

**Maidstone and Tunbridge Wells NHS Trust
Job Description**

Job Title:	EME Services Engineer
Grade:	Band 5
Care Group / Department:	Medical Physics / E.M.E. Services
Base:	Maidstone & Tunbridge Wells Hospitals
Hours:	37.5 hours per week
Reports to:	E.M.E Workshop Manager
Accountable to:	E.M.E. Services Manager

Job Summary:

The Post Holder will be responsible for commissioning, maintenance, calibration and repair of a wide range of medical diagnostic and therapeutic devices, within the Maidstone & Tunbridge Wells NHS Trust, external NHS Trusts and Private Healthcare providers. He/She will also be responsible for their own work and monitoring Contractors (in the E.M.E. Workshop Managers absence), and the implementation of Quality Assurance Procedures, as required.

Orientation training will be given in the specialised field of Biomedical Engineering including specific Manufacturers device courses, as required.

Equipment covered comprises both Medical Devices and Laboratory Instrumentation, including electronic, electrical, mechanical, computer software and medical gas systems.

Working relationships:

The Post Holder will be directly responsible to the E.M.E. Workshop Manager and accountable to the E.M.E. Services Manager.

He/She will develop a close working relationship with other Departmental Managers, Clinical Staff within this and other NHS Trusts, Senior Managers in Private Health Care premises and specialist Contractors Staff

Budget Responsibilities:

Dimensions:

Trust:	Maidstone and Tunbridge Wells NHS Trust, interaction with other NHS Trusts and Private Healthcare Providers
Care Group:	Medical Physics, interaction with all Clinical Care Groups
Budget:	Ensuring all customers receive 'Best Value' service from in-house and contracted services

Key Result Areas

1.0 Clinical Technical

- 1.1 Provide specialised clinical technical services for preventative maintenance, servicing, inspection and repair to a wide range of complex and patient-critical medical devices and laboratory equipment.
- 1.2 Communicate with clinical users and laboratory staff to gain a clear understanding of the nature of problems with equipment. Assess the seriousness and implications of the problem and respond appropriately to the urgency of the user request.
- 1.3 Undertake advanced fault-finding. Apply suitable faultfinding techniques to diagnose problems, including those beyond the scope of manufacturer supplied information. Report novel fault conditions to manufacturers. Exercise judgement to determine the causes of faults in devices with multiple complex and inter-related systems (e.g. electronic, computer and mechanical systems), which may be due to user error, equipment failure or environmental issues (e.g. temperature, RF interference).
- 1.4 Rectify complex equipment faults. Undertake repairs on complex mechanisms to component level.
- 1.5 Resource materials, spare parts and service providers.
- 1.6 Check that equipment performs to manufacturer's specification.
- 1.7 Carry out calibration, quality control, safety, commissioning and acceptance testing.
- 1.8 Carry out electrical and functional safety checks.
- 1.9 Remove unsafe/uneconomic equipment from service and prepare it for safe disposal
- 1.10 Using technical and clinical experience, identify potentially hazardous symptoms and faults when in clinical areas or in talking to clinical staff.
- 1.11 Liaise with clinical staff to adjust planned maintenance schedules in response to short-term clinical needs.
- 1.12 Advise on equipment specification, evaluation and selection.

2.0 Record Keeping

- 2.1 Keep relevant maintenance and technical records of work performed. In particular ensure the equipment management computer database is operated in an accurate, methodical manner with work being logged as it progresses until completion.
- 2.2 Issue appropriate components and spares from stores, monitoring stock levels and reordering where necessary.

3.0 General

- 3.1 Take responsibility for all tools and equipment within the Postholder's care. Ensure workshop facilities are kept clear and well ordered and that all equipment is maintained to acceptable standards. Where EME equipment is passed to others to use, make sure they are authorised to use it in a safe and effective manner.
- 3.2 Provide technical advice to medical and other staff groups as required.

- 3.3 Liaise with manufacturers to obtain information and provide feedback on equipment performance.
- 3.4 Provide technical expertise and assistance to other functions within the Department as appropriate.
- 3.5 Assist with the Section Helpdesk Service.

