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WEST MIDLANDS RADIOTHERAPY NETWORK

West Midlands Radiotherapy Clinical Protocol

Radiotherapy Emergency On Call Provision

Revision History

Version	Date	Summary of changes
1.0	04.09.2020	Ratified Final
2.0	08.12.2023	EAG ratified
3.0	17.4.2026	Reviewed and ratified by the EAG (no changes required)
Review date	April 2028	

Approved by

This document was ratified by the Radiotherapy Expert Advisory Group (EAG) at its April 2026 meeting.

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Note:
Each service should update this document, where there is RED text, with local policy references or information

1. Purpose

To outline the process involved in the provision and delivery of emergency radiotherapy treatments across the West Midlands.

This on-call service is intended for genuine weekend and Bank Holiday emergencies, and is not intended to treat patients who should be accommodated in the normal working week or to compensate for treatment breaks.

2. Scope

This procedure is applicable to all patients requiring emergency radiotherapy for patients with a Oncology diagnosis and **MRI proven Spinal cord compression**, and where there is a potential clinical benefit as assessed by the Clinical Oncologist on call or Consultant Radiographer specialising in palliative Bone Treatments.

Radiotherapy treatment is not appropriate when the patient's condition has resulted in irreversible paralysis.

At the on call clinical oncologist's/Consultant Radiographer's discretion Emergency radiotherapy can be made available for the treatment of Superior Vena Cava Obstruction (SVCO), haemoptysis or haemorrhage.

3. Hours of service

Each department will provide On Call service for a minimum of 4½ hours as required, over Saturdays, Sundays and public holidays including Christmas Day

The radiographers should be informed as soon as possible of any patient requiring emergency treatment, to allow for the patient to be consented, CT scanned, planned and treated within the On Call time frame.

Patient referrals received less than 2 hours before end of On Call shifts will be deferred to the following day.

This service is in addition to any ad hoc extensions to services to comply with RCR guidelines for the management of unscheduled treatment interruptions, 4th Edition, 2019

4. Responsibilities

In addition to staff groups taking on roles and responsibilities as defined by IR(ME)R:

Clinicians or Consultant Radiographers are responsible for:

- Identifying, consenting and referring patients requiring emergency radiotherapy.
- Contacting the radiotherapy radiographers' on-call staff *local information mobile/bleep*
- Identifying patients with Pacemakers and contacting on-call cardiologist for advice on the safety of proceeding with treatment (ICD patients should wait until next clinically available day to enable temporary deactivation of the device during treatment).
- Identify concerns due to previous radiotherapy treatment.
- Approving VSim field / dosimetry and prescribing radiotherapy treatment.

Due to the limited medical support and lack of nursing cover patients with complex medical needs are excluded from On Call unless appropriate nursing support can be provided at all times.

The Radiotherapy Service Manager and the Head of Radiotherapy Physics are responsible for ensuring that:

- Staff on the on call rota have the appropriate competencies.
- Staff are aware of their on-call duties.
- The On Call Consultant or Con Rad has contact information for the available to on-call staff.

A minimum of 3 staff are required to facilitate emergency treatment. The skill mix of these staff, radiographers, physicist or technicians, will ensure that staff are available, competent and entitled to complete the required tasks below.

- Complete Linac run up and beam output checks.
- Complete CT scan run up and daily QA.
- Undertake CT scan.
- Undertake virtual simulation and/or planning.
- Check and approve virtual planning including monitor unit calculations.
- Deliver treatment including image verification.

The actual duties or roles undertaken by each profession will be dependent on local policies.

Staff on call are responsible for maintaining competency as required.

The lead /senior on call radiographers should remain contactable during the on call period. Radiographers are responsible for contacting other radiographers on call and the on call physicists /technicians.

Once the rota has been published the staff may swap their allocated sessions as long as the appropriate skill mix and competence for the roles is maintained

MPE Physicist: Additional duties may include providing telephone support to on call clinician or radiographers.

5. Pre treatment

Staff entitled and competent will ensure Linac and CT scanner handover and perform daily QA checks in line with local department work instructions.

Patient ID will be confirmed in line with local Trust policies, at the earliest opportunity and prior to any irradiation.

Only simple CT simulation techniques will be carried out, which do not involve administration of contrast media.

Nursing staff and/ or Porter's may be required to assist with manual handling duties.

6. Treatment

Emergency treatment pathway should be equitable with standard / weekday working, and ensure an equivalent service, supported by appropriate staff competencies.

- Prescription dose and fractionation should be in line with WM & RCR guidance e.g. 8Gy in 1# or 20Gy in 5#

- Requests for multiple sites (other than cord compression) to be treated will not be supported.

If the treatment plan is to be changed after the on-call treatment the prescription should reflect this e.g. from a single field to an IMRT plan.

7. Calculation, Data input and Checking

Treatment calculations, data entry and checking should be completed by competent and entitled staff, in line with local department standard protocols /work instructions and therefore equity of service provision

Fractionated treatments may require additional assurance e.g. IVD independent dosimetry or subsequent calculation /mu checks on first working day, and will be dependent on local policies.

8. Beam Delivery

Beam delivery and image verification will be in accordance with local department protocols work instructions. Minimum requirements include:

- Completing all pre-treatment checks on data entry,
- Image verification prior to beam delivery,
- Confirmation that the treatment beam is with acceptable geographic tolerances (0.5cm / 1cm)
- IVD for fractionated treatments, in line with local policies.
- Complete patient treatment records with delivered MU etc.

Local work instructions include:

- Beam Delivery – xxxx.
- Identification of Patients - XXXX.
- Geometric Verification Policy – XXXX.

9. Discrepancies / Errors

Where there is any doubt about the appropriate course of action, discontinue treatment, inform the clinician and seek further advice from

1. The senior treatment radiographer present,
2. Medical physics Expert, by phone if necessary /urgent
3. Operational Lead and/or Duty Physicist on next working day.

10. Machine faults

If a machine fault occurs it should be rectified immediately or an alternative machine made available for clinical use.

11. After Treatment

Once treatment has been completed the Senior Radiographer should ensure that:

- The patient leaves the department.
- Ensure the patient & nursing staff are aware of any scheduled further treatment appointments.
- All machines and equipment are powered down or switched off as appropriate
- the computers used for VSim, Planning, image verification and R&V systems are switched off
- Local security arrangements are followed to secure the building.