West Midlands Infectious Diseases, Specialty Registrar Rotation

This is a Specialty Registrar training programme in Infectious Diseases and General (Internal) Medicine, with accreditation in tropical medicine also if desired. The Rotation is based at Birmingham Heartlands Hospital. The trainee will also spend up to one year, at a time to be agreed, practising infectious diseases and general medicine at either the Royal Worcestershire Hospital, the North Staffordshire Hospital, Stoke on Trent, or University Hospital Coventry & Warwick.

TYPICAL ROTATION

1st yr  Royal Worcestershire or North Staffs; GIM & ID
2nd yr  Birmingham Heartlands ID with GIM
3rd yr  Birmingham Heartlands: ID with GIM 3mn; Microbiology 6mn; ITU 3mn
4th yr  Research*¹
5th yr²  Birmingham Heartlands ID with GIM; 3mn acting consultant

*¹ Research may be in 2nd to 4th year. It often extends for 3yrs (occasionally more) but one year can count towards training. If research is not undertaken, an additional year will be spent at Heartlands

*² Those wishing to accredit in tropical medicine must do an additional year, usually year 5 of 6, in approved training in the tropics

HEART OF ENGLAND NHS TRUST

This is made up of Birmingham Heartlands Hospital, Solihull Hospital, Good Hope Hospital in Sutton Coldfield and the Birmingham Chest Clinic in the city centre. Heartlands is located approximately 4 miles from the city centre and 7 miles from the University of Birmingham Medical School. This large teaching hospital has over 900 beds. The Trust provides local hospital services for the east of Birmingham and the Metropolitan Borough of Solihull, with combined resident populations of around 450,000. The East Birmingham population consists mainly of lower income groups and ethnic minorities that contribute to high standardised mortality rates and experience high rates of imported infection from the tropics and high rates of tuberculosis. Elsewhere there are more affluent suburban and semi-rural areas.

Heartland Hospital also provides a number of regional services including those for Thoracic Surgery, Clinical Haematology, Adult Cystic Fibrosis and Infectious Diseases. The regional Cytogenetics, Neurology and Immunology departments are also on site, together with the Birmingham Health Protection Agency Laboratories.

The hospital has a large Medical Admissions Unit with weekday cover by a team of acute physician consultants.

The hospital provides around one third of student teaching for Birmingham Medical School, which presently has an annual intake of over 400.

THE DEPARTMENT OF INFECTION AND TROPICAL MEDICINE

This department is recognised nationally as a leading centre and is accredited as a training centre for tropical medicine. The full range of specialty areas for infectious diseases physicians are managed in the unit, including HIV, pulmonary and extrapulmonary tuberculosis (with MDRTB), bone and joint infections, and chronic viral hepatitis.

The Directorate of Infection comprises the departments of Infection and Tropical Medicine, Clinical Microbiology, Sexual Health, and Clinical Immunology. HIV patients benefit from a very close working relationship between the Sexual Health and ID physicians, and from the facilities and expertise of the on-site regional virus reference laboratory. There are currently about 800 adult HIV patients under active follow up.
The clinical immunology department, within the ID directorate, provides a regional service for diagnosis and management of patients with primary immune deficiencies and allergies.

The department has a close working relationship with the Centre for Defence Medicine at University Hospital Birmingham and is the UK centre for repatriated military personnel with infectious and tropical diseases.

The department has its own purpose-built out patient department and 2 purpose-built wards (2001), with 48 beds in all, more than half these being single rooms. Two rooms are negative pressure suites and there are plans to increase this facility this year. At least 80% of ward patients at any time are infectious disease patients, rather than other general medical patients, but the ID team is usually responsible for general medical patients admitted to its wards.

**Staffing**

The ID department continues to grow. We currently have 6 consultants:

Dr Chris Ellis,
Dr Jennifer Short, regional head of specialty training for ID
Dr Neil Jenkins
Major Mark Bailey (50% academic appointment)
Dr Martin Dedicoat
Dr Ed Moran (commencing Oct. 2012)

We are collaborating with Warwick University and expect to appoint a Professor and an Associate Professor in Infectious Diseases in the near future. Other consultant staff hold senior clinical lecturer appointments at the University of Birmingham or Warwick

Three of the current consultants do a share of the hospital’s acute medical takes. Two consultants have co-trained in infectious diseases with microbiology.

