The Royal College of Pathologists
Pathology: the science behind the cure

RCPath Wales Symposium 2023

Wednesday 19th July 2023

Event to be held online via Zoom

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General Information

Thank you for registering to attend the RCPath Wales Symposium 2023, which will be held **online only** via Zoom on **Wednesday 19th July 2023 at 1.30pm**.

We look forward to welcoming you at the symposium! We strongly suggest you download Zoom to your computer or laptop to make the most of the meeting, however if this is not possible just simply click on the link provided (please see joining instructions below). To find out more about Zoom and how it works please visit the website.

Meeting information
When joining the Zoom webinar, we ask that you include your full name so that your attendance can be recorded for CPD purposes.

During the meeting all attendee microphones will be muted and participant videos off to minimise distraction and maximise the meeting connectivity. We will be taking questions through the 'Q&A' function. To ask a question open the Q&A window, type your question into the Q&A box. Click Send. As an attendee you can also like (click the thumbs up icon) or comment on other attendee's questions. This helps the host to identify popular questions, especially in a webinar with many attendees. The host/panellists will either reply back to you via the Q&A window or answer your question live at the designated Q&A sessions.

Certificates of attendance
Certificates of attendance will be emailed to all attendees, within a fortnight of the conference. This conference is eligible for 3 CPD credits.

Speaker presentations
Where permission has been given, speaker presentations will be available after the conference.

Feedback
A link to an online feedback form will be emailed to you after the conference, please do complete. All comments are confidential and will be taken into consideration in the development future conferences.

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RCPath Wales Symposium 2023

13:15 Registration

13:30 Welcome and introduction
Dr Anu Gunavardhan, *Chair of the RCPath Wales Regional Council*

13:40 Digital Pathology service for haematological malignancies: A paradigm change?
Professor Stefan Dojcinov, *Swansea Bay University Health Board*

14:05 Pharmacotherapy in Weight Management – Past, Present and Future
Dr Patrick Wainwright, *Betsi Cadwaladr Health Board*

14:30 Haematology update
Dr Abdul Mannan, *Betsi Cadwaladr Health Board*

14:55 Genomic testing in cancer: Experiences of an NHS diagnostic laboratory in delivering for patients and navigating strategies for the future
Mrs Sally A Spillane, *All Wales Medical Genomics Service*

15:20 Break

15:35 President update
Professor Mike Osborn, *RCPath President*

15:55 Being a LIFT FY1 in Infectious Diseases and Microbiology
Dr Taranvir Kullar, *Swansea Bay Health Board*

16:05 The LIFT programme: a junior doctor's gateway to histopathology
Dr Sally Ashton, *Swansea Bay Health Board*

16:15 IT and innovations in Cellular Pathology: a trainee's perspective
Dr Alistair Heath, *Cellular Pathology trainee, Betsi Cadwaladr Health Board*

16:25 Poster Presentation: Tumour Mutational Burden: clinical utility as an immunotherapy response predictor in the NHS
Mrs Helen Roberts, *All Wales Medical Genomics Service (AWMGS), University Hospital of Wales, Cardiff*

16:35 Poster presentation: Delivering a National perioperative Anaemia Pathway – Utilising laboratory services to drive clinical improvement
Mrs Stephanie Ditcham, *Welsh Blood Service, Llantrisant, Wales, UK*

16:45 Poster presentation: Haemoglobinopathy Event in Cardiff City Centre – Public Engagement and Screening Opportunity
Dr Chloe Knott, *Haematology, University Hospital Wales*

16:55 Poster presentation: Value of using multiwell cassettes in a busy Histology department
Mr Robert Bonwick-Salisbury, *Betsi Cadwaladr University Health Board*

17:05 Summary and close
Dr Anu Gunavardhan, *Chair of the RCPath Wales Regional Council*

3 CPD Credits can be claimed for attendance at this meeting

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Presenters

Dr Anu Gunavardhan
Dr Anu Gunavardhan was born in Kerala, completing her MBBS at Government Medical College Calicut and her MD in Pathology at Government Medical College Trivandrum. After passing the FRCPath exams and relocating to the UK, she was appointed as a Consultant Histopathologist at Glan Clwyd Hospital, North Wales, in 2016. She holds a Postgraduate Certificate in Medical Education from the University of Cardiff and is a Fellow of the Higher Education Academy (FHEA).

