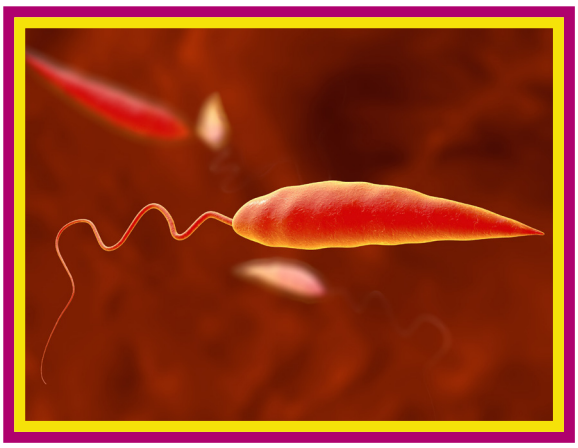
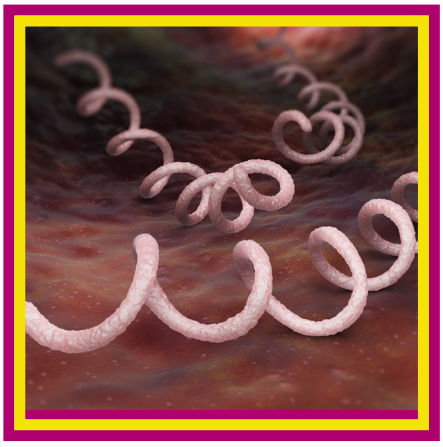
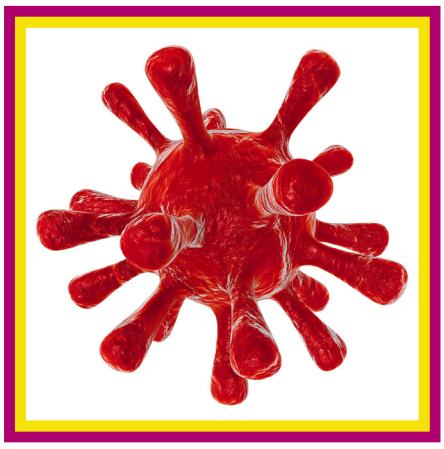
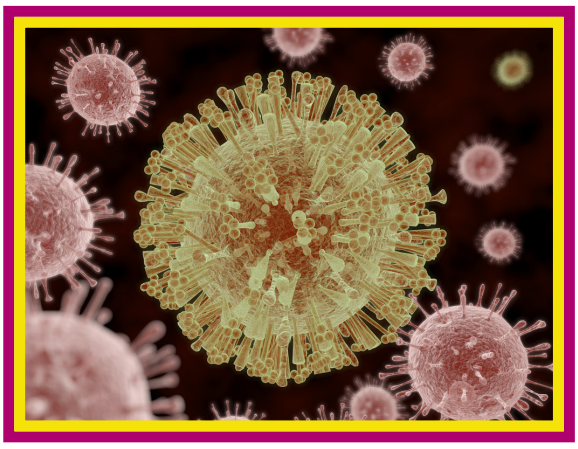
BIA

British Infection Association

Trainees' Day &
19th Annual Scientific Meeting

Wednesday 18th and Thursday 19th May 2016
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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All membership details (as supplied by you) are stored on an electronic database. This database is used for legitimate BIA business only. We occasionally co-operate with other societies and organisations whose objectives are consistent with those of the Society by including material in BIA mailings. If you do not wish to receive such mailings please notify BIA Administration at the above address.

Corporate Sponsors

LEO Pharma helps people achieve healthy skin. By offering care solutions to patients in more than 100 countries globally, LEO Pharma supports people in managing their skin conditions. Founded in 1908 and owned by the LEO Foundation, the healthcare company has devoted decades of R&D to delivering products and solutions to people with skin conditions. Within dermatology LEO delivers solutions for actinic keratosis, psoriasis, eczema and skin infections. LEO Pharma also provides treatments for thrombosis (blood clotting). LEO Pharma UK/Ireland is also committed delivering high quality patient care through partnerships and the provision of comprehensive patient support and educational resources.

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
Wednesday 18th May

08:40	*Registration & coffee*	
Session 1:	**Chair: Dr Rajeka Lazarus**	
09:10	Welcome	
09:15	Leishmaniasis in the UK: an important diagnosis not to miss	**Professor Diana Lockwood** *Consultant in Infectious Diseases* *London School of Hygiene & Tropical Medicine*
10:00	Chronic fatigue syndrome	**Professor Tim Peto** *Consultant in Infectious Diseases* *John Radcliffe Hospital* *Oxford*
10:45	*Coffee*	
Session 2:	**Chair: Dr Maheshi Ramasamy**	
11:05	Communicable diseases in detention centres	**Dr Éammon O'Moore** *National Lead Health & Justice Team* *Public Health England* *Director UK Collaborating Centre, WHO Health in Prisons Programme (Europe)*
11:50	Arboviruses, including Zika virus	**Professor John Fazakerley** *Director* *The Pirbright Institute*
12:35	*Lunch*	
Session 3:	**Chair: Dr Rajeka Lazarus**	
13:35	Interactive cases	**Dr Ed Moran** *Consultant in Infectious Diseases* *Heartlands Hospital* *Birmingham*
14:20	*Aspergillus* disease	**Dr Pippa Newton** *Consultant in Infectious Diseases* *National Aspergillosis Centre* *University Hospital of South Manchester*
15:05	*Coffee*	
Session 4:	**Chair: Dr Maheshi Ramasamy**	
15:25	Tick borne infection	**Dr Andrew Simpson** *Consultant Microbiologist* *Rare & Imported Pathogens* *Public Health England, Porton Down*
16:10	Updated BIA guidelines on treatment of malaria	**Professor David Lalloo** *Clinical Director* *Liverpool School of Tropical Medicine*
16:55	*Meeting close & drinks reception*	

Session 1: Chair – Dr Rajeka Lazarus

Professor Diana Lockwood
Consultant in Infectious Diseases
London School of Hygiene & Tropical Medicine
Hospital for Tropical Diseases, London

Professor Diana Lockwood is an infectious disease physician and leprologist working at the interface of tropical medicine/infectious diseases and clinical science. She qualified from Birmingham University in 1981 and trained in clinical medicine and laboratory science and has worked in Africa, India and the United Kingdom.

Professor Lockwood heads a team at the London School of Hygiene and Tropical Medicine researching the mechanisms of nerve damage in leprosy aiming at switching off leprosy related inflammation and improving outcomes for leprosy patients with nerve damage. They have identified neuropathic pain as a late complication. They are studying the leprosy complication erythema nodosum leprosum with a collaboration linking leprosy centres in Bangladesh, Brazil, Ethiopia, India Nepal, and The Philippines (ENLIST). The have shown that leprosy patients may have catastrophic economic costs. She has published over 100 peer-reviewed papers and over 50 chapters and editorials,

At the Hospital for Tropical Diseases, London, Professor Lockwood provides a national referral service for leprosy patients in Britain and see new and suspected cases of leprosy. She has edited Leprosy Review, the premier leprosy journal for 16 years. She was on the WHO Advisory group on leprosy and the ILEP Technical Forum which provides advice on leprosy policies to Leprosy NGO's.

Diana enjoys the cultural buzz in London, especially the theatre. She is a keen cyclist, in 2011 she cycled across Tibet and raised 7k for Bikeability a cycling charity for disabled children in Wales. www.bikeabilitywales.org.uk

Leishmaniasis in the UK: an important diagnosis not to miss

Leishmania visceral (VL) and skin disease has an estimated 1.5 – 2 million new cases and 70,000 deaths per year worldwide). Leishmania parasites are transmitted to humans by the bite of the sandfly. It is uncommon in the UK and most physicians are unfamiliar with the clinical presentation and management. There were 58 reported cases of leishmaniasis in 20014 in England, Wales and Northern Ireland. I shall review the two main clinical types of leishmaniasis with a focus on presentation in the UK. Visceral leishmaniais is often seen in patients with an underlying immune-deficiency. Most patients acquire VL infection around the Mediterranean. Cutaneous leishmains is seen in patients who have visited leisshmania endemic areas. (holiday, VFR and work), with about 50% cases being acquired in The Old World and 50% in the New World. I shall discuss the diagnosis and treatment of the different clinical types of leishmanisis and the importance of referring cases to specialist centres.

References

1. LeishMan recommendations for treatment of cutaneous and mucosal leishmaniasis in travellers, 2014. Blum J, Buffet P, Visser L, Harms G, Bailey MS, Caumes E, Clerinx J, van Thiel PP, Morizot G, Hatz C, Dorlo TP, Lockwood DN. J Trav Med 2014;21(2):116-29
2. Visceral Leishmaniasis and Immunocompromise as a risk factor for the development of Visceral leishmanaisis: a changing pattern at The Hospital for Tropical Diseases, London. Fletcher, K, Armstrong M, Lockwood DN PLoS One 2015
3. Diagnosis of imported Cutaneous Leishmaniasis at the Hospital for Tropical Diseases, London; using PCR to define the species and the changing epidemiology. Wall EC, Watson J, Armstrong M, Chiodini PL, Lockwood DNJ. Am J Trop Med Hyg 2012 Jan; 86(1):115-8.

Session 2: Chair – Dr Maheshi Ramasamy

Dr Éammon O'Moore
National Lead Health & Justice Team, Public Health England
Director UK Collaborating Centre, WHO Health in Prisons Programme (Europe)

Dr Éamonn O'Moore is a Consultant in Public Health and works as National Lead for Health & Justice with Public Health England since its foundation in 2013. He is also Director of the UK Collaborating Centre to the WHO Health in Prisons Programme. In November 2015, he was appointed Chair of an Expert Panel convened by the European Centre for Disease Surveillance and Control (ECDC) to support a systematic review of communicable disease control in prisons in the EU/EEA. He is an international expert on prison health, has written national and international guidelines on managing health issues in prisons, contributed to research in this area, and supported the development of national surveillance systems for infectious diseases in prisons and other detention settings in England. He has been an expert adviser to national and international governments, WHO, NICE and a wide range of statutory and third sector organisations.

Communicable diseases in detention centres

Internationally, prisons present a real challenge for control of infectious diseases: people at high risk of infections like TB & blood-borne viruses are held in over-crowded environments with poor sanitation & hygiene, limited healthcare & diagnostic facilities, and non-existent health informatics or disease surveillance systems. Further, active-case finding programmes can be rudimentary and vaccine programmes significantly underdeveloped meaning opportunities to detect and/or prevent cases or outbreaks can be missed. Prison outbreaks can involve large numbers of prisoners and staff and have impacts on the operation of the wider criminal justice system if infection control measures impact on transfers or reception of prisoners. Prisons can act as a source of infection in the wider community- especially in relation to TB in Eastern Europe & Central Asia where prison-associated TB can account for 10% or more some states' total burden of disease. Public Health England have been working in partnership with NHS England and the Prison Service to improve health protection practice, disease surveillance systems, vaccine programmes and earlier identification of cases or outbreaks of infection. Our experience is leading the way internationally and we are now collaborating with the WHO and ECDC to improve communicable disease control in prisons across Europe.

Session 2: Chair – Dr Maheshi Ramasamy

Professor John Fazakerley
Director
The Pirbright Institute

Professor Fazakerley has studied the pathogenesis of arthropod-borne viruses for over 35 years. He worked at St Thomas' Hospital Medical School, The University of Pennsylvania Medical School, The Scripps Research Institute in California and the Department of Pathology University of Cambridge before moving to the College of Medicine and Veterinary Medicine University of Edinburgh where he was Professor of Virology. In 2011 to became Director of The Pirbright Institute, the UKs national high containment facility for animal vius infections and in July this year he takes up his new position as Professor of Virology and Dean at the University of Melbourne in Australia.