4.0 Managerial

- 4.1 Plan and Prioritise own work.
- 4.2 Keep accurate records of all work performed and update all appropriate records.
- 4.3 Raising "Purchase Orders" for the procurement of goods and services to facilitate the prompt return to service of equipment.
- 4.4 Inform the E.M.E. Workshop Manager and other E.M.E. staff of the condition and performance of the equipment within the Postholder's care.
- 4.5 Participate in regular meetings with the E.M.E. Services Manager and fellow staff.
- 4.6 Act as identified engineer for one or more clinical areas, acting as first point of clinical contact and acquiring specific knowledge on particular items of equipment.
- 4.7 Ensure customers receive a high quality, prompt and efficient service and are kept up to date on the progress of their outstanding work.
- 4.8 Be familiar with and follow the Trust's incident reporting procedure.
- 4.9 Prioritise and manage own work in accordance with Section policies and competing service demands. Propose changes to own working practices and procedures.

5.0 Teaching and Training

- 5.1 Regularly teach and train other staff groups (doctors, nurses, allied health professionals, technical staff etc.) in the operation and care of medical equipment.
- 5.2 Train other technicians in the full range of techniques and methods used in the E.M.E. Services.
- 5.3 Assist with the supervision new entrants and trainees on placement.
- 5.4 Regularly participate in clinical trials with and the evaluation of medical equipment.
- 5.5 Develop special to type test equipment for use in the calibration and maintenance of medical devices.

6.0 Professional

- 6.1 Keep abreast of technical developments. Enrol in appropriate Continuing Professional Development programmes. Attend suitable seminars and courses as part of personal development and to further the work of the Department.
- 6.2 Ensure all activities are carried out within the departmental quality accredited framework and meet regulatory requirements.
- 6.3 Ensure all activities are carried out within the Trusts policies, i.e. Control of Infection, Standing Financial Instructions, etc.

7.0 Miscellaneous

- 7.1 Implement and ensure compliance with an accredited Quality System in the areas of work for which the Postholder carries responsibility.
- 7.2 Carry out all duties in accordance with the requirements of the Health and Safety at Work Act, relevant Statutory Regulations, Approved Codes of Conduct and Local Rules.
- 7.3 When working in other departments, the Postholder will liaise with local heads of department, medical consultants, superintendents, nursing sisters or their representatives as appropriate, adhering to local policies and practices.
- 7.4 The Postholder will behave courteously and professionally at all times and seek to ensure that the highest level of service is provided by E.M.E. Services.
- 7.5 Perform other appropriate duties, which may be required from time to time by the E.M.E. Services Manager

Job Description Agreement:

Signature of post holder: _____ Date: _____

Name: _____

Signature of Manager: _____ Date: _____

Name: _____

Statement:

1. This job description is a broad reflection of the current duties. It is not necessarily exhaustive and changes will be made at the discretion of the manager in conjunction with the post holder.
2. Time scales for achievement and standards of performance relating to the duties and responsibilities identified in this job description will be agreed via the annual appraisal process with the post holder.
3. As an employee of Maidstone & Tunbridge Wells NHS Trust, the post holder will have access to confidential information. Under no circumstances should this be disclosed to an unauthorised person within or outside the Trust. The post holder must ensure compliance with the requirements of the Data Protection Act.
4. As an employee of the Trust, the post holder will be required to adhere to all Trust policies including Equal Opportunities where all employees are expected to accept individual responsibility for the practical implications of these policies.
5. The post holder is required to take reasonable care for the health and safety of themselves and others that may be affected by what they do while at work.
6. This post may require the post holder to travel across the Trust sites in the course of fulfilment of their duties.
7. The Maidstone & Tunbridge Wells NHS Trust has a no smoking policy.
8. Clinical Governance: You will be expected to take part in the processes for monitoring and improving the quality of care provided to patients. This includes risk management and clinical audit. If you engage in clinical research you must follow Trust protocols and ensure that the research has had ethical approval. You will be expected to ensure that patients receive the information they need and are treated with dignity and respect for their privacy.
9. All staff should be aware of their responsibilities and role in relation to the Trust's Major Incident Plan.
10. **INFECTION CONTROL AND HAND HYGIENE** - All Trust employees are required to be familiar with, and comply with, Trust policies for infection control and hand hygiene in order to reduce the spread of healthcare-associated infections. For clinical staff with direct patient contact, this will include compliance with Trust clinical procedures and protocols, including uniform and dress code, the use of personal protective equipment policy, safe procedures for using aseptic techniques, and safe disposal of sharps. All staff are required to attend mandatory training in Infection Control and be compliant with all measures known to be effective in reducing healthcare-associated infections.

