised

A number of officers were re-elected to their roles, and the meeting formally announced Kevin Deans as president elect, who will succeed Ian Godber as president from the adjournment of the 2027 AGM.

The meeting also celebrated two new fellows of the Association – Peter Sharpe, nominated by the Northern Ireland committee, and Michael Murphy, nominated by the Scotland committee — in recognition of their significant contributions to the profession of laboratory medicine.

Thanks were extended to outgoing officers Mayur Patel, Alison Jones and Kath Hayden for their dedication and service to the Association over many years.

Mayur Patel and Kath Hayden

Kath Hayden with Ian Godber

FROM MBBS TO CONSULTANT CHEMICAL PATHOLOGIST: A SRI LANKAN TRAINEE'S JOURNEY

Pavithra Samarakoon is a training Fellow (MTI) at Oxford University Hospitals NHS Foundation Trust.

I was fortunate to work as an honorary medical training initiative (MTI) registrar at the John Radcliffe Hospital (Oxford University Hospitals NHS Foundation Trust, UK) as part of my Doctor of Medicine (MD) training in Sri Lanka. This is the story of the journey a chemical pathology trainee undergoes before achieving Board Certification in Sri Lanka.

How are trainees selected?

In Sri Lanka, postgraduate medical education is governed by the Postgraduate Institute of Medicine (PGIM), which is affiliated with the University of Colombo. Each year, the PGIM conducts a highly competitive Pathology Selection Examination.

The exam consists of:

- An MCQ (multiple choice questions) paper featuring Best Response Questions (BRQs) and Extended Matching Questions (EMQs).
- An essay paper with equally weighted questions covering haematology, histopathology and chemical pathology.

Usually, 60-150 MBBS-qualified doctors who meet the PGIM prerequisites sit for this exam. Based on the results, around 30 candidates are selected. They are ranked by their marks and allocated to one of the three pathology specialties according to their rank and preference.

Typically, about eight trainees enter the chemical pathology stream each year.

MD Chemical Pathology Batch 2024. Pavithra is third from the right

What does the initial training involve?

Trainees are allocated to major teaching hospitals across the country to gain hands-on experience in biochemistry and immunoassay analysis. The PGIM provides a well-structured prospectus detailing the competencies a trainee must achieve.

While trainees have a primary base hospital, they undergo one- to two-month external rotations for specialised exposure:

- **Lady Ridgeway Hospital for Children:** for paediatric biochemistry and inherited metabolic diseases.
- **Apeksha (Hope) Hospital:** for oncology-related biochemistry.
- **Medical Research Institute (MRI):** for practical exposure and immunoassay techniques.
- **National Hospital of Sri Lanka, Colombo South, and Colombo North Teaching Hospitals:** for adult biochemistry, complex immunoassay analysis and dynamic endocrine function testing.

What are the barrier examinations?

The MD Part 1 Examination. Taken after the first two years of training, this exam tests analytical, clinical and laboratory management knowledge. It consists of:

- An MCQ, BRQ and EMQ paper.
- A data interpretation and calculation paper.
- A "wet" practical exam consisting of two three-hour sessions where candidates must plan, execute and write up laboratory experiments and interpretations.

Only those who pass this exam can proceed to the next stage of training.

The MD Part 2 Examination. Trainees undergo another two years of advanced clinical and laboratory training. This stage includes clinical rotations in general medicine, endocrinology and paediatrics, alongside shorter rotations in subspecialties like nephrology, cardiology, neurosurgery and clinical nutrition.

Trainees doing wet practicals at the fully equipped PGIM laboratory premises

In the laboratory, trainees directly handle consultant referrals regarding electrolyte imbalances and acid-base disorders and they liaise closely with clinical teams to plan dynamic function tests.

The final MD Part 2 examination consists of:

- Two three-hour essay papers (one analytical, one clinical).
- An Objective Structured Practical Examination (OSPE).
- Data interpretation and calculation assessments.
- Clinical and management *viva voce* exams.

What happens after passing the MD exams?

Successful candidates are promoted to post-MD senior registrars. They must complete two years of post-MD training: one year at a local accredited station and one year at an accredited overseas laboratory (such as in the UK or Australia).

During this phase, the focus shifts toward laboratory management, quality management systems (QMS), procurement and tender processes and handling non-conformities. The Sri Lankan government sponsorships support trainees during their overseas training as honorary registrars.

What is the purpose of foreign training?

The overseas year allows trainees to learn international standard evaluation and management protocols. It exposes them to advanced analytical techniques, Laboratory Information Management Systems (LIMS), stringent quality assurance processes and screening programs that are not yet widely available in Sri Lanka. Trainees are expected to implement this knowledge once they return as junior consultants.

How is Board Certification achieved?

Upon completing the two-year post-MD training, candidates must submit a comprehensive portfolio and a research report. The Board of Study in Pathology then conducts a final assessment to grant Board Certification as a consultant chemical pathologist.

What happens next?

Newly certified chemical pathologists are appointed to head their own laboratories across the island. They are continually supported in their new roles by senior consultants and the College of Chemical Pathologists of Sri Lanka.

Why do Sri Lankan trainees sit for the FRCPath exams?

Because the Sri Lankan MD is fully recognised for local consultancy, sitting for the UK Fellow of the Royal College of Pathologists (FRCPath) exam is not mandatory. However, there is a growing trend among trainees to attempt this exam. It serves as an excellent complementary qualification, provides an opportunity to standardise their knowledge against international standards and aligns their skills with what the Royal College expects of a consultant chemical pathologist.

This six-year journey, punctuated by three major examinations, ensures that Sri Lankan trainees are transformed into highly competent, versatile consultant chemical pathologists ready to lead diagnostic services. The overseas training in the UK, one year with the Royal College sponsorship, greatly helps in this transformation.

Examiners and examinees in April 2024 MD part 2 exam

TWO SPECIALITIES, ONE SCIENTIST

Rachel Dale is dual-qualified in biochemistry and immunology. Here's her story.

What (or who) inspired you to choose this career path?

I've always enjoyed science and the beautiful complexity of the human body. I did once want to be a medic but couldn't bring myself to be quite literally holding someone's life in my hands. And yet scientific research felt too far removed from being relevant to day-to-day life.

So, when I heard about the role of clinical scientist, it felt the best of both worlds – bringing medicine and science together. Therefore, during my Masters year in Molecular and Cell Biology at Oxford University, I applied for the STP in clinical biochemistry. I'm now an immunologist. More on this later.

What does your role involve on a day-to-day basis?

My day-to-day role broadly includes clinical reporting, quality assurance and service development. I interpret, comment upon and authorise results in the proteins, allergy and autoimmunity sections of the lab. I respond to queries from clinicians. I conduct clinical audits and service reviews. I plan verifications for new assays or instruments, analyse data and write reports. I dream about how the service could be improved and work with BMS and clinical scientist colleagues, as well as service users, to make them a reality (for some things, this takes weeks, others, it takes years!). I collaborate with colleagues in other immunology labs across the region to share knowledge, learning and ideas, and we work together towards improving standardisation and equity of access to immunology laboratory services across the Midlands.

What is the most rewarding part of your job?

Making a difference to an individual patient's life. It is so rewarding being able to advise a clinician on what tests will be most helpful in the investigation of a particular set of clinical features, or being the person to reflex tests based on the clinical history and initial results, that leads to a diagnosis.

The example that comes to mind is the reflex tests I initiated for a two-year-old patient presenting with a rash, whose sample we analysed for skin autoantibodies and there was no background staining. I added on immunoglobulins and identified agammaglobulinaemia, which I promptly discussed with the clinical team. This led to urgent referral to paediatric immunology and to the diagnosis of autosomal recessive agammaglobulinaemia, an inborn error of immunity in which the patient cannot produce any antibodies and is therefore susceptible to severe, recurrent bacterial infections.