Arboviruses, including Zika virus

Arthropod-borne virus diseases are major health problems in many parts of the world, mostly in the tropics where mosquitoes are prevalent but also increasingly in temeperate regions. Whereas mosquitoes are the most important disease vectors, ticks and flies are also important. The most important arbovirus disease is dengue fever with billions of people at risk and millions of cases per annum. Yellow fever, chikungunya, Rift Valley fever, tick-borne encephalitis, Japanese encephalitis, Venezuelan equine encephalitis, Ross River fever, West Nile fever and Zika are other diseases of prominence in various parts of the world. Understanding how these viruses interact with arthropods and vertebrates and how they cause disease in selected sepecies, most frequently encephalitis or arthralgia, is crucial to the their control which is generally through good public health measures, mosquito control and vaccines.

Session 3: Chair – Dr Rajeka Lazarus

Dr Pippa Newton
Consultant in Infectious Diseases
National Aspergillosis Centre, University Hospital of South Manchester

Dr Pippa Newton trained at St Mary's Hospital Medical School, London and undertook the majority of her medical training in London. She currently works as a consultant in Infectious Diseases and General Medicine at the National Aspergillosis Centre, Wythenshawe Hospital in Manchester. Her clinical and research interests include Aspergillus related infections, blood borne virus infections, tuberculosis and community acquired infections. She is a Royal College of Physicians tutor and Trust Specialty Training Lead for medicine and infectious diseases.

Aspergillus disease

There is a wide spectrum of *Aspergillus* related diseases including invasive / sub-acute invasive aspergillosis, chronic pulmonary aspergillosis (CPA) and allergic forms of the disease such as allergic bronchopulmonary aspergillosis (ABPA) and severe asthma with fungal sensitisation.

Invasive / sub-acute invasive aspergillosis is a life-threatening condition that presents in patients with an underlying immune defect. A high index of clinical suspicion is required to consider this infection in an acutely unwell immunodeficient patient. The EORTC/ MSG consensus group criteria for proven, probable and possible invasive aspergillosis will be described including the host factors, clinical criteria and microbiological criteria (such as direct culture and the use of galactomannan) for invasive disease. Voriconazole is the recommended treatment and alternatives treatment options include liposomal amphotericin, echinocandins and posaconazole.

The majority of patients with CPA have an underlying respiratory disease such as previous mycobacterial infection, COPD, ABPA, sarcoidosis, lung malignancy or a history of thoracic surgery. The latest diagnostic criteria for CPA will be discussed including the recommended investigations. The majority of CPA patients require long-term azole therapy. A small proportion of patients with azole intolerance / clinical failure or a multi-azole resistant *Aspergillus* infection may require intermittent IV amphotericin or echinocandin treatment.

Session 4: Chair – Dr Maheshi Ramasamy

Dr Andrew Simpson
Consultant Microbiologist
Rare & Imported Pathogens, Public Health England, Porton Down

Andrew Simpson has been a Consultant Medical Microbiologist with Public Health England's Rare & Imported Pathogens Laboratory at Porton Down since 2013. He has also spent much of the last 18 months either running Ebola diagnostic laboratories in Sierra Leone or participating in the UK's Imported Fever Service.

He trained in Medicine and in Clinical Microbiology in London. He then spent several years with the Mahidol Oxford Tropical Medicine Research Unit (MORU) in Bangkok, conducting both clinical and laboratory research. On return to the UK, he spent 3 years as a Consultant in Medical Microbiology at the Royal Free Hospital. He then joined the MOD's Defence Science and Technology Laboratory (Dstl) at Porton Down, to work on medical countermeasure research and development programmes for a variety of infections, toxins and chemical threats.

Tick borne infection

Ticks have a wide distribution and may be commonly encountered by humans. They are highly competent vectors of infectious diseases for several reasons. Unlike most other arthropod vectors, ticks are capable of transmitting a broad range of infectious agents, including viruses (CCHF, TBE), bacteria (Lyme disease, rickettsial infections, tularemia) and protozoa (babesiosis). These will be discussed during this presentation.

Session 4: Chair – Dr Maheshi Ramasamy

Professor David Lalloo
Clinical Director
Liverpool School of Tropical Medicine

Professor Lalloo is Clinical Director of the Tropical Medicine Directorate and Dean of Clinical Sciences and International Public Health at the Liverpool School of Tropical Medicine. He is also an Honorary Consultant at the Royal Liverpool University Hospital. He trained in General Medicine, Infectious Diseases and Tropical Medicine, spending three years in Papua New Guinea, then he undertook clinical and laboratory research in Oxford before moving to the Liverpool School of Tropical Medicine in 1999. Since then he has focused on clinical trials in the tropics, particularly in HIV related infections, malaria and envenoming. He currently has collaborations and studies in a number of countries including Uganda, Malawi, Sri Lanka and Vietnam. He chairs the UK malaria advisory committee and is a member of the UK travel vaccination group

Updated BIA guidelines on treatment of malaria

The epidemiology of malaria in the returned traveller will be reviewed and optimal management of both uncomplicated and severe malaria will be discussed.

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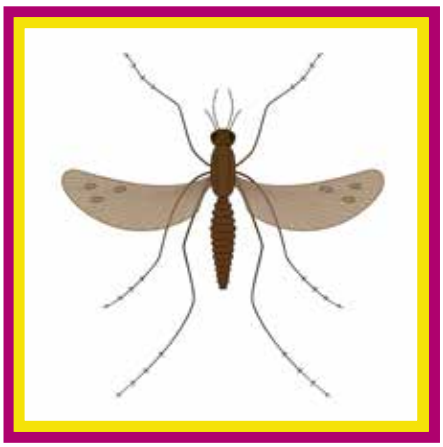

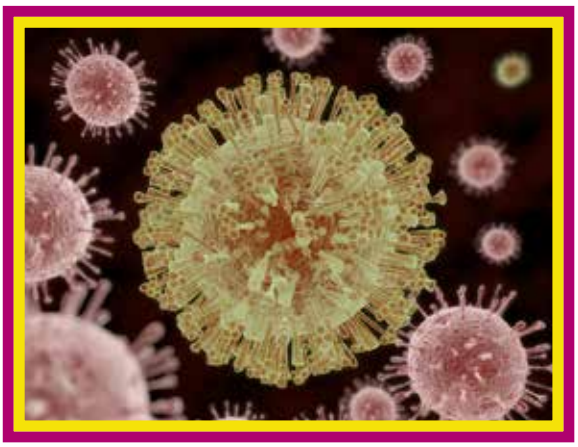

19th May 2016

Annual Scientific Meeting Programme
Thursday 19th May

08:45 to 09:15 **Registration, coffee/tea & poster viewing**

09:15 to 09:20 **Welcome**

Professor Martin Wiselka (Leicester), President of the BIA

09:20 to 10:45 **Free Scientific Papers** (12 minutes each)

Chairs & discussants - *Professor Jon Friedland (London)*
Dr Peter Moss (Kingston upon Hull)

1. Blood transcriptomic diagnosis of pulmonary and extrapulmonary tuberculosis. Jennifer Roe et al. University College London
2. The role of extracellular acidosis in the immune response to tuberculosis. Ashley Whittington et al. Imperial College London
3. The utility of a blood culture database to identify patients suitable for outpatient parenteral antibiotic treatment. Liana Macpherson et al. Royal London Hospital
4. Post-exposure prophylaxis following sexual exposure to HIV. Chloe Rayner et al. The Wolverton Centre, Kingston Hospital NHS Trust, London
5. Routine blood parameters do not reliably identify acute respiratory patients requiring isolation. Paul Collini et al. Sheffield Teaching Hospitals NHS Foundation Trust
6. Discovery of an epidemic lineage of group A *Streptococcus* with enhanced naso-pharyngeal infection and transmission. Claire Turner et al. Imperial College London
7. Zika virus in returning travellers at University College London Hospital (UCLH), a retrospective review. Katherine Gaskell et al. University College London Hospital

10:45 to 11:05 **Coffee/tea & poster viewing**

11:05 to 12:00 **International Keynote Lecture**

'Syphilis in the 21st Century'

Professor Michel Janier
Associate Professor of Dermatology-Venereology, Hôpital Saint-Louis, Paris, France

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

12:00 to 12:40 **British Infection Association AGM**

Professor Martin Wiselka
Dr Albert Mifsud
Dr Mike Kelsey
Professor Steve Green
Professor Tom Evans

12:40 to 13:25 **Lunch & poster viewing**

13:25 to 14:15 **Free Scientific Papers** (12 minutes each)

Chairs & discussants - *Dr Katie Jeffery (Oxford)*
Professor Tom Evans (Glasgow)

8. Striking gold; a retrospective, multicentre observational study of *Delftia acidovorans* infections in West London. Thomas P Butters et al. Imperial College School of Medicine, London

9. Latent TB among clinical staff in an acute NHS Hospital Trust: a retrospective screening exercise. Simon Howard et al. North East Health Protection Team, Public Health England, Newcastle upon Tyne

10. Utility of induced sputum in the investigation of pulmonary tuberculosis in a UK cohort. Hannah Dabrowski et al. Northwick Park Hospital, London

11. Gender differences in tuberculosis treatment responses. Michael E Murphy et al. University College London

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14:15 to 14:45 **UK State of the Art Lecture 1**

'Zika virus in 2016'

Professor Jimmy Whitworth
Department of Infectious Disease Epidemiology, London School of Hygiene and Tropical Medicine

Chair & discussant - *Professor Martin Wiselka (Leicester)*

14:45 to 15:05 **Coffee/tea & poster viewing**

15:05 to 15:55 **Free Scientific Papers** (12 minutes each)

Chairs & discussants - *Professor Robert Read (Southampton)*
Dr Hiten Thaker (Kingston upon Hull)

12. An audit of the electronic transmission of microbiology laboratory reports to general practitioners. Huina Yang et al. Cambridge University Hospitals NHS Foundation Trust

13. Modulating activity of the inflammasome during infection with *Mycobacteria tuberculosis* - a therapeutic adjunct? Sathyavani Subbarao et al. Imperial College London

14. Investigating vancomycin therapy across secondary care pathways; are we dosing patients appropriately? Ji Soo Baik et al. Imperial College London

15. An increase in incidence of invasive pneumococcal disease at Sheffield Teaching Hospitals in 2015. Sarah Snow et al. University of Sheffield

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15:55 to 16:25 **UK State of the Art Lecture 2**

'HIV therapy research in Africa: where are we and what's next?'