Other medical staff:
Dr Grace Smith, Clinical Microbiologist, is Clinical director
4 SpR/StrR posts,
4 CMT/ FY2 trainees
2 FY1s

*The Region now also has approved joint training programmes in ID-medical microbiology and ID-virology. The first trainee in ID-microbiology will commence in this region August 2012.*

**DUTIES AT BIRMINGHAM HEARTLANDS HOSPITAL**

The specialty Registrar in ID will have the opportunity to work with all consultants and thus gain experience in their main specialist areas, with very broad clinical experience. The registrar will be responsible to the consultants for the day to day care of ward patients and will participate in the departmental timetable. Registrars will work a partial shift system which is EWTD compliant.

Example timetable – this will vary depending on point in training programme:

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<tr>
<td>AM</td>
<td>Consultant ward round</td>
<td>STR Ward round</td>
<td>3rd year teaching &amp;</td>
<td>Consultant ward round</td>
<td>Virtual HIV clinic;</td>
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<td>consults</td>
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<td>Clinical meeting (with</td>
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<td>radiology and microbiology)</td>
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<tr>
<td>LUNCH</td>
<td>Microbiology</td>
<td>ID academic</td>
<td>Grand round</td>
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<td></td>
<td>clinical meeting</td>
<td>meeting</td>
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<td>PM</td>
<td>HIV clinic</td>
<td>ID clinic</td>
<td>academic time</td>
<td>Ward consults</td>
<td>Ward work</td>
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On Call Commitments

All trainees will be expected to undertake on-call duties with an out-of-hours commitment to General/ Acute Medicine and Infectious Diseases (separately), which will vary depending on the duties of the post but which are EWTD compliant (average <48hrs work / wk) and will not exceed the limits defined in the terms and Conditions of Service paragraph 20. RMO shifts for the acute medical take are currently arranged in short blocks (3-4 shifts) for day and night duties.

Location of Duties

Principally in the dedicated in-patients and out-patients facilities at Heartlands Hospital. Referrals are seen in other departments throughout the hospital. At points through the training programme, trainees will also be required to travel to other hospitals within the trust as part of the consultant led infection-consult service.

Research

Our patient mix lends itself to research questions and the directorate is committed to research and innovation. Current local research interests include the early diagnosis of tuberculosis and molecular aided study of its epidemiology, and drug therapies in HIV, particularly pharmacokinetic profiling.

Registrars are strongly encouraged to undertake research. Out of Programme Experience or Research is well supported for our trainees by the Deanery, and all recent trainees have spent or are embarking on extended periods of time in research or further studies, mostly in overseas, including resource-poor settings. Current placements:

- MRC funded studies in Guinea Bissau on trachoma
- Wellcome Trust units in Thailand studying severe malaria, and melioidosis as a model of sepsis
- Wellcome Trust funded study of Cryptococciosis & immune reconstitution in HIV in South Africa
- Assessment of training needs for HIV care in Henan Province China

Trainees have excellent success rates in obtaining research support from the Wellcome Trust and MRC. Recognising our academic strengths, the University of Warwick is now searching for a new Clinical Professor and Associate Professor in infectious diseases, both of whom will be based at HEFT. These new academic posts are expected to be appointed early in 2013 and will be managed within Warwick Medical School and School of Life Sciences. This aspect of our link with Warwick will establish collaboration in both biomedical and systems biology research and also epidemiology. The collaboration is anticipated to be wider, however, focused on innovation for the benefit of patients and the public, and drawing on such disciplines as Health Informatics, Clinical Systems Improvement techniques, Complex Intervention Trials, and Qualitative Methods. Warwick University is developing an Institutional collaboration with the Liverpool School of Tropical Medicine (including joint academic appointments) and our directorate is therefore likely to benefit from this development.

Teaching

The department is involved in teaching of undergraduates in general medicine (3rd year) as a main clinical firm, 4th and 5th year students doing student selected modules, and in postgraduate teaching. Trainees wishing to do so are encouraged to undertake a diploma in medical education.

Administrative /Governance

The Specialty Registrar is required to participate in regular medical audits and other aspects of governance.
Study and Training

There is a weekly infectious diseases clinical meeting and grand round, typically attended by clinicians from bacteriology, virology, paediatric infectious diseases, GUM & immunology, as well as the ID team and a consultant radiologist. In addition there is a weekly ID academic meeting, weekly HIV academic meetings, journal clubs and a “virtual HIV clinic”.

Appropriate secondments are made in order to fulfill the JRCPTB curricula in infectious diseases and in General (Internal) Medicine, typically including 4-6 months of microbiology and 3 months ITU.