What is one project or achievement of which you are most proud?

I have two. The first is running the London marathon six months post-partum. The second is completing FRCPath Part 1 in biochemistry, re-training in immunology and completing FRCPath Part 1 and Part 2 in immunology, all within the space of six years (a time which also included potty training a toddler, a maternity leave, the second half of a pandemic, supporting my husband through nine months of post-viral fatigue and moving city, twice!). I wouldn't recommend this approach to career progression, but it certainly develops resilience.

Lots of people ask why I changed specialism. The truth is that it's just the way life has turned out, but I am thankful that it has. Immunology is fascinating, relevant, and a small enough specialism that you always know someone to ask when you get stuck (and you always get a friendly reply).

What challenges have you faced in your career progression and how did you overcome them?

Changing specialisms is the big one. We were relocating city for my husband's training, and I hedged my bets by emailing the consultant biochemist to ask if he had any jobs going. He said "No, but what about this?", sending an advert for an 8A post in immunology. They did proteins, which I'd done in biochemistry before, and they (thankfully) didn't need someone with flow cytometry expertise. They interviewed me, hedged their bets and offered it to me. This began my almost vertical learning curve, in which the STP trainee I inherited knew more than me about autoimmunity and immunodeficiency, I had a lot of imposter syndrome, and I asked a lot of questions. The lab team and the medical consultant immunologists were patient, encouraging and willing to invest in me. I'm also a quick learner, which helped. Over time I started to know the answers instead of asking the questions, and fostered a great working relationship with both the lab team and the medical team, acting as a bridge between the two. I also joined the Immunology Professional Committee as post-registration clinical scientist trainee representative and very much appreciate this opportunity to work with other immunology clinical scientists across the country and have learned a lot from them. I don't regret being trained in biochemistry, because where I work now, I'm the only immunology clinical scientist in a team of biochemists and can (usually) understand what they're on about.

What skill do you think everyone should develop?

Being friendly, being respectful, being curious, being diligent. Are these skills? I'm not sure, but I think they're essential. Perhaps an actual skill: clear communication, both verbally and written. If your team understand what needs to happen, why it needs to happen, what you are doing, what they need to do, how it needs to be done, and when by, everything runs much more smoothly.

What motivates you every day?

This verse from the Bible: "Whatever you do, work at it with all your heart, as working for the Lord and not for men". Colossians 3:23

What's your favourite way to unwind after work?

Going for a run. Even if it's raining.

BOOK NOW FOR UPCOMING EVENTS

Enabling patient-centred sampling: Total laboratory automation

Liverpool | 30 September 2026

How can total laboratory automation support patient centred blood sampling

Explore approaches to managing pre-analytical quality for samples

Learn from real-world laboratory implementations

Recognise design, validation and workflow considerations for capillary collection devices

Consider how flexible laboratory processes can support the shift from hospital-based care to community settings

Leadership and management residential course

Ashford | 12-16 October 2026

A five-day programme designed for specialist registrars and post-registration clinical scientists in preparation for consultant-level responsibilities.

Developed by and for laboratory professionals

- Sessions are rooted in laboratory and pathology practice, with case studies, workshops, and group projects drawn from real NHS scenarios, including network working, procurement decisions and workforce challenges

ANNALS OF CLINICAL BIOCHEMISTRY LATEST RESEARCH ARTICLES

Check out these interesting new articles recommended for reading by the editors-in-chief of the *Annals of Clinical Biochemistry*:

PCSK9 in critical illness – it's not all about lipids

Emma Crossley, Jonathan A Silversides, Cecilia M O'Kane and Paul K Hamilton

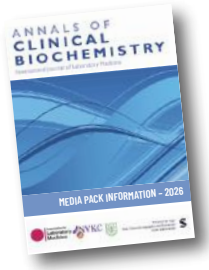
Evaluation of a point of care prostate-specific antigen blood test on a mobile outreach service

Masood Moghul, Helen Berry, Freeda Millet, Amina Tran, Fiona Mutch, Elizabeth Westaway, Fionnuala Croft, Robyn Shea, Netty Kinsella, Patrick Kierkegaard, Declan Cahill and Nicholas David James

NT-proBNP and its correlation to left ventricular ejection fraction and heart failure – The DEMONSTRATE database

Morgan Lundgren, Peter Ridefelt, Maria K Svensson, Emil Hagström, Thomas Cars and Anders Larsson

Click here to submit your work to the *Annals of Clinical Biochemistry.*



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PUBLICATION DATES

LabMed News is published on the 15th of the month. To guarantee publication, please submit your article by the 15th of the preceding month (i.e. 15th September for the October 2026 issue) to: editor@labmed.org.uk We aim to be as flexible as possible and will try to accept articles up to the 1st of the month to be published if space allows. Otherwise they will be held over to the next issue. If we are aware that articles are imminent, this gives us more flexibility and we can reserve space in anticipation. If in doubt, please contact: Gina Frederick, lead editor, via the above e-mail.

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WELCOME TO OUR NEW MEMBERS

The Association is proud to introduce the following new members who have joined us since the last edition of *LabMed News*. Please extend a warm welcome to:

Abiola Adeosun, clinical biochemist, University of West London

Chathurangani Menaka Balasooriya, consultant chemical pathologist, District General Hospital Horana, Sri Lanka

Aaron Doherty, clinical scientist, Nottingham University Hospitals NHS Trust, Nottingham

Abubaker Elfatih, consultant chemical pathologist, SSMC Mayo Clinic UAE, Abu Dhabi, United Arab Emirates

Simon Friar, clinical scientist, University Hospitals Southampton NHS Foundation Trust, Southampton

Israa Gismelseed, registrar, Lister Hospital, Stevenage

Ayham Haloubi, trainee clinical scientist, Manchester University NHS Foundation Trust, Manchester

Isabella Hiley, healthcare scientist trainee, Imperial College Healthcare NHS Trust

Jeewanthi Kaushalya, honorary clinical fellow, Addenbrooke's Hospital NHS Foundation Trust, Cambridge

Win Chyn Laguio, clinical scientist, University Hospitals Sussex NHS Foundation Trust, Brighton

Helen MacGregor, consultant clinical biochemist, Portsmouth Hospitals NHS Trust, Portsmouth

Ben McDonald, clinical biochemist, Guy's and St Thomas' NHS Foundation Trust, London

Awadelgeed Musa, doctor, New Cross Hospital, Wolverhampton

Bernard Poggi, clinical biologist (EuSpLM), c/o PROBIOQUAL, France

Toral Vegad, clinical scientist, Hampshire Hospitals NHS Foundation Trust

Jessica Winfield, senior clinical scientist, Heartlands Hospital, Birmingham

Student members

Ayomide Adejumo, Keele University

Molly Crow, University of the West of England, Bristol

Muhammad Usman, The University of Faisalabad, Faisalabad, Pakistan

Agra Wanigaarachchi, University of Chester

TRADE UNION NEWS

It was great to see so many members and trade union reps participate in the first session of our Trade Union training series for 2026, which took place last month, exploring The Equality Act and how it protects individuals from discrimination in the workplace. The webinar's recording and its learning points will be available in a new area of the Learning Academy this autumn, but for now, some key learning points.

The Equality Act covers anyone who works for an employer, contractors and self-employed people hired to do work, job applicants and former workers. During the session we explored four types of discrimination; direct discrimination, indirect discrimination, harassment and victimisation.

Direct discrimination is when someone is put at a disadvantage or treated less favourably because of a protected characteristic. There are often legal time limits when handling a case like this, but support is available via the LabMed Trade Union National Committee so reach out at the earliest opportunity.