Professor Sir Ian Weller
Emeritus Professor of Sexually Transmitted Diseases, Research Department of Infection and Population Health, University College London

Chair & discussant - *Professor David Dockrell (Sheffield)*

16:25 to 16:30 **Comfort break & poster viewing**

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

Chairs & discussants - *Dr Albert Mifsud (London)*
Dr Matt Schmid (Newcastle upon Tyne)

A. Time and the patient as diagnostic tools. Bethany Davies. Brighton and Sussex University Hospitals NHS Trust

B. An alternative diagnosis of septic arthritis - the clue is in the name! Gareth Hughes et al. Worcestershire Royal Hospital

C. An unusual case of recurrent infection following allogeneic stem cell transplant. Rachel Evans et al. Freeman Hospital, Newcastle

D. Complications of haemopoietic stem cell transplant - widening the differential. Christopher F Brewer et al. Imperial College School of Medicine, London

E. A culture of not culturing. David Smith et al. Kingston Hospital NHS Foundation Trust, Kingston Upon Thames

F. A helpful pre-operative fever. Sara Boyd et al. Imperial College Healthcare NHS Trust, London

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

Professor Martin Wiselka, President of the BIA
Dr Albert Mifsud, Vice President of the BIA
Professor Steve Green, BIA Meetings Secretary
Professor Tom Evans, BIA Scientific & Research Secretary

Selected Poster Presentations

01 Alcohol gels: more harm than good? Andrew Kemp et al. Nottingham University Hospitals NHS Trust

02 Accurate coding in sepsis: clinical significance and financial implications, the South Manchester experience. Yoon Toong Chin et al. University Hospitals of South Manchester NHS Foundation Trust

03 An audit and quality improvement project on the diagnosis and management of tonsillitis. Lynne Speirs et al. Northern Health and Social Care Trust, Northern Ireland

04 A pain in the neck: first reported case of odontoid peg destruction complicating pneumococcal meningitis in disseminated disease. Kristian Brooks et al. Royal Victoria Infirmary, Newcastle-upon-Tyne

05 An unexpected cause of chest pain. Alexandra Lake et al. University College London

06 Are 'band-forms' useful in supporting a clinical diagnosis of infection in elderly patients? Margaret Devereux et al. Northwick Park Hospital, Harrow

07 Confusion? cause. Charles Fry et al. North Bristol NHS Trust

08 UK patients undergoing liver transplant abroad: an assessment of numbers and anti-microbial management. Ben Kerr Winter et al. Sheffield Teaching Hospitals

09 Investigating the impact of antimicrobial stewardship interventions at a cross-specialty level. Ann Tivey et al. Imperial College School of Medicine, London

10 Expect the expected. Anand Odedra et al. Sheffield Teaching Hospitals

11 Prevalence of rotavirus among pediatric population having diarrheal disease in Sudan. Mahadi Abdallah et al. Alzaiem Alazhari University, Khartoum North, Sudan

12 Factors determining uptake of latent tuberculosis chemoprophylaxis amongst 18-35 year olds at Northwick Park Hospital. Jessica Townsend et al. Northwick Park Hospital, London

13 A six year retrospective analysis of the clinical management of herpes simplex encephalitis cases. Joshua Pinedo et al. University of Newcastle Upon Tyne

14 A comparison of trends in tuberculosis characteristics and outcomes between a North West London cohort and London-wide data from 2002 to 2015. Malgorzata Grzelka et al. Northwick Park Hospital, London

15 What is it when it's not VHF? Khalil Begg et al. University Hospital Southampton

16 Resistant thrombocytopenia, rituximab and recurrent sepsis: relapsing visceral leishmaniasis in a non-HIV immunocompromised host. Fraser Easton et al. Royal Victoria Infirmary, Newcastle Upon Tyne

17 A not so lucky dip causes Occam's razor to blunt. Erica RM Pool et al. Brighton and Sussex University Hospitals NHS Trust

18 Defining the aetiology of non-malarial acute febrile illness in Sabah, Malaysian Borneo. Arjun Chandna et al. Infectious Diseases Society Kota Kinabalu Sabah, Malaysia

19 No stones unturned - advanced HIV with an imported pyrexia of unknown origin. Nicholas Wong et al. University Hospitals of Leicester

20 Hepatitis B and screening for hepatocellular carcinoma: an audit of practice at Mortimer Market Centre, London. Ayesha Ejaz et al. University College London Hospital

21 Wrestling with the not so simplex. Sophia Gillett et al. Public Health England, Bristol

22 Holes in the head. Juliette Mutuyimana et al. Leicester Royal Infirmary

23 Determination of the antibacterial activity of *Zingiber officinale* (ginger) ethanolic extracts on bacterial isolates from septic wound patient at Khartoum North Diabetic Center. Mahadi Abdallah et al. Alzaiem Alazhari University, Khartoum North, Sudan

24 Seek and ye shall find. Laura Nabarro et al. Public Health England, London

25 Identification of bacterial isolates from cancer patient having PUO in Radio and Isotope Centre Khartoum (RICK), Sudan. Mahadi Abdallah et al. Alzaiem Alazhari University, Khartoum North, Sudan

26 An atypical atypical. Harjeet Virk et al. University Hospital Southampton NHS Foundation Trust

27 Prevalence of pulmonary tuberculosis among patients having lower respiratory tract infections in Khartoum State. Mahadi Abdallah et al. Alzaiem Alazhari University, Khartoum North, Sudan

28 A serendipitous diagnosis. Juliette Mutuyimana et al. Leicester Royal Infirmary

29 Human IFNAR2 deficiency: lessons for antiviral immunity. Christopher Duncan et al. Newcastle University

BRITISH INFECTION ASSOCIATION

International Keynote Lecture

Professor Michel Janier
Associate Professor of Dermatology-Venereology
Hôpital Saint-Louis, Paris, France

- Interne des Hôpitaux de Paris (1977)
- Visa Qualifying Examination (USA 1983)
- Dermatology Clinic Assistant (Hôpital Saint-Louis) (1983-1987)
- Médecin des Hôpitaux, Dermato-venereology , STD cinic Hôpital Saint-Louis , Paris 1992
- Habilitation for Research Direction (Paris VII) (1993)
- Vice-Chair French Society of History of Dermatology and venereology since 1999
- President STD section of the French Society of Dermatology and venereology 2001-2011, past President since
- French representative to the council of IUSTI (International Union against Sexually Transmitted Infections) -Europe since 2001 and to the Executive Committee IUSTI – World 2005-2013
- Head Dermatology department Hôpital Saint-Joseph (Paris) since 2003
- Professor Dermato-Venereology College de Médecine des Hôpitaux de Paris (2005)
- French representative to the UEMS (Union européenne des Médecins spécialistes) Dermatologie-Veneorologie since 2010
- Member of the board of the National Union of Dermatology-venereology since 2008
- Member EDF (European Dermatology Forum) 2014

'Syphilis in the 21st century'

Treponema pallidum subsp. *pallidum* is the agent of syphilis. It has been sequenced in 1998 and its genome has 99.8% idendity with the one of *T. pallidum* subsp. *pertenue*, the agent of yaws. There is a high level of genetic diversity with 57 different subtypes, subtype 14d predominates in most areas. T*. pallidum* is still not cultivable and rabbit inoculation rarely performed. Even dark field examination is tending to disappear from most labs but immuno-histochemistry and PCR can be performed on clinical specimens. In most cases diagnosis is made indirectly i.e. by serologic tests for syphilis (STS), both treponemal (TT) and non treponemal tests (NTT).

From the turn of the century, we are facing in Western Europe a true epidemics of early syphilis (primary, secondary and early latent) in MSMs.

Clinical diagnosis is difficult at all stages of the disease and clinicians must both perform STS in a wide variety of clinical situations (the *great imitator*) and know that at the very beginning of the disease (primary syphilis/ chancre) all exams may be negative, so a syndromic approach with systematic treatment with one injaction of Benzathine penicillin G (BPG) is warranted. Definition and management of neurosyphilis, otosyphilis and oculosyphilis are still a challenge and CSF control must be limited to patients with clinical signs.

Treatment is cheap and well codified, with a wide consensus of international guidelines, penicillin G remaining highly effective in all stages of syphilis, the room left to other drugs been anecdotal.

Professor Jimmy Whitworth
Professor of International Public Health
London School of Hygiene and Tropical Medicine

Professor Jimmy Whitworth studies ways to improve epidemic responses and research in the UK and globally. Previously he was head of International Activities (2004-2013), and Population Health (2013-2015), at the Wellcome Trust where he was responsible for the scientific portfolio for research on population science and public health research in the UK and globally. He is a physician, qualifying from Liverpool University, and specialises in infectious diseases, epidemiology and public health. Previous roles include working in The Gambia, Sierra Leone and Uganda.

'Zika virus in 2016'

For most of the 70 years that we have known about zika virus, it has been characterised as an African arbovirus of limited interest to human medicine, as it has been thought to be mainly zoonotic, often asmyptomatic and to cause mild fever and rash in a minority of infections. However in the past 10 years this perception has started to change as epidemics have been recorded in Asia and later in Latin America. At the same time it has become clear that the virus can cause serious complications, especially to the central nervous system and to developing fetuses in pregnant women. Quite why the virus appears to have changed in terms of transmission and pathogenicity are unclear, but clues are emerging. Delineation of the current outbreak in Latin America has been hampered by the lack of a reliable diagnostic test, and a clear description of the range of pathology that zika virus can cause. We also do not have a clear understanding of the variety of mosquito vectors that can transmit the infection and their relative vectorial capacity, nor of the contribution of non-vectorial transmission such as through sexual and blood-bourne routes. The range of control measures for the current outbreak are limited, and the importance of care for those affected by the virus should not be underestimated.

Professor Sir Ian Weller
Emeritus Professor of Sexually Transmitted Diseases
University College London

Professor Weller's research career began as a UK Medical Research Council Training Fellow at the Royal Free Hospital in London. It continued as a Wellcome Trust Senior Lecturer in Infectious Diseases at University College London, then Professor of Sexually Transmitted Diseases and now Professor Emeritus, continuing a special interest in International research in HIV and AIDS.

He is currently; vice chair of the UKs Commission on Human Medicines and in this capacity chaired numerous advisory groups on drug safety issues, a member and vice chair of the European Medicines Agency's Specialist Advisory Group on HIV and Viral Diseases, Chair of the UKs Tripartite Working Group on HIV/AIDS and hepatitis which has reviewed the management of health care workers infected with blood borne viruses, Chair of COHERE a very large European HIV cohort collaboration which is now part of EuroCoord funded by the European Commission, Chair of the Steering Committees of five international trials and studies in HIV/AIDS funded by UKs Medical Research Council, Department of International Development and the EDCTP in Uganda, Zimbabwe, Malawi, Zambia and Kenya, a member of the Scientific Advisory Board to the French AIDS research agency (ANRS), the Strategic Working Group of the Division of AIDS (NIH-USA), the Independent Scientific Advisory Board of SACORE (a Wellcome Trust funded African consortium initiative, focussing on research career pathway capacity building).

He is Chairman of the International Congress on Drug Therapy in HIV Infection which has been held bi-annually since 1992 and on the organising committee of the annual International Workshop on Adverse Drug Reactions and Co-Morbidities in HIV. He was a member and deputy chair of a National Health Service ethics committee for ten years and is currently a member and chair of several Data and Safety Monitoring Committees of International studies and a trustee of the HIV Trust which supportsscholars from resource poor countries in short term capacity building attachments.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 1

Title	**Blood transcriptomic diagnosis of pulmonary and extrapulmonary tuberculosis**
Authors	Jennifer Roe[1], Niclas Thomas[1], Eliza Gil[1], Katharine Best[1], Evi Tsaliki[1], Stephen Morris-Jones[2], Sian Stafford[1], Nandi Simpson[1], Karoline Witt[3], Benny Chain[1], Robert Miller[1], Adrian Martineau[3], Mahdad Noursadeghi[1]
Addresses	*[1]University College London, UK, [2]University College London Hospitals NHS Trust, UK, [3]Queen Mary University of London, UK*

Abstract

Background
Novel rapid diagnostics for active tuberculosis (TB) are required to overcome the time delays and inadequate sensitivity of current microbiological tests that are critically dependent on sampling the site of disease. Multiparametric blood transcriptomic signatures of TB have been described, but the number of genes included remains a barrier to their development as a diagnostic tool. We sought to identify the fewest possible blood transcripts that discriminate patients with active TB from healthy individuals, and from those with other febrile infectious diseases.

Methods
Support vector machine learning, combined with feature selection, was applied to new and previously published blood transcriptional profiles in order to identify the minimum TB-specific transcriptional signature shared by multiple patient cohorts including pulmonary and extrapulmonary TB, and individuals with and without HIV-1 co-infection.