She has specialist interest in breast pathology and dermatopathology. Dr Gunavardhan is the Lead Breast Pathologist for the Betsi Cadwaladr Health Board and Quality Assurance Pathologist for Breast Test Wales.

As Chair of the Wales Regional Council, she provides professional leadership, helps maintain and develop high-quality pathology services at a national level, and promotes the College through various initiatives.

Professor Stefan Dojcinov
Consultant and professor of Pathology at Swansea Bay University Health Board and Swansea University; Haematopathology subspecialist; Research in immunosuppression associated lymphoproliferations developed as a fellow at the NIH (Bethesda, USA); Chair of the British Lymphoma Pathology Group. Of particular relevance for implementation of digital pathology; co-lead of the Genomics workstream of the ARCH project at SBUHB and HDD.
Technology, IT and AI geek.

Dr Patrick Wainwright
Patrick is a consultant in Chemical Pathology and Metabolic Medicine at Betsi Cadwaladr University Health Board. His main interests clinically are obesity, bariatric surgery, lipid disorders, inherited metabolic disease, metabolic liver disease, and diabetes. Patrick's research interests include non-alcoholic fatty liver disease and ways to optimise the management of individuals who have had bariatric surgery.

Dr Abdul Mannan
Dr. Abdul Mannan works as a Consultant Haematologist at the North Wales Cancer Treatment Center, Glan Clwyd Hospital in Rhyl, Wales. He is the Director of the Bangor Haemophilia Center as well as the Clinical Haematology Lab Lead for Betsi Cadwaladr University Health Board. He has twenty years' experience in the field of Haematology and Haematopathology. He received honours in Internal Medicine, Surgery, and Gynecology from Nishtar Medical College. Dr. Mannan earned postgraduate certifications from the Royal College of Pathologists in London and the Pakistan College of Physicians and Surgeons. He worked at a number of prestigious institutions in Pakistan and abroad, including The Children's Hospital and Institute of Child Health in Lahore, Shaukat Khanum Memorial Cancer Hospital & Research Centre in Lahore, The Aga Khan University Hospital in Karachi, Sultan Qaboos University Hospital in Muscat, and King Faisal Specialist Hospital Riyadh, Saudi Arabia.

Dr Mannan is member of the Pakistan Society of Haematology, the Saudi Society of Blood Disorders, the British Society of Haematology, the International Society of Hemostasis and Thrombosis, the United Kingdom Haemophilia Centers Doctors Association and the British Medical Association. He

has special interest in Hemostasis and Thrombosis and currently leading his Health Board. He has been actively involved in training medical students, post graduate residents and biological scientists at various institutes throughout the world for the past seventeen years.

Mrs Sally A Spillane
Beginning her career as the first Welsh “A” grade supernumerary trainee in Cytogenetics in the 90s, Sally has worked in nearly every area of the All Wales Medical Genomics Laboratory, from playing a key role in delivering new tests, such as the first rapid prenatal test for the common trisomies and array CGH for patients with development delay, to leading the solid tumour and then haematological malignancy teams. More recently in Sally’s role as deputy head of cancer genomics at AWMGL, she maintains a particular focus on operation issues that aim to deliver outstanding services for patients. Sally is a fellow of the RCPath and also of the Academy of Healthcare Science after successful completion of the HSST in Genomics.