Trainees normally have one ½ day a week of academic time, to be used for both personal research/ preparation thereof, and for departmental supporting activities, such as audit or service development. This is in addition to the standard contractual study leave allocation. Some of the study leave allowance is used to attend required regional training: Deanery organised General Medical Training days, and the integrated regional training days programme for microbiology and ID. There are occasional stand-alone training ½ days for ID registrars, arranged flexibly, as and when requested by trainees, according to their perceived training requirements. Trainees often attend national conferences and training days (such as offered by British infection association). Whilst funding for such leave is restricted in line with all regions, every effort is made to support reasonable requests for appropriate leave, up to maximum allowance accumulated over the training period.

Heartlands Education Centre was opened in 1996 and is the center for multi-disciplinary education on the site. It incorporates excellent medical library and IT facilities.
This post is based at the Royal Worcestershire Hospital in Worcester, a brand new PFI hospital that opened in March 2002. There are clinics in addition that take place at Kidderminster Hospital and occasionally at the Alexandra Hospital in Redditch. There is also the opportunity for attachment to specialist clinics in Birmingham (in particular, the hepatitis clinic at the Queen Elizabeth Hospital under the supervision of Dr David Mutimer and the TB clinic at the Birmingham chest clinic under the supervision of Dr John Innes).

**Consultant Staff**

The Programme Director and Educational Supervisor is Dr Mark Roberts, Consultant Physician/Hon Senior Lecturer in Infectious Diseases. Dr Mirella Ling is the other infectious diseases consultant. There is close collaboration with the Clinical Microbiologists, Dr Jane Stockley, Dr Claire Constantine and Dr Chris Catchpole over the management of community and nosocomial infection, and with the GU physicians, Dr Yassus De Silva and Dr Sumit Bhaduri over the management of patients in the Worcestershire HIV Clinic. Commitment to an infectious diseases consult service to the wards and weekly to ITU is encouraged. Sessions at the local GU clinic can be arranged. Attendance on the haematology ward round is welcomed with opportunities to see the management of this immunosuppressed cohort. There are opportunities to attend management meetings to gain experience in this arena.

**Facilities**

There are eight isolation rooms with negative pressure in the ID unit, two of which have facilities for continuous monitoring at a standard to care for multi drug resistant TB (MDRTB). There are also isolation facilities on the critical care unit. There is a fully equipped diagnostic microbiology laboratory on site with virology services. Adjacent to the hospital is the brand new Charles Hastings education centre with library and state of the art conferencing facilities. A desk with PC and internet access is available.

**Clinics**

The Worcestershire HIV clinic manages all HIV infection in Worcestershire and all in-patient HIV infection. Mark Roberts is lead clinician and the clinic is multi disciplinary with dedicated sessions from GU physicians, HIV specialist nurses, dieticians and voluntary sector workers. Clinics take place once or twice a week at Worcester, Redditch and Kidderminster. There is a local HIV network with regular clinical meetings with colleagues from Birmingham, Warwickshire and Gloucestershire. There are about 135 patients under active management in the clinic.

Twice a month a Viral Hepatitis Clinic is held at Worcester where patients are assessed and treated for chronic hepatitis with pegalated interferon, ribavirin and nucleoside analogues. This is a combined clinic with Dr Simon Hellier, consultant gastroenterologist. Other ID patients including returning travellers, PUO and chronic fatigue are seen in the general clinics.

**General Medicine**

There 12 StRs that contribute to the general medicine rota which is full shift (prospective cover). All admissions come through a medical assessment unit (MAU) with a Consultant Acute Physician in attendance during the day and twice daily consultant rounds with the on call consultant. The ID StR is also responsible for in-patient care of general medical patients.
under the care of the ID consultants. A proactive approach to identify patients suitable for transfer to the infectious diseases ward is in operation. The base ward is Avon 3. A regular clinical governance meeting is held.

**Teaching/Study Leave**

There is a large intake of medical students and there will be opportunities for undergraduate and post graduate teaching. There are regular physicians meetings. Normal study leave will be granted and there are good opportunities for clinical research and audit. A monthly infection meeting with the infectious diseases team, microbiologists and public health doctors is held with a rotating speaker. Worcestershire Hospitals Infection Group meet 3 monthly with a larger pre-Christmas meeting with a guest speaker.