Results
We identified and validated elevated blood BATF2 transcript levels as a single sensitive biomarker which discriminated active TB from healthy individuals, with receiver operating characteristic (ROC) area under the curve (AUC) scores of 0.93-0.99 in multiple cohorts of HIV-1 negative individuals, and 0.85 in HIV-1 infected individuals. In addition, we identified and validated a novel four-gene blood signature (CD177, haptoglobin, immunoglobin J chain and galectin 10) that discriminated active TB from other febrile infections with ROC AUC of 0.94-1.

Conclusions
Elevated blood BATF2 transcript levels provide a sensitive biomarker that discriminates active TB from healthy individuals, and a novel four-gene transcriptional signature differentiates active TB from other infectious diseases in individuals presenting with fever.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 2

Title	**The role of extracellular acidosis in the immune response to tuberculosis**
Authors	Ashley Whittington, Sara Brilha, Jon Friedland
Address	*Imperial College London, UK*

Abstract

Mycobacterium tuberculosis infection of macrophages causes the secretion of matrix metalloproteinases (MMPs) which degrade the lung extracellular matrix producing tissue destruction and morbidity. Proinflammatory cytokine secretion by macrophages, in particular TNF-a, is critical for controlling infection. Sites of infection are more acidic than healthy tissue with pH below 7.0 compared to 7.4 in health. Extracellular acidosis is detected by pH-sensing G-protein coupled rectors (TDAG8, OGR1 and GPR4). This study investigates how extracellular acidosis modulates MMP and cytokine secretion by TB infected macrophages.

Primary human monocyte-derived macrophages (MDMs) were infected with virulent *M. tuberculosis* H37Rv. Media pH is adjusted to pH 7.4 or pH 7.0 with 1M HCL at 37°C and 5% CO_2. Protein secretion was assessed by Luminex assay and gene expression assessed by RT-PCR.

Acidosis (pH 7.0) increases MMP-1 and MMP-3 secretion from TB infected macrophages, 2.1 and 3.8 fold respectively ($p<0.01$) compared to pH 7.4 (n=5). MMP-10 is unchanged. MMP-1 gene expression is increased 7.8 fold ($p<0.01$ n=5). In contrast acidosis suppressed TNF-a secretion by 3.6 fold ($p<0.05$ n=3). Of the known acidosis receptors human MDMs express TDAG-8 with lower and variable expression of OGR-1. OGR-1 agonist, ISX-9, causes a dose dependent increase in MMP-1 secretion at pH 7.4. Knockdown of OGR-1 and TDAG-8 expression with SiRNA partially abrogates the acidosis induced suppression of TNF-a secretion ($p<0.05$ n=2).

Extracellular acidosis amplifies MMP secretion in TB favouring tissue destruction, whilst decreasing key cytokines that control infection. Acidosis receptors may therefore represent novel targets for host directed therapy in tuberculosis.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 3

Title	**The utility of a blood culture database to identify patients suitable for outpatient parenteral antibiotic treatment**
Authors	Mark Melzer, Liana Macpherson, Catherine Welch
Address	*Royal London Hospital, UK*

Abstract

Aim
We used a blood culture database as a novel approach to case finding and determined its utility in identifying inpatients suitable for OPAT.

Methods
Consecutive adult in-patients with bacteraemia and those recruited to OPAT were prospectively studied from December 2012 to November 2013. Univariate and multivariate logistic regression analysis were used to investigate the association between bacteraemic patient characteristics and OPAT recruitment.

Results
There were 470 bacteraemic and 134 OPAT patients. The blood culture database identified 22 (4.7%, CI 3.0, 7.0) additional patients suitable for OPAT. Bacteraemic patients with UTIs, 11/157 (7.0%; 95% CI 3.5, 12.2) were most commonly recruited. The commonest blood culture isolate was *E. coli* and ESBL producers were significantly higher in bacteraemic patients recruited to OPAT, compared to those not recruited to OPAT, 9/11 (81.8%) vs 17/192 (8.9%), $p<0.001$. No deaths occurred in bacteraemic OPAT patients. Among 134 patients recruited to OPAT unadjusted data demonstrated significant differences in sites of infection, with more upper UTIs in the bacteraemic group compared to the non-bacteraemic group, 9/22 (40.9%) vs 26/123 (21.1%), $p = 0.046$. There were no deaths within 30 days and no significant difference in relapse rates, 1/22 (4.6%) vs 5/112 (4.5%). In multivariate analysis, site of infection was not a predictor of recruitment to OPAT in bacteraemic patients.

Conclusions
A blood culture database proved a useful adjuvant to a clinical referral system. All bacteraemic patients receiving OPAT had good clinical outcomes.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 4

Title	**Post-exposure prophylaxis following sexual exposure to HIV**
Authors	Chloe Rayner, Susannah McMorrow
Address	*The Wolverton Centre, Kingston Hospital NHS Trust, London, UK*

Abstract

Introduction
Antiretrovirals have been shown to reduce the risk of HIV transmission. In 2011 the British Association for Sexual Health and HIV (BASHH) issued updated guidelines for post-exposure prophylaxis following sexual exposure (PEPSE) to HIV. These guidelines were due to be updated again towards the end of 2015. A retrospective audit was performed between June 2014-2015 to ensure The Wolverton Centre (Department of Genitourinary Medicine at Kingston Hospital) is adhering to these guidelines.

Methods
The clinic coding system identified patients receiving PEPSE from The Wolverton Centre between June 2014-2015. 84 patients were initially identified, and following exclusions 77 were included in the final data. From review of the notes we identified whether these patients were managed appropriately according to the BASHH guidelines.

Results
96% of patients received a baseline HIV test within 72 hours of starting PEP (target 100%). 100% of PEPSE prescriptions met the recommended indications (target >90%). 42% received PEPSE within 24 hours (target >90%) and 99% within 72 hours (target >90%). 83% of patients completed their 4-week course (target >75%). 61% of patients underwent STI testing at 2-4 weeks (target >90%). 25% attended for a 12 week post PEP HIV blood test (target >60%) and 18% attended at 4-6 weeks (target >75%).

Discussion
Work needs to be done to educate patients in understanding the importance of presenting early post exposure and of attending for follow-up. Future measures include updating the PEPSE patient information leaflet and improving the clinic text service to remind patients of their follow-up.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 5

Title	**Routine blood parameters do not reliably identify acute respiratory patients requiring isolation**
Authors	Ryad Chebbout[1], Susanna Davis[2], Mohammad Raza[2], Paul Collini[1,2]
Addresses	*[1]University of Sheffield, UK, [2]Sheffield Teaching Hospitals NHS Foundation Trust, UK*

Abstract

Introduction
In the emergency department setting it is important to distinguish which patients with influenza-like illness (ILI) require isolation on admission. While waiting for definitive results, many clinicians use leukocyte counts and C-reactive protein (CRP) to augment their decision-making. Blood parameters have recently been shown to distinguish influenza from dengue, and H1N1 from other causes of ILI. We hypothesised that platelet count, CRP and white cell counts might provide a useful guide for the decision to isolate while waiting for PCR results.

Methods
Routine admission blood tests results were compared among volunteers who presented acutely with ILI or chronic lung disease exacerbation that had been recruited into a prospective, single centre study of ILI during the flu season (December 2014 – March 2015). We defined respiratory viral infections requiring isolation as throat swab PCR positive for: influenza A/B, parainfluenza, respiratory syncytial virus, human metapneumovirus and adenovirus. Those defined as not requiring isolation were PCR positive for coronavirus and rhinovirus, or PCR negative.

Results
The blood test results of 463 volunteers were recorded. Mean neutrophil, platelet and white cell counts were statistically significantly lower in the isolation group than the non-isolation group (Student's t-test, $p<0.05$).ROC curve analysis showed neither blood marker individually had sufficient sensitivity and specificity to distinguish those requiring isolation from those that did not.

Discussion
Routine acute admission blood tests lack any utility in distinguishing those with infectious respiratory viral infections requiring isolation among people who present with ILI or chronic lung disease exacerbation during the flu season.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 6

Title	**Discovery of an epidemic lineage of group A *Streptococcus* with enhanced naso-pharyngeal infection and transmission**
Authors	Claire Turner[1,2], Baharak Afshar[1,3], Ali Al-Shahib[3], Theresa Lamagni[3], Anthony Underwood[3], Matthew Holden[4,5], Androulla Efstratiou[3,2], Shiranee Sriskandan[1,2]
Addresses	*[1]Imperial College London, UK, [2]National Centre for Infection Prevention & Management, Imperial College London, UK, [3]Public Health England, London, UK, [4]Wellcome Trust Sanger Institute, Cambridge, UK, [5]University of St Andrews, UK*

Abstract

A six month upsurge in invasive group A *Streptococcus* (GAS) disease was observed in the UK over winter 2008/2009, associated with an increase in the *emm*3 genotype. We performed genomic and phenotypic analysis to identify novel factors behind the increase.

Whole genome sequencing of 442 *emm*3 isolates identified an epidemic lineage of *emm*3 GAS sequence-type 15 that contributed significantly to the upsurge. The epidemic lineage (Lineage C) had lost two typical *emm*3 prophages but had gained a different prophage, ΦUK-M3.1 associated with the superantigen *speC* and DNase *spd1*, previously unseen in UK *emm*3.

Clinical analysis identified that 7 and 30 day patient mortality with invasive *emm*3 GAS was high (28-35%), but there were no differences in mortality attributed to different *emm*3 lineages. This was consistent with experimental *in vivo* invasive disease models, which also revealed no difference in overall invasiveness of Lineage C ST15 strains compared to non-Lineage C ST15 strains. Lineage C strains did, however exhibit markedly prolonged murine nasal infection with enhanced nasal and airborne shedding compared to non-Lineage C strains. Deletion of the prophage-associated *speC* or *spd1* in Lineage C strains identified a particular and novel role for *spd1* DNase in airborne shedding from the murine nasopharynx.

We conclude that prophage acquisition and gain of *spd1* contributed to the success of Lineage C through an impact on nasopharyngeal infection and potentially transmission. Prophages and their associated virulence factors have the potential to alter disease abundance and population epidemiology through mechanisms other than enhancing typical invasive characteristics.

Title	**Zika virus in returning travellers at University College London Hospital (UCLH), a retrospective review**
Authors	Katherine Gaskell, Catherine Houlihan, Margaret Armstrong, Eleni Nastouli, Anna Checkley
Address	*University College London Hospital, UK*

Abstract

Introduction
In 2016 there has been an unprecedented rise in returning travellers concerned about Zika virus (ZikaV) exposure. Almost 200 individuals attended the UCLH Foetal Medicine Unit (FMU) or Hospital of Tropical Diseases (HTD) during the first months of 2016.

Methods
We performed a retrospective review of all patients attending FMU or HTD regarding ZikaV exposure between 01/01-03/2016.

Results
197 patients were seen at FMU or HTD, of whom 74% (128) were pregnant, 14% (25) women trying to conceive, 12% (23) women not trying to conceive and 12% (21) men. Most women (52%, 67) were in the first trimester at the time of exposure. The majority had returned from Mexico 21% (36), Brazil 18% (32), Barbados 9% (16) and Columbia 7% (12). 52% of patients were asymptomatic. Symptomatic patients presented with a range of symptoms; however, only 9% (16) met the WHO ZikaV case definition. 37 patients' samples were tested for ZikaV by PCR. Of these, 3 male patients, all of whom were trying to conceive, had ZikaV detected in blood. 11% (19) were tested for dengue and chikungunya viruses.

