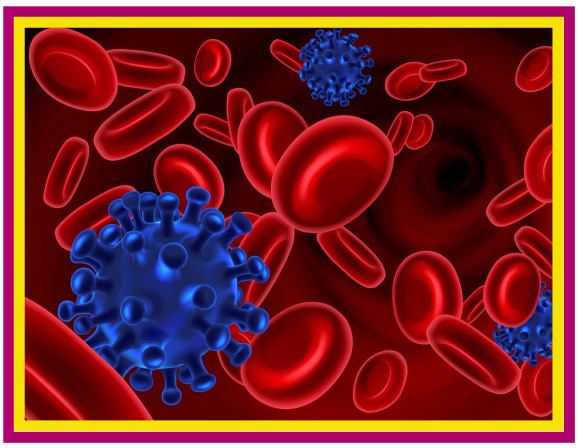
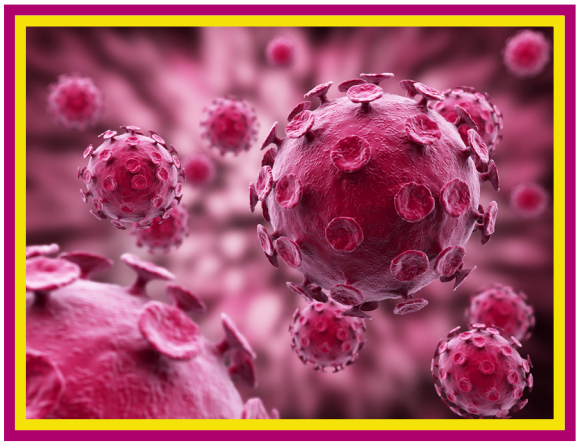
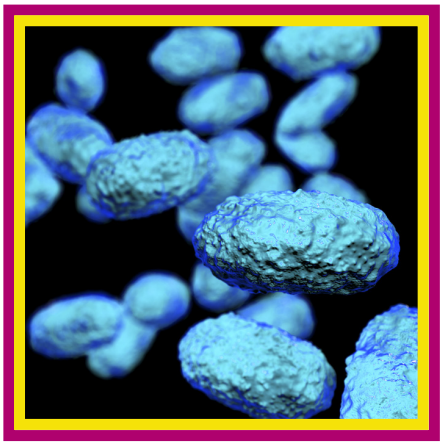
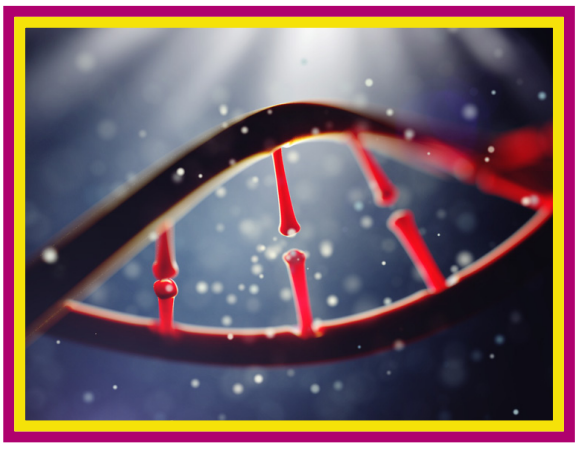
British Infection Association

Trainees' Day & 20th Annual Scientific Meeting

Wednesday 24th and Thursday 25th May 2017
School of Oriental and African Studies, London



Programme Book

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Aims of the Association

The Association aims to work to ensure the optimum delivery of healthcare to patients diagnosed with infection, and to represent the interests of its members.

Specifically:

- To provide expert opinions and represent the views of specialists in infection to anybody seeking advice relevant to infection or infection professionals. Groups who might be expected to consult The British Infection Association include, but are not limited to, the Department of Health and similar bodies in the devolved governments, the Royal Colleges, NICE, statutory medical bodies, House of Lords select committees and other professional bodies.
- To set and review standards in infection practice including the development of guidelines, working in collaboration where appropriate.
- To support members of the Association in the performance of their professional duties.
- To develop and provide education and training in infection for all and in particular to support training grades.
- To foster excellence in all aspects of infection-related research.
- To support all aspects of communication between different branches of infection and to work towards the development of an integrated voice for infection specialists.
- To provide a public face for infection and represent infection opinions to the general public and to patients.

Membership

There are four types of membership:

- Full membership (including overseas)
- Trainee membership
- Retired membership
- Associate membership

Full membership includes subscription to the Journal of Infection. Members in training may opt for free membership which includes the BIA Newsletter but not the Journal of Infection.

Membership Type	Full	Full (Overseas)	Retired	Trainee/Associate
No Journal	X	X	£10	Free
Electronic Online	£75	£75	£45	£35
Hard Copy Print	£90	X	£60	£50

Online membership application and Direct Debit subscriptions at:
http://www.britishinfection.org/

Enquiries

Contact for enquiries relating to Journal subscriptions, payments and change of membership details:

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ViiV Healthcare aims to take a deeper and broader interest in HIV/AIDS than any company has done before and takes a new approach to deliver effective and new HIV medicines, as well as support communities affected by HIV. For more information on the company, its management, portfolio, pipeline, and commitment, please visit www.viivhealthcare.com.

Trainees' Day Programme - Meet the Experts
Wednesday 24th May

Chair: Dr Rebecca Bamber *(University Hospital of Wales)*

08:45	*Registration & coffee*	
Session 1:		
09:20	Welcome	
09:30	My career in infection	**Professor Martin Wiselka** *Consultant Physician and* *Honorary Professor of Infectious Diseases* *University Hospitals of Leicester NHS Trust*
10:15	The inner workings of the Food, Water and Environmental Microbiology Laboratory	**Dr Nicola Elviss** *Unit Head* *Public Health England Food, Water and Environmental Microbiology Laboratory, London*
11:00	*Coffee*	
Session 2:		
11:20	All about *Clostridium difficile*	**Dr Kerrie Davies** *Principal Clinical Scientist & Visiting Research Fellow* *Healthcare Associated Infections Research Group* *Leeds Teaching Hospitals NHS Trust* *University of Leeds*
12:05	Making changes in infection control	**Dr Alaric Colville** *Consultant Microbiologist* *Royal Devon & Exeter Healthcare NHS Trust*
12:50	*Lunch*	
Session 3:		
13:40	Mimics of infection	**Dr Andrew Freedman** *Consultant in Infectious Diseases* *University Hospital of Wales*
14:20	Difficult symptoms in the ID clinic	**Dr Meirion Llewellyn** *Consultant in Infectious Diseases* *Royal Gwent Hospital*
15:05	*Coffee*	
Session 4:		
15:25	The changing face of pertussis following the introduction of the UK maternal vaccination programme	**Dr Colin Brown** *Consultant in Infectious Diseases and Medical Microbiology* *Public Health England*
16:10	Tips for getting into interventional clinical studies	**Professor James McCarthy** *Infectious Diseases Physician and Senior Scientist* *Royal Brisbane and Womens Hospital* *QIMR Berghofer Medical Research Institute* *Brisbane, Australia*
16:55	*Meeting close & drinks reception*	

Session 1:

Professor Martin Wiselka
Consultant Physician and Honorary Professor of Infectious Diseases
University Hospitals of Leicester NHS Trust

Martin Wiselka is a Consultant Physician and Honorary Professor of Infectious Diseases in the Department of Infection and Tropical Medicine at University Hospitals of Leicester. After graduating from Oxford University he trained in Oxford, Nottingham and Manchester, before coming to Leicester as a Wellcome Clinical Training Fellow and his subsequent appointment as Consultant in Infectious Diseases.

Professor Wiselka's particular interests include TB, and blood-borne virus infections. He is the Lead for the Leicester Hepatitis C Operational Delivery Network. He has been a member of the British HIV Association Executive Committee and NICE TB Guidelines Committee. He is currently President of the British Infection Association, Chairs the RCP SAC for Infectious Diseases and has been a member of the question writing and standard-setting committees for the SCE in ID and the new Combined Infection Certificate Examination.

My career in infection

The management of infection has changed dramatically over the last thirty years with some previously devastating diseases such as meningococcal meningitis virtually disappearing. HIV has emerged as a global health catastrophe and other global pandemics including influenza, TB, hepatitis B and C continue to afflict a vast number of the world's population. Developments in basic science have been rapidly translated into dramatic advances in the treatment of HIV and hepatitis C, in particular. Molecular diagnostics and whole genome sequencing have revolutionised our ability to diagnose infections and enhanced our understanding of the pathogenesis and epidemiology of disease. New challenges which have emerged over the past thirty years include emerging infections (SARS, MERS, Ebola, Zika), the spread of antimicrobial resistance and the recognition of sepsis as a major health issue. Recent advances in the management of infection are in danger of being wiped out by the appearance of novel pathogens, spread of antimicrobial resistance and breakdown in public health associated with conflict and lack of resources. Professor Wiselka will reflect on key changes that have occurred during his career and their impact on the future management of infection.

Session 1:

Dr Nicola Elviss
Unit Head
Public Health England Food, Water and Environmental Microbiology Laboratory, London

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Nicola Elviss is the Unit Head of the PHE Food, Water and Environmental Microbiology Laboratory, London. After studying for a BSc in Biological Sciences with Honours in Microbiology at the University of Edinburgh, Nicola went on to study for a PhD investigating antibiotic resistance in *Helicobacter pylori* with the Public Health Laboratory Service at the University of Greenwich. She joined the Health Protection Agency (now PHE) in 2003 as a Research Scientist working with the pathogens *Campylobacter* species and *Salmonella* species. In 2006 Nicola became the Lead Scientist for the HPA Food, Water and Environmental Microbiology Laboratory in Leeds, becoming the Unit Head in 2009. In 2010, she moved to be Unit Head at the Food, Water and Environmental Microbiology Laboratory, Birmingham, before taking the same role at the London Laboratory in 2012.

Nicola is a Food Examiner and has broad experience in food- and water-borne pathogen microbiology. Her personal research interests include *Campylobacter* species, particularly its survival in the food chain from farm to fork, and food-borne viruses and their detection in complex food matrices.

The inner workings of the Food, Water and Environmental Microbiology Laboratory

Public Health England (PHE) Food, Water and Environmental Microbiology (FWEM) Laboratories are Official Control Laboratories (OCLs), as required by Regulation (EC) 882/2004. There are three laboratories in England that operate under PHE's management as OCLs; London, York and Porton.

The laboratories are frontline laboratories serving local authorities and port health authorities as their primary customers. This work is funded through the Department of Health and supports routine surveillance testing for proactive public health interventions and reactive outbreak and incident responses. Laboratories also support commercial testing for NHS and private customers who require microbiological testing.

The presentation will provide an overview of the work that the PHE FWEM Laboratories undertake. Key roles in the laboratory will be explained, particularly that of a Food Examiner. Examples of outbreaks and incidents will be provided to demonstrate how the laboratory provides its public health response and the nature of the work that it undertakes. The testing requirements will also be explored providing in an overview of the regulations and guidance that are used to direct the testing undertaken on specific sample types.

