

JOB DESCRIPTION

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| Job Title: | Consultant Clinical Scientist in Medical Microbiology |
| Band: | 8c |
| Directorate: | Clinical Support Services |
| Job Group: | A4C |
| Location: | Royal Shrewsbury Hospital |
| Hours of Work: | 37.5 |
| Accountable to: | Clinical Directory of Pathology |
| Professionally accountable to: | Support Services Division Medical Director (Pathology) |
| Date: | May 2022 |

1. Job Purpose

The post holder will be part of a team responsible for the provision of a comprehensive, effective and cost-effective clinical, laboratory, diagnostic and consultative microbiology and infection control service to the two hospital trusts in Shropshire (Shrewsbury & Telford Hospital NHS Trust, Robert Jones & Agnes Hunt Orthopaedic Hospital NHS Foundation Trust), the 2 Primary Care Trusts in Shropshire and Powys Local Health Board.

The post holder will be expected to liaise in a timely manner with clinicians, hospital staff, medical microbiologists, general practitioners and health protection consultants concerning the diagnosis and management of patients, control and prevention of infections including the provision of telephone advice.

2. The Department

Accreditation and quality assurance

The department has UKAS accreditation maintained under ISO 15189 standards with latest certificate issued January 2021. The laboratory participates in relevant national external quality assurance (EQA) schemes.

Laboratory Workload

In 2020/21 400,248 specimens were received. The balance of the workload has changed due to the pandemic (see table).

| Type of activity | Approximate number of Requests | |
|--------------------------------|--------------------------------|---------|
| | 2019/20 | 2020/21 |
| Bacteriology | 282,845 | 214,596 |
| Serology | 43,587 | 52,740 |
| Molecular including SARS-CoV-2 | 10,142 | 125,132 |

The non- SARS-CoV-2 workload covers a full range of specimens to be expected in a large district, without regional specialities. Approximately 40% of samples are from primary care and the laboratory also receives samples from a regional centre for spinal injuries and orthopaedics.

Mycology services for dermatophytes are provided for Shropshire and UHNM. Molecular tests for C. difficile, chlamydia, influenza, RSV, HSV, norovirus and viral meningitis are performed in-house, as is HCV quantitation. Further specialist molecular & virology tests as well as Mycobacterial services are currently provided by the HPA laboratory, Birmingham. There is a full 7 day service in operation with an extended week day until 20:00. Biomedical Scientists also provide an out of hours on call service.

Laboratory accommodation and equipment

The laboratory is well equipped. Bacteriology equipment includes 3 Bactec FX blood culture analysers, a Bruker MALDI-TOF, an IRIS QC Sprint urine analyser and 3x BD MicroScan Antibiotic Resistance analysers. Serology and therapeutic drug monitoring is performed on a Roche Cobas 810 blood science platform. In addition there is a Vidas 3 for further testing. Large volume molecular tests are performed on Qiagen Qiasymphony extraction platforms, ABI detection platforms and a Rotagene. Rapid molecular platforms include DRW Samba machines, Abbott ID Now machines and Cepheid GeneXpert.

The current laboratory information system is Telepath, however the laboratory is in the process of implementing a new LIMS (Clinisys). The current system is networked and is also accessible from outside the hospital by secure connection. All samples can be viewed and authorised from the Shrewsbury, Telford or Oswestry sites. Results are reported electronically to the acute and community hospitals and GP surgeries. Electronic requesting of laboratory investigations is available to all our users. Extensive use of interfacing, networking and well-developed data extraction routines are available as well as access to ad hoc information.

Current Staff of the Microbiology Laboratory

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|-----------------------------------|---|
| Consultants | Dr Stephanie Damoa-Siakwan Dr Steve Jones Dr Graham Harvey (0.4 WTE) Dr Patricia O'Neill (0.4 WTE) |
| Lead BMS Biomedical Scientists | Mrs Sarah Gilbert Band 7 – 6.8 WTE Band 6 – 10.8 WTE Band 5 – 7 WTE Band 4 – 10.35 WTE Band 2 – 11.9 WTE |

The department also has full training approval status by the Institute of Biomedical Science for pre registration and post registration Specialist Diplomas for Medical Microbiology and for the Certificate of Achievement.

Relationships to other Departments

Pathology is part of the clinical support services division, the Clinical Director of Pathology is Dr Angus McGregor. There are 5 consultant haematologists, 10 consultant histopathologists and a consultant chemical pathologist.

The Heads of Department within Pathology are:

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| Microbiology | Dr Stephanie Damoa-Siakwan |
| Histopathology | Dr Joanne Stafford |
| Biochemistry | Dr Nigel Capps |
| Haematology | Dr Steve Mckew |

Local Infection Prevention and Control arrangements

SaTH's current Director of Infection Prevention and Control is the Director of Nursing, Midwifery and Quality. The IPC nursing team comprises two B8, two B7, two B6, one B4 and one B3. r

At RJAH there is a band 7 Sister, a B6, two B5 surveillance nurses as well as B3 and B2 support staff. The DIPC is the Director of Nursing/Deputy Chief Executive. A microbiologist is the Infection Control doctor.