Discussion
We saw a significant increase in consultations during this evolving outbreak. Patients presented challenging concerns given the lack of existing scientific knowledge. Recurring themes included early pregnancy exposure, conception post exposure and possible sexual transmission. We will discuss the ongoing follow up of this cohort, including serial ultrasound scans and the results of ZikaV IgG testing, as well as the extra burden on NHS resources and the implications for future outbreak planning.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 8

Title	**Striking gold; a retrospective, multicentre observational study of *Delftia acidovorans* infections in West London**
Authors	Thomas P Butters[1], Luke SP Moore[2], Timothy M Rawson[2], Hugo Donaldson[3], Alison H Holmes[2]
Addresses	*[1]Imperial College School of Medicine, London, UK, [2]NIHR Health Protection Research Unit in Healthcare Associated Infections and Antimicrobial Resistance, Imperial College London, London, UK, [3]Imperial College Healthcare NHS Trust, London, UK*

Abstract

Introduction:
Delftia acidovorans is an aerobic, non-fermenting, Gram-negative environmental organism, able to purify gold ore. We report a case-series of patients with *D. acidovorans* from a 5-hospital network in West London serving 2.5 million citizens.

Method:
Microbiology records were reviewed to identify all *D. acidovorans* between 2009-2015. Electronic health records (EHRs) were interrogated to describe patient demographics and clinical course. The likelihood of pathogenicity was determined clinically and through proxy indicators (white cell count and/or C-reactive protein changes at time of culture).

Results:
D. acidovorans was isolated from 20 patients, all identified in the last 3 years. Median age 54 years(range 6-88), 70% female. 7/20(35%) were augmented care patients, 2/20(10%) medicine, 3/20(15%) surgery, 2/20(10%) primary care, and 6/20(30%) other specialties. There was widespread aminoglycoside resistance (16/20,80%), ESBL-phenotypes (8/20,40%), colistin resistance 7/20(35%) and some carbapenem resistance (2/20,10%).
12/20 EHRs were available; of these 9/12 were treated as confirmed clinical infections, 2/12 were possible, and 1/12 a likely contaminant. Among 8/12 proxy indicators were available; the mean ΔWCC and ΔCRP at 24-hours after acquisition were -1.5x10^9/L(range -6.9 to +5.1) and 52mg/L(range -30 to +152) respectively (Figure1). Treatment was led by susceptibility testing but β-lactam-based therapy was the mainstay. 30 days post-culture, 12/20(60%) patients were alive, 1/20(5%) died, and 7/20(35%) were lost to follow up.

Discussion:
D. acidovorans is particularly acquired by patients with existing co-morbidities. Inflammatory markers frequently rise following *D. acidovorans* acquisition, but further work should characterise its pathogenicity. Resistance to many antimicrobials, including carbapenems and colistin, means where needed treatment is complex, requiring expert advice.

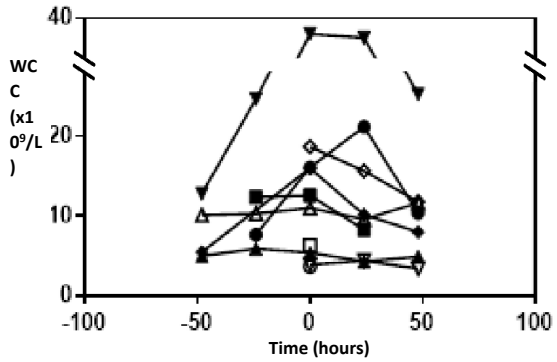

Figure 1a: White cell count (WCC) recorded in a four day period spanning the day of *D. acidovorans* culture (0 hours). Data was recorded from eight patients for which WCC trends were available.

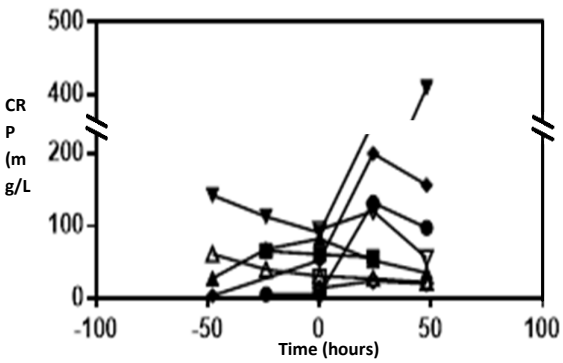

Figure 1b: C-reactive protein (CRP) levels recorded in a four day period spanning the day of *D. acidovorans* culture (0 hours). Data was recorded from eight patients for which CRP trends were available.

Title **Latent TB among clinical staff in an acute NHS Hospital Trust: a retrospective screening exercise**

Authors Simon Howard, Michelle Henderson

Address *North East Health Protection Team, Public Health England, Newcastle upon Tyne, UK*

Abstract

Introduction
Healthcare workers (HCWs) from countries with a high TB prevalence are currently required to undergo latent tuberculosis infection (LTBI) screening at the point of first NHS employment. Historically, however, LTBI screening at the point of employment has varied considerably. Diagnosis of acute TB in two HCWs at an acute Hospital Trust in the North of England prompted the Trust to undertake a retrospective screening exercise for LTBI among *all current* clinical employees born in countries with a high TB prevalence.

Methods
Employees from WHO-defined high TB prevalence countries were identified through review of the Trust's electronic staff record and occupational health records. Employees were invited by letter to attend for an interferon gamma blood test (IGRA), and those who screened positive were offered follow-up.

Results
Around 16% of the Trust's clinical workforce were from countries with high TB prevalence. Of 587 HCWs invited for screening, 469 (80%) attended and were screened. 129 HCWs were diagnosed with LTBI (4% of the whole clinical workforce). 40 HCWs started LTBI treatment.

Discussion
This exercise highlights the relatively high prevalence of LTBI within an acute Trust. The cost effectiveness of the exercise is uncertain, as is the level risk mitigated; the testing costs amount to over £12,000 excluding the nursing costs and costs of follow-up clinics.

The decision of whether to treat HCWs who are well for LTBI can be complex from both the clinician and HCW perspective. Alternative approaches, such as regular reminders of symptoms of active infection, may be preferable.

Title	**Utility of induced sputum in the investigation of pulmonary tuberculosis in a UK cohort**
Authors	Hannah Dabrowski, Aula Abbara, Hansa Varia, Tumena Corrah, Alastair McGregor, Laurence John, Robert Davidson
Address	*Northwick Park Hospital, London, UK*

Abstract

Introduction
Induced sputum (IS) using hypertonic saline can be used in the investigation of mycobacterium tuberculosis (MTB.) At our TB centre in North-West London, we use IS in preference to broncho-alveolar lavage given non-inferiority, tolerability, cost and availability of IS. We assess the value of IS both as a rule in and rule out test for TB in our cohort.

Method
Patients who had IS during 2015 in the infectious diseases assessment room (IDAR) were identified retrospectively; number of samples, smear, Cepheid Gene Xpert and culture results were noted. Patients who started MTB treatment were identified from London TB register (LTBR). Alternative diagnoses for treatment non-starters was noted.

Results
150 patients had IS: 80 (53%) male, median age: 44 (IQR:34-59). Mean sputa per patient: 3. 20/150 (13%) had positive mycobacterial cultures (4 positive PCR; no rpoB gene mutation). 31/150 (21%) started TB treatment; 16/31 (52%) had pulmonary TB and 14 of these grew MTB from IS. 6/20 (30%) grew non-TB mycobacteria (NTM).

Of 130 with negative cultures, 113 did not start TB treatment. Alternative diagnoses included: respiratory infections in 43/113 (38%), sarcoidosis in 5/113 (4%), bronchitis 4/113 (4%) and no diagnosis denoted 9/113 (8%).

Discussion
A prospective study at this site in 2007 determined a culture confirmation rate of 39% with IS (1). In this study, accurate retrospective estimation of culture confirmation was not possible due to recording of IS. The proportion who had IS but were not treated suggest that IS is also being used, alongside other investigations to rule out MTB.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 11

Title	**Gender differences in tuberculosis treatment responses**
Authors	Michael E Murphy[1], Genevieve H Wills[2], Saraswathi Murthy[1], Anna LC Bateson[1], Robert Hunt[1], Stephen Murray[3], Carl Mendel[3], Timothy D McHugh[1], Angela M Crook[2], Stephen H Gillespie[4]
Addresses	*[1]Centre for Clinical Microbiology, University College London, UK, [2]MRC Clinical Trials Unit, University College London, UK, [3]Global Alliance for TB Drug Development, New York, USA, [4]University of St Andrews, UK*

Abstract

The REMoxTB study did not demonstrate non-inferiority of the moxifloxacin-containing experimental arms overall. Outcomes for women, however, were similar for all study arms suggesting a more favourable response. Biological reasons for this are not clear.

Methods
We analysed data from patients enrolled in the REMoxTB study from sputum-samples collected before and during treatment, processed for smear and culture on solid-LJ and in liquid-MGIT media. Mycobacterial burden was measured by smear-grading and time-to-positivity in culture (LJ TTD,MGIT TTP). Time-to-conversion from positive to negative for smear and culture was also recorded. We compare treatment responses between women and men.

Results
Of 1931 patients enrolled in the REMoxTB study, 585(30%) were women, split equally between treatment arms. Women had higher prevalence of HIV(11% vs 6%), and lower rates of cavitation (65% vs75%). Prior to treatment, mycobacterial burden was comparable between women and men as measured by smear grading(p=0.13), LJ TTD(p=0.95), and MGIT TTP(4.46 days vs 4.88 days;p=0.02). Conversion from positive to negative occurred earlier in women than men for smear(HR 0.90,p0.02), LJ(HR 0.89,p0.01) and MGIT culture(HR 0.80,p<0.0001). Logistic-regression showed that cavitation 'explained' the gender-by-treatment interaction. Women, with or without cavities, had significantly fewer unfavourable outcomes than men with cavities(9% vs 19%,p<0.001). However, extent of lung involvement was only slightly lower in females (Ralph score 56 vs 58,p=0.01). Males without cavities had similar outcomes to women.

Conclusion
Women responded more favourably to TB treatment than men in the REMoxTB study, despite comparable mycobacterial burdens. This finding was explained by cavitation. Further research is required to explore this finding to inform public health strategies to ensure equitable TB treatment outcomes for women and men.

Title **An audit of the electronic transmission of microbiology laboratory reports to general practitioners**

Authors Huina Yang[1], Beverley Palmer[1,2], Olajumoke Sule[1,2], Rachael Doughton[1,2], Fiona Cooke[1,2]

Addresses *[1]Cambridge University Hospitals NHS Foundation Trust, UK, [2]Public Health England, Cambridge, UK*

Abstract

Introduction
After the implementation of a new laboratory information management system (EPIC/Beaker), we wanted to ensure that microbiology reports were accurately transmitted to our end users in primary care.

Methods
We selected a range of specimen types and compared lab generated reports with computer results in practices using System One, EMIS Web and tQuest IT systems.
Audit standard: 100% of patient demographics, laboratory results and interpretative comments should be accurately transmitted to the end user.

Results
82 of 84 reports (98%) reviewed were visible to the GPs. 73 out of 84 reports (87%) met the audit standard. All serology and microscopy results were accurate. Problems arose with positive culture results, (63 / 73 (87%) were correct) and antibiotic susceptibility results (37 / 44 (84%) were correct). Of concern, only 24 / 31 (77%) of interpretive comments were accurately transmitted electronically.

Discussion
As service providers we are responsible to ensure our users receive complete and accurate reports. Pre-acceptance testing of the system should have included accuracy of data transmission although this audit showed 87% compliance. The discrepancies were attributed to mishandling of data via middleware across several systems. Urgent changes were implemented. GPs were updated via our regional laboratory newsletter. In addition, visiting local GPs helped build local relationships and encourage active dialogue about Microbiology services, which have changed considerably in recent years. This audit highlights the importance of post acceptance testing of accuracy of data transmission following the introduction of a new system.