Indirect discrimination is when a working practice, policy or rule is the same for everyone but has a worse effect on someone because of a protected characteristic. This is one of the many reasons why it is so important that LabMed members are involved locally on staff side and policy groups to work with employers before problems arise.

Harassment is unwanted behaviour that has either violated the person's dignity and/or created an intimidating, hostile, degrading or offensive environment for the person, even if it was not intended or was intended but did not have that effect.

Victimisation is when someone is treated less favourably as a result of being involved with a discrimination or harassment complaint.

What can we do?

Encourage members to keep a record of behaviours (time, dates, any witnesses), discuss issues with rep and other members to explore possible resolutions, determine what process is best to follow (formal/informal), identify the routes of escalation, and seek advice/support (timescales are often just three months in many cases).

Things to consider

What does a reasonable resolution look like? Are local policies being followed? Is this a collective (rather than individual) issue? Are there any other wider learning points following resolution (cultural change, repair relationships etc)?

Join us for the next two webinars covering what your trade union does for you (5 October 2026) followed by a look at the significant changes being phased in as part of The Employment Rights Act and how this will affect supporting members in the workplace (9 November 2026).

In the next issue of *LabMed News* we will provide a summary of our new exciting suite of resources and guidance, which aims to make the role of LabMed trade union representative as straightforward as possible and equip our reps with the tools we need to succeed in supporting us and colleagues on hugely important issues. This also includes more detail on where support (and there is lots of it!) can be acquired.

Becoming a local or regional union representative is a unique and superb way to develop your professional skills, influence change and build your professional network – learn more at Trade Union Representatives and if you have any questions at all please reach out to us – mike@labmed.org.uk

CONFERENCE REPORT

LABMEDUK26 - BIRMINGHAM

IAN GODBER

President

LabMedUK26 brought laboratory professionals, researchers and innovators from across laboratory medicine and industry together for two days of science, debate and networking in Birmingham.

Tuesday opened with a welcome from me, followed by the International Award Lecture from Tahir Pillay: from bench to pocket: nanobodies in point-of-care biosensor design, highlighting novel developments in immunoassay. Delegates then split across parallel sessions – a panel of the four nations' chief scientific officers, chief scientific advisor and chief healthcare science officers discussed delivering scientific strategy across the nations. I very much enjoyed chairing this session which highlighted both the variation in practice but also the common goals in the development of healthcare across the UK as a whole. A second session tackled the hunt for hidden paraproteins and their interference in biochemical diagnostics, with talks on clinical risk prediction for multiple myeloma, paraproteins and bone metabolism, and IgM paraproteins as a rare assay interference.

After lunch, poster spotlights and industry-sponsored workshops, Martin Myers MBE delivered the Freddie Flynn Award Lecture on patient-focussed laboratory medicine and the challenges we currently face in the delivery of best practice. The afternoon parallel sessions covered analytical specification goals alongside a session on advances in diagnostic neurology spanning prion disease, Alzheimer's blood biomarkers and the development of assays in Parkinsonian disorders.

The four nations' panelists

The day closed with some fascinating presentations in the Medal Award session, chaired by Katharine Hayden, and a session on the RASH-UK working group's work on improving primary aldosteronism detection and classification in the UK, featuring the 2026 update and new UK biochemical investigation guidelines. Congratulations to all the Medal Award presenters and the eventual winner, Marie Clarke, and runner-up, Ceri Parfitt.

Wednesday kept up the pace. Tim Wreghitt OBE gave the Foundation Award Lecture looking at the advances in diagnostic virology techniques over the last 50 years. Parallel sessions followed on patient-centric diabetes care and on engineering the future of metabolic medicine.

The late-morning sessions looked at interventions for obesity and their impact on laboratory medicine, including gut hormones, GLP-1 receptor agonist therapy and post-bariatric surgery hypoglycaemia, alongside a session making the case for lab sustainability, with talks on plastics, sustainable pathology and building sustainability into everyday practice.

After lunch, poster spotlights and further exhibition time, delegates gathered for the LabMed Annual General Meeting, the Impact Award Lecture and the ever-popular clinical case presentations, chaired by Danielle Freedman. Congratulations to this year's winner of the Clinical Cases presentations Francesca Ryan-Beswick, and runner up, Charlotte Begley.

Ian Godber presenting the President's Shield to Sarah Robinson

The closing ceremony celebrated the achievements of our other award winners: the Poster Prize winners voted by delegates – Gabriella Richardson (Tuesday) and Charley Harrison (Wednesday). I was also delighted to award this year's President's Shield to Sarah Robinson for her huge contribution to the evolution of our conferences and events. The conference also welcomed our new president elect, Kevin Deans, and finished with a short presentation on EuroMedLab next year in London which I look forward to welcoming you all to.

Delegates viewing the posters during the break

THANK YOU TO OUR SPONSORS

LabMedUK26 extends its sincerest gratitude to the sponsors whose generous support made the conference possible:

- **Gold Sponsors: Roche**
- **Silver Sponsors: Abbott, BD, The Binding Site, Biohit, Siemens Healthineers, Snibe**

Their commitment to innovation and excellence in laboratory medicine was instrumental in the event's success.

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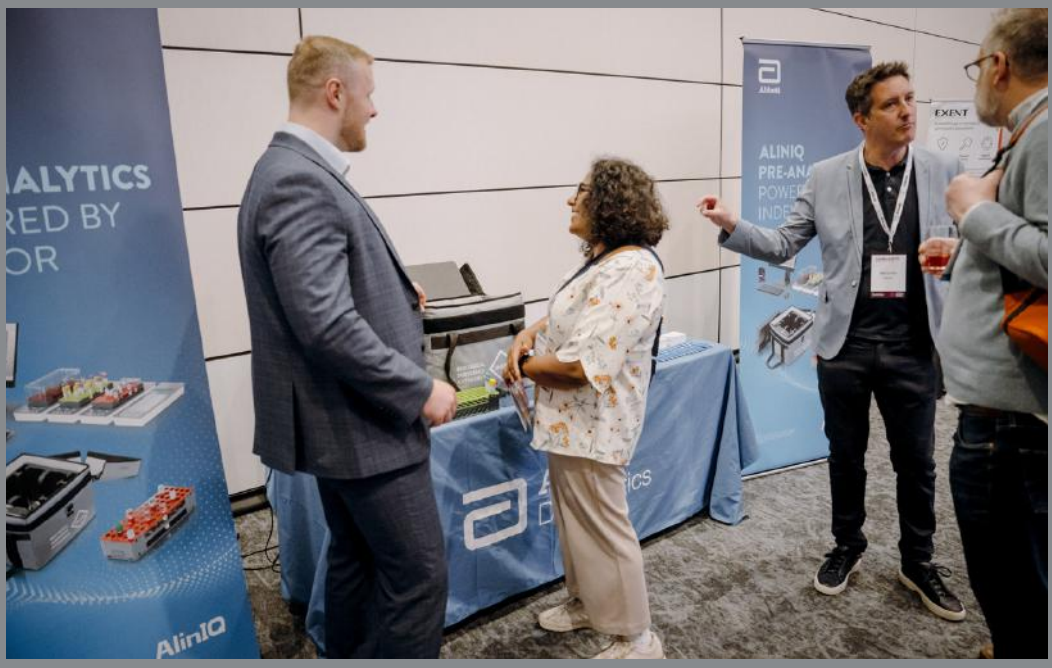

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LABMEDUK26 AWARDS

LabMedUK26 celebrated outstanding achievements in laboratory medicine through a series of prestigious awards:

- **Impact Award:** Jayagandan Jayamani
- **Laboratory Medicine Foundation Award:** Tim Wreghitt
- **International Award:** Tahir Pillay
- **Freddie Flynn Award:** Martin Myers
- **Medal Award:** Marie Clarke and runner-up Ceri Parfitt
- **President's Shield:** Sarah Robinson
- **Clinical Cases:** Francesca Ryan-Beswick and runner up Charlotte Begley
- **Poster of the Day: Tuesday** – Gabriella Richardson, **Wednesday** – Charley Harrison

Impact Award winner: Jayagandan Jayamani, specialist – clinical biochemistry, New Mowasat Hospital Kuwait

International Award: Tahir Pillay, chief specialist, professor and head of the Department of Chemical Pathology, University of Pretoria and National Health Laboratory service

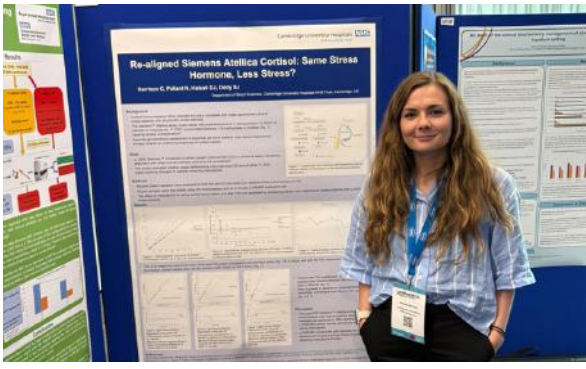
Laboratory Medicine Foundation Award: Tim Wreghitt with past president Kath Hayden

Freddie Flynn Award: Martin Myers, recently retired as a consultant clinical biochemist, and laboratory director of Clinical Biochemistry at Lancashire Teaching Hospitals NHS Foundation Trust

Medal Award: Marie Clarke, trainee clinical scientist, Torbay & South Devon Healthcare NHS Foundation Trust

Clinical Cases: Francesca Ryan-Beswick, principal clinical scientist, Manchester University NHS Foundation Trust

Poster of the Day (Tuesday): Gabriella Richardson, trainee healthcare scientist, Sheffield Teaching Hospitals NHS Foundation Trust



Poster of the Day (Wednesday): Charley Harrison, trainee clinical scientist, Addenbrooke's Hospital

EUROMEDLAB LONDON2027

IFCC International Federation of Clinical Chemistry and Laboratory Medicine

EFLM EUROPEAN FEDERATION OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE

Association for Laboratory Medicine

Dates to remember

15 December 2026
deadline for abstracts submission

15 March 2027
end of reduced registration fees

16-20 May 2027 | Excel London

27th EuroMedLab Congress of Clinical Chemistry and Laboratory Medicine

Jointly organized by IFCC and EFLM in collaboration with LABMEDUK27 of the Association for Laboratory Medicine

WELCOME TO OUR NEWEST CORPORATE MEMBERS

Shimadzu UK

Shimadzu UK's expertise in technologies such as chromatography and mass spectrometry plays an important role in delivering high-quality diagnostic and analytical services. We look forward to working together to support innovation and excellence in laboratory medicine.

Macro Array Diagnostics

With their focus on advancing diagnostics in allergies and food intolerances, Macro Array Diagnostics brings valuable expertise to our community. Collaboration between laboratory professionals and industry is key to responding to evolving clinical needs.

Tosoh Bioscience

Tosoh Bioscience delivers advanced clinical diagnostic systems and industry-leading chromatography solutions that support laboratories and research across healthcare and life sciences. We value the role of industry partners in driving quality and innovation in diagnostic services and look forward to working with Tosoh Bioscience.

Magentus

Magentus has been shaping health technology for over three decades, with a strong track record across clinical systems, health informatics and practice management. Their mission to connect the health ecosystem at scale aligns closely with the growing need for integrated and intelligent healthcare solutions.

CALL FOR RESEARCH PARTICIPANTS: PATH LABS AND EXTREME WEATHER

Researchers from the Hull York Medical School, University of Sheffield and University of Leicester are applying for an NIHR grant to investigate the impacts of extreme weather events on pathology laboratories. Our application has gone through to stage two and has 50% chance of success. The prize is £2 million to make path labs operations and supply chains more resilient to extreme weather events.

We have great path lab partners in the North of England and it would be fantastic to have path labs in the South of England and other UK nations in our team too. We would engage with you through online interviews and focus groups to investigate impacts of e.g. heatwaves and co-create and implement possible solutions and adaptations.

Please contact us if you are interested and we'll coordinate a Teams meeting to discuss:

Dr Shireen Kassam
Consultant Haematologist, Lifestyle Medicine Physician and Medical Examiner
London South-East and KSS Training Programme Director
RCPath Sustainability Lead for Pathology Practice
Haematological Medicine
Ground floor Hambledon Wing
King's College Hospital
Denmark Hill
London SE5 9RS
Tel: 020 3299 5262

IMMUNOLOGY TRAINING DAY REPORT FROM LABMEDUK26

CHARLOTTE BEGLEY
Trainee clinical scientist, University Hospital Southampton NHS Trust, Department of Laboratory Medicine (Immunology)

This year's LabMedUK conference opened with a dedicated training day, allowing for scientific and medical trainees up to the FRCPath level to engage in learning and networking opportunities to complement their current programmes.

The immunology training day began with a joint collaborative workshop between the immunology and biochemistry disciplines, led by Larisa Wiedemann, Daven Amin and Ellen Stephens. This workshop focussed on developing practical skills within the workplace and gaining confidence regarding collaborative work in a multidisciplinary setting, ultimately equipping participants with new strategies and skills that they can utilise in their day-to-day roles. This was an insightful workshop that made us think about how our roles interact with those from other departments, including external collaborators outside of laboratory medicine. It was also a great opportunity to network with other trainees whilst participating in the session's interactive tasks.

Following this interactive workshop, the programme continued with a 'not in the textbook' session, focussing on learning opportunities that may not usually be encountered

Adrian Heaps presenting on the challenges of complement testing

in routine training curricula. Firstly, a lecture was delivered by Alison Whitelegg on the integration of kappa index testing in the diagnosis of multiple sclerosis, speaking of its clinical utility alongside the use of oligoclonal bands. This was a very useful session which highlighted the benefits of implementing quantitative tests where current practices are based on qualitative results requiring specialist training and dual reading for interpretation. Such benefits include improved efficiency of testing and results authorisation in an environment where laboratories are facing ever increasing workloads.

Next, we heard from Adrian Heaps, who gave an overview of the practical challenges of complement testing and how these results correlate to the clinical setting. This talk gave great insight into the complexities of the complement system, and provided the opportunity to reflect on the importance of interpreting results in the context of the clinical picture to provide the best outcomes for patients.

With the conclusion of the day's joint sessions, the immunology training day programme moved onto an FRCPath Part 1 examination workshop, led by Dan Payne and Alison Whitelegg. Here, trainees took part in interactive discussions surrounding representative exam-style questions. Alongside this workshop, trainees also had the opportunity to take part in mentoring sessions to guide their current training and gain support and advice in the context of the Scientist Training Programme. These sessions were incredibly helpful as they allowed us to reflect on our progress so far whilst also considering our professional roles following the completion of our training programmes.

The day concluded with a discussion on e-learning software, led by Nick Barnes, regarding teaching styles best suited to immunology training and how current practices may be improved to enhance education in immunology. This included discussion regarding whether present trainees preferred theory-based teaching, or teaching in the context of clinical cases, with most agreeing that they find a combined approach most effective for their learning.

Overall, the LabMedUK26 immunology training day proved to be an insightful and informative day which we are looking forward to taking part in again next year.