Shropshire Community Health Trust has a DIPC (Executive Director of Nursing and Operations), Head of IPC, two IPC nurses and a secretary. One of the microbiologists acts as ICD.

3. Main Duties and Responsibilities

Clinical

- Will be an expert in their field and provide highly complex advice to Consultants, doctors, nurses and other healthcare professionals on the guidance & management of patients with infectious diseases. This requires the post holder to demonstrate empathy and persuasive skills when dealing with extremely difficult/challenging medical conditions.
- To make clinical decisions involving complex/ highly complex facts or situations, which require the analysis, interpretation and comparison of a range of information
- Analysis and judgement of highly complex data, including antibiotic resistance analysis, analysis of tests, investigations and results in a specialist area where there may be differing opinions.
- Responsibility for regular visits to ITU and regular ward rounds at the 3 main hospitals.
- Authorisation and interpretation of results.
- Day-to-day supervision of diagnostic methods, examination and analysis of complex specimens.
- To participate in the out-of-hours advisory service on infection diagnosis and management as well as infection prevention issues (1 in 4 rota)

Management

- Responsibilities for clinical lead, technical lead, antimicrobial stewardship, IDPS screening lead, health and safety are shared across the Consultant team and reviewed regularly.
- The role of laboratory IDPS lead is currently attached to this post. Duties include ensuring
 - Service specification meets IDPS screening quality assurance requirements
 - Turnaround times of specimens are monitored
 - There is a method for results to be conveyed to the antenatal screening coordinator
 - Attendance at multidisciplinary team meetings
- Work with the infection control teams and DIPCs on a local or regional basis including liaison with the relevant health protection staff in the investigation and prevention of communicable diseases in the community will be required. Will be required to assist in the investigation and control of community outbreaks.
- Responsible for providing advice in the development of clinical guidelines, investigation protocols, laboratory SOPs and guidance on the appropriate use of antimicrobials.
- Attend (and chair where required) the laboratory management, quality and technical meetings, and may be required to attend other trust management meetings outside pathology.
- To contribute to and support the Trusts strategies and objectives by working with the senior and executive management teams

Professional

- To advance professional knowledge through personal study and participation in training and educational courses/meetings in microbiology, virology and molecular for continuing professional development and to maintain professional registration (HCPC) To disseminate complex clinical and scientific knowledge through presentation at local, national and international meetings, and by publication in peer-reviewed journals.
- Uphold the Trust's values and behaviours and behave in a manner fitting with the responsible position of the post holder, maintaining the public confidence
- Uphold the privacy and dignity of the patient and respect the equality of patients at all time
- Extensive use of interfacing, networking and well-developed data extraction routines.
- To help co-ordinate R&D studies or be Principal investigator both within the department and within the Trust to improve services, as part of national trials/studies and to present findings at meetings (locally, nationally or internationally)

The post holder will maintain the security of sensitive personal and other confidential information and will apply all relevant Information Governance policies reliably to working practice. Additionally they will be expected to follow secure operating procedures for handling information in all formats, including verbal, written and that held electronically.

Communication and Key Working Relationships

- To communicate highly complex (and sometimes sensitive) information clearly and concisely, to ensure that high quality patient care is delivered.
- Establish effective working relationships with colleagues, including
 - Consultant, Scientific (BMS, AP, MLA) and Admin & Clerical staff within the department.
 - Senior Consultants, Medical and Scientific staff from other modalities within Pathology and across the Trust.
 - Trust Senior Management and Executives
 - Service users – to include Consultants, junior hospital doctors, General Practitioners, Health Workers and support staff from within the trust and wider health care community.
 - Regional Microbiology departments, Regional Directors of Public Health, Environmental Health and other staff groups throughout the West Midlands.
 - Health Protection Units and National Reference Laboratories
- To work and engage across the wider health care community (STP) to deliver a safe, well led and reliable service

Policy & Service Delivery

- Take an active role in determining the strategic direction of the department, contributing to short, medium and long term strategies for the service delivery of microbiology and infection prevention
- To contribute to and support the Trusts strategies and objectives by working with the senior and executive management teams
- To facilitate and support executives during unforeseen or challenging times eg pandemics and outbreaks. Business planning, including the assessment and introduction of new methods, and forward planning for staff and equipment requirements .
- Policy and service development – writing and proposing changes to policies including SOP preparation.
- Responsible on advising on hospital policies for infection prevention and control, risk assessment and the management of accidental exposures to infection, including on-call out of hour's advice
- Support in the training programme of junior doctors and medical students. To education of GPs and other health professionals e.g. nurses and pharmacists.
- To contribute to teaching of laboratory staff, including presenting at the monthly journal club.