Dr Kerrie Davies
Principal Clinical Scientist and Visiting Research Fellow
Healthcare Associated Infections Research Group
Leeds Teaching Hospitals NHS Trust and University of Leeds

Kerrie Davies is the Principal Clinical Scientist for the Healthcare Associated Infections Research Group, a multi-organisational group consisting of members of Leeds Teaching Hospitals NHS Trust, the University of Leeds and Public Health England.

Kerrie Davies has been a researcher at Leeds Teaching Hospitals since 1998. She began her Clinical Scientist training in 2004 and became state registered in 2007. She has continued her training and is currently studying for a PhD in *Clostridium difficile* laboratory diagnosis.

Kerrie was the lead scientist for the multi-centre study to determine the optimal methods for CDI diagnosis for the UK Department of Health, which changed UK and European guidelines for CDI testing. She continues to study CDI diagnosis, and is continually evaluating new and developing methods.

In addition, Kerrie leads and coordinates several pan-European surveillance studies of CDI for the University of Leeds. She was the European and UK coordinator for the multi-national EUCLID study (EUropean, multi-centre, prospective bi-annual point prevalence study of *CLostridium difficile* Infection in hospitalised patients with Diarrhoea) and is currently lead scientist and European coordinator for the Longitudinal European *Clostridium difficile* Infection Diagnosis Surveillance Study (LuCID) and the Observational study of Risk factors for *Clostridium difficile* infection in Hospitalised patients with Infective Diarrhoea (ORCHID). Kerrie is a co-investigator on a recently awarded Horizon 2020 grant from the EU, to examine the burden of CDI across the whole healthcare economy in Europe.

All about *Clostridium difficile*

Clostridium difficile is a ubiquitous organism, responsible for the majority of healthcare associated diarrhoea in the developing world. *C. difficile* infection (CDI) can result in mild to severe diarrhoea, with some patient's developing potential complications such as toxic megacolon. The mortality rate is reported to be ~6-17%. In addition, rates of recurrence are high, with around 25-30% of patients experiencing another episode of CDI. Unfortunately these patients are then even more likely to suffer another recurrence, and some patients can get caught in an endless cycle of recurrent infections. Risk factors for the development of CDI include; advancing age, co-morbidities, previous exposure to healthcare and antibiotics. CDI is a disease preceded by disruption to the normal host gut microbiotia, mostly commonly by the use of antibiotics. Indeed, certain antibiotics, such as third generation cephalosporins and fluoroquinolones are associated with a higher risk for CDI than others, such as piperacillin-tazobactam and tigecycline. Once the microbiota has been disrupted, the colonisation resistance afforded by commensal organisms is removed; allowing *C. difficile* to germinate and proliferate in the gut. CDI is a toxin mediated disease; the organism produces several toxins, the two most clinically important being Toxin A and B. New evidence is emerging however about the role of a third toxin, binary toxin.

Diagnosis of CDI has long been a contentious issue, however a large multi-centre study in the UK determined the optimal algorithm for diagnosis; detection of a cell surface enzyme (glutamate dehydrogenase (GDH)) or toxin genes (by PCR) followed by reflex testing for toxin. The role of standalone toxin gene detection is still in dispute; detection of toxin genes will not define the presence of toxin (protein) in the sample and could potentially over-diagnose cases, due to the 'carrier' state of some people. Standard treatment of CDI includes metronidazole, vancomycin and fidaxomicin. Historically metronidazole has been used for the treatment of primary CDI, with vancomycin used in severe cases. There is now evidence however, that vancomycin is superior for primary cases, as well as for more severe cases. The recurrence of CDI is due to the continued perturbation/non-recovery of the gut microbiota, as the antibiotics used to treat CDI can also continue to cause disruption to the microbiota. Fidaxomicin, a relatively new drug, has a reduced rate of recurrence, due to the greater level of selectivity for *C. difficile*; it therefore allows the gut microbiota to re-establish, reinstating the colonisation resistance. New antibiotics with even narrower spectrums of action are in development, which could potentially reduce the recurrence rate further. In addition to antibiotic therapy, passive immunotherapy using pooled IgG may be used. Recently a new humanised monoclonal antibody (Bezlotoximab) has been licenced for use to prevent recurrence, particularly in those more at risk. Some centres are also using faecal microbiota transplantation (FMT) for the treatment of refractory CDI. Whilst this procedure has very high levels of efficacy the long-term effects of altering a patient's microbiota are not known. The ultimate goal would be to prevent CDI, rather than treat cases. To address this need, there are two current clinical trials of *C. difficile* vaccines.

Session 2:

Dr Alaric Colville
Consultant Microbiologist
Royal Devon & Exeter Healthcare NHS Trust

After completing medical school Alaric Colville undertook core medical training in Newcastle upon Tyne, in a rotation which included infectious diseases. He then joined the Public Health Laboratory Service and trained in medical microbiology in Newcastle and Nottingham, including infection control and public health microbiology. He then had Consultant Microbiologist posts in Carlisle and Exeter Public Health Laboratories before re-joining the NHS in 2003 when the PHLS was disbanded. Currently he is a Medical Microbiologist at the Royal Devon and Exeter Hospital, where he is also Infection Control Doctor and joint DIPC. His current interests are in healthcare infection prevention and control, use of faecal microbiota transplant for the management of *C. difficile* infection and control of legionella in water systems. He is also a Council Member and Treasurer of the Healthcare Infection Society.

Making changes in infection control

Unplanned events provide opportunities and can shape ones career. I shall use examples from my involvement in significant outbreaks of healthcare associated infection at various stages of my career to illustrate this and review what generalizable lessons can be drawn from such experiences.

Session 3:

Dr Andrew Freedman
Consultant in Infectious Diseases
University Hospital of Wales

Reader and Honorary Consultant in Infectious Diseases at Cardiff University and University Hospital of Wales. He qualified in Medicine from Cambridge University & St Thomas' Hospital in 1980, and subsequently trained in Infectious Diseases at St George's Hospital, London. He undertook a research fellowship at Harvard Medical School, Boston in 1993/4 before coming to Cardiff in 1994.

His research interests include the haematological and thymic effects of HIV infection as well as clinical trials in HIV and hepatitis C.

He was Honorary Secretary of BHIVA (2009-12) & chair of its Audit Subcommittee (2013-16), and a previous member of the UK Dept of Health Expert Advisory Group on AIDS.

Mimics of infection

'Pyrexia of unknown origin' was first described as a clinical syndrome by Petersdorf and Beeson in 1961. They reported a case series of 100 such patients, breaking the causes down into infectious, neoplastic, rheumatological, miscellaneous and undiagnosed. Despite improvements in diagnostic techniques, it can still sometimes be challenging to reach a diagnosis in patients presenting with febrile illnesses.

I will present a series of patients who were initially thought to be suffering from infections, but subsequently diagnosed with non-infectious conditions. I will also discuss presentations other than fever, which may mimic infection, including pneumonitis and meningitis. Finally, I will discuss some clues which may point to a non-infectious aetiology.

Dr Meirion Llewellyn
Consultant in Infectious Diseases
Royal Gwent Hospital

Dr Meirion Llewelyn BSc FRCP PhD qualified in Medicine in Cardiff and trained at Hammersmith and St Thomas' Hospitals in London. He was registrar in Infectious Diseases at Addenbrooke's hospital Cambridge, then MRC fellow at the Laboratory of Molecular Biology and Harrison-Watson Student at Clare College Cambridge. He returned to Cardiff as Senior Registrar in Infectious Diseases and is Consultant Physician in Medicine/Infectious Diseases at The Royal Gwent Hospital. Recent research interests have included diagnostic methods for chronic Q Fever and treatment approaches to medically unexplained syndromes.

Difficult symptoms in the ID clinic

Medically unexplained symptoms (MUS) are troubling physical symptoms for which no organic pathology can be found. These unexplained symptoms are very common in all branches of medicine, forming nearly one third of cases in hospital outpatient clinics. Although these are epidemiologically related to depression and anxiety, they do not appear to represent a primary mood disorder.

Because infectious mononucleosis can be followed by either excessive sleep or insomnia associated with muscle and joint pain, (with psychomotor retardation and poor concentration in both), many patients with medically unexplained symptoms are referred to Infectious Diseases Clinics. The vast majority of these will have no infectious aetiology for their problem and present with the typical symptoms of neurasthenia, first described in 1869. The symptoms of neurasthenia include exhaustion, widespread musculoskeletal pain, impairment of cognitive function, post exertional malaise and unrefreshing sleep. The list of symptoms often approaches 30 and they are often written in a list, a syndrome called by Charcot '*la maladie du petit papier*'.

A minority of patients with neurasthenic symptoms also have disease convictions and these have included entities such as 'Chronic Candidal infection', 'seronegative Lyme disease' and 'multiple chemical sensitivity'.

Understanding the now forgotten symptoms of neurasthenia can shed light on the vast majority of patients with medically unexplained symptoms in the ID Clinic, and illustrate that persistence of symptoms now delineated as chronic fatigue syndrome or fibromyalgia throughout history.

Session 4:

Dr Colin Brown
Consultant in Infectious Diseases & Medical Microbiology
Public Health England

Colin Brown is an Infectious Disease & Medical Microbiology Consultant based in London. His main professional interests are tuberculosis, HIV, emerging and re-emerging infections, and global health education and volunteering. He is the Infectious Diseases Advisor for King's Sierra Leone Partnership (KSLP), and was heavily involved in the clinical and public health response to the Ebola virus disease outbreak in West Africa in 2014-16, supporting KSLP's national and international clinical staff on the ground in Freetown, Sierra Leone. He currently works at Public Health England (PHE), where he previously spent a year working through the NHS Medical Director's Clinical Fellows Scheme. He initially joined PHE from a Medical Research Council-funded Epidemiology Masters at London School of Hygiene & Tropical Medicine, and held an Academic Clinical Fellowship in Infectious Diseases at King's College London. His role at PHE currently includes providing clinical infectious diseases and microbiological input to a portfolio of vaccine preventable diseases, including pertussis.

The changing face of pertussis following the introduction of the UK maternal vaccination programme

Pertussis is a resurgent disease in the UK. A significant increase in observed cases nationally during 2011 led to the declaration of a national outbreak in April 2012. In 2012 there were 9,367 confirmed cases in England, a ten-fold increase on previous years. Historically, despite its very high transmissibility, pertussis has been well controlled since the routine introduction of acellular vaccination in 2004, during a period of sustained high vaccine coverage. There were previous, large epidemics in the 1970s and 1980s due to drops in vaccine coverage over safety concerns of the previously used whole cell pertussis vaccine, initially introduced in 1952. The recent national increase is not unique to the UK and is thought to be partly due to the change in vaccine; acellular versions afford a shorter duration of protection, with less protection again colonisation and, therefore, transmission of bacteria. Acellular vaccines remain highly effective against infection and severe disease, the primary aim of the programme. In October 2012 a maternal vaccination programme was launched as an outbreak response measure, aiming to boost maternal immunity and optimise the transplacental transfer of maternal pertussis antibodies, so that neonates have some immunity from birth until they are two months old, when they receive their first pertussis-containing vaccine during their primary immunisation course. This emergency vaccination programme was extended in July 2014 to continue for a further five years based on evidence of the safety and high effectiveness of the programme, with the next evaluation tabled for summer 2019. This session will highlight the changes in pertussis epidemiology pre- and post- introduction of the maternal vaccination programme; discuss key aspects of safety, vaccine efficacy, and immunological responses; and highlight some ongoing challenges.

