West Midlands Radiotherapy Network

Peer Review Guidance

Revision History

Version	Date	Summary of changes
V0.1	26.11.25	First draft by Dr Paul Sanghera
V0.2	28.11.25	Amendments/comments added by Dr Nawaz Walji, Dr Muthiah Sivaramalingam
V0.3	5.12.25	Amendments/comments reviewed by Dr Paul Sanghera and responded to
V1.0	12.12.25	Discussed and approved by the Radiotherapy Expert Advisory Group
V2.0	25.9.26	Amendments to table 1 agreed with RT Clinical leads

Approved by

This document has been **'Agreed'** by the following people:

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Related documents

Title	Owner	Location
RCR Peer review Guidance	RCR	Radiotherapy target volume definition and peer review, Second edition – RCR guidance | The Royal College of Radiologists

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1. Aims of the West Midlands guidance

The RCR target volume definition and peer review document version 2 recommends standards to ensure accurate target volume delineation and reduced risk to patients.

The aim of this document is to ensure compliance with RCR peer review guidance, and the NHS England Adult External Beam Radiotherapy Services Delivered as Part of a Radiotherapy Network Service Specification (170091S).

2. Key points from RCR guidance version 2

- Radiotherapy target volumes should be subject to systematic review by appropriately trained and experienced peer professionals.
- Target volumes should be specified in protocols and ideally standardised across the network.
- Professionals involved in contouring should have protected time in their job plans (this is a Trust responsibility).
- Prospective peer review of contours should occur in cases where considerable individual judgement is required. In other situations, a proportion of contours should be quality assure retrospectively.
- Hospitals and Cancer Alliances should facilitate peer review between departments by investing in appropriate IT infrastructure and information governance.
- Each department should have an agreed process for peer review. The frequency and nature of peer review should be specified for each tumour site.
- A planning note should be written explaining how target volumes were defined.
- Departments should use a standardised peer review outcome record template. This should enable regular audit of a minimal dataset.
- Departments should audit radiotherapy outcomes in terms of locoregional control and toxicity.

- Clinical oncologists should be able to evidence high quality contouring and engagement in QA as part of annual appraisals.

3. Prospective peer review versus retrospective audit

As above, prospective peer review should occur where considerable individual judgement is required. In all other cases, a proportion of contours should be quality assured retrospectively.

Table 1 provides a recommendation for retrospective versus prospective peer review, in-line with the example approach provided by the RCR.

Table 1. Prospective peer review recommendations.

Clinical Site	Retrospective audit	Prospective Peer review
Bladder	Curative to whole bladder	All radical dose except whole bladder
Breast	Adjuvant to whole breast +/-nodes	Radiological nodes treated with curative intent Complex cases with IMN
Colorectal and Anal		All curative treatment.
Gynaecological		All curative treatment.
Head and Neck		All curative treatment.
Haematology	TBI Plans	
Hepatobiliary		All radical dose
Lymphoma		All curative treatment.
Lung		All curative treatment.
Neuro		All radical dose
Paediatric		All radical dose
Pancreas		All radical dose
Prostate	Curative to whole of prostate	All curative treatment unless standard prostate.
SABR		All including prostate SABR
Sarcoma		All curative treatment.
Skin		Any curative CT based treatment
SRS		All
Upper GI		All radical treatment
Palliative	Intermittent sampling	Retreatment / radical dose / concession or ‘off protocol’ cases

4. Timing of peer review

Peer review should take place prior to the first fraction, and in most cases prior planning immediately after contouring.

5. Organisation of peer review

There are 2 options:

a) Real time QA meetings; or
b) on demand individual reviews

Real time QA meetings are encouraged, however not mandatory prior to each case. It is important to not introduce additional delays into the patient pathway, nor put additional pressure on planning staff through batching of large numbers.

On demand or ad hoc peer review is acceptable provided supplemented by scheduled meetings to ensure programme quality assurance. The frequency of meetings to be agreed locally by each clinical team.

Local department leads will need to agree the best pathway and ensure all professional groups are aware of it. Departments should have processes defined within a local policy document.

6. Audit

Each department should have a system in place to audit peer review. The minimum data should include peer review activity by clinical site and intent, use of planning notes, frequency of minor and major changes. An example of a minimum data set is given in appendix 1. This utilises MOSAIC and if relatively quick to record. This data should be available for review at the radiotherapy Expert Advisory Group. A more comprehensive dataset (as per RCR suggestions) is given in appendix 2.

7. Job planning

Routine peer review is a core service requirement. Clinical oncology consultants should have protected time in their job plans (direct clinical care- DCC) to enable target volume delineation, peer review and plan evaluation. It is expected that most full-time (10PAs) clinical oncology consultants will require 2PAs (DCC) to account for this activity. It is possible that more or less time is required in selected circumstances, however this should be reflected by individualised data.