Charlotte Begley receiving the Clinical Cases award from Ian Godber

TICKING ALL THE BOXES – TRAINING, INTERPRETATION, COLLABORATION

KATIE BARKER
Senior clinical scientist, University Hospitals of Leicester NHS Trust

The focus of this year's LabMedUK biochemistry training day was collaboration, interpretation and exam preparation. Key outcomes included practical ways to improve teamwork across departments in a pathology setting, a better understanding of how to interpret complex test results and clearer guidance on exam preparation – all aimed at supporting safer patient care and strengthening professional competence.

Collaboration workshop

This workshop saw attendees get involved in roleplay scenarios to emphasise the need for effective collaboration across departments and the wider clinical team when implementing new tests and pathways. The roles, responsibilities and agendas of each individual were considered, and barriers to project implementation, such as miscommunication, were discussed.

Collaboration directly impacts workflow, service delivery and patient care – it is therefore essential we get it right! As such, the session highlighted practical strategies for project initiation and the importance of an open communication style. By the end, attendees were more confident in their approach to multidisciplinary working, a mindset we can take into our day-to-day practice.

Not in the textbooks

The joint immunology and biochemistry session explored uncommon themes, including oligoclonal bands interpretation, the use of kappa index in multiple sclerosis and the challenges of complement interpretation. Although these topics often fall outside routine teaching and textbooks, they can arise in the real world. It is therefore essential we are able to interpret results and correlate these with clinical details. The talks highlighted assay limitations, result variability and the need to use caution when interpreting results.

FRCPath exam preparation and interpretative comments

The standout session of the day centred around FRCPath Part 2 exam preparation. Key points included strategies for approaching OSPE stations, avoiding common mistakes and structuring answers effectively. Attendees left the session feeling reassured, with tips and pointers for revision and exam success.

The other half of the afternoon focussed on adding clinical value in the form of NEQAS interpretative comments. Speakers emphasised the importance of consistent, high quality interpretative comments and how these can help our day-to-day practice.

Conclusion

Overall, the training day was well organised, engaging and highly relevant. The mix of interactive workshops and expert-led sessions were informative for both biochemistry and immunology attendees. LabMedUK is always a great opportunity to meet and network with leading figures in the pathology field. I'm always pleased to attend, and I would strongly consider any future events to continue my professional development.

NANOANTIBODIES, DODGY CREATININE AND THE TROUBLE WITH B12

by
MICHAEL O'MEARA
Specialist registrar in chemical pathology, Galway University Hospital

I recently attended LabMedUK26 and it was a very informative event with the opportunity to hear leaders in their respective fields.

Nanoantibodies open up new possibilities in POCT

The international award lecture was given by Tahir Pillay on nanoantibodies, and their application in healthcare systems, in particular low resource settings.
A nanoantibody is a 15 kDa heavy-chain antibody which can bind to a much smaller epitope compared to a conventional antibody. They are simpler to produce *in vitro,* cheaper, more robust and have a long shelf life, and can target hidden epitopes that may not be accessible to the much larger 150 kDa conventional antibodies. They have diagnostic and therapeutic applications, and tumour penetration can be much better with the smaller nanobodies when applied to chemoimmunotherapy. While initially produced from camelids, recombinant engineering with libraries now makes their production totally *in vitro.* They have applications for POCT – PSA, CRP, NGAL can all be detected in this way as well as glycated albumin, which has potential to assess the impact of a therapeutic intervention earlier compared with HbA1c. Covid-19 can be assessed via POCT through lateral flow assay using a nanoantibody with sensitivity comparable to conventional RT-PCR.

A risk model for multiple myeloma

Another interesting talk was on clinical risk prediction modelling for multiple myeloma, using logistic regression with existing lab data from patients using just ten predictors. Their model was internally validated although it was noted that their method may not be generalisable.

When paraproteins interfere with lab results

Some interesting cases followed of paraprotein interference in biochemical measurements, in particular patients with an IgM paraprotein. The first patient was noted to have hypercalcaemia and was referred to the metabolic bone service, the second patient had chronic

lymphocytic leukaemia with a known IgM paraprotein. Both patients had normal ionised calcium when measured, and interference was felt to be due to measurement with the arsenazo III calcium method which uses an acidic medium and so precipitates the paraprotein which can interfere with calcium measurement leading to spurious results. Both patients also had very high vitamin D levels when measured by immunoassay, >385 nmol/L and 292 nmol/L. However, when measured by LC/MS, results showed they were actually vitamin D deficient with levels of 9.1 nmol/L and <11.3 nmol/L respectively, outlining the importance of knowing methods and limitations of methods.

A creatinine result that didn't add up

This was followed by another interesting case of interference with creatinine measurement using the Beckman-Coulter enzymatic creatinine assay. It was noted following a change from a Roche to a Beckman platform that a patient developed a significantly elevated creatinine.
This resulted in a referral to nephrology, with two subsequent renal biopsies, multiple imaging, frequent monitoring to try and identify an aetiology with profound psychological impact on the patient.
Referral to another nephrology service in a different hospital subsequently revealed a normal creatinine on an alternate platform as a result of IgM interference. Software was implemented that assessed the reaction trace of each sample on the Beckman platform and flagged abnormal analysis that may have indicated an interference, and three additional patients were found to have interference on retrospective audit.

Reducing variation, getting it right for the patient

Getting it right for the patient means reducing variation and cutting unnecessary testing, and speakers kept coming back to quality control and best practice guidelines. Martin Myers pointed out that unwarranted variation causes real problems in clinical trials and their protocols. He gave B12 as an example, particularly at indeterminate levels, along with the current difficulty of measuring methylmalonic acid in the NHS, and flagged PSA as another analyte of concern. Getting the same result from every platform comes down to harmonisation, and to better calibration and reagent formulation.

Setting national standards for analytical performance

Eric Kilpatrick spoke about analytical performance specifications, using the Sigma 6 concept in clinical chemistry to assess quality control performance and made the case for the UK having nationally agreed specifications. It will be interesting to hear more of this topic in the years ahead.

The trouble with B12 testing

Another important talk was on Vitamin B12 analysis. Micronutrient deficiency is common. Limitations of the serum B12 assay were discussed, with 20% of deficient patients not having anaemia and the importance of keeping an open mind in patients with neurological or psychiatric issues. It becomes more difficult to absorb B12 as you get older and more people are becoming vegetarian. Serum B12 may not pick up deficiency in someone taking nitrous oxide and is number 12 on the list of most common tests requested. 180 ng/L is the target value for the majority of B12 assays. Serum B12 levels largely have a genetic basis rather than nutritional basis, with high rates of falsely normal B12. Most assays we use are as good as "flicking a coin" as to whether someone is B12 deficient. An example was given from a Birmingham UK NEQAS report which showed, depending on the platform used, one could be told they were B12 deficient,

replete or had excess B12. Most of serum B12 is not biologically available and is transported by proteins and we cannot distinguish between holotranscobalamin (active B12) and that bound to haptocorrin – cells do not have receptors for the haptocorrin bound B12. Variations in immunoassay equipment and differing reference ranges make interpreting borderline results difficult. Methylmalonic acid is the gold standard for B12 measurement, however, access to this is difficult at present due to it needing mass spectrometry. At a value of 170 ng/L, sensitivity of the B12 assay is 35%, sensitivity can be increased by increasing this value but with a cost of reducing the specificity.

Diagnosing primary aldosteronism

Another interesting talk was on primary aldosteronism (PA) detection in the UK, which is a common condition, albeit underdiagnosed. A UK review identified significant variation in testing and sampling which led to a multidisciplinary working group called RASH (renin aldosteronism standardisation and harmonisation), with the goal of improving diagnosis of PA. There is no such thing as binary cut off and there is a spectrum. Diagnosis may be obvious based on biochemical criteria; however, a patient may have PA one day and not on another day, similar to cyclical Cushing's, with the majority of individuals having bilateral disease. CETO PET-CT is a diagnostic modality and is being found to be comparable toto adrenal vein sampling.