Session 4:

Professor James McCarthy
Infectious Diseases Physician, University of Queensland
Senior Scientist, QIMR Berghofer Medical Research Institute
Brisbane, Australia

James McCarthy is an Infectious Diseases Physician at Royal Brisbane and Womens Hospital and a Senior Scientist at QIMR Berghofer Medical Research Institute, Brisbane Australia. He received his MBBS from the University of Melbourne in 1984, after which he trained in Internal Medicine and then Infectious Diseases. He received a DH&TM from the London School for Hygiene and Tropical Medicine in 1990, undertook a Clinical Fellowship in infectious diseases at the University of Maryland in Baltimore, followed by 6 years of research training at the Laboratory of Parasitic Diseases, National Institutes of Health, Bethesda, Maryland where he studied filarial infection. His principal research interest is using Controlled Human Infection systems to study the biology of parasite infections, and to develop new antimalarial drugs.

Tips for getting into interventional clinical studies

The early stages of specialty training in Infectious Diseases are particularly challenging with many competing priorities. Aside from beginning to soak up the seemingly vast body of knowledge, figuring out what are the particular antibiotic flavour preferences of each of your consultants, dealing with new staff in a new hospital, beginning to worry about where your next job will be, and the usual family/partner/children challenges, finding the mental space and undistracted time to begin a research project can fall to the bottom of the list. In this talk some thoughts on how to make your first steps into research will be shared.

Annual Scientific Meeting Programme
Thursday 25th May

08:45 to 09:10 **Registration, coffee/tea & poster viewing**

09:10 to 09:15 **Welcome**

Professor Martin Wiselka (Leicester), President of the BIA

09:15 to 10:40 **Free Scientific Papers** (14 minutes each)

Chairs & discussants - *Professor Jon Friedland (Imperial, London)*
Dr Thusan de Silva (Imperial, London / MRC Unit, The Gambia)

1. Antimicrobial stewardship of treatment for urinary tract infection on elderly care wards at Stoke Mandeville Hospital. Ruth Corrigan et al. Stoke Mandeville Hospital, Aylesbury
2. Experimental human pneumococcal colonisation in older people is feasible and safe. Hugh Adler et al. Liverpool School of Tropical Medicine
3. Dramatic improvement in fibrosis scores following treatment for hepatitis B and C in patients with advanced liver disease. Aleem Ahmed et al. University Hospitals of Leicester NHS Trust
4. Quantifying new serological diagnoses of HCV not followed by polymerase chain reaction testing to detect viraemia. Chloe Eaton et al. Cambridge University Hospitals NHS Trust
5. Characteristics and risk factors for severe outcome among hospitalised adult patients with influenza in Greater Glasgow, October 2015-April 2016. Antonia Ho et al. Monklands Hospital, Airdrie
6. Mechanisms of macrophage necrosis in pulmonary aspergillosis. Darius Armstrong-James et al. Imperial College London

10:40 to 11:00 **Coffee/tea & poster viewing**

11:00 to 11:30 **British Infection Association AGM**

Professor Martin Wiselka, Dr Albert Mifsud, Dr Mike Kelsey, Dr Katie Jeffery, Professor Steve Green, Dr Hiten Thaker

11:30 to 12:25 **International Keynote Lecture**

Accelerating antimalarial drug development using human challenge studies

Professor James McCarthy
Senior Scientist in Clinical Tropical Medicine, QIMR Berghofer Medical Research Institute, University of Queensland, Australia

Chair & discussant - *Professor Steve Green (Sheffield)*

12:25 to 13:15 **Lunch & poster viewing**

13:15 to 13:45 **UK State of the Art Lecture 1**

How we develop new drugs for targeting and treating infections

Professor Jon Sayers
Professor of Functional Genomics, Department of Infection, Immunity & Cardiovascular Disease, Henry Wellcome Laboratories for Medical Research, University of Sheffield

Chair & discussant - *Dr Paul Collini (Sheffield)*

13:50 to 15:50 **Associate Members Parallel Session**

Diagnostic innovation. A look into the future

13:45 to 14:35 **Free Scientific Papers** (15 minutes each)

Chairs & discussants - *Dr Peter Moss (Hull)*
Dr David Partridge (Sheffield)

7. HCV RNA detection in finger prick capillary blood for point-pf-care testing (POCT). Giovanni Villa et al. University of Liverpool

8. Review of 129 HIV patients requiring 168 admissions over a 30 month period 38% with respiratory illness - a target for vaccine prevention? Claire Vincent et al. Leeds Teaching Hospitals Trust

9. Exploring the epidemiology and diversity of fungal infections in a tertiary renal unit in London, UK. Kritchai Vutipongsatorn et al. Imperial College School of Medicine, London

14:35 to 15:00 **Coffee/tea & poster viewing**

15:00 to 15:50 **Free Scientific Papers** (15 minutes each)

Chairs & discussants - *Dr Katie Jeffery (Oxford)*
Dr Matt Schmid (Newcastle-upon-Tyne)

10. Respiratory viral epidemiology in Royal Marine Commando recruits. William Nevin et al. Chelsea and Westminster Hospital Foundation Trust, London

11. The role of antiviral therapy in the management of HSV meningitis. Shazmeen Surtee et al. University of Glasgow

12. A systematic evaluation of pre-core and surface antigen mutations in patients with eAg negative chronic active hepatitis B. Osama Ahmed et al. University Hospitals of Leicester NHS Trust

15:50 to 16:20 **UK State of the Art Lecture 2**

Better treatment of bone and joint infection

Dr Bridget Atkins
Consultant Physician in Infectious Diseases and Microbiology, Bone Infection Unit, Nuffield Orthopaedic Centre, Oxford

Chair & discussant - *Dr Hiten Thaker (Hull)*

16:20 to 16:30 **Comfort break & poster viewing**

16:30 to 17:30 **Clinical Papers** (10 minutes each)

Chairs & discussants - *Dr Albert Mifsud (St Bartholomew's, London)*
Professor Martin Wiselka (Leicester)

A. A traveller's tale: an unusual cause of a rectal ulcer. Irasha Hettiarachchi et al. Public Health Wales, Cardiff

B. Shooting in the dark: An atypical case of optic atrophy and basal meningitis. Anastasia Theodosiou et al. Southampton General Hospital

C. Once in a lifetime ... or maybe twice. Michael E Murphy et al. Cambridge University Hospitals

D. Diagnosis in denial. Joyeeta Palit et al. Sheffield Teaching Hospitals NHS Foundation Trust

E. Locked in Thailand. Clare Logan et al. St George's Hospital, London

F. What does a dentist, vet and neurosurgeon have in common? Irasha Hettiarachchi et al. Public Health Wales, Cardiff

17:30 to 17:35 **Close of proceedings**

Dr Albert Mifsud, President of the BIA
Dr Katie Jeffery, BIA Secretary
Professor Steve Green, BIA Meetings Secretary (demitting)
Dr Hiten Thaker, BIA Meetings Secretary

Selected Poster Presentations

01 A rare case of parainfectious bilateral brachial neuritis following recurrent Salmonella paratyphi bacteraemia. Aravindhan Baheerathan et al. The Hospital for Tropical Diseases, London

02 There's more than one way to see the world - an unusual case of diarrhoea. Rachel Moores et al. Imperial College Healthcare NHS Trust, London

03 An interesting case of dizziness. Christopher Mansbridge et al. Hampshire Hospitals NHS Foundation Trust, Winchester

04 *Clostridium cadaveris* osteomyelitis: targeted antibiotic therapy for chronic infection after deep tissue sample and culture. Ruth Corrigan et al. Bone Infection Unit, Nuffield Orthopaedic Hospital, Oxford

05 A straightforward case of meningitis? Isobel Ramsay et al. Addenbrooke's Hospital, Cambridge

06 Tuberculous spondylodiscitis: a retrospective analysis. Patrick Heard et al. Newcastle University, Newcastle-upon-Tyne

07 Sepsis identification and management at the Amrita Institute of Medical Sciences (AIMS), Kerala, India; an audit. Jonathan Johns et al. University of Warwick, Coventry

08 Can OPAT offer long term benefit for uncomplicated recurrent UTI? George Fowler et al. University of Sheffield Medical School

09 Interventions to improve the treatment of malaria in an acute teaching hospital in Ireland. Róisín O'Connor et al. St James's Hospital, Dublin

10 Local audit goes national: exploring vertebral osteomyelitis with the NITCAR network. Rachel Bousfield et al. Cambridge University Hospitals Foundation Trust

11 Antibiotic stewardship in primary health care clinics providing care for refugees in Northern Greece. Elena Ferran et al. Syrian American Medical Society - Global Response, Washington DC

12 A descriptive analysis of opiate-dependent patients admitted to Addenbrooke's Hospital, Cambridge in 2016 with infection. Sajeed Ali et al. University of Cambridge

13 Opening Pandora's box. Huina Yang et al. Papworth Hospital, Cambridge

14 Know your nodes: an unusual case of tender lymphadenopathy. Anastasia Theodosiou et al. Southampton General Hospital

15 Investigation of fever in the returning traveller. Emily Keating et al. Imperial College Healthcare NHS Trust, London

16 Do all microbiology doctors validate reports in the same way? Sarah James et al. Clinical Microbiology & Public Health Laboratory, Addenbrooke's Hospital, Cambridge

17. Pyogenic liver abscess or amoebic liver abscess? It's not always so easy. Matthew Kain. Heart of England Foundation Trust, Birmingham

18 Severe malaria complicated by multi-organ failure (MOF) and symmetrical peripheral gangrene (SPG) requiring amputation. Ellen Beer et al. Newcastle University, Newcastle Upon Tyne

19 Tackling *Plasmodium falciparum* malaria morbidity at the Royal Victoria Infirmary. Ellen Beer. Newcastle Medical School, Newcastle Upon Tyne

20 Audit of management of malaria in Imperial College Healthcare NHS Trust (ICHNT). Sarah Kelly et al. Imperial Healthcare NHS Trust, London

21 Mosquito bites amongst refugees in Northern Greece: a cause for concern? Aula Abbara et al. Syrian American Medical Society, Washington, DC

22 An unusual and devastating case of encephalitis in an immunocompetent patient. Chloe Eaton et al. Cambridge University NHS Foundation Trust