BRITISH INFECTION ASSOCIATION

Free Scientific Paper 13

Title	**Modulating activity of the inflammasome during infection with *Mycobacteria tuberculosis* - a therapeutic adjunct?**
Authors	Sathyavani Subbarao, Nitya Krishnan, Brian Robertson
Address	*Imperial College London, UK*

Abstract

Introduction
Mycobacterium tuberculosis (Mtb) remains a considerable cause of morbidity and mortality. Whilst our host immunity is pivotal in containing Mtb infection, it has long been recognised as contributing to tissue damage, cavitatory breakdown and paradoxically facilitating spread of the pathogen. There is thus an urgent need to seek alternative treatment such as immunomodulating agents, which forms an adjunct to anti-microbial chemotherapy. This will serve to reduce TB-associated pathological destruction, increase anti-microbial access and ultimately reduce treatment length.

The inflammasome is a cytosolic complex within mammalian cells that facilitates a potent pro-inflammatory and microbicidal response through the induction of IL-1b. This process is normally highly regulated, but uncontrolled activation is associated with hyper-inflammatory diseases.

Method
We are examining how clinical mycobacterial strains interact with the inflammasome. In addition we are investigating whether current clinically licensed drugs used for alternative conditions may dampen down inflammasome activation *and show potential* as an adjunct to standard anti-tuberculosis chemotherapy.

Results
Different lineages elicit a differential inflammasome induction. Further, we show drugs in pre-clinical, phase 1 and licensed drugs are able to reduce this activation.

Conclusion
In demonstrating the difference in activation between lineages by the host, we show increasingly a tailored approach to MTB therapy. We also show evidence of refashioning existing drugs as a therapeutic adjunct.

Title **Investigating vancomycin therapy across secondary care pathways; are we dosing patients appropriately?**

Authors Ji Soo Baik[1], Akash Philip[2], Timothy Miles Rawson[1], Esmita Charani[1], Pau Herrero[2], Luke Moore[1], Mark Gilchrist[3], Eimear Brannigan[3], Pantelis Georgiou[2], William Hope[4], Alison Holmes[1]

Addresses *[1]Health Protection Research Unit for Healthcare Associated Infections & Antimicrobial Resistance, Imperial College London, UK, [2]Department of Electrical and Electronic Engineering, Imperial College London, UK, [3]Imperial College Healthcare NHS Trust, London, UK, [4]Department of Molecular and Clinical Pharmacology, University of Liverpool, UK*

Abstract

Introduction
Optimal dosing of vancomycin ensures clinical effectiveness, whilst minimising the harmful consequences of antimicrobial exposure on the individual and society. We investigated the current use of vancomycin across a non-critically ill population in secondary care.

Methods
Data was prospectively collected for patients receiving vancomycin on general wards across three west London hospitals. Baseline data and details of vancomycin therapy were collected for patients receiving therapy. A population pharmacokinetic model was generated to describe the cohort. Steady state (SS) 24-hour Area Under the Curve (AUC) / target Minimum Inhibitory Concentration (MIC) was calculated to assess the appropriateness of therapy. Where Staphylococcus aureus was suspected MIC=1mg/L was used. ssAUC/MIC>400 was classed as appropriate.

Results
Twenty four patients were included. Median age was 59 (21-87) years and 13 (54%) were male. Half of the cohort were overweight (BMI >25kg/m2). At initiation of therapy median CRP was 89 (5.7-473)mg/L and plasma creatinine 94 (43-763)µmol/L. The most frequent indications for therapy were skin and soft tissue infection (5/24;24%), blood stream infection (4/25;16%), and joint infection (3/24;13%). A one compartment pharmacokinetic model was selected. Linear regression of observed versus predicted data for individual patients produced a coefficient of determination (R2) of 0.8. 11/24 (46%) of patients reached ssAUC/MIC>400. Of the 13/24 (54%) patients not reaching ssAUC/MIC>400, 8/13 (62%) were classified as overweight or obese.

Conclusion
Despite well-established therapeutic drug monitoring guidelines for use of vancomycin in secondary care we are still failing to adequately dose individuals to optimise therapeutic success of therapy.

Title **An increase in incidence of invasive pneumococcal disease at Sheffield Teaching Hospitals in 2015**

Authors Sarah Snow[1], Anand Odedra[2], Anne Tunbridge[1,2]

Addresses *[1]University of Sheffield, UK, [2]Sheffield Teaching Hospitals, UK*

Abstract

Introduction
The aim of the study was to look at the incidence of invasive pneumococcal disease (IPD) across Sheffield Teaching Hospitals in 2015. To document clinical syndromes, infection severity, serotypes and eligibility for vaccination across the cohort. To document implementation of septic 6 in the mortality cases.

Methods
A search was performed for all positive Streptococcus pneumoniae cultures and PCR from any sterile site at Sheffield Teaching Hospitals between 21/12/2014 and 31/1/2016. Patients were eligible if they were ≥16. Patients were included once only. ICE, electronic and paper notes were used to gain further information.

Results
86 patients had IPD during this time period. The cohort had a median age of 70. Bacteraemia as a result of pneumonia was the most common clinical syndrome.
19% of patients were admitted to a critical care unit. Mortality incidence was 16/86 (19%). Management was reviewed in 11/16 patients. Initiation of septic 6 varied: 3/11 had prompt initiation (<1hour), 5/11 had 4 or 5/6 in 1hr, 3/11 had <2 completed in 1 hour.
58 patients had both risk factor and serotyping data. Of the 48 eligible for vaccination in this group, 31 of the serotypes were contained in the 23 polyvalent pneumococcal vaccine.

Discussion
2015 showed an increased rate of IPD compared to 2014 STH rate (69: 48 cases bacteraemia) and UK data. Future research is need to see if this trend continues. Improved regional vaccination uptake and rapid initiation of the septic 6 may help to reduce incidence and mortality rates.

BRITISH INFECTION ASSOCIATION

Clinical Paper A

Title **Time and the patient as diagnostic tools**

Author Bethany Davies

Address *Brighton and Sussex University Hospitals NHS Trust, UK*

Abstract

A 22 year old Swedish student presented to an Emergency Department with a febrile illness, flu-like symptoms, groin pain and her own diagnosis. She had arrived in the UK one week earlier. Most of her symptoms settled with a short course of antibiotics. However, over the next few weeks she developed worsening pain and swelling in her groin. She was referred by a GP to the surgeons for incision and drainage of an abscess; however, before they operated, they referred her to the infectious diseases team as the patient again raised a potential diagnosis that they had not heard of, and the abscess did not look quite right ....

Take home lessons:
1. Listen to your patient - do not ignore things you have not heard of
2. Close liaison is required with colleagues and the lab when the unusual is encountered

BRITISH INFECTION ASSOCIATION

Clinical Paper B

Title	**An alternative diagnosis of septic arthritis - the clue is in the name!**
Authors	Gareth Hughes[1], Kathleen Romain[2], Hugh Morton[1]
Addresses	*[1]Microbiology, Worcestershire Royal Hospital, UK, [2]Histopathology, Worcestershire Royal Hospital, UK*

Abstract

A 64 year old lady was referred to orthopaedic clinic with a history of chronic pain and swelling in her right fourth proximal inter-phalangeal joint (PIP). She was given an intra-articular steroid injection four months previously as the symptoms were thought to be due to osteoarthritis. She was a keen gardener and horse rider and had sustained trivial hand inoculation injuries during these activities.

Her past medical history included Parkinson's disease, right hemi-colectomy due to caecal volvulus and nephrectomy following trauma several years previously. She was not taking immunosuppressive medication.

Plain radiographs of her right hand showed degenerative changes in the PIP joint and swelling in the overlying soft tissue but no evidence of a foreign body or osteomyelitis. Blood tests revealed a CRP <1 and mild neutropenia of 1.8×10^9 / l. Her HIV test was negative and her HbA1c was within normal limits.

Her symptoms did not settle and she went on to have a debridement of the joint in with material sent for histology and culture.

Gram staining of the tissue revealed pus cells but no organisms. Standard bacterial and mycobacterial cultures revealed no growth; however the Sabouraud's agar plate did yield an organism.

Title **An unusual case of recurrent infection following allogeneic stem cell transplant**

Authors Rachel Evans[1], Matthew Horan[1], David Brass[2], Bhamini Puvaneswaran[2], Julie Samuel[1], Akhtar Husain[2], Uli Schwab[2], Arian Laurence[1]

Addresses *[1]Freeman Hospital, Newcastle, UK, [2]Royal Victoria Infirmary, Newcastle, UK*

Abstract

A 66 year old gentleman, who was a keen gardener, was diagnosed with chronic lymphocytic leukaemia in 2006. Following several lines of treatment he underwent a reduced intensity allogeneic stem cell transplant. Seventeen days post-transplant the patient developed a pyrexia, with cutaneous nodules on face, arms and legs, and subsequently episodes of confusion. Despite empirical treatment broad spectrum antibiotics and antifungals the patient remained pyrexial, with new cutaneous lesions developing. Despite multiple negative cultures and skin biopsies no cause was initially identified. CT of thorax, abdomen and pelvis did not show any collection or evidence of fungal infection. Transthoracic echocardiogram did not show any vegetations. Intracranial imaging identified multiple small white matter lesions of uncertain eitiology.

On the 74th day post-transplant a further skin biopsy showed features highly suggestive of a diagnosis and furthur investigations confirmed this.

Following diagnosis the patient was commenced on combination treatment with five agents. On treatment the patient rapidly became apyrexial and the skin lesions healed.

Around three months following completion of treatment the patient was readmitted with a pyrexial illness, this was initially treated with broad spectrum antibiotics, however over the course of a few days the patient developed visual deterioration, confusion and seizures. Intracranial imaging showed evidence of sinusitis and slight progression of the white matter lesions with a new right frontal lesion consistent with microhaemorrhage. Unfortunatly the patient rapidly deteriorated and passed away. A nasal washing was subsequently found to be positive for the same organism as previosly identified.

BRITISH INFECTION ASSOCIATION

Clinical Paper D

Title	**Complications of haemopoietic stem cell transplant - widening the differential**
Authors	Christopher F Brewer[1], Timothy M Rawson[2,3], Lewis Vanhinsbergh[3], Jiri Pavlu[3]
Addresses	*[1]Imperial College School of Medicine, London, UK, [2]Health Protection Research Unit for Healthcare Associated Infections and Antimicrobial Resistance, Imperial College London, UK, [3]Imperial College Healthcare NHS Trust, London, UK*

Abstract

In November 2014, Hammersmith hospital infectious diseases team reviewed a 43 year-old male two weeks post an unrelated non-myeloablative stem-cell transplant (SCT) for erythrodermic mycosis fungoides.

Five days post-SCT, the patient developed neutropenic fevers and was started on tazocin, amikacin and teicoplanin. On examination, tetany was noted and lumbar puncture (LP) examination was performed. The cerebrospinal fluid tests included microscopy, culture and sensitivity, toxoplasma, cryptococcal antigen, tuberculosis and viral PCR (herpes simplex, cytomegalovirus, Epstein Barr virus, Enterovirus & JC virus). A high level of ciclosporin (779ng/ml), commenced as prophylaxis for graft-versus-host-disease, promoted a switch to tacrolimus as toxicity was suspected to be causing his symptoms.

Despite this, the patient continued to deteriorate, experiencing recurrent neutropenic fevers, worsening tetany and myoclonus, anterograde amnesia (Mini Mental State Examination (MMSE) falling to 3/30) and fluctuating Glasgow coma score (GCS). Biochemically, syndrome of inappropriate anti-diuretic hormone (SiADH) was diagnosed (nadir sodium 116mmol/l). Repeat LP examination demonstrated raised white cells (14cells/mm^3) but no infective cause was identified. An MRI brain was performed, demonstrating swelling in the hippocampal formation and amygdala, suggestive of bilateral mesolimbic encephalitis. This was supported by electro-encephalogram. A full autoimmune profile was requested to exclude immune reconstitution, aciclovir (10mg/kg tds IV) was commenced to cover viral encephalitis and an infectious disease review requested.