Professor Mike Osborn
Professor Michael Osborn studied medicine at Guys & St Thomas Hospitals, London qualifying in 1995. He became a member of the Royal College of Surgeons in 2000 and a Fellow of the Royal College of Pathologists in 2004. Currently he works as a consultant histopathologist for North West London Pathology at Imperial College Healthcare NHS Trust, London where he is clinical lead. His working time is divided between post-mortems, diagnostic gastrointestinal histopathology, bowel cancer screening and teaching. He runs an intercalated BSc “Humanities, Philosophy & Law” at Imperial College, London. During the COVID-19 pandemic he and colleagues at Imperial College published work relating to findings in fatal COVID-19 infection. He was elected President of the Royal College of Pathologists (RCPath) in November 2020 having previously been on the RCPath council and having had a variety of college roles including chair of their Cellular Pathology Speciality Advisory Committee and Death Investigation Committee.

Dr Taranvir Kullar
Dr Taranvir graduated from Newcastle Medical School (MBBS). I currently work in Swansea Bay University Health Board as an FY1 doctor. As part of my training I am part of the LIFT program where I am based in medical microbiology and infectious diseases. I also help organise a podcast series covering topics relating to Infectious Diseases and Microbiology.

Dr Sally Ashton
Dr Sally Ashton is a Foundation Year 1 doctor in Morriston Hospital. She graduated from Swansea University as a graduate-entry medic in 2022, having previously worked as a translator. Sally is taking part in the year-long Longitudinal Integrated Foundation Training (LIFT) programme in histopathology based across Morriston and Singleton Hospitals alongside her current rotation in colorectal surgery.

Dr Alistair Heath
Graduating from Liverpool University Medical School with MSc in anatomy & human biology in 2018, Alistair began specialty training in BCU on August 2021. With a background in C# coding and interest in all things digital, he has attended the European congress on digital pathology symposium, later publishing the departmental findings of the AI system: IBEX as an assistant for prostate biopsy reporting within BCU. He is hopeful that Wales can become an international trendsetter for digitally based pathology.

Mrs Helen Roberts

Helen is a Registered Clinical Scientist and Head of Solid Tumour Services within AWMGS since 2012. Higher Specialist Scientist Trainee with an interest in innovation within NHS service delivery. Implemented the first AWMGS circulating tumour DNA service, and validated DNA- and RNA-based Next Generation Sequencing services providing improved cancer care for Welsh patients.

Mrs Stephanie Ditcham

Stephanie Ditcham is a HCPC registered Biomedical scientist with 22 years' experience in Haematology and Transfusion in hospitals across North West England. She has worked as a Blood Health Advisor for the Welsh Blood Service since 2018 where she has led on a number of projects relating to appropriate use of blood components and development of the Blood Health National Oversight Group (BHNOG) Anaemia workstream. Steph is currently Anaemia Programme Operational Lead for Wales.

Dr Chloe Knott

Dr Knott is an St7 haematology trainee in Cardiff and Vale with an interest in red cell disorders.

Presenting on behalf of the inherited anaemia service, particularly Drs. Kell and Thakur who are adult and paediatric haematology consultants respectively and Hannah Taylor, Chris Hooper and Emily Hyde who are the haemoglobinopathy lab team at UHW.

Mr Robert Bonwick-Salisbury

Bob is the Senior BMS in charge of dissection and is committed to finding new ways of minimising blocks taken at dissection without compromising data sets, as well as improving TATs in all aspects of the histological process.

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Abstracts

Digital Pathology service for haematological malignancies: A paradigm change?
Professor Stefan Dojcinov, Swansea Bay University Health Board

Pharmacotherapy in Weight Management – Past, Present and Future
Dr Patrick Wainwright, Betsi Cadwaladr Health Board

Drug options for weight loss have historically been limited, however the advent of GLP-1 agonists has provided new therapeutic options for patients suffering with obesity. This talk will discuss previous treatments available, current therapies being used, as well as looking to the future to see what treatments are likely to be available in years to come. I will also be discussing our experience in using new weight loss drugs locally in the Adult Specialist Weight Management Service for North Wales.