**Provisional Timetable**

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<tr>
<td><strong>AM</strong></td>
<td>Clinic at Kidderminster (Gen/ID/FC/RV) or Hep C clinic at QEH</td>
<td>GUM clinic at Worcester or Microbiology at Worcester</td>
<td>StR ward round at Worcester or HIV clinic at Kidderminster</td>
<td>HIV clinic or Viral Hepatitis Clinic at Worcester</td>
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<tr>
<td><strong>LUNCH</strong></td>
<td>Physicians meeting at Worcester or monthly infection meeting</td>
<td>Chest radiology meeting at Worcester</td>
<td>HIV ward round in Birmingham</td>
<td>Grand Round at Worcester</td>
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<tr>
<td><strong>PM</strong></td>
<td>Cons Ward Round at Worcester</td>
<td>Gen med clinic at Kidderminster</td>
<td>Medical student or SHO teaching at Worcester</td>
<td>ITU WR at Worcester then ID consults or Chest clinic in Birmingham (optional)</td>
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**ON CALL COMMITMENTS AT WORCESTER**

All trainees will be expected to undertake on-call duties. The basic working week is 40 hours. In addition Specialty Registrars will be expected to undertake on out-of-hours commitment, which will vary depending on the duties of the post but will not exceed the limits defined in the terms and Conditions of Service paragraph 20. Working patterns are under review, in accordance with the New Deal on Junior Doctors hours.
Infectious Diseases Service

The service is staffed by two Consultant Physicians, Dr Neena Bodasing and Dr Tony Cadwgan, an STR (this post) a CMT trainee and a FY1. The medical staff are supported by a full time advanced nurse practitioner (ANP). All members of the team have input into acute medicine in the medical assessment unit (MAU) in the hospital.

The Infectious disease unit has recently moved to a newly refurbished ward and is situated on the City General Hospital site. It contains 15 single rooms, four of which have negative pressure facilities. Each consultant does ward rounds 2-3 times a week and there is a joint educational ward round on a Monday morning.

Patients are admitted directly to the ID unit during working hours; at nights and weekends patients are admitted to the unit after initial assessment in the MAU.

General Infectious Disease clinics are run twice each week and see a wide variety of patients with clinical infection problems. Patients with Hepatitis C are seen in these clinics for assessment before treatment which is provided by a nurse led HCV treatment clinic which treats patients referred from both the ID and hepatology services.

HIV Service

In North Staffordshire the HIV service is run jointly by the two ID physicians and Dr Gurdeep Singh in Genito-urinary Medicine. There are 4 HIV clinics each week catering for our cohort of approximately 250 patients. There is a weekly HIV Multidisciplinary team meeting where all patients seen that week are discussed. There are three HIV clinical nurse specialists who support the team. Inpatient care for HIV patients is provided on the ID unit and Dr Singh joins the weekly educational ward rounds. Patients with HIV co-infected with HBV, HCV and TB are treated within this service.

TB Service

This service is run jointly with the Respiratory Medicine department and headed by Dr Martin Allen. There are two TB clinics weekly one of which is dedicated to asylum seeker screening and is run by the ID physicians. There are two TB Liaison nurses who support the team. The majority of in-patient care for patients with TB is provided in the ID unit.

Microbiology Liaison

Currently the ID team visit ITU on a weekly basis with the microbiology department to provide microbiological and infection advice. We also have a Bacteraemia liaison service jointly with microbiology. An Outpatient parenteral antibiotic (OPAT) service has recently started in conjunction with microbiology and orthopaedics and is run by two nurses with medical support from the ID team. A weekly OPAT MDT is held with ID, microbiology and OPAT nurses.

Acute Medicine

The STIR from the ID unit will be part of the STIR rota for general medicine. There are currently 16 STIRs on this rota.

Educational Activities.

The following activities occur weekly: HIV MDT meeting, medical grand round, ID/Micro/GUM journals Club, Educational Joint Ward Round. Respiratory/ID x-ray meeting.

The department has a commitment to undergraduate student teaching for students of the University of Keele. This involves lectures; Problem based learning (PBL) and bedside teaching. The department also contributes to postgraduate MRCP teaching.
Responsibilities of the StR

The StR in the ID department is involved in all aspects of the running of the unit. This includes:

- A weekly General Infection outpatient clinic, including hepatitis C.
- A weekly HIV clinic.
- Regular input into the TB asylum seeker clinic.
- Attendance at Consultant ward rounds (including the joint educational ward round)
- A weekly StR ward round of all the patients on the ID unit.
- Day to day running of the ward and supervision of the CMT, FY1 and ANP.
- Seeing referrals from GPs and other consultants as required shared with the 2 consultants
- Input into all of the educational activities outlined above.

One of the ID consultants will be available at all times to discuss patient care, both in outpatient clinics, in the ID unit and for inpatient referrals.