23 Visa dependent management of mycotic aneurysm. Lavinia Gabara et al. University Hospital Southampton

24 A rare case in tropical dermatology. Jayran Mistry. Blackfriars Medical Practice, London

25 An unusual case of transverse myelitis. Umang Agrawal et al. Addenbrooke's Hospital, Cambridge

26 New tricks old dogs. Simon Tiberi et al. Barts Health NHS Trust, London

27 Clinical epidemiology of invasive *Staphylococcus aureus* infection in The Gambia. Sam Tweed et al. University of Aberdeen

28 A rare pathogen with a classic presentation. Caroline Bullen et al. King's College Hospital, London

29 A stroke? Are you positive? Chris Beard. Royal Victoria Infirmary, Newcastle

30 Difficulties in the management of CNS invasive fungal infections: a case series. Sakib Rokadiya et al. Royal London Hospital

31 A virtual clinic for chronic hepatitis B. Experience in a large teaching hospital. Benedict Rogers et al. University Hospitals of Leicester NHS Trust

32 Adolescent problems in HIV. A tale of two girls. Helen Colver et al. University Hospitals of Leicester NHS Trust

33 A pilot study comparing molecular and clinical epidemiology methods to demonstrate nosocomial transmission of parainfluenza 3 on a haematology unit. Rebecca Slack et al. Sheffield Teaching Hospitals

34 'Back' from holiday: an unexpected complication. Benedict Rogers et al. University Hospitals Leicester

35 *Staphylococcus aureus* bacteraemias in haemodialysis patients in Barts Health NHS Trust 2011-2015. Caoimhe NicFhogartaigh et al. Barts Health NHS Trust, London

36 Where is rifampicin absorbed? Nyarie Sithole et al. Addenbrooke's Hospital, Cambridge

37 Issues managing a complex CNS infection. Tommy Rampling et al. University College London Hospitals NHS Foundation Trust

38 *Pneumocystis jirovicii* pneumonia. Mohammed Asif Munaf et al. Chesterfield Royal Hospital

39 TB in the renal transplant population: an under recognised phenomenon? Jessica Barrett et al. Barts Health NHS Trust

40 Antifungal susceptibility in vulvo-vaginal isolates: a six-year retrospective review of clinical specimens from a major London teaching laboratory. Christopher Eades et al. Chelsea and Westminster NHS Foundation Trust, London

41 Drivers of antibiotic resistant infections in humans from a one health perspective - a systematic review. Anuja Chatterjee et al. Imperial College London

42 Right bug, wrong site. Carolyn Major et al. Kingston Hospital, London

43 A preventable fall. Mehreen Datoo et al. Oxford University Healthcare Trust

44 A blank slate: bringing back white coats. Hamish Houston et al. University of Cambridge

International Keynote Lecture

Professor James McCarthy
Senior Scientist in Clinical Tropical Medicine
QIMR Berghofer Medical Research Institute, University of Queensland, Australia

James McCarthy is an Infectious Diseases Physician at Royal Brisbane and Womens Hospital and a Senior Scientist at QIMR Berghofer Medical Research Institute, Brisbane Australia. He received his MBBS from the University of Melbourne in 1984, after which he trained in Internal Medicine and then Infectious Diseases. He received a DH&TM from the London School for Hygiene and Tropical Medicine in 1990, undertook a Clinical Fellowship in infectious diseases at the University of Maryland in Baltimore, followed by 6 years of research training at the Laboratory of Parasitic Diseases, National Institutes of Health, Bethesda, Maryland where he studied filarial infection. His principal research interest is using Controlled Human Infection systems to study the biology of parasite infections, and to develop new antimalarial drugs.

Accelerating antimalarial drug development using human challenge studies

The ambitious goal of malaria elimination and urgency to counter the spread of artemisinin resistance require new approaches to speed the development of new antimalarials. In this context, the prevalence of malaria is falling across the globe, and reliable sites in endemic countries suitable for high quality clinical trials are becoming increasingly harder to maintain. As well, efficacy data accrued from adults with high levels of clinical immunity may be misleading and result in the selection of inappropriate doses for development. Although so called "Controlled Human Malaria Infection" studies have been predominantly used for vaccine development, it has recently become apparent that they represent a powerful tool for drug development as well. In this talk, the adaptation of this system for drug development will be described, including data from studies of new drugs currently under development. As well, the exploitation of this system for studies of the human immune response, biomarker discovery and validation, as well using this system to study malaria transmission will be described.

Professor Jon Sayers
Professor of Functional Genomics
Department of Infection, Immunity & Cardiovascular Disease
Henry Wellcome Laboratories for Medical Research, University of Sheffield

Jon Sayers studied Chemistry at the University of Birmingham, obtaining a BSc in 1983 and a PhD in medicinal chemistry (Synthesis of Antiviral Nucleoside Analogues, 1986). This produced molecules with antiviral activity. In 1986 he joined the MaxPlanck Institute for Experimental Medicine, Germany under Prof Fritz Eckstein as a postdoctoral researcher studying restriction endonuclease-DNA interactions and helped develop a successful genetic engineering toolkit eventually marketed by Amersham International (now GEHealthcare). He moved to Sheffield University Medical School in 1995 where he as held personal chair since 2006. He is currently a member of the Florey Institute for Host Pathogen Interactions and the Sheffield Institute for Nucleic Acids (SInFoNiA). His laboratory uses a wide range of molecular, cell biological and biophysical techniques to unravel the detail of such interactions aided by close collaboration with structural biologists in Sheffield.

He was elected as a Fellow of the Royal Society of Biology in 2013. He held the posts of Hon. Treasurer and Executive committee member of the Biochemical Society and was a director of Portland Press Ltd for five years. He has several granted US patents. In addition to strictly academic activities, he co-founded Asterion Ltd, a biotech spin-off company engineering cytokines as novel therapeutic agents and founded DeFENition Ltd, a second spin-out company in 2016, to develop new antibacterial agents.

Jon teaches graduate classes in biochemistry, bioinformatics and drug development. His research is focused on molecular recognition in DNA repair, host-pathogen interactions and early-stage drug design. He wants to be a crystallographer when he grows up and has been linked to an episode of "The X Files" in press reports.

How we develop new drugs for targeting and treating infections

The rise in prevalence of bacteria resistant to a wide range of approved antibiotics has become a matter of widespread public concern. This unwelcome situation developed due to factors including industry complacency, inappropriate prescribing, extensive prophylactic use in livestock, global travel and lack of financial reward models. Despite more recent pharmaceutical sector investment in high throughput screens targeting hundreds of bacterial proteins, little has emerged from tests involving many hundreds of thousands of compounds (see Drugs for bad bugs: confronting the challenges of antibacterial discovery DOI doi:10.1038/nrd2201). Structure-based drug design (SBDD) has gained importance in the pharmaceutical industry. This increasing success is due to advances in computational methods, genome analysis and the increasing availability of relevant crystal structures. Our laboratories focus on aspects of bacterial replication, in particular the mechanisms required to maintain normal double-helical DNA structure. We are applying SBDD to identify new inhibitors of these essential DNA replication pathways in pathogenic bacteria. The approach allows screening of huge numbers of potential inhibitors compounds *in silico*. High scoring hits are obtained for physical testing in state-of-the-art inhibitor assays.

Dr Bridget Atkins
Consultant Physician in Infectious Diseases and Microbiology
Bone Unit, Nuffield Orthopaedic Centre, Oxford

Dr Bridget Atkins was one of the first dually trained specialists in Infectious Diseases and Microbiology in the UK and has been a Micro/ID Consultant in Oxford since 2000. In addition to a full time clinical role, she is the lead physician for the Bone Infection Unit (BIU), Nuffield Orthopaedic Centre, Oxford University Hospitals NHSFT, Training Programme Director for Infectious Diseases and Microbiology (Health Education Thames Valley) and Hon Senior Lecturer, Oxford University. She has a major interest in orthopaedic infections, including the optimisation of laboratory diagnostic methods, the multidisciplinary management of bone and joint infections and the optimal delivery of bone infection services. She manages the 26-bed BIU ward in rotation with others and does combined BIU clinics year round, in both cases working closely with orthopaedic and plastic surgeons. She delivers microbiology laboratory and infection consult services across the trust the rest of the year. She led the clinical input for the UK Standard for Microbiology Investigations (SMIs) (prosthetic joint and osteomyelitis samples) and the NHS England Bone and Joint Infection service specification 2013/14. She founded and led the Oxford Bone Infection Conference (OBIC) in 2011, which is now annual (next meeting 22nd/23rd March 2018). This meeting aims to promote multidisciplinary working in bone and joint infection and is attended by >200 national and international delegates across orthopaedics, plastics and infection. She was on the organising committee for EBJIS Sept 2016, Oxford. She has published widely on microbiological diagnostics and the management of bone and joint infections and lectures regularly on the subject.

Better treatment of bone and joint infection

Patients with chronic bone and joint infections may have had unsatisfactory interactions with the healthcare profession, with the wrong diagnosis, the wrong surgery, poor soft tissue management and the wrong antimicrobial treatment. Even if only one of these is wrong the outcome may be poor. Patients may have multi-drug resistant organisms, adverse drug reactions, pain, disability, leaking wounds, long hospital stays, depression and anger. Loss of income and relationships are common.

When assessing a patient with a bone infection the aims are 1) to get an accurate anatomical and microbiological diagnosis and 2) to assess the patient's aims and expectations. Eradication of infection sometimes has to be balanced against preservation of function. Some patients desire cure of infection, others prioritise mobility or reduction in pain. A realistic discussion of what is achievable is important.

Surgery, if required, should be done by orthopaedic surgeons skilled in infection including meticulous sampling technique, debridement and tissue excision, stabilisation, dead space management, wound closure and rehabilitation. Bone fillers may be used incorporating local antibiotics. Plastic surgeons need skills in closing large soft tissue defects in the same operation. Some case require a muscle flap which allows the delivery of a blood supply, therefore an immune response and antibiotics, while preventing the entry of new organisms. Dedicated anaesthetists need to be skilled in prolonged anaesthesia techniques. Awake anaesthesia has lower morbidity and can be considered in many cases.

In the microbiology laboratory, prevention of sample contamination whilst adequately disrupting biofilm, using enriched media, culturing for an adequate duration and performing appropriate identification and anti-biograms are key. The place of sonication and molecular tests routinely is under evaluation. Infection doctors and their trainees are an integral part of the team. They need skills in diagnostics, microbiological methods, biofilm, multi-drug resistant (MDR) organisms and local antimicrobials. Expert knowledge of the pharmacology of antimicrobials is essential. Many patients are on other medications e.g. antidepressants, anticoagulants which have potentially serious interactions with antimicrobials. Drug hypersensitivities, intolerances, MDR organisms, and/or polymicrobial infections are common. Some patients need prolonged iv antibiotics and an OPAT service. Most patients need ongoing outpatient monitoring of therapy rapid access for patients and GPs for advice.