Quality, Clinical Governance & Audit

- Responsibility for quality assurance performance within the department, including taking part in all relevant national external quality assurance (NEQAS) programmes.
- Responsibility for achieving and maintaining full accreditation with United Kingdom Accreditation Service (UKAS).
- Participation in multidisciplinary clinical audit, and in the implementation of an on-going clinical audit programme within the department.

Finance and HR

- Contribute to the development of business cases where appropriate for new staffing and capital expenditure.
- Participate in decision-making processes for purchase/leasing equipment. Monitor and support the evaluation and introduction of new equipment, consumables and techniques
- Evaluate potential changes in existing techniques/methodology and introduction of new tests/services within Microbiology (and wider pathology where appropriate)
- Assess both new and existing technologies for clinical efficacy and cost-effectiveness. Critically examine working practices within the department to identify cost improvements
- To contribute to vacancy and recruitment management– namely in relation to other Consultant or Clinical Scientist colleagues and senior laboratory staff positions.
- Participate in regular job appraisal processes, both as an appraiser and appraisee

Information Technology

- To utilise a range of complex clinical systems to assist in interpreting and authorising test results, to maintain databases and analyse complex scientific, financial and numerical data for the whole microbiology service.
- To utilize the necessary computer packages to support these tasks and undertake any further training required to support this.

Physical, Mental and Emotional effort

- A considerable proportion of the working day is spent at the computer authorising results, answering phone calls to provide advice on complex clinical cases, responding to correspondence, and using Microsoft teams to attend meetings, MDT's etc. Further computer work involves, writing SOP's - policies, conducting literature searches and preparing presentations, inputting and analysing data, writing reports/business cases
- There is a frequent requirement for sitting or standing in a restricted position for a substantial proportion of the working day and for light physical effort for short periods during a shift
- There is a frequent requirement for prolonged concentration and accuracy during authorisation results and coping with frequent interruptions by telephone queries. Queries are unpredictable in nature and require immediate attention, some are easily dealt with while many require prolonged attention due to the complexity.
- Other activities such as problem solving, data manipulation, reading scientific papers, checking and writing SOP's, preparing power point presentations or performing statistical analysis also require focused attention.
- Exposure to distressing or emotional circumstances is rare.

Working conditions

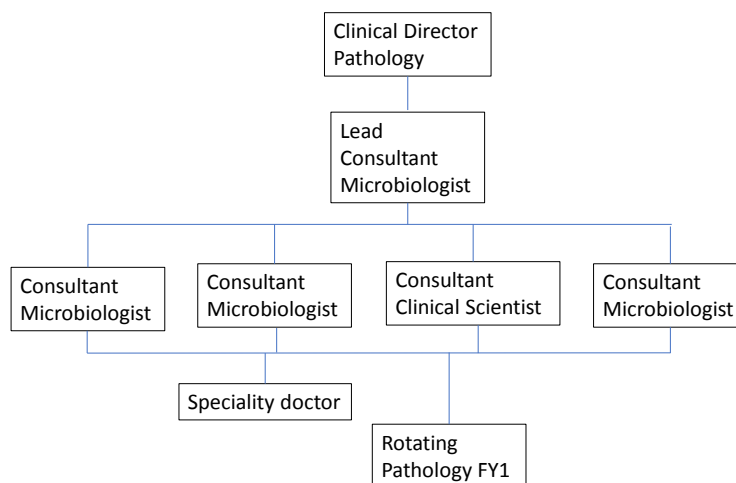
- As part of the requirement for laboratory bench liaison there is the associated continuous exposure to infectious material and body fluids including occasional exposure to Hazard Group 3 organisms (such as HIV, Hepatitis, TB) and to microbial cultures
- There is very occasional exposure to hazardous chemicals, which have all been subject to risk assessment.
- Verbal aggression is sometimes encountered from dissatisfied users of the service.

Job Plan

A formal job plan will be agreed between the successful candidate and the Clinical Director and consultant colleagues, on behalf of the Medical Director within 3 months of starting in post. The job plan will be reviewed annually and is a prospective agreement that sets out the consultant's duties, responsibilities, and objectives for the coming year. It covers all aspects of professional practice including clinical work, teaching, research, education and managerial responsibilities. It will provide a clear schedule of commitments, both internal and external and will include personal objectives, detailing links to wider service improvements and trust strategic priorities.

Any applicant who is unable, for personal reasons, to work full-time will be eligible to be considered for the post. If such a person is appointed, modification of the job content will be discussed on a personal basis with the Trust in consultation with other consultant colleagues.