Conclusion

I thought Day 1 was very educational and it was great to hear from leading experts. It was interesting to hear from Tahir Pillay about the significant improvements that are happening in the POCT arena as laboratory testing moves outside the laboratory and into pharmacies, general practice, homes and other institutions. It was very interesting to hear about cases of interference and the importance of knowing your labs methods and their limitations. Another important talk was from the Get it Right First Time clinical lead and the importance of trying to reduce variation and getting the same result regardless of method used, with the challenges of calibration and reagent formulation noted. It was also interesting to hear from Professor Gurnell and his update on the diagnosis of primary aldosteronism.

50 YEARS OF VIROLOGY, CGM LAG AND A CASE OF 46XX DSD

by
REBECCA TIBBS
Clinical scientist, Berkshire and Surrey Pathology Services

Thanks to a regional educational bursary, I was fortunate to be able to travel to Birmingham to attend the second day of LabMedUK for what was a jam-packed day of thought-provoking talks, educational interactive cases, a wide range of interesting posters and opportunities to reconnect with colleagues.

Foundation Lecture

Foundation Award winner Tim Wreghitt opened the day with a fascinating discussion of developments in clinical virology over his 50-year career, highlighting how processes, technologies and clinical priorities had changed over that period, such as the impact of the introduction of the MMR vaccine which reduced reliance on the virology laboratory to detect immunity to rubella in pregnant women. He showed how a number of these changes have significantly improved clinical outcomes, for example, the advent of molecular testing for influenza meaning cases can be identified early enough to allow prompt treatment and efficient infection control.

Patient-centric diabetes care

This session was an interesting insight into the benefits and limitations of advances in diabetes monitoring outside of the laboratory. Emma English gave a fascinating talk about the role of POCT HbA1c methods, concluding that while some can perform as well as lab methods, there is significant variability between devices and performance depends heavily on the quality framework in place.

Parizad Avari discussed the role of continuous glucose monitoring (CGM) in improving quality of life for patients and how maximising time-in-control has been shown to correlate with decreased risk of microvascular complications. However, patients and clinical teams need to be aware of the limitations of CGM, including the lag in peak glucose in interstitial fluid, effect of acute illness and interferences from medicines including IV paracetamol.

Finally, Ketan Dhatariya covered the emergence of novel continuous ketone monitoring (CKM) sensors, which would improve the identification of DKA and reduce hospital admissions in high-risk patients, an important development given the data suggesting poor understanding and awareness of the risks of ketoacidosis amongst this cohort.

Clinical Cases

The final session of the day was the ever-popular interactive clinical cases session chaired by Danielle Freedman. Presentations covered a wide range of unusual and instructive case studies, from possible side effects of GLP-1 agonists to rare inherited metabolic disorders. Congratulations to winner Francesca Ryan-Beswick, whose engaging presentation of an interesting case of 46XX DSD highlighted the wide array of investigations which can elucidate the cause of ambiguous genitalia, and runner-up Charlotte Begley, who presented an extremely rare case of leukocyte adhesion deficiency type 1.

Overall, the day was an excellent opportunity to learn from the experiences of colleagues from across laboratory medicine disciplines.

I would like to thank the organising committee for their hard work in pulling together such a diverse and interesting programme, and the Association for Laboratory Medicine for the bursary which allowed me to attend.

GETTING IT RIGHT FOR THE PATIENT – ARE WE GOOD ENOUGH? . . . THE NEXT STEPS

GARETH DAVIES AND RACHEL MARRINGTON
on behalf of the PFLM Group

If 2025 was the year that questions started, 2026 will be the year of action. After the huge success of the first Patient Focused Laboratory Medicine (PFLM) Group webinar and resulting 'Meeting Report with Recommendations', the PFLM Group returned with their next webinar on 12 May 2026, entitled 'Getting it right for the patient – are we good enough . . . the next steps'.

This webinar focused on the 'Meeting Report with Recommendations' and reflected on what had been achieved since 2025 and indicated the future direction of travel. The PFLM Group have had great feedback and support from both laboratory professionals and the professional bodies themselves. Reflecting this continued enthusiasm, the second webinar proved just as popular as the first, attracting over 1,000 registrations and generating many requests for the recordings.

Once again, the webinar was ably chaired by Danielle Freedman, with the first talk presented by Martin Myers. Martin gave an overview of what the PFLM Group has achieved since the last webinar, opening with 'the PFLM is a doing Group . . . we are about getting things done', and this has been the focus of the group – putting ideas into action. Martin gave an update on the ten recommendations from the previous meeting report and outlined the actions the PFLM Group had already initiated to implement them.

Next up were Finlay MacKenzie from Birmingham Quality and Annette Thomas from Weqas, covering some analytes of concern. Finlay described assay differences for folate, free T4 and calcium, showing that large method differences exist and how this impacts use of generic cut-offs – 'magic numbers'. Annette focused on calcium, describing the traceability of calcium measurement, and showed performance of

total calcium, adjusted calcium and ionised calcium. Maybe the recent EFLM/IFCC advice to not report adjusted calcium and move to total or ionised calcium may not solve all our issues!

Danielle Freedman gave an overview of the clinical impact of incorrect results, including the consequences of missing true hypo- and hypercalcaemic results due to method related bias, and the consequences of falsely identifying hypo- or hypercalcaemia when the true concentration is actually normal. These can cause misdiagnosis, unnecessary investigations, patient anxiety and increased cost and burden on the NHS, among other things.

Danielle then went on to describe this issue with other analytes including folate, free T4 and the use of dynamic function tests and concluded by highlighting Lab Tests Online, where several analytes discussed by the PFLM Group – including HbA1c, thyroid function tests, folate and calcium – feature among the ten most frequently searched tests by the public, underlining their clinical importance.

Once again, this webinar featured an interactive session where invited panellists included Eric Kilpatrick (RCPath), David Gaze (LabMed), Nigel Coles (IBMS), Alison Bryant (UKAS), Angela Douglas (BIVDA), and Joseph Burt (MHRA). The panellists discussed and responded to a series of questions submitted by attendees in advance of the webinar. This proved to be an engaging session, characterised by broad agreement alongside some thought-provoking debate!

After the debate, David Housley presented his IQC toolkit which lines up with Recommendation 8 from the 'Getting it right for the patient, are we good enough? Meeting Report'. David started with the now infamous HbA1c issue and followed on to lessons learnt and how to move forward. He presented his IQC troubleshooting flowchart – which proved very popular – and he has since been inundated with requests for a copy. This shows the appetite for improvement among laboratory professionals and the need for easy-to-follow toolkits, as per the PFLM recommendation.

The webinar finished with Rachel Marrington giving an overview of the PFLM survey on the use of the Yellow Card scheme. This questionnaire showed some lack of understanding of the Yellow Card scheme but really highlighted the lack of use of the system and the very low number of Yellow Card reports from the laboratory community. This work is currently awaiting peer review publication.

The webinar demonstrated that awareness of analytical variation is no longer the main challenge; translating knowledge into practical action is. Through its recommendations, toolkits and future

workstreams, the PFLM Group aims to continue driving improvements that ultimately benefit patients. We welcome any suggestions or calls to action from colleagues across the profession.

We have had many requests to expand beyond biochemistry and blood sciences, and our third webinar will be focused on POCT.

Registration is now open for 'Getting it Right for the Patient: What is Happening with POCT including DTCT (Direct-To-Consumer-Testing)' to be held Tuesday 10 November 2026, 10:00-13:00 GMT.

Click on the QR code to book.