All these element of care need to be delivered at the same time as a one stop shop in line with (in line with NHS Improvement "Get it Right First Time" principles.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 1

Title	**Antimicrobial stewardship of treatment for urinary tract infection on elderly care wards at Stoke Mandeville Hospital**
Authors	Ruth Corrigan, Maylin Oppenheimer, Jean O' Driscoll
Address	*Stoke Mandeville Hospital, Buckingham Healthcare NHS Trust, UK*

Abstract

Urinary tract infection (UTI) is a common differential diagnosis in deteriorating elderly patients. UTI diagnosis and management requires clinical assessment, urine dip and MC&S and empirical antibiotics in accordance with local guidelines, followed by antibiotic review within 72 hours with MC&S results.

Antibiotic prescription and stewardship on elderly care wards at Stoke Mandeville Hospital was audited. Positive urine MC&S results over a 6 month period were retrospectively reviewed, together with patient notes, antimicrobial resistant patterns and local antibiotic guidelines.

There were 35 positive MC&S results with accessible patient notes. Empirical antibiotics were commenced prior to MC&S results in 50% of cases, though 44% of these were not in accordance with local guidelines. Of these 50% had no discernible reason for guideline deviation and 50% were incorrectly prescribed.

At 72 hours, only 39% of antibiotic prescriptions were reviewed and despite available sensitivities 33% of patients remained on ineffective antibiotics.

Isolated organisms included *Escherichia coli* (36%), *Proteus* (18%) and *Pseudomonas* (10%). Resistance rates varied: trimethoprim (53%), amoxicillin (53%), nitrofurantoin (37%), ciprofloxacin (23%), co-amoxiclav (20%) and gentamicin (13%). There was greater resistance in bacteria found in urine samples from catheterised patients.

Local guidelines recommend nitrofurantoin, pivmecillinam and ciprofloxacin, in order of preference, for both catheter and non-catheter associated UTI. Local resistance patterns from this study support nitrofurantoin as a first line antibiotic, and the absence of trimethoprim and amoxicillin from local guidelines. Ongoing education of doctors regarding antibiotic prescription and review, and local guidelines is required to address the sub-optimal practice identified.

Title **Experimental human pneumococcal colonisation in older people is feasible and safe**

Authors Hugh Adler[1], Esther German[1], Elena Mitsi[1], Victoria Connor[1,2], Caroline Hales[1,2], Helen Hill[1,2], Lepa Lazarova[1,2], Catherine Lowe[1,2], Rachel Robinson[1,2], Seher Zaidi[1,2], Simon Jochems[1], Elissavet Nikolaou[1], Sherin Pojar[1], Jesús Reiné[1], Carla Solorzano-Gonzalez[1], Emma Smith[1,2], India Wheeler[1,2], Stephen Gordon[3], Daniela Ferreira[1], Jamie Rylance[1,2]

Addresses [1]*Liverpool School of Tropical Medicine, UK*
[2]*Royal Liverpool University Hospital, UK*
[3]*Malawi/Liverpool Wellcome Trust, Blantyre, Malawi*

Abstract

Background
Nasopharyngeal colonisation with *Streptococcus pneumoniae* can lead to invasive disease, but is usually asymptomatic, and generates beneficial adaptive immune responses. Colonisation may be safely replicated experimentally in young adults, with 45% of volunteers typically developing colonisation after experimental inoculation. We report the initial results from the use of this experimental model in older adults, where natural colonisation is less frequent and the immunological effects are uncertain.

Methods
Healthy volunteers between 50 and 75 years old were inoculated with 80,000 CFU of *S. pneumoniae* (serotype 6B) in each nostril. Colonisation was determined by nasal lavage (at baseline and days 2, 7, 9, 14, 22 and 29 post-inoculation). Anti-6B capsular polysaccharide IgG antibodies were quantified by ELISA from serum samples at baseline and 29 days post-inoculation.

Results
Sixteen volunteers have been inoculated to date; no adverse events were observed. The median age was 61 years (range 50-73). Two were naturally colonised with pneumococcus at baseline (one serotype 3, one 23F). Experimental colonisation was established in three volunteers. The mean baseline antibody titre in those volunteers who did not become colonised was 1285ng/mL versus 1197ng/mL at day 29 ($p=0.8$), while in those volunteers who become colonised it was 1422ng/mL at baseline versus 4227ng/mL at day 29 ($p=0.2$).

Conclusions
Pneumococcal colonisation can safely be experimentally established in older people, who are typically under-represented in controlled human infection studies. Early results suggest that experimental colonisation occurs at a lower frequency in older volunteers than in prior studies of young adults.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 3

Title	**Dramatic improvement in fibrosis scores following treatment for hepatitis B and C in patients with advanced liver disease**
Authors	Aleem Ahmed, Benedict Rogers, Martin Wiselka
Address	*University Hospitals of Leicester NHS Trust, UK*

Abstract

Introduction
Antiviral therapy can suppress hepatitis B DNA indefinitely and effective oral agents are now available for hepatitis C. Patients with advanced liver disease may be treated with these agents, but the extent and time course of any improvement of their liver disease is variable and established cirrhosis was originally considered to be largely irreversible. The introduction of non-invasive fibroscan testing allows serial assessment of liver fibrosis. This study reviews a series of patients with chronic hepatitis B and C where their advanced liver disease showed dramatic improvement following the introduction of effective antiviral therapy.

Methods
A review of patients attending the hepatitis clinic with advanced liver disease (F3/F4 fibrosis/cirrhosis) resulting from chronic hepatitis B or C who had serial assessments of fibrosis by liver biopsy or fibroscan assessment. Patients whose assessment of liver fibrosis returned to normal levels post-treatment were included in the study.

Results
Thirteen patients (10 hepB and 3 hepC) were identified with advanced fibrosis (F3/F4) prior to treatment and normal liver fibroscan scores following treatment. Several patients had pre-treatment liver biopsies showing established cirrhosis. One patient developed loss of HBsAg following treatment for hepatitis B.

Discussion
The study demonstates the value of serial fibroscan assessment. Advanced liver disease and cirrhosis may be completely reversible following effective antiviral treatment in chronic hepatitis B and C. Time course of improvement can be dramatic, occurring over a period of months and provides evidence for remodelling of liver fibrosis following treatment. The residual risk of hepatocellular carcinoma (HCC) is uncertain.

Title **Quantifying new serological diagnoses of HCV not followed by polymerase chain reaction testing to detect viraemia**

Authors Chloe Eaton[1], Suzie English[1], Rachel Bousfield[1], Gabriella Johansson[1], Yiwang Xu[1], Tim Old[1], Megan Goddard[2], Judith Timms[2], Sharon Koo[3], Nicholas Machin[4], Leila White[5], David Orr[5], Yasar Hussain[6], Lucy Rivett[1], Ben Warne[1]

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[4]*Central Manchester University Hospitals NHS Trust, UK*
[5]*Lancashire Teaching Hospitals NHS Trust, UK*
[6]*Shrewsbury and Telford Hospital NHS Trust, UK*

Abstract

Introduction
The recent expansion in antiviral classes available for Hepatitis C Virus (HCV) treatment increases cure potential among viraemic patients. This study sought to quantify new serological diagnoses of HCV followed by polymerase chain reaction (PCR) testing for viraemia.

Methods
We conducted a retrospective, multi-site, observational audit via the National Infection Collaborative for Audit and Research (NITCAR). Following published guidance, the auditable standard was 100% PCR testing after first positive HCV serology. We included all adults (>18 years) diagnosed between 1st November 2011 and 31st October 2014. Follow-up testing must have occurred within 12 months of the first positive serology. Pearson's chi square test determined statistical significance. We estimated the economic impact of PCR testing assuming a mean composite cost of HCV testing and treatment in the range of £30,000-50,000 per PCR test.

Results
We identified 3,847 first-positive HCV serology results from six centres. The audit standard was not met; 63% of first positive HCV serology results were followed by PCR testing within 12 months. The estimated combined cost increase to the six centres, if they improved to 100% PCR testing, ranged from £7.26-12.1mn to £12.42-20.7mn in the first year.

Discussion
Our data suggest a significant number of potentially eligible patients have not received follow-up PCR testing. Despite initial cost increases, the potential benefits of novel HCV therapies, in addition to the current burden of unnecessary or incomplete testing, would support a coordinated HCV PCR testing strategy.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 5

Title **Characteristics and risk factors for severe outcome among hospitalised adult patients with influenza in Greater Glasgow, October 2015-April 2016**

Authors Antonia Ho[1], Eleri Wilson-Davies[2], Rory Gunson[2]

Addresses [1]*Monklands Hospital, Airdrie, UK*
[2]*West of Scotland Specialist Virology Centre, Glasgow, UK*

Abstract

Background
The epidemiology of influenza-related hospitalisations and risk factors for severe outcome in the UK are poorly characterised.

Methods
This retrospective cohort study of hospitalised patients aged >18 years with laboratory-confirmed influenza at 8 Greater Glasgow acute hospitals identified risk factors for severe outcome (intensive care admission or inpatient death).

Results
Influenza was identified in 582 hospitalised adults; 34 with hospital-acquired infection (diagnosed >7 days from admission) were excluded. Median age was 54 years (range 18-94) and 256 (47%) were male. Overall, 70% had comorbid conditions. Among 537 patients who had a chest x-ray on admission, 31.5% had pneumonia. Thirteen percent were admitted to high dependency or intensive care unit, 7% required mechanical ventilation, and 6.6% died. Median length of hospital stay was 6 days (IQR 3-10), encompassing 5228 bed days.

Antibiotic and antiviral treatment were given to 86.5% and 54% patients respectively, though only 7% received antivirals within 48 hours of symptom onset. Independent predictors of severe outcome were age >50 years, underlying immunosuppression, and influenza A infection. Systolic blood pressure <90mmHg, oxygen saturation <94%, and altered mental state on admission, in addition to radiologically-confirmed pneumonia and antiviral treatment were also associated with severe outcome.

Conclusions
Influenza imposed substantial demands on Glasgow Hospitals during the 2015/16 season. Majority of patients with hospitalised influenza had underlying medical conditions, supporting the use of influenza vaccines in this at-risk group. Despite national guidelines recommending the use of antiviral drugs, only half received it and very few within the recommended timeframe.

Title **Mechanisms of macrophage necrosis in pulmonary aspergillosis**

Authors Anand Shah, Shichina Kannambath, Sunil Shaunak, Darius Armstrong-James

Address *Imperial College London, UK*

Abstract

Introduction
Pulmonary aspergillosis is a lethal mold infection in the immunocompromised host. Understanding initial control of infection and how this is altered in the immunocompromised host are key goals for comprehension of the pathogenesis of pulmonary aspergillosis.

Objectives
To characterize the outcome of human macrophage infection with *Aspergillus fumigatus* and how this is altered in transplant recipients on calcineurin inhibitor immunosuppressants.

Methods
We defined the outcome of human macrophage infection with *A. fumigatus*, as well as the impact of calcineurin inhibitors, through a combination of single-cell fluorescence imaging, transcriptomics, proteomics, and in vivo studies.