On review by infectious diseases, the patient was confused, with a hypoactive delirium. He had visible generalised tetany and myoclonus with an up-going plantar reflex bilaterally. An extended spectrum viral PCR was requested following discussion with the virology department.

BRITISH INFECTION ASSOCIATION

Clinical Paper E

Title **A culture of not culturing**

Authors David Smith, Emma Holden

Address *Kingston Hospital NHS Foundation Trust, Kingston Upon Thames, UK*

Abstract

A 68 years old male air-conditioning engineer had been complaining of fever, night sweats, malaise and breathlessness on exertion for 4 weeks. He also had a new generalised rash of painful erythematous nodules. He had a medical history of atrial fibrillation and pectus excavatum. He was a keen tropical fish collector.

A routine blood test showed an haemoglobin of 60 (MCV84.7, Plt 103, WBC 14, N 12.9, Lymph 1.0, reticulocytes 57[normal]) and CRP of 42.

His GP referred urgently to hospital, where an OGD showed mild oesophageal candidiasis. CT neck chest abdomen and pelvis identified multiple enlarged mediastinal lymph nodes and enlarged spleen (18.5cm) with no other abnormal findings in the lungs, liver or other lymph nodes. Immunoglobulin profile showed an elevated IgG (15.9) consistent with inflammation. HIV test was negative. Blood cultures grew no organisms. A skin biopsy of the cutaneous lesions was sent for histology and culture.

A bone marrow biopsy was taken and sent for histology, which was consistent with myelodysplastic syndrome.

The patient continued to have symptoms of fever, night sweats and malaise.

Two months later, during mediastinoscopy, the thoracic surgeon commented that the lymph nodes 'poured with pus', which was sent for analysis. The mediastinoscopy wound continued to discharge pus with poor wound healing.

What further tests should have been carried out on the bone marrow and skin biopsies?

What is the underlying diagnosis?

What is the cause of the skin rash?

Title	**A helpful pre-operative fever**
Authors	Sara Boyd[1,2], Ho Kwong Li[1], Mark Gilchrist[1,2], Frances Sanderson[1], Eoghan de Barra[1], Eimear Brannigan[1,2]
Address	*[1]Imperial College Healthcare NHS Trust, London, UK, [2]NIHR Health Protection Research Unit in Healthcare Acquired Infections and Antimicrobial Resistance, Imperial College, London, UK*

Abstract

Whilst awaiting elective neurosurgery for a recently diagnosed grade III glioblastoma this 56 year old man was admitted to our hospital following an episode of collapse.

His collapse was associated with a short febrile illness, raised inflammatory markers, and a cough. Several of his friends were reported to be suffering from concurrent upper respiratory tract infections. Clinical examination was unremarkable with the exception of a right homonymous hemianopia, which had precipitated the diagnosis of glioblastoma one month earlier. At the point of admission he was afebrile and his chest X-ray was unremarkable. However, an urgent CT head revealed radiological evidence of disease progression with an increase in persilesional oedema in the left occipital lobe in addition to a new mass in the left posterior parietal lobe. Appearances were associated with new midline shift.

Following a 3 day period of inpatient observation he was discharged on dexamethasone with instruction to complete a 7 day course of co-amoxiclav for a suspected upper respiratory tract infection. His neurosurgical procedure was expedited. Within 24 hours of discharge he was re-admitted with worsening confusion, severe headache, ongoing cough, and intermittent fevers. Blood cultures were taken.

The Infection Team were asked to review and noted an extensive travel history.

Delegates

Title	Name	Surname	Hospital	Department	Grade
Dr	Aula	Abbara	Northwick Park Hospital	Infectious Diseases	Specialist Registrar
Dr	Mahadi H M	Abdallah	Alzaiem Alazhari University	Microbiology	Lecturer
Dr	Hugh	Adler	Liverpool School of Tropical Medicine	Infectious Diseases	Post-Graduate Student
Dr	Ali	Amini	Royal Free Hospital	Microbiology	Specialist Registrar
Dr	Clare	Anderson	Guy's and St Thomas' NHS Foundation Trust	FY2	Foundation Year Doctor
Dr	Michael	Ankcorn	PHE, Colindale, London	Virology	Specialist Registrar
Dr	Lawrence	Armstrong	University Hospital Southampton	Infectious Diseases	Speciality Trainee
Dr	Bridget	Atkins	Oxford University Hospitals NHS Trust	ID & Microbiology	Consultant
Dr	Eman	Badr	North Middlesex University Hospital	Microbiology	Specialist Registrar
Dr	Rebecca	Bamber	University Hospital of Wales	Microbiology	Specialist Registrar
Dr	Kathleen	Bamford	Imperial College Healthcare NHS Trust	Infection	Consultant
Dr	Adriana	Basarab	Southampton General Hospital	Infectious Diseases	Consultant
Dr	Ons E H	Ben Ismail	Royal Free Hospital	Virology	Fellow
Dr	Sonia	Bhatt	University College Hospitals	Pathology	Specialist Registrar
Miss	Kelly	Bicknell	Portsmouth Hospitals NHS Trust	Microbiology	Clinical Scientist
Dr	Faisal	Bin-Reza	Princess Alexandra Hospital	Microbiology	Consultant
Dr	Ian	Bittiner	Royal Victoria Infirmary	Infectious Diseases	Physician
Dr	Helena	Bond	Friarage Hospital	General Medicine	Specialist Registrar
Dr	Alina	Botgros	Guy's and St Thomas' NHS Foundation Trust	Infectious Diseases	Fellow
Dr	Conor	Bowman	Guy's and St Thomas' NHS Foundation Trust	HIV & Sexual Health	Senior Clinical Fellow
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Mr	Christopher	Brewer	Imperial College London	Medicine	Student
Dr	Sara	Brilha	University College Hospitals	Medicine	Scientist
Dr	Armanda	Broduza	Private practice	Infectious Diseases	Consultant
Dr	Li-An	Brown	Royal Free Hospital	Infectious Diseases	Senior House Officer
Dr	Ruaridh	Buchanan	Barts and The London NHS Trust	Infectious Diseases	Specialist Registrar
Dr	Alison	Burgess	Southmead Hospital	Infectious Diseases	Specialist Registrar
Dr	Enrique	Castro Sanchez	Imperial College NHS Foundation Trust	Infectious Diseases	Fellow
Dr	Chris	Chang	University College Hospitals	Acute Medicine	Specialist Registrar
Dr	Bilwanath	Chattopadhyay	DAMA Hospital	Medical Microbiology	Honorary Consultant
Dr	Yoon Toong	Chin	University Hospital of South Manchester	Microbiology	Specialist Registrar
Miss	Holly	Ciesielczuk	Barts and The London NHS Trust	Microbiology	Clinical Scientist
Dr	Katherine	Clay	Heartlands Hospital	Infectious Diseases	Specialist Registrar
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Dr	Julia	Colston	Oxford University Hospitals NHS Trust	Infectious Diseases	Specialist Registrar
Dr	Cordelia	Coltart	University College London	Infectious Diseases	Clinical Research Fellow
Dr	Fiona	Cooke	Addenbrooke's Hospital	Microbiology	Consultant
Dr	Catherine	Cosgrove	St George's Hospital	Infectious Diseases	Consultant
Dr	Luis	Cotter	Darent Valley Hospital	Microbiology	Associate Specialist
Dr	Ian	Cropley	Royal Free Hospital	Infectious Diseases	Consultant
Dr	Tomas-Paul	Cusack	University Hospital Southampton	Infectious Diseases	Specialist Registrar
Dr	Muhammad Y	Dahar	West Suffolk Hospital	Microbiology	Consultant
Dr	Farnaz	Dave	North Manchester General Hospital	Infectious Diseases	Physician
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Delegates

Title	Name	Surname	Hospital	Department	Grade
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Dr	Bethany	Davies	Brighton and Sussex University Hospitals	Infectious Diseases	Specialist Registrar
Dr	Susanna	Davis	Sheffield Teaching Hospitals NHS Trust	Microbiology	Specialist Registrar
Dr	Sue	Dawson	Great Western Hospital	Microbiology	Consultant
Dr	Sophia	De Saram	Imperial College NHS Foundation Trust	Microbiology	Specialist Registrar
Dr	Thushan	de Silva	Sheffield Teaching Hospitals NHS Trust	Infectious Diseases	Honorary Consultant
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Prof	David	Dockrell	University of Sheffield Medical School	Infectious Diseases	Consultant
Dr	Glynis	Double	Basildon and Thurrock University Hospitals	Microbiology	Consultant
Dr	Nicola	Dowling	Evelina Children's Hospital	Paediatrics	Speciality Trainee
Dr	Simon	Durkin	Frimley Park Hospital	Medicine	Speciality Trainee
Dr	Ayesha	Ejaz	University College Hospitals	General Medicine	Speciality Trainee
Dr	Sameh	El Bailey	Saint John Regional Hospital	Microbiology	Physician
Dr	Ayman	Elnemr	Zefta General Hospital	Microbiology	General Practitioner
Dr	Mohamed E	Elsayed	Bristol Royal Infirmary	Microbiology	Specialist Registrar
Prof	Tom	Evans	Western Infirmary Glasgow	Infectious Diseases	Consultant
Dr	Rachel	Evans	Freeman Hospital	Haematology	Specialist Registrar
Dr	Hamzah	Farooq	Worcestershire Royal Infirmary	Infectious Diseases	Specialist Registrar
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Ms	Lynne	Ferguson	St George's Hospital	Microbiology	Speciality Trainee
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Dr	Felicity	Fitzgerald	UCL Institute of Child Health	Paediatrics	Speciality Trainee
Dr	Karen	Fitzmaurice	Frimley Park Hospital	Microbiology	Consultant
Dr	Ray	Fox	Gartnavel General Hospital	Infectious Diseases	Consultant
Prof	Jon	Friedland	Imperial College London	ID & Immunity	Consultant
Dr	Susie	Froude	University Hospital of Wales	Infectious Diseases	Specialist Registrar
Dr	Charles	Fry	Southmead Hospital	General Medicine	Speciality Trainee
Dr	Katherine	Gaskell	University College Hospitals	Infectious Diseases	Specialist Registrar
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Prof	Steven	Green	Sheffield Teaching Hospitals NHS Trust	Infectious Diseases	Consultant
Dr	James	Greig	Plymouth Hospitals	Microbiology	Consultant
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Mr	Robert	Hay	Croydon University Hospital	Microbiology	Lab Manager (Retired)
Dr	Emma	Hayton	Hospital René Dubos, Pontoise, France	Infectious Diseases	Specialist Registrar
Miss	Michelle	Henderson	Public Health England	Health Protection	Nurse
Dr	Chamika	Herath	Imperial College NHS Foundation Trust	Microbiology	Specialist Registrar
Prof	Robert	Heyderman	University College London	Infection & Immunity	Professor
Dr	Antonia	Ho	Greater Glasgow and Clyde NHS Trust	Infectious Diseases	Specialist Registrar