THE DIGGLE MICROBIOLOGY CHALLENGE

These questions, set by Mathew Diggle, are designed with trainees in mind and will help with preparation for the microbiology part 1 FRCPath exam.

Question 54 from the June issue

In Spring 2026, a cruise ship in the Atlantic reports an outbreak of severe respiratory illness with several deaths. A passenger evacuated to a local teaching hospital is confirmed to have a novel hantavirus infection. Most affected patients have acute fever, myalgia, cough and rapidly progressive respiratory failure; at this stage there is no clear evidence of sustained human transmission.

Which of the following statements regarding hantavirus infection is most accurate?

A) Human-to-human transmission via respiratory droplets is the predominant route of spread for all hantaviruses causing hantavirus pulmonary syndrome (HPS).

B) Hantaviruses are negative-sense, segmented RNA viruses primarily transmitted to humans via inhalation of aerosolised rodent excreta.

C) Effective licensed vaccines are widely available and recommended for travellers to endemic areas.

D) Ribavirin is the established standard of care that clearly reduces mortality in hantavirus pulmonary syndrome.

E) Hantavirus infections typically present with chronic, indolent hepatitis rather than acute respiratory or renal disease.

Answer

B) Enveloped, negative sense, tri segmented RNA viruses; humans usually infected by inhaling aerosolised rodent urine, droppings or saliva.

Explanation

A), C), D) and E) are incorrect.

A) Most HPS cases arise from rodent exposure; human to human spread is rare and documented mainly for Andes virus, not 'all' HPS associated hantaviruses.

C) No widely available travel vaccine; prevention focuses on rodent control and avoiding rodent infested environments.

D) Ribavirin has some evidence in Old World Haemorrhagic Fever with Renal Syndrome (HFRS) but not clear mortality benefit in HPS; management of HPS is mainly supportive/critical care.

E) Hantavirus disease is typically acute (HPS or HFRS) with respiratory or renal involvement, not chronic hepatitis.

Question 55

A 34-year-old woman presented to the Emergency Department in Manchester in July 2026 with a 10-day history of profuse watery diarrhoea, bloating, anorexia and low-grade fever. Symptoms began a few days after a family gathering where a pre-packaged mixed salad bag (lettuce and mixed leaves) was served. She reported no recent travel outside the UK. Stool microscopy following formalin-ethyl acetate concentration shows spherical, non-refractile oocysts measuring 8-10 µm in diameter, staining unevenly with modified acid-fast (Kinyoun) technique.

Which of the following statements regarding the diagnosis and biology of the causative organism is most accurate?

A) The oocysts show bright autofluorescence (blue under UV excitation ~330-380 nm, or apple-green under 450-490 nm) on epifluorescence microscopy, a useful adjunct to modified acid-fast staining.

B) Oocysts are immediately infectious upon passage in stool, permitting direct faecal-oral person-to-person spread.

C) Modified acid-fast (Kinyoun) staining reliably differentiates this organism from Cryptosporidium spp. by consistent, uniform staining of all oocysts.

D) First-line treatment is a course of oral metronidazole.

E) The organism is an intracellular helminth larva that migrates through the intestinal mucosa.

The answer to this question will appear in the next issue of *LabMed News*.

DEACON'S CHALLENGE REVISITED

NO 44. ANSWER

A laboratory using a method with an analytical coefficient of variation of 5% at a concentration of 100 mmol/L for a serum constituent examined samples from a healthy population and found a Gaussian distribution with a 95% reference range of 74-126 mmol/L. If the method coefficient of variation had been 22%, what reference range would the laboratory have found?

The total variation contributing to the reference range is composed of both biological variation and analytical impression. Their variances (i.e. their SDs squared) or CVs squared are additive.

If SD_T = total SD of the reference range

SD_{Biol} = SD of biological variation alone

SD_{Anal} = SD due to analytical impression

Then $SD^2_T = SD^2_{Biol} + SD^2_{Anal}$

One way to approach the problem would be to substitute values for SD_T and the original SD_{Anal}, solve for SD_{Biol} then calculate the new SD_T from the SD_{Biol} and the new SD_{Anal}. Alternatively, the new SD_T resulting from a change to the new SD_{Anal} ($SD_{Anal.New}$) can be determined by subtracting the original SD^2_{Anal} ($SD^2_{Anal.Old}$) then adding the new SD^2_{Anal}:

$$SD^2_{T.New} = SD^2_{Biol} + SD^2_{Anal.Old} - SD^2_{Anal.Old} + SD^2_{Anal.New}$$

Substituting: $SD^2_{T.Old} = SD^2B_{iol} + SD^2_{Anal.Old}$

and $\Delta SD^2_{Anal} = SD^2_{Anal.New} - SD^2_{Anal.Old}$ .....(i)

gives: $SD^2_{T.New} = SD^2_{T.Old} + \Delta SD^2_{Anal}$ ..... (ii)

The original reference range (74-126 mmol/L) is the mean ±2SD i.e. spans 4SD units. Therefore SD_{TOld} is obtained by dividing the range by 4:

$$SD_{TOld} = \frac{126-74}{4} = 13 \text{ mmol/L}$$

The analytical impression is given as CV(%), not SD. The relationship between CV(%) and SD is:

$$CV\ (\%) = \frac{SD \times 100}{Mean}$$

Which can be rearranged to give an expression for SD:

$$SD = \frac{CV(\%) \times Mean}{100}$$

The mean (i.e. midpoint of the reference range) is (126 +74)/2 = 100 mmol/L. Therefore the mean and 100 cancel and SD = CV(%).

Therefore substituting $SD^2_{Anal.Old}$ and $SD^2_{Anal.New}$ into expression (i) gives:

$$\Delta SD^2_{Anal} = 22^2 - 5^2 = 484 - 25 = 459$$

Next substitute for SD_{Told} and ΔSD^2_{Anal} into expression (ii) and solve for SD_{TNew}:

$$SD^2_{TNew} = 13^2 + 459 = 169 + 459 = 628$$

$$SD_{TNew} = \sqrt{628} = 25 \text{ mmol/L (2 sig figs)}$$

Lower limit of reference range = mean - 2SD = 100 - (2 x 25)

= 100 - 50 = 50 mmol/L

Similarly upper limit of reference range = mean + 2SD = 100 + 50 = 150 mmol/L

Reference range (if analytical CV = 22%) = 50 - 150 mmol/L

Question 45

As duty biochemist you encounter a sample with an apparent plasma sodium concentration of 152 mmol/L. You discover that the blood was taken in error into an 'anticoagulation' Vacutainer tube containing 0.5 mL trisodium citrate solution (citrate concentration 0.105 mol/L). The total volume of anticoagulated blood in the tube is 4.5 mL.

Assuming that the result is analytically correct, what is the true plasma sodium concentration?

The answer to this question will appear in the next issue of *LabMed News*.

SUSSEX CHALLENGES

Analytical chemistry and clinical calculations work together. Being critically aware of their applications and limitations is key. This case explores how renal stone analysis and anion gap calculations are important investigations that provide valuable insight into a patient's metabolic status, support accurate diagnosis, guide treatment decisions and contribute to improved long-term clinical outcomes.

Challenge 7

A 16-year-old female passes a renal calculus – analysis showed it to be composed of calcium phosphate.