Results
Macrophage phagocytosis of *A. fumigatus* enabled control of 90% of fungal germination. However, fungal germination in the late phagosome led to macrophage necrosis. During programmed necroptosis, we observed frequent cell-cell transfer of *A. fumigatus* between macrophages, which assists subsequent control of germination in recipient macrophages. Lateral transfer occurred through actin-dependent exocytosis of the late endosome in a vasodilator-stimulated phosphoprotein envelope. Its relevance to the control of fungal germination was also shown by direct visualization in our zebrafish aspergillosis model in vivo. The calcineurin inhibitor FK506 (tacrolimus) reduced cell death and lateral transfer in vitro by 50%. This resulted in uncontrolled fungal germination in macrophages and also resulted in hyphal escape.

Conclusions
These observations identify programmed, necrosis-dependent lateral transfer of *A. fumigatus* between macrophages as an important host strategy for controlling fungal germination. This process is critically dependent on calcineurin. Our studies provide fundamental insights into the pathogenesis of pulmonary aspergillosis in the immunocompromised host.

Title **HCV RNA detection in finger prick capillary blood for point-pf-care testing (POCT)**

Authors Giovanni Villa[1,2], Mark Hopkins[3], Apostolos Beloukas[1], Athanasios Papadimitropoulos[1], Paula Davies[2], Jillian Williams[2], Eimear Railton[2], Anna Maria Geretti[1,2]

Addresses [1]*University of Liverpool, UK*
[2]*Royal Liverpool University Hospital, UK*
[3]*Liverpool Clinical Laboratories, UK*

Abstract

Introduction
Collection of capillary blood by finger-prick combined with the availability of sensitive POCT aids the rapid diagnosis of infection, ensuring prompt management. There are no published data on the use of capillary blood for the diagnosis of a current HCV infection by POCT. This study assessed the performance of the GeneXpert platform for quantitative HCV RNA detection in small volume (100µl) capillary blood collected by finger-prick.

Methods and results
In the validation phase, assay sensitivity with a 100µl-input was determined using duplicate serial dilutions of reference HCV RNA panels representing genotypes 1-6. At 100 IU/ml HCV RNA detection rates were 100% across all genotypes, with good linearity (R2 ≥0.99) between measured and expected HCV RNA levels. At 100 IU/ml, HCV RNA detection in small volume blood was maintained up to50 days of storage at room temperature. In the testing phase, 53 patients with known HCV status (Table 1) underwent collection of capillary blood by finger-prick and whole EDTA blood by venous puncture. Paired samples were tested immediately using the 100µl-input and 1ml-input protocol, respectively. Three patients (5.7%) were excluded from analysis (1 invalid Xpert result; 2 insufficient sample volumes). Of the remaining 50 subjects, all had concordant results between sample types and with the patients' known HCV status, including 39 subjects who tested HCV RNA positive.

Discussion
The data support the use of finger-prick capillary blood for HCV RNA detection by GeneXpert, providing the evidence base for studies evaluating this use at point of care in non-specialist laboratory settings.

Title **Review of 129 HIV patients requiring 168 admissons over a 30 month period 38% with respiratory illness - a target for vaccine prevention?**

Authors Claire Vincent, Penny Lewthwaite

Address *Leeds Teaching Hospitals Trust, UK*

Abstract

We reviewed 168 admissions from 129 patients with HIV admitted to the regional HIV inpatient ward at St James' Teaching Hospital from August 2014 to December 2016. 37 patients had a new HIV diagnosis at admission, 2 had been previously diagnosed but lost to follow up.

64 (38%) of those patients had respiratory illnesses. 21 with presumed bacterial pneumonia, 5 confirmed *Strep pneumoniae*, 1 *Legionella*, 1 *Klebsiella*, 16 with confirmed *Pneumocystis jirovecii* pneumonia, 16 patients had tuberculosis and 11 had presumed viral LRTI, 1 confirmed swine flue, 2 rhinovirus and 1 RSV.

BHIVA guidelines recommend HIV positive patients receive pneumococcal vaccine and annual influenza vaccines[1]. We reviewed the electronic clinic records and available, electronic GP records of patient's immunization history.

Of 129 patients from electronic records, only 4 patients 0.03% had been vaccinated with influenza vaccination and 10, 0.08% with the pneumococcal vaccination. 12 patients were aged ≥ 65 at the time of admission and on age grounds met vaccination criteria for seasonal flue and pneumococcal immunization- including 2 newly diagnosed patients over 65[2,3].

Six patients had a confirmed potentially vaccine preventable infection causing admission, accounting for 39 hospital bed days. Of the remaining 11 known HIV patients in whom no organism was identified who may have had their admission prevented by pneumococcal or seasonal flue immunization saving 109 bed days.

This highlights the need for adherence to the BHIVA guidelines in this cohort of patients to prevent unnecessary illness and hospitalization.

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2. NICE. Immunizations - Seasonal Flu. https://cks.nice.org.uk/immunizations-seasonal-influenza#!scenario. (Accessed 23/3/17).

3. Public Health England. 2017. Pneumococcal. Green Book Chapter 25 v.6. p295-312. E-book. (Accessed 23/3/17).

Title **Exploring the epidemiology and diversity of fungal infections in a tertiary renal unit in London, UK**

Authors Kritchai Vutipongsatorn[1], Timothy M Rawson[1,2], Christopher Eades[2,4], Alison Holmes[1,2], Darius Armstrong-James[1,3], Marina Loucaidou[2], Alireza Abdolrasouli[1,4], Luke S P Moore[4,5]

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[4]*North West London Pathology Consortium, UK*
[5]*Chelsea and Westminster Hospital NHS Foundation Trust, London, UK*

Abstract

Background
Immunosuppression predisposes patients with renal failure to opportunistic fungal infections. A retrospective analysis of the epidemiology of fungal infections managed within a large tertiary renal unit in London, UK was undertaken.

Methods
Electronic record were interrogated identified all fully identified fungal cultures from patients attending a tertiary renal unit between January 2011 and March 2015. Demographic, infection, mycological, and mortality data were analysed.

Results
149 fungi in 142 positive cultures were identified. These were collected from 118 individual patients; 53/142(37%) urine, 27/142(19%) wound, 22/142(15%) respiratory, 19/142(13%) tissue, 12/142(8%) sterile fluids, and 9/142(6%) blood cultures. Median patient age was 61 years (IQR:48-71 years), 60/118(51%) were female, 71/118(60%) were immunosuppressed, of which 58/71(82%) had received prior renal transplantation.

143/149(96%) fungi were yeasts, of which *Candida albicans* was the commonest [59/143:41%]. *C. albicans'* median fluconazole MIC was 0.125mg/L in immunosuppressed and 0.25mg/L in immunocompetent, with none resistant to fluconazole. Between 2011-2014, the proportion of *C. albicans* decreased from 51/117(44%) to 6/27(22%) (p=0.03), while *C. parapsolisis* increased from 10/117(9%) to 6/27(22%) (p=0.05). *Aspergillus fumigatus* was isolated from 5/149(3%) specimens, 2/5(40%) were respiratory.

Median C-reactive protein (CRP) upon collection was 61mg/L (IQR:15-79). 180-day mortality post-culture was 25%(29/118), and 33%(3/9) amongst fungaemic patients.

Conclusion
C. albicans and *A. fumigatus* remain the commonest yeast and mould isolates respectively. While acquired azole resistance within *C. albicans* has not so far been observed, there is a degree of species replacement, with increasing *Candida* species with higher MICs to fluconazole observed. This may reflect antifungal prophylaxis changes to renal patient protocols.

Title **Respiratory viral epidemiology in Royal Marine Commando recruits**

Authors William Nevin[1], Andrew Dagens[1], Trish Davey[4], Jo Fallowfield[4], Neil Thorpe[4], Adrian Allsopp[4], Anneliese Shaw[4], Martin Curran[6], Duncan Wilson[4], Matthew O'Shea[4], Lucy Lamb[2,4,5]

Addresses
[1]*Chelsea and Westminster Hospital Foundation Trust, London, UK*
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[3]*Institute of Naval Medicine, Alverstoke, UK*
[4]*Academic Department of Military Medicine, Royal Centre for Defence Medicine, Birmingham, UK*
[5]*Royal Free London NHS Foundation Trust, UK*
[6]*Cambridge University Hospitals Foundation Trust, UK*

Abstract

Introduction
A prospective observational cohort study was conducted in Royal Marines (RM) recruits to investigate the nasopharyngeal carriage of viral pathogens and the incidence of respiratory infections which have previously halted training programmes having serious repercussions on military readiness.

Methodology
1012 RM recruits were followed through the 32-week training programme, with nasopharyngeal viral swabs being collected and analysed from a selection of 183 RM recruits. A retrospective analysis of the case notes was performed assessing the incidence of respiratory infections. Multiplex viral PCR using nucleic acid isolated from nasopharyngeal swabs by standard techniques was performed.

Results
183 male RM recruits were assessed for viral pathogens with carriage detected in 74/183 (40%). An acute respiratory illness was present in 38/183 recruits (21%). with, 22/37 (59%) having a positive viral swab (19 rhinovirus, 2 coronavirus, 1 hMPV). Of the 38/183 patients with symptoms, 17/38 recruits (45%) were prescribed antibiotics. In this group 57 days of training were lost as a result of respiratory infections.

Discussion
This is the first study to report the carriage of viral pathogens in a UK military cohort and the incidence of respiratory infections. In contrast to a study performed in US military trainees, a high proportion of RM recruits with respiratory symptoms were found to be PCR positive for rhinovirus compared to adenovirus or RSV. In addition to the impact on training the study has highlighted a need for rapid viral diagnostics in a community setting to avoid the unnecessary prescription of antibiotics.

Title **The role of antiviral therapy in the management of HSV meningitis**

Authors Shazmeen Surtee[1,2], Antonia Ho[2], Ann LN Chapman[2]

Addresses [1]*University of Glasgow, UK*
[2]*Department of Infectious Diseases, NHS Lanarkshire, UK*

Abstract

Introduction
Herpes simplex virus (HSV) causes aseptic meningitis which can result in considerable morbidity. Aciclovir may be used as part of the management strategy but there is little evidence of benefit and no treatment guidelines. We reviewed cases of HSV meningitis over a 6-year period to determine incidence and clinical features including the role of Aciclovir.

Methods
This retrospective study analysed data for 3254 patients who had cerebrospinal fluid (CSF) samples sent from NHS Lanarkshire to the West of Scotland Specialist Virology Centre between 2011 and 2017 following suspicion of central nervous system infection. Incidences of confirmed viral infections were determined. Clinical data was obtained from casenotes for patients whose CSF samples were PCR-positive for HSV.

Results
During the 6-year period, 25 patients had detectable HSV by PCR of CSF, of whom 10 had encephalitis, 1 meningo-encephalitis and 12 meningitis. Two patients were excluded from the study due to a lack of correlation between laboratory results and admission notes.

Management of HSV meningitis was variable. Admission duration ranged from 1-15 days. Seven patients received intravenous/oral Aciclovir, including 4 patients who were discharged with a diagnosis of viral meningitis and subsequently recalled for intravenous therapy after receipt of positive HSV PCR results. No difference in outcome was observed between those treated with Aciclovir and those managed conservatively.