Haematology update
Dr Abdul Mannan, Betsi Cadwaladr Health Board

Genomic testing in cancer: Experiences of an NHS diagnostic laboratory in delivering for patients and navigating strategies for the future
Mrs Sally A Spillane, All Wales Medical Genomics Service

The ability to offer genomic testing in healthcare has never been so imperative. The growing range of personalised and precision medicine options for management of disease require genomics services that can deliver a complex menu of tests, analysis and interpretation. This presentation will outline the recent experience and challenges faced by a national UK genomics laboratory, the All Wales Medical Genomics Laboratory, in delivering cancer diagnostic services and how they are managing demand and planning for the future.

Being a LIFT FY1 in Infectious Diseases and Microbiology
Dr Taranvir Kullar, Swansea Bay Health Board

The LIFT programme: a junior doctor's gateway to histopathology
Dr Sally Ashton, Swansea Bay Health Board

Histology is a keystone of medical education. As a medical student, I found that histology and histopathology were not given their deserved space within the curriculum. During my year as an FY1 doctor, I have taken part in the Longitudinal Integrated Foundation Training (LIFT) programme in histopathology, which has not only piqued my interest in the specialty but also given me a basic understanding of the area and its wider relevance within medicine, as well as the transferable skills that it offers. This talk seeks to present the merits of this programme and to briefly explore how to elevate histology within medical and foundation training.

IT and innovations in Cellular Pathology: a trainee's perspective
Dr Alistair Heath, Cellular Pathology trainee, Betsi Cadwaladr Health Board

Alistair 'Ted' Heath presents the recent developments in information technology as seen from the perspective of a histopathology trainee in BCU cellular pathology department. This talk covers the availability of teaching materials, datasets, slide sets and the reality of attending conferences online

with their associated advantages and disadvantages, the use of artificial intelligence as a training tool and new innovations within existing text-to-speech software towards standardisation of reporting. This presentation will include a brief outline of future aspirations for digital pathology and its effects for training of future pathologists.

Poster Presentation: Tumour Mutational Burden: clinical utility as an immunotherapy response predictor in the NHS

Mrs Helen Roberts, *All Wales Medical Genomics Service (AWMGS), University Hospital of Wales, Cardiff*

The use of the NICE-approved immunotherapy pembrolizumab in non-small cell lung cancer (NSCLC) patients is currently stratified using high PD-L1 expression status. Despite stratification, approximately 40% of patients do not respond to the drug. Clinical trials have shown that Tumour Mutational Burden (TMB), defined as the number of somatic variants in a tumour, is a potential biomarker for immunotherapy response prediction, either alone or in combination with PD-L1 expression status. High TMB is associated with improved pembrolizumab response; however, publications lack consensus regarding how to measure TMB, which currently limits the utility of TMB assessment within the NHS. This project aimed to evaluate the clinical utility of TMB as a predictor of immunotherapy response in a cohort of 17 Welsh NSCLC patients. The project measured TMB in patients of known PD-L1 high status (>50%), all of whom had received pembrolizumab. TMB quantification was performed using two Next Generation Sequencing panels, different analysis parameters and variable TMB-high thresholds. Results showed that combined assessment of TMB and PD-L1 expression improved the sensitivity of immunotherapy response prediction (based on RECIST 1.1 criteria) compared to the use of PD-L1 status alone (sensitivity: 41% to >83%). TMB values varied dependent on the panel and analysis methods used, which resulted in differences in TMB high/low status within this same cohort of patients when ROC-curve generated thresholds were used. Suggestions are made regarding the optimal analysis parameters for TMB assessment, and recommendations are made regarding how a TMB service could be validated for use within the NHS.

Poster presentation: Delivering a National perioperative Anaemia Pathway – Utilising laboratory services to drive clinical improvement

Mrs Stephanie Ditcham, *Welsh Blood Service, Llantrisant, Wales, UK*

The All-Wales Perioperative Anaemia Pathway1 promotes patient blood management in alignment with Nice guidance2,3 and recommends screening of modifiable causes of anaemia including iron deficiency with anticipated reduction in avoidable transfusion4. Value Based Health Care (VBHC) agreed 2-year funding to support pathway implementation. Blood tests are fundamental in anaemia identification and management with an inefficient service causing excessive testing, increased hospital appointments and delayed treatment.