Analyte	Admission	Unit	Reference interval
Serum sodium	140	mmol/L	135-146
Serum potassium	2.6	mmol/L	3.2-5.1
Serum bicarbonate	16	mmol/L	22-29
Serum chloride	113	mmol/L	95-108
Serum creatinine	75	umol/L	44-80
eGFR (CKD-Epi)	>90	ml/min/1.73m^2	
Serum urea	3.9	mmol/L	1.7-8.3
Serum adjusted calcium	2.29	mmol/L	2.15-2.55
Serum phosphate	1.06	mmol/L	0.87-1.45
Serum albumin	40	g/L	34-48
Serum alkaline phosphatase	170	U/L	35-104
Serum PTH	2.65	pmol/L	1.60-6.90
Early morning urine pH	7.5	pH	5.0-7.0
Random urine sodium	61	mmol/L	
Random urine potassium	38	mmol/L	
Random urine chloride	55	mmol/L	

1. **What do you think are the key findings?**
2. **How do you interpret her serum alkaline phosphatase activity?**
3. **In what sex and which age do you think renal stones are most common?**
4. **What causes of a calcium phosphate renal calculus do you recognise?**
5. **How would you calculate the serum and urine anion gaps? What are the results of your calculations and what do you think they indicate?**
6. **What additional tests do you think may be indicated and what is the principle/purpose of these tests?**

Commentary

1. What do you think are the key findings?

Low serum bicarbonate with a raised serum chloride concentration and hypokalaemia. Raised serum alkaline phosphatase activity. Elevated early morning urine pH. Inappropriately high urine potassium concentration.

2. How do you interpret her serum alkaline phosphatase activity?

The most likely cause is a reference interval that does not account for the growth rate in teenagers. Serum alkaline phosphatase activity is directly related to the rate of bone growth.

3. In what sex and age do you think renal stones are most common?

Renal stones are more common in men and most stone formers have their first stone between 30 years and 40 years. However, because of the frequency of recurrent stone formation (50% relapse in 5-10 years), the prevalence increases with age. In young people, the formation of a renal calculus indicates the possibility of either a metabolic cause or congenital malformation of the renal system.

4. What causes of a calcium phosphate renal calculus do you recognise?

Stones with a high percentage of calcium phosphate are associated with hyperparathyroidism or renal tubular acidosis.

5. How would you calculate the serum and urine anion gaps? What are the results of your calculations and what do you think they indicate?

The serum/plasma anion gap is estimated as [Na + K] - [Cl + HCO3] – usually 10-20 mmol/L.

In this person (140 + 2.6) - (113 + 16) = 14 mmol/L.

The urine anion gap (UAG) is calculated as: [Na + K] - [Cl] - values >20 mmol/L are associated with a metabolic acidosis.

In this person (61 + 38) – 55 = 44 mmol/L.

The serum anion gap, together with her electrolyte results (viz low serum potassium concentration*), indicates she has a normal anion gap metabolic acidosis (hypokalaemic hyperchloraemic metabolic acidosis) – typical of renal tubular acidosis type 1 (RTA Type I). The elevated UAG, despite the prevailing acidosis, is also typical of RTA (Type I).

* Persistent hypokalaemia in an otherwise healthy person may be the first indication of RTA Types I and II.

6. What additional tests do you think may be indicated and what is the principle/purpose of these tests?

Further tests of value include:

- Furosemide fludrocortisone test – urine pH is elevated despite the acid load created by furosemide fludrocortisone administration.
- Genetic tests for RTA (Type 1) – 1a – SLC4A1 (AE1 Exchanger) Autosomal dominant: 1b – *ATP6V1B1* (B1 subunit H-ATPase) Autosomal recessive: 1c – *ATP6V0A4* (A4isoform H-ATPase) Autosomal recessive.

The AE1 Exchanger is a transport protein found in the basolateral membrane of cells in the collecting tubule of the kidney and is responsible for the exchange of chloride for bicarbonate – returning bicarbonate into the blood stream – hence when it does not function there is less bicarbonate return and acidosis is generated. The autosomal recessive forms cause deceased proton pump activity and generate an acidosis through that mechanism.

- Fractional excretion (FE) of bicarbonate may help to differentiate proximal RTA (Type II) from distal RTA (Type I) the result is <10%.

Erratum

Correction to the Sussex Challenge (*LabMed News*, June 2026)

In the last Sussex Challenge published in the June 2026 issue of *LabMed News,* haemoglobin concentrations were incorrectly reported in g/L. The values should have been expressed in g/dL.

We apologise for this error and any confusion it may have caused our readers.

Our thanks go to Angela Kremmyda for bringing this issue to our attention.

The Editorial Team
LabMed News

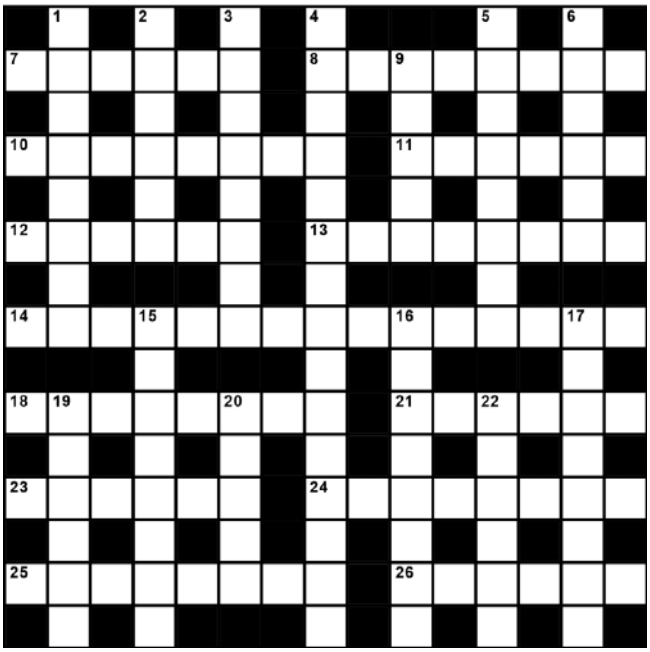
THE CROSSWORD BY RUGOSA

Across

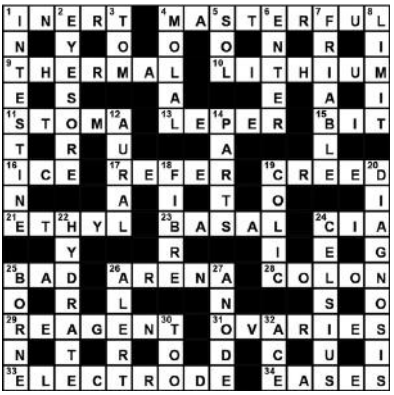
7 Cancelled task, mistakenly re-ordered organic insulator (6)
8 Pepys' lie about problem with fitting (8)
10 Self-evident apps are not so abstract (8)
11 Bring to light when unreliable speciality pays out (6)
12 Drug for immediate use at home (6)
13 A doctor deferred paying my cash, reversed tumour diagnosis (8)
14 Hid my prehistory about cause of weight loss (15)
18 Recurrent deficiency disease (8)
21 Scorn hospital treatment for inflammatory disease (6)
23 Period of time main bearing in operation (6)
24 Pessimistic: cancel around four (8)
25 Social worker problem: work out energy units (8)
26 Customary distribution (6)

Down

1 Nitrogen-deficient python may develop problem with strength (8)
2 Unit in plant making plastic (6)
3 Data transfer device not meant for entertainment originally (8)
4 Teasingly hinted about a cleaning job (6,9)
5 Overripe, dropped, decomposed (8)
6 Opening rising doctor admitted could possibly suit (6)
9 I abandon outlandish milieu for site of 21 (5)
15 First emergency operation for discharge (8)
16 Causes cancer once gone amok (8)
17 Second year with no glass container for this fluid (8)
19 Some medical procedures seem an affliction (6)
20 Boredom from dealing with insurance (cars excluded) (5)
22 Complaint not named in inaccurate documentary (6)



SOLUTION FOR JUNE'S CROSSWORD



SUDOKU ... THIS MONTH'S PUZZLE

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SOLUTION FOR JUNE

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

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