Discussion
Lack of consensus surrounding HSV meningitis treatment may lead to unwarranted prolonged hospital admission and intravenous therapy. There is a need for evidence-based guidance on use of antiviral therapy for HSV meningitis.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 12

Title **A systematic evaluation of pre-core and surface antigen mutations in patients with eAg negative chronic active hepatitis B**

Authors Rosalind Saunders, Osama Ahmed, Julian Tang, Martin Wiselka

Address *University Hospitals of Leicester NHS Trust, UK*

Abstract

Introduction
Chronic hepatitis B patients who are eAg-ve and eAb+ve often have low viral loads associated with immune control. However, in some cases the viral load fluctuates and this may be associated with a rise in liver enzymes and progression of liver disease (eAg-ve chronic active hepatitis). NICE guidelines indicate that treatment should be considered if HBV DNA is >2000IU/ml. Although eAg-ve chronic hepatitis B is thought to be associated with the emergence of pre-core mutant virus the extent, variability and clinical significance of viral mutations has not been systematically investigated.

Methods
Viral sequencing (PHE Colindale) was performed on all patients attending the hepatitis clinic with chronic hepatitis B who were eAg-ve, eAb +ve with a viral load >2000IU/ml and not currently receiving treatment.

Results
Sequence data was obtained for 62 consecutive patients. The majority were genotypes A or D. T1762/A1764 mutations in the Basal Core Promoter (BCP) region were identified in 8 patients (12.9%). Precore mutations were seen in 32 patients (50.6%), the majority with W to Stop at codon 28 (24 patients). No mutations seen on HBV polymerase region, but 25 patients (40.3%) had mutations in the gene encoding HBsAg with the dominant mutation being M133M/T. Several patients had mutations in more than one encoded region.

Discussion
Nearly all patients had significant mutations identified affecting the BCP, pre-core and HBsAg regions. The clinical significance of these mutations is currently uncertain and is being investigated with follow up of the affected patients and serial fibrosis assessments.

Title **A traveller's tale: an unusual cause of a rectal ulcer**

Authors Irasha Hettiarachchi[1], Owen Seddon[2], Mohid Khan[2], Meleri Morgan[2], Andrew Freedman[2]

Addresses [1]*Public Health Wales, Cardiff, UK*
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Abstract without diagnosis

We present a 27 year old male admitted with a two month history of diarrhoea, weight loss and malaise. Examination revealed oral candidiasis, axillary lymphadenopathy, and evidence of weight loss. His medical history was unremarkable but he had travelled extensively, including the Americas, Southeast Asia and sub-Saharan Africa.

A HIV test was positive. His CD4 count was 20, indicative of profound immunosuppression. His CRP was elevated at 72mg/L and he was anaemic (90g/l) but routine bloods were otherwise unremarkable.

A CT of the thorax, abdomen and pelvis demonstrated lymphadenopathy within the axilla and more extensively within the abdomen, along with abnormal thickening of D3 and the mid-ascending colon. Faecal examination for parasitic, viral and bacterial infection was negative. A core biopsy of his axillary lymphadenopathy showed a reactive appearance only. Routine and mycobacterial blood cultures were negative.

OGD and colonoscopy were performed. The OGD was unremarkable but the colonoscopy demonstrated multiple raised erythematous plaques throughout the colon as well as a discrete rectal ulcer. Histology from the ulcer demonstrated deep ulceration with macrophages and spores highlighted with Grocott Methenamine silver and DPAS staining. Microbiological culture of the same samples was positive at day 5.

Title **Shooting in the dark: an atypical case of optic atrophy and basal meningitis**

Authors Anastasia Theodosiou, Amy Ross-Russell

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Abstract without diagnosis

A 53-year-old gamekeeper presented with a five-month history of progressive visual loss and 9.5kg weight loss, followed by three weeks of myalgia, night sweats and headache. He had recently diagnosed hypertension and diabetes, and reported no unwell contacts or recent travel. Neurological examination demonstrated visual acuities of 6/15 in his right eye and hand movements in his left eye, as well as left relative afferent pupillary defect and bilateral optic disc pallor. The remaining neurological and systemic examination was normal.

Serum sodium was 124mmol/L, with hypotonic serum and inappropriately concentrated urine. Magnetic resonance imaging demonstrated high signal in the optic chiasm and inferior thalami, with leptomeningeal enhancement over the hypothalamus, oculomotor and trigeminal nerves, and superior cerebellum. Cerebrospinal fluid (CSF) contained 480/mm3 white cells (of which 96% lymphocytes), no red cells, raised protein (2852mg/L), and positive oligoclonal bands. PET-CT excluded distant organ involvement.

Given these findings, a range of infective and inflammatory diagnoses were considered. Following further testing, the differential was narrowed to two conditions. He received treatment for both conditions, and improved clinically and radiologically. CSF analysis one month later showed reduced white cells (120/mm3 lymphocytes) and protein (668mg/L), negative oligoclonal bands, and confirmation of the underlying diagnosis. His systemic symptoms resolved, with slight improvement in vision.

Title **Once in a lifetime ... or maybe twice**

Authors Michael E Murphy[1,3], David S Edwards[2], Colin S Brown[3], Isobel Ramsay[1], Alexandra Itani[4], Mark Reacher[5], Dianne Kent[2], Caroline Lester[2], Norman Fry[3], David Litt[3], Meera Chand[3], Jorg Hoffman[2], Nalini Iyanger[3], Laurence Kemp[4], Babak Javid[1], Joanne White[3], Dominik Zenner[3], Gayatri Amirthalingam[3], Nicholas M Brown[1,3], C Olajumoke Sule[1,3]

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Abstract without diagnosis

This microbiology department received superficial skin swabs which were processed for routine culture on blood and CLED agars. Reading the plates, the scientist discovered insufficient spread and individual colonies were not visible. As the staphylococcal-latex test was positive, antimicrobial sensitivity testing was set up using the staphylococcal panel. Reviewing clinical details, the patient was a 20-year old office-worker recently returned (3 weeks previously) from a 3-week trip volunteering at an orphanage in Ghana. She was generally well whilst away and up-to-date with her immunisations. Ten days after returning, she attended her GP with tonsillitis which settled with antibiotics. She returned again, otherwise well, with 2 non-healing ulcers on her feet prompting the GP to send swabs.

Matrix Assisted Laser Desorption/Ionization-Time of Flight Mass Spectrometry (MALDI-TOF) of the isolate from the sensitivity plate revealed an unexpected organism of clinical, occupational and public health importance.

BRITISH INFECTION ASSOCIATION

Clinical Paper D

Title **Diagnosis in denial**

Authors Joyeeta Palit, Vivak Parkash

Address *Sheffield Teaching Hospitals NHS Foundation Trust, UK*

Abstract without diagnosis

A 76-year-old lady presented acutely to hospital with confusion, fluctuating GCS and fevers.

She had returned the previous day from a 3-week trip to South Africa with her husband. The patient was visiting family in Johannesburg and during the first week of her trip had visited Kruger National Park for 5 days. She had sustained a small cut getting out of a swimming pool at a resort there, otherwise no unusual contacts.

There was a history of both tick and mosquito bites. No malaria prophylaxis was taken. The patient was previously well aside from mastectomy for breast cancer 25 years prior.

She was empirically treated with cefotaxime, amoxicillin and aciclovir. Doxycycline and anti-malarial treatment were subsequently added in.

Blood tests revealed a transaminitis, neutrophilia and raised CRP. Blood cultures and blood film did not reveal a responsible organism. MRI head showed an established right cerebellar infarct but nothing else.

Examination of the patient's CSF revealed predominantly polymorphonuclear cells, low glucose and raised protein. Gram stain was negative. CSF PCRs for Enterovirus/Listeria/Borrelia/Meningiococcal/Pneumoccocal/ Herpes Simplex virus/Varicella-zoster virus were all negative.

The patient's husband was also admitted to hospital with non-specific symptoms. He was treated for a urinary tract infection and discharged after an overnight stay.

BRITISH INFECTION ASSOCIATION

Clinical Paper E

Title	**"Locked in Thailand"**
Authors	Clare Logan, Natasha Karunaharan, David Carrington
Address	*St George's Hospital, London, UK*

Abstract without diagnosis

A 48-year old male builder developed a flaccid quadraparesis which occurred during a trip to Northeastern Thailand in December 2016. He was visiting his girlfriend who lived on a rural farm. He had been helping on the farm and walking in the mountains during his stay.

The episode started a month into the trip when he fell and hit his head causing an occipital laceration which was debrided and sutured. He reported having a fever and flu-like symptoms at the time. Over the next 48 hours, he developed an ataxic gait and left sided weakness. He was admitted to a local hospital where a CT head demonstrated a right thalamic lesion, suspected to be an infarct and aspirin was commenced. Unfortunately, his weakness progressed into a flaccid quadraparesis with associated respiratory failure requiring intubation.

His bloods in Thailand demonstrated a mild neutrophilia ($15x10^9$/L), mild lymphopenia ($0.6x10^9$/L), and a trans-aminitis (ALT 150 U/L AST 136 U/L, with normal bilirubin & ALP). Cerebrospinal fluid (CSF) obtained three weeks after the onset of illness, demonstrated a normal WCC, protein 1.3, glucose 7.5. On repatriation to the UK two weeks later when he was transferred to St Georges Hospital, he remained intubated and had a "locked-in" syndrome with a flaccid quadraparesis and horizontal nystagmus. The differential diagnoses for this clinical presentation in this returning traveller was further considered.

Title **What does a dentist, vet and neurosurgeon have in common?**

Author Irasha Hettiarachchi

Address *Public Health Wales, Cardiff, UK*

Abstract without diagnosis

A 67-year old Italian man presented to the medical admissions unit with a 3 day history of confusion and urinary symptoms. He was discharged with a course of co-amoxiclav for a urinary tract infection. The patient was re-admitted the next day with worsening confusion, leg pain and urinary incontinence, leading to a fall.

His past medical history included myelodysplasia and autoimmune vasculitis for which he was on cyclosporine and prednisolone. He was an ex-smoker with a 50 pack year smoking history. The patient was a retired dentist, originally from Italy and was visiting family in the UK, having arrived 5 days prior to admission.

Abnormal blood markers included his haemoglobin which was low at 82g/L with an elevated CRP of 77 mg/L. Blood cultures were negative. A CT scan of the head revealed multiple lesions. Scans of the chest and abdomen demonstrated emphysematous changes in the lung and a nodule in the left upper lobe.

The main differential at this stage was metastatic malignancy and the patient was referred to the neurosurgeons for a biopsy of the intra-cranial lesions. The biopsy revealed an unexpected finding which clinched the final diagnosis. Abnormalities in the lung and central nervous system were linked and are a known association in this condition.

The patient required a long course of treatment with some improvement in his neurology. He was repatriated back to Italy following a 29 day admission in the UK.