Methods: Engagement meetings with pathology leads sought a national approach for preoperative anaemia screening built upon reflex testing aligned with the All-Wales Pathway. Digital Healthcare Wales (DHCW) extracted baseline data for all operations included in the NHS England Commissioning for Quality and Innovation (CQUIN) standards)5 to allow benchmarking for anaemia screening and assessment of iron status in alignment with national pathway.

Results: 11,512 patients who fit CQUIN standards in baseline dataset, 10.7% of these did not receive a preoperative haemoglobin within 90 days of operation. Of the patients who received a preoperative haemoglobin, 50.6% did not receive an iron assessment screen with either a ferritin or transferrin saturation test. There is evidence of excessive testing for some patients in the preoperative setting, 2492 (21.6%) patients had FBC tested 3+ times in 90 days prior to surgery.

Conclusion: Developing a national pathway allows collaboration across multidisciplinary teams including laboratory services. This approach has allowed a reflex set of tests to be agreed nationally, once 'live' benefits include improved coding mechanism for data capture, supporting rapid clinical diagnosis and reduction in repetitive sampling and testing.

Poster presentation: Haemoglobinopathy Event in Cardiff City Centre – Public Engagement and Screening Opportunity

Dr Chloe Knott, *Haematology, University Hospital Wales*

Objective: The objective of this event was to raise public awareness about inherited haemoglobinopathies, specifically thalassaemia and sickle cell disorders, and to identify carriers of these conditions.

Methods: A stand was set up in St. David's shopping centre. This was accessible to a diverse population and staffed by clinicians and representatives from the UK Thalassaemia Society. Written and verbal information was provided, with emphasis on the relevance of screening to inform reproductive choices. A designated screening station was established where consent was taken and contact details were collected prior to venesection being performed. Full blood counts, ferritin levels and high-performance liquid chromatography was undertaken and molecular testing has been requested on positive samples.

Results: The event engaged many individuals from diverse ethnic backgrounds. 83 people agreed to undergo blood tests; venepuncture failed for one individual. Positive findings were: 2 HbS carriers, 1 beta thalassaemia carrier, 1 uncharacterised haemoglobin variant with possible coexisting alpha thalassaemia and 2 iron deficient patients with suspected coexisting thalassaemia carrier status. 1 further individual with an abnormal finding did not consent for their results to be published and further information will therefore not be available. Several individuals had low ferritin levels. Carriers identified during the screening process will be contacted and referred to genetic counsellors. People will also be made aware if they are iron deficient.

Conclusions and Implications: This event effectively engaged the public and increased awareness about inherited haemoglobin disorders. Of the 82 people screened, 7 carriers were detected and will be referred for genetic counselling.

Poster presentation: Value of using multiwell cassettes in a busy Histology department

Mr Robert Bonwick-Salisbury, *Betsi Cadwaladr University Health Board*

Objectives and purpose of the research or project: Reduce the number of blocks and slides in reporting GI biopsies, from the cut-up bench to reporting. This poster outlines the development and use of multiwells in saving lab time and resources and increase reporting speed.

Methods and materials used: Multiwell (Simport though Leica) cassettes are 6 welled cassettes, using these and standard inks (CDI) diluted 1:10 to prevent clumping and disposed of weekly to minimise bacterial overgrowth.

Results or expected outcomes: Up to 6 biopsies sites in one cassette leading to one block instead of 6 and a maximum of 3 slides (3 levels) for reporting. Greatly reducing TATs.

Conclusions and implications: Gastric biopsies are not inked as this impedes H.pylori diagnosis, therefore Oes-TI bx can go into 2 multiwells where more than one Gastric bx is involved. Overall the reduction in Lab time and resources and reporting TATs has been a huge success.

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