Delegates

Title	Name	Surname	Hospital	Department	Grade
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Dr	Simon	Howard	Public Health England	North East Team	Locum Consultant
Dr	Gareth	Hughes	Worcestershire Royal Infirmary	Microbiology	Speciality Trainee
Dr	Jasmin	Islam	Brighton and Sussex University Hospitals	Infectious Diseases	Specialist Registrar
Dr	Sanna	Isosomppi	Helsinki University Hospital	Infectious Diseases	Consultant
Prof	Michel	Janier	Hôpital Saint-Louis	Dermatology-Venereology	Consultant
Dr	Katie	Jeffery	Oxford University Hospitals NHS Trust	Microbiology & Virology	Consultant
Dr	Anna	Jeffery-Smith	Barts and The London NHS Trust	Infectious Diseases	Specialist Registrar
Dr	Vishnu	Jeyalan	Friarage Hospital	Endocrinology	Physician
Mrs	Katie	Jones	University Hospital Coventry and Warwickshire	Microbiology	Speciality Trainee
Dr	Poonam	Kapila	Sherwood Forest NHS Foundation Trust	Microbiology	Consultant
Dr	Cheryl	Keel	Royal Belfast Hospital For Sick Children	Paediatrics	Speciality Trainee
Dr	Michael	Kelsey	Whittington Hospital	Microbiology	Consultant
Dr	Andrew	Kemp	University of Lincoln	Research & Development	Principle Scientific Officer
Dr	Matthew	Kennedy	University Hospital Leicester	Microbiology	Fellow
Dr	Ben	Kerr Winter	Sheffield Teaching Hospitals NHS Trust	Medical Education	Speciality Trainee
	Zahid	Khan	Birmingham Community HealthCare NHS Trust	Oral Medicine	Specialty Dentist
Dr	Patra	Koletsi	Great Ormond Street Hospital	Infectious Diseases	Fellow
Dr	Abhinav	Kumar	Sherwood Forest NHS Foundation Trust	Microbiology	Consultant
Dr	Sandra	Lacey	Queen's Hospital, Romford	Microbiology	Consultant
Prof	David	Lalloo	Liverpool School of Tropical Medicine	Tropical Medicine	Consultant
Dr	Lucy	Lamb	Guy's and St Thomas' NHS Foundation Trust	Microbiology	Specialist Registrar
Dr	Rajeka	Lazarus	Oxford University Hospitals NHS Trust	Clinical Research	Specialist Registrar
Dr	Kirsty	Le Doare	Evelina Children's Hospital	Infectious Diseases	Consultant
Dr	Ho Kwong	Li	Imperial College NHS Foundation Trust	Infectious Diseases	Specialist Registrar
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Dr	Meirion	Llewelyn	Royal Gwent Hospital	Infectious Diseases	Consultant
Prof	Diana	Lockwood	London School of Hygiene and Tropical Medicine	Infectious Diseases	Consultant
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Dr	Olivia	Lucey	Barts and The London NHS Trust	Microbiology	Specialist Registrar
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Dr	Firas	Maghrabi	Queen Elizabeth Hospital	Out Patients	Physician
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Dr	James	Meiring	Oxford University Hospitals NHS Trust	Infectious Diseases	Fellow
Dr	Mark	Melzer	Barts and The London NHS Trust	Infectious Diseases	Consultant
Dr	Chandanie	Mendis Ramasundara	Hampshire Hospitals NHS Trust	Microbiology	Fellow
Dr	Claudia	Meyer	Queen Alexandra Hospital	Microbiology	Specialist Registrar
Dr	Albert	Mifsud	PHE Whitechapel	Microbiology	Consultant
Dr	Damien	Ming	Imperial College NHS Foundation Trust	Infectious Diseases	Specialist Registrar
Dr	Edward	Monk	London School of Hygiene and Tropical Medicine	Infectious Diseases	Student
Dr	Ed	Moran	Heartlands Hospital	Infectious Diseases	Consultant
Dr	Peter	Moss	Hull Royal Infirmary	Infectious Diseases	Consultant
Dr	Claire	Mullender	Guy's and St Thomas' NHS Foundation Trust	Infectious Diseases	Specialist Registrar

Delegates

Title	Name	Surname	Hospital	Department	Grade
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Dr	Michael E	Murphy	University College London	Microbiology	Specialist Registrar
Dr	Juliette	Mutuyimana	Leicester Royal Infirmary	Infectious Diseases	Speciality Trainee
Dr	Dilini	Nakkawita	King's College Hospital	Microbiology	Speciality Trainee
Dr	Pippa	Newton	University Hospital of South Manchester	National Aspergillosis Centre	Consultant
Dr	Mary	Nushaj	Colchester University Hospital NHS Trust	Microbiology	Specialist Registrar
Dr	Anand	Odedra	Sheffield Teaching Hospitals NHS Trust	Infectious Diseases	Specialist Registrar
Dr	Eamonn	O'Moore	Public Health England	Health and Justice Team	National Lead
Dr	Catherine	O'Sullivan	St George's Hospital	Paediatrics	Fellow
Dr	Stavroula	Paraskevopoulou	Imperial College NHS Foundation Trust	Pathology	Speciality Trainee
Dr	David	Partridge	Northern General Hospital	Microbiology	Consultant
Prof	Tim	Peto	John Radcliffe Hospital	Infectious Diseases	Consultant
Dr	Christina	Petridou	Hampshire Hospitals NHS Trust	Microbiology	Specialist Registrar
Mr	Joshua	Pinedo	Royal Victoria Infirmary	Medical Student	Student
Dr	Bozena	Poller	Sheffield Teaching Hospitals NHS Trust	Microbiology	Physician
Dr	Erica	Pool	Brighton and Sussex University Hospitals	Sexual Health/HIV	Academic Clinical Fellow
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	Specialist Registrar
Dr	Laura	Prtak	Sheffield Teaching Hospitals NHS Trust	Microbiology	Consultant
Dr	Maheshi	Ramasamy	Churchill Hospital	Clinical Research	Specialist Registrar
Dr	Pooja	Ravji	Basildon and Thurrock University Hospitals	General Medicine	Specialist Registrar
Dr	Timothy	Rawson	Imperial College NHS Foundation Trust	Infectious Diseases	Research Associate
Dr	Chloe	Rayner	Kingston Hospital	Geriatrics	Foundation Year Doctor
Prof	Robert	Read	University of Southampton	Infection & Immunity	Consultant
Dr	Hannah	Rickman	University College Hospitals	Medicine	Speciality Trainee
Dr	Anna	Riddell	Royal London Hospital	Infectious Diseases	Specialist Registrar
Dr	Jennifer	Roe	University College London	Infection & Immunity	Specialist Registrar
Dr	Andrew	Rosser	University Hospital Leicester	Infectious Diseases	Specialist Registrar
Prof	Sarah	Rowland-Jones	Oxford University Hospitals NHS Trust	Medicine	Professor
Dr	Giovanni	Satta	Imperial College NHS Foundation Trust	Microbiology	Consultant
Dr	Matt	Schmid	Newcastle Upon Tyne Hospitals NHS Trust	Infectious Diseases	Consultant
Dr	James	Seddon	Imperial College NHS Foundation Trust	Paediatrics	Lecturer
Dr	Madeleine	Shakeshaft	Countess of Chester Hospital	Acute Medicine	Speciality Trainee
Dr	Andrew	Simpson	Public Health England	Rare & Imported Pathogens	Consultant
Dr	Bhagteshwar	Singh	Royal Liverpool University Hospital	Microbiology	Specialist Registrar
Dr	Karthiga	Sithamparanathan	Peterborough and Stamford Hospitals	Microbiology	Consultant
Dr	Jordan	Skittrall	Addenbrooke's Hospital	General Medicine	Academic Clinical Fellow
Dr	David	Smith	Kingston Hospital	General Medicine	Speciality Trainee
Dr	Noel	Snell	Royal Brompton Hospital	Medicine	Senior Lecturer
Miss	Sarah	Snow	University of Sheffield	Infectious Diseases	Student
Dr	Hannah	Soulsby	Glasgow Royal Infirmary	Microbiology	Speciality Trainee
Dr	Luciana	Sowole	St Mary's Hospital	Microbiology	Specialist Registrar
Dr	Lynne	Speirs	Antrim Area Hospital	Paediatrics	Specialist Registrar
Prof	Shiranee	Sriskandan	Imperial College NHS Foundation Trust	Medicine	Professor
Dr	Iain	Stephenson	Leicester Royal Infirmary	Infectious Diseases	Consultant
Dr	Vani	Subbarao	Imperial College NHS Foundation Trust	Infectious Diseases	Specialist Registrar

Delegates

Title	Name	Surname	Hospital	Department	Grade
Dr	Saranga	Sumathipala	Imperial College NHS Foundation Trust	Microbiology	Specialist Registrar
Dr	Andrea	Szendroi	King's College Hospital	Microbiology	Clinical Scientist
Dr	Rachel	Taggart	Royal Liverpool University Hospital	Microbiology	Specialist Registrar
Dr	Lionel	Tan	Imperial College NHS Foundation Trust	Infectious Diseases	Honorary Consultant
Mr	NgeeKeong	Tan	St George's Hospital	Microbiology	Speciality Trainee
Ms	Rebecca	Taqi	Guy's and St Thomas' NHS Foundation Trust	Accident & Emergency	Sister
Dr	Andrew	Taylor	Oxford University Hospitals NHS Trust	Medicine	Speciality Trainee
Dr	Hiten	Thaker	Hull Royal Infirmary	Infectious Diseases	Consultant
Miss	Ann	Tivey	Imperial College NHS Foundation Trust	Medical Student	Student
Mr	Adam	Tsao	Imperial College NHS Foundation Trust	Medicine	Student
Dr	Claire	Turner	Imperial College London	ID & Immunity	Fellow
Dr	Mangalanath	Udukala	Leicester Royal Infirmary	Microbiology	Specialist Registrar
Miss	Priya	Ved	Locum	Locum	Pharmacist
Dr	Elen	Vink	Lothian University Hospital Trust	Microbiology	Speciality Trainee
Dr	Harjeet S	Virk	Southampton General Hospital	Infectious Diseases	Specialist Registrar
Dr	Joanna	Walker	Brighton and Sussex University Hospitals	Microbiology	Specialist Registrar
Dr	Emma	Wall	University College Hospitals	Infectious Diseases	Specialist Registrar
Dr	Christopher	Ward	King's College London	Infectious Diseases	Specialist Registrar
Dr	Ben	Warne	Addenbrooke's Hospital	Infectious Diseases	Specialist Registrar
Dr	Gabriella	Watson	St George's Hospital	Paediatrics	Speciality Trainee
Prof	Ian	Weller	University College London	Infection/Population Health	Consultant
Miss	Leila	White	Lancashire Teaching Hospitals NHS Trust	Microbiology	Scientist
Prof	Jimmy	Whitworth	London School of Hygiene and Tropical Medicine	ID Epidemiology	Consultant
Dr	Darshana	Wickramasinghe	Northwick Park Hospital	Microbiology	Speciality Trainee
Dr	John	Widdrington	Royal Victoria Infirmary	Infectious Diseases	Specialist Registrar
Dr	Robin	Wiggins	Independent Practitioner	Microbiology	Consultant
Dr	Bryony	Wilkes	St George's Hospital	Infectious Diseases	Speciality Trainee
Miss	Genevieve	Wills	University College London	Medical Research Council	Statistician
Prof	Martin	Wiselka	University Hospital Leicester	Infectious Diseases	Consultant
Dr	Waison	Wong	Royal Hospital for Sick Children	Paediatrics	Speciality Trainee
Dr	Huina	Yang	Addenbrooke's Hospital	Microbiology	Specialist Registrar

BIA Meetings Calendar

2016

BIA Trainees' Day
Thursday 17th November 2016
The Studio - Birmingham

FIS 2016 Event*
6 – 8th November 2016
EICC, Edinburgh
***Registration fees apply**

2017

1st ID Dilemmas*
Thursday 26th January 2017
Manchester Conference Centre
***Registration fees may apply**

10th HIV Dilemmas*
Friday 27th January 2017
Manchester Conference Centre
***Registration fees may apply**

BIA
Trainees' Day
Wednesday 24th May 2017
SOAS London

BIA
20th Annual Scientific Meeting
Thursday 25th May 2017
SOAS London

BIA Trainees' Day
November 2017
Birmingham (tbc)

More details & registration via BIA – Hartley Taylor Communications Ltd

http://www.britishinfection.org/

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 2017

British Infection Association

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