Delegates

Title	Name	Surname	Hospital	Department	Grade
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Delegates

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Delegates

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Delegates

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Dr	Meghan	Perry	Western General Hospital	Infectious Diseases	Specialist Registrar
Dr	Christina	Petridou	Basingstoke and North Hampshire Hospital	Microbiology	Specialist Registrar
Dr	Giuseppe	Pichierri	Kingston Hospital	Microbiology	Consultant
Dr	Nina	Pieper	Imperial College NHS Foundation Trust	Medical Education	Speciality Trainee
Dr	Natalie	Prevatt	Great Ormond Street Hospital	Infectious Diseases	Specialist Registrar
Dr	James	Price	Brighton and Sussex University Hospitals	Infectious Diseases	Specialist Registrar
Dr	Alanah	Proctor	Oxford University Hospitals NHS Trust	Infectious Diseases	Speciality Trainee
Dr	Mustafiz	Rahman	Retired	Microbiology	Consultant
Dr	Tommy	Rampling	University College London Hospitals	Virology	Specialist Registrar
Dr	Isobel	Ramsay	Addenbrooke's Hospital	Infectious Diseases	Specialist Registrar
Dr	Kyriaki	Ranellou	Addenbrooke's Hospital	Microbiology	Speciality Trainee
Mr	George	Ransley	Royal London Hospital	Student	Student
Dr	Chris	Record	Kingston Hospital	General Medicine	Speciality Trainee
Dr	Sadie	Regmi	Syrian American Medical Society	SAMS-GR	Physician
Dr	Patrick	Reid	Oxford University Hospitals NHS Trust	General Surgery	Speciality Trainee
Dr	Jennifer	Reiss	Doncaster and Bassetlaw NHS Hospitals	General Medicine	Speciality Trainee
Dr	Michael	Riste	Heartlands Hospital	Infectious Diseases	Specialist Registrar
Dr	Mark	Roberts	Worcestershire Royal Infirmary	Infectious Diseases	Consultant
Ms	Elisabeth	Robinson	Imperial College NHS Foundation Trust	Immunology	Student
Dr	Jennifer	Roe	University College London	Infectious Diseases	Specialist Registrar
Dr	Benedict	Rogers	University Hospitals of Leicester NHS Trust	Infectious Diseases	Specialist Registrar
Dr	Sakib	Rokadiya	Royal London Hospital	Infectious Diseases	Specialist Registrar
Dr	Caryn	Rosmarin	Barts and The London NHS Trust	Microbiology	Consultant
Dr	Andrew	Rosser	University Hospitals of Leicester NHS Trust	Microbiology	Specialist Registrar
Dr	Aws	Sadik	Oxford University Hospitals NHS Trust	Intensive Care	Speciality Trainee
Dr	Alberto	San Francisco Ramos	East Surrey Hospital	Microbiology	Specialist Registrar
Dr	Giovanni	Satta	Imperial College NHS Foundation Trust	Microbiology	Consultant
Dr	Rachel	Saunders	Royal Liverpool University Hospital	Intensive Care	Core Medical Trainee
Dr	Laila	Sayeed	North Tees University Hospital	Medicine	Core Medical Trainee
Prof	Jon	Sayers	University of Sheffield	Infection, Immunity & Cardiovascular Disease	Professor

Delegates

Title	Name	Surname	Hospital	Department	Grade
Dr	Matt	Schmid	Royal Victoria Infirmary	Infectious Diseases	Consultant
Dr	Antonia	Scobie	Public Health England	Microbiology	Specialist Registrar
Dr	Nicola	Scott	Royal Bolton Hospital NHS Trust	General Medicine	Physician
Dr	Avneet	Shahi	Southampton General Hospital	Intensive Care	Speciality Trainee
Dr	Hamed	Sharaf	Royal Victoria Hospital	Microbiology	Specialist Registrar
Dr	Hema	Sharma	Royal Free Hospital	Infectious Diseases	Specialist Registrar
Dr	Robert	Shaw	Oxford University Hospitals NHS Trust	Infectious Diseases	Physician
Dr	Anika	Singanayagam	Imperial College NHS Foundation Trust	Infectious Diseases	Specialist Registrar
Dr	Karthiga	Sithamparanathan	Buckinghamshire Healthcare NHS Trust	Microbiology	Physician
Dr	Nyarie	Sithole	Addenbrooke's Hospital	Infectious Diseases	Specialist Registrar
Dr	Jordan	Skittrall	Addenbrooke's Hospital	Infectious Diseases	Adacemic Clinical Fellow
Dr	Charlotte	Snead	Southmead Hospital	Cardiology	Speciality Trainee
Dr	Noel	Snell	Royal Brompton Hospital	Respiratory Infection	Physician
Dr	Shuchita	Soni	University Hospitals Bristol	Medicine	Speciality Trainee
Dr	Luciana	Sowole	Ealing Hospital	Infectious Diseases	Specialist Registrar
Miss	Caroline	Spillane	Warwick Medical School	Medical Student	Student
Prof	Shiranee	Sriskandan	Imperial College NHS Foundation Trust	Medicine	Professor
Dr	Iain	Stephenson	University Hospitals of Leicester NHS Trust	Intensive Care	Consultant
Dr	Simon	Stoneham	Worthing Hospital	Microbiology	Specialist Registrar
Miss	Rachel	Strudwick	University of Warwick	Medical School	Student
Dr	Cristina	Suarez	St George's Hospital	Infectious Diseases	Specialist Registrar
Dr	Vani	Subbarao	Imperial College NHS Foundation Trust	Infectious Diseases	Specialist Registrar
Dr	Bala	Subramanian	Doncaster and Bassetlaw NHS Hospitals	Microbiology	Consultant
Dr	Darshan	Sudarshi	Barnet and Chase Farm Hospitals NHS Trust	Respiratory	Speciality Trainee
Dr	Alexander	Suebsaeng	Hampshire Hospitals NHS Trust	Intensive Care	Physician
Dr	Tadhg	Sullivan	Hammersmith Hospital	Microbiology	Specialist Registrar
Dr	Bushra	Sultan	Armed Forces Institute of Pathology Pakistan	Microbiology	Consultant
Dr	Freda	Sundram	Barnet General Hospital	Microbiology	Consultant
Dr	Syba	Sunny	University Hospital Coventry & Warwickshire	Medical Education/Microbiology	Specialist Registrar
Miss	Shazmeen	Surtee	Monklands Hospitals	Infectious Diseases	Student
Dr	Sam	Sutton	Leighton Hospital	Gastroenterology	Foundation Year Doctor
Dr	Andrea	Szendroi	King's College Hospital	Microbiology	Speciality Trainee
Dr	Rachel	Taggart	Royal Liverpool University Hospital	Infectious Diseases	Specialist Registrar
Dr	Lionel	Tan	Imperial College NHS Foundation Trust	Infectious Diseases	Consultant
Mr	NgeeKeong	Tan	St George's Hospital	Microbiology	Speciality Trainee
Ms	Alice	Tang	Imperial College NHS Foundation Trust	General Medicine	Student
Dr	Adam	Telford	Frimley Park Hospital	General Medicine	Doctor
Dr	Hiten	Thaker	Hull & East Yorkshire Hospitals NHS Trust	Infectious Diseases	Consultant
Dr	Anastasia	Theodosiou	Southampton General Hospital	General Medicine	Physician
Dr	Simon	Tiberi	Barts and The London NHS Trust	Infectious Diseases	Consultant
Dr	Anna	Tolliday	Southend University Hospital	Genitourinary Medicine	Speciality Trainee
Mr	Sam	Tweed	University of Aberdeen	Medicine	Student
Dr	Helen	Umpleby	Portsmouth Hospitals NHS Trust	Microbiology	Specialist Registrar
Mr	Nimai	Vadgama	Imperial College NHS Foundation Trust	Research & Development	Student
Dr	Clare	van Halsema	North Manchester General Hospital	Infectious Diseases	Consultant
Dr	Claire	Vincent	Leeds Teaching Hospitals NHS Trust	Infectious Diseases	Speciality Trainee
Mr	Kritchai	Vutipongsatorn	Imperial College NHS Foundation Trust	Infectious Diseases	Student

Delegates

Title	Name	Surname	Hospital	Department	Grade
Dr	Christopher	Ward	King's College London	Infectious Diseases	Specialist Registrar
Dr	Katie	Wardle	Basildon and Thurrock University Hospitals	Medicine	Foundation Year Doctor
Dr	Clare	Warrell	University College London Hospitals	Infectious Diseases	Specialist Registrar
Dr	Simon	Warren	Royal Free Hospital	Infectious Diseases	Consultant
Dr	Natasha	Weston	University Hospitals Coventry and Warwickshire	Microbiology	Physician
Miss	Leila	White	Lancashire Teaching Hospitals NHS Trust	Microbiology	Scientist
Dr	Robert	Wiggins	Hospital of St John and St Elizabeth	Microbiology	Consultant
Dr	Emma	Wiley	University College London Hospitals	Microbiology	Speciality Trainee
Miss	Molly	Wilkins	Leeds Teaching Hospitals NHS Trust	Student	Student
Dr	Charles	Williams	King's College Hospital	Microbiology	Specialist Registrar
Dr	Stephanie	Wilmore	Royal Free Hospital	Infectious Diseases	Specialist Registrar
Dr	Emily	Wise	University College London	Infectious Diseases	Specialist Registrar
Prof	Martin	Wiselka	University Hospitals of Leicester NHS Trust	Infectious Diseases	Consultant
Dr	Stephen	Wright	King Edward VII Hospital	Medicine	Consultant
Dr	Huina	Yang	Papworth Hospital	Microbiology	Specialist Registrar
Dr	Alicia	Yeap	Barts and the London School of Medicine and Dentistry	Trials and Research	Specialist Registrar
Dr	Ewa	Zatyka	St George's Hospital	Acute Medicine	Specialist Registrar
Dr	Charlotte	Zheng	Guy's and St Thomas' NHS Foundation Trust	General Medicine	Speciality Trainee

BIA Meetings Calendar

2017

FIS 2017 Event*

30th November – 2nd December 2017

Birmingham Conference Centre

***Registration fees apply**

BIA Trainees' Day

29th November 2017

Birmingham

2018

2nd ID Dilemmas*

Thursday 25th January 2018

Manchester Conference Centre

***Registration fees may apply**

11th HIV Dilemmas*

Friday 26th January 2018

Manchester Conference Centre

***Registration fees apply**

FIS 2018 Event*

13th - 15th November 2018

Sage Building, Gateshead Newcastle

***Registration fees apply**

BIA Trainees' Day

Wednesday 16th May 2018

London

BIA 21st Annual Scientific Meeting

Thursday 17th May 2018

London

BIA Trainees' Day

December 2018

Birmingham

More details & registration via - http://www.hartleytaylor.co.uk/confcalendar.htm

BIA Trainee Days & BIA Annual Meeting are free of charge to BIA members
Call for abstracts will open in January 2018

British Infection Association

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