4. Organisational Chart



Health & Safety

As an employee of the Trust you have a responsibility to:

- Take reasonable care of your own Health and Safety and that of any other person who may be affected by your acts or omissions at work; and
- Co-operate with the Trust in ensuring that statutory regulations, codes of practice, local policies and departmental health and safety rules are adhered to; and
- Not intentionally or recklessly interfere with or misuse anything provided in the interests of health and safety.
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Infection Prevention and Control

The prevention and management of acquired infection is a key priority for the Trust. Any breach of infection control policies is a serious matter which may result in disciplinary action. As an employee of the Trust you have a responsibility to:

- Ensure that your work methods are compliant with the Trust's agreed policies and procedures and do not endanger other people or yourself
- Be aware of infection prevention and control policies, practices and guidelines appropriate for your duties and you must follow these at all times to maintain a safe environment for patients, visitors and staff
- Maintain an up to date knowledge of infection prevention and control, policies, practices and procedures through attendance at annual mandatory updates and on-going continuing professional development
- Challenge poor infection prevention and control practices of others and to report any breaches, using appropriate Trust mechanisms (e.g. incident reporting policy).

Information Governance

The Trust is committed to compliance with Information Governance standards to ensure that all information is handled legally, securely, efficiently and effectively. You are required to comply with the Trust's Information Governance policies and standards. Failure to do so may result in action being taken in accordance with the Trust's Disciplinary Procedure.

- **Confidentiality and Security** - Your attention is drawn to the confidential nature of information collected within the NHS. Whilst you are employed by the Trust you will come into contact with confidential information and data relating to the work of the Trust, its patients or employees. You are bound by your conditions of service to respect the confidentiality of any information you may come into contact with which identifies patients, employees or other Trust personnel, or business information of the Trust. You also have a duty to ensure that all confidential information is held securely at all times, both on and off site.
- **Disclosure of Information** - The unauthorised use or disclosure of information relating to the Trust's activities or affairs, the treatment of patients or the personal details of an employee, will normally be considered a serious disciplinary offence which could result in dismissal. Upon leaving the Trust's employment and at any time thereafter you must not take advantage of or disclose confidential information that you learnt in the course of your employment. Unauthorised disclosure of any of this information may be deemed as a criminal offence. If you are found to have permitted

the unauthorised disclosure of any such information, you and the Trust may face legal action.

- **Information Quality and Records Management** - You must ensure that all information handled by you is accurate and kept up-to-date and you must comply with the Trust's recording, monitoring, validation and improvement schemes and processes.

Professional Standards and Performance Review

As an employee of the Trust you have a responsibility to:

- Participate in statutory and mandatory training as appropriate for the post; and
- maintain consistently high personal and professional standards and act in accordance with the relevant professional code of conduct
- Take responsibility for the maintenance and improvement of personal and professional competence and to encourage that of colleagues and subordinates
- Participate in the Trust's appraisal processes including identifying performance standards for the post, personal objective setting and the creation of a personal development plan in line with the KSF outline for the post.

Safeguarding Children and Vulnerable Adults

- We all have a personal and a professional responsibility within the Trust to identify and report abuse. This may be known, suspected, witnessed or have raised concerns. Early recognition is vital to ensuring the patient is safeguarded; other people (children and vulnerable adults) may be at risk. The Trust's procedures must be implemented, working in partnership with the relevant authorities. The Sharing of Information no matter how small is of prime importance in safeguarding children, young people and vulnerable adults.
- As an employee of the Trust you have a responsibility to ensure that:
 - you are familiar with and adhere to the Trusts Safeguarding Children procedures and guidelines.
 - you attend safeguarding awareness training and undertake any additional training in relation to safeguarding relevant to your role.

Social Responsibility

The Trust is committed to behaving responsibly in the way we manage transport, procurement, our facilities, employment, skills and our engagement with the local community so that we can make a positive contribution to society. As an employee of the Trust you have a responsibility to take measures to support our contribution and to reduce the environmental impact of our activities relating to energy and water usage, transport and waste.

Continuous Improvement

The Trust is committed to creating a culture that puts Continuous Improvement at the forefront of our transformational journey and our aim is to empower staff at all levels to have the confidence, capability, passion and knowledge, to test changes and make improvements at the Trust and the communities we serve. Following a successful five-year partnership with the Virginia Mason Institute in the USA, the Trust continues to further develop and embed the Trust's approach to Continuous Improvement at all levels of the organisation. You will be supported by an Improvement Hub, which will provide the necessary expertise to support you to make improvements, whilst also providing training at various stages of your time at the organisation, as part of your continuing professional development.

This job description represents a summary of the main responsibilities of the post and is not an exhaustive list of duties to be undertaken. The duties may be redefined following discussion with the Line Manager.

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|-----------|-------------|
| Manager | Post holder |
| Signature | Signature |
| Date | Date |