11. All staff are required to fully participate in learning and development opportunities and ensure they remain compliant with statutory and mandatory training requirements throughout their employment with the Trust
12. All staff are required to fully comply with the NHS Code of Conduct.
13. **SAFEGUARDING CHILDREN** - Everyone employed by the Trust regardless of the work they do has a statutory duty to safeguard and promote the welfare of children. When children and/or their carers use our services, it is essential that all child protection concerns are both recognised and acted on appropriately. You have a responsibility to ensure you are familiar with and follow the child protection procedures and the Trust's supplementary child protection guidance which is accessed electronically on the Trust's Intranet site. You have a responsibility to support appropriate investigations either internally or externally. To ensure you are equipped to carry out your duties effectively, you must also attend child protection training and updates at the competency level appropriate to the work you do and in accordance with the Trust's child protection training guidance.
14. **SAFEGUARDING ADULTS** - Everyone employed by the Trust regardless of the work they do has a duty to safeguard and promote the welfare of vulnerable adults. When patients and/or their carers use our services, it is essential that all protection concerns are both recognised and acted on appropriately. You have a responsibility to ensure you are familiar with and follow Trust policies in relation to safeguarding vulnerable adults. You have a responsibility to support appropriate investigations either internally or externally. To ensure you are equipped to carry out your duties effectively, you must also attend vulnerable adult protection training and updates at the competency level appropriate to the work you do and in accordance with the Trust's vulnerable adult protection training guidance.
15. All staff are required to provide the highest levels of service in their work and to adopt the highest standards of behaviour as stated and implied in the Trust Values of PRIDE.

Maidstone and Tunbridge Wells NHS Trust

**EME Services Engineer
Person Specification**

AREA	ESSENTIAL	DESIRABLE
Qualifications	<ul style="list-style-type: none"> • Ordinary National Certificate in Electrical and Electronic Engineering. • City and Guilds Telecommunication Technicians Technological Certificate. • City and Guilds Electronic Technicians Technical Certificate. 	<ul style="list-style-type: none"> • Higher National Certificate in Electrical and Electronic Engineering. • Degree in Biomedical Engineering • Registration as a Clinical Technologist
Experience	<ul style="list-style-type: none"> • Experience in applying workshop technology to electronic & electro-mechanical equipment. • Able to prioritise and manage own work. • Able to exercise own initiative when dealing with issues within own specialist area of competence. 	<ul style="list-style-type: none"> • Practical experience in electronic and medical engineering workshop practices and techniques for at least 1 year's post-qualification

Knowledge	<ul style="list-style-type: none"> • General knowledge of electronic workshop practice and computer systems. • Knowledge of electrical and electronic engineering. • Ability to assess the suitability and efficacy of a device in a given environment. • Understanding of principles of electrical safety. • Understanding of the principles of clinical risk assessment. • Understanding of hazards posed by, and precautions needed with: <ul style="list-style-type: none"> • Electricity • Medium voltages • EHT • Medium currents • Workshop hazards • Fumes • Solvents • Tools at elevated temperatures • Lifting heavy sensitive items of equipment. • Working knowledge of relevant legislation, national standards, professional and other guidelines <i>e.g. Health and Safety, COSHH, RIDDOR, MHRA guidance,</i> 	<ul style="list-style-type: none"> • Ability to assess the suitability and efficacy of a medical device in a given clinical environment. • High level of understanding of patient and staff risks arising from equipment failure. • Understanding of the principles of clinical risk assessment. • Understanding of hazards posed by, and precautions needed with: <ul style="list-style-type: none"> • Ionising radiation • Cross-infection • Bio-hazards • Workshop hazards • Compressed medical gases • Cleaning agents and other hazardous materials used within the EME Workshop • Lifting heavy sensitive items of equipment.
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Skills	<ul style="list-style-type: none"> • Competent in the use Excel, Word, etc. to set up documents and spreadsheets and extract information, use Asset Management database. • Use of fine tools for equipment adjustment/assembly. • Able to lift medium weights. • Able to concentrate frequently when subject to unpredictable working patterns. • Able to deal with occasional distressing circumstances when working in clinical areas (e.g. when visiting wards and theatres, fault finding on patient connected equipment). • Ability to manage confrontational situations, involving the safe use of medical devices within the clinical environment. • Able to communicate complex information across professional boundaries (e.g. fault finding in an emergency call out, to minimise misunderstanding and obtain the required information). • Able to train groups of other professional staff • Able to deliver teaching and training on complex equipment to other professional groups (e.g. train nurses in medical device use). • Good negotiation skills • Able to deal with complex and unpredictable situations 	<ul style="list-style-type: none"> • Experienced in the use of Asset Management Systems
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Date reviewed: 20/07/2015