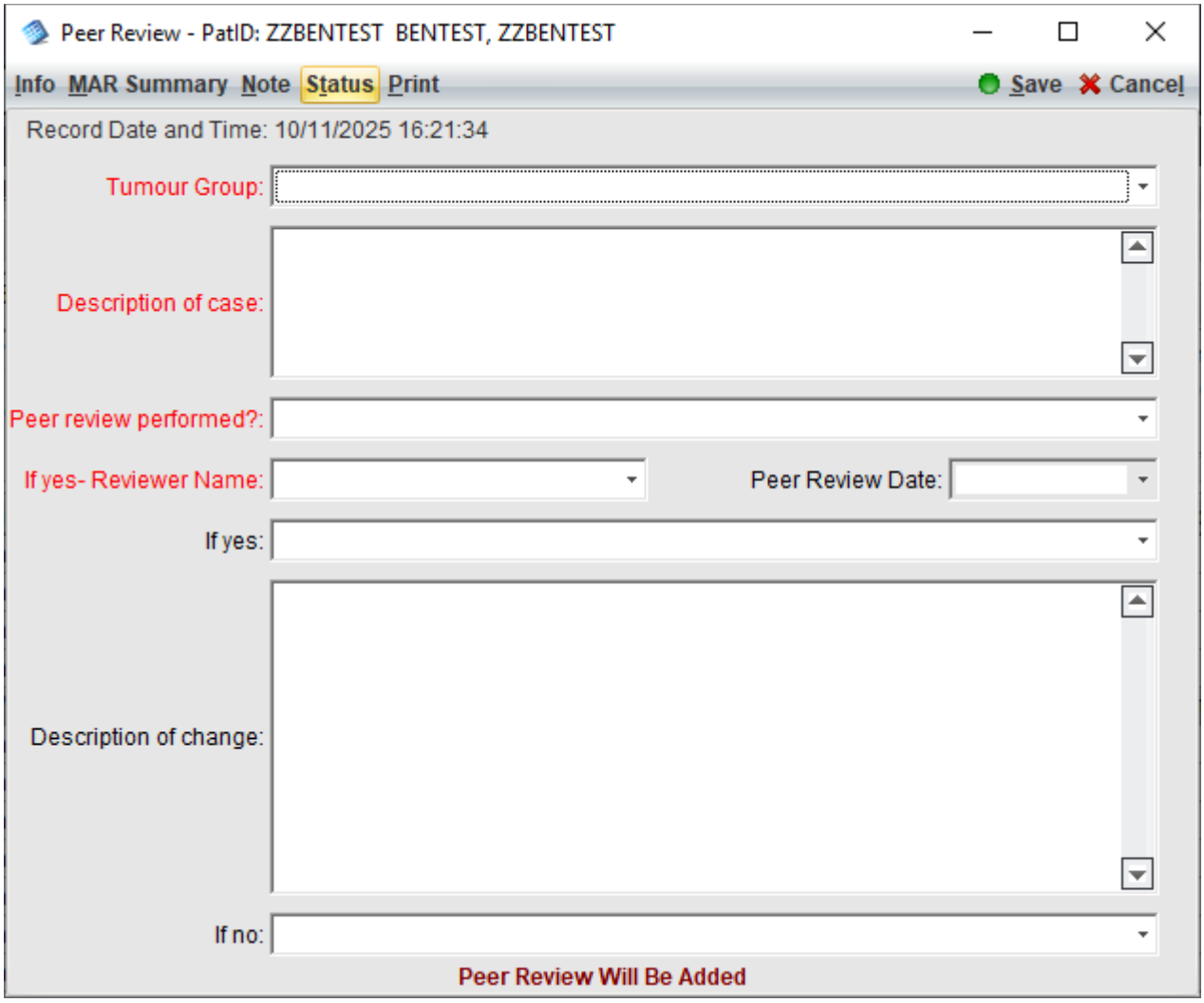
It is important to avoid delays in the patient pathway and streamline processes. Department clinical leads will have to consider overall job plans to determine the optimum local model.

8. Peer review between departments.

The priority is to routinely embed local peer review within departments. In selected circumstances, such as low volume activity, or single-handed consultants there may be need to peer review between departments. These arrangements should be agreed between specific trusts and clinicians. Additional funding and support may be necessary to facilitate this.

Appendix 1

Example of using MOSAIC to record a minimum data for peer review.



If the patient is not for peer review, for example palliative cases, non-nodal breasts or prostate only patients then the "Peer Review Contours" QCL can be skipped.

Ignoring the peer review QCL will cause delays in the planning pathway as planning will not be notified of the patient.

Appendix 2

RCR example template for recording outcome of peer review

Appendix 5
Suggested peer review outcome record template*

	Detail	Peer Review Outcome	Description
Patient information	Name DOB ID		
Diagnosis & staging (TNM)			
Treatment intent		MAJOR MINOR NO CHANGE	
Treatment technique		MAJOR MINOR NO CHANGE	
Dose/fractionation		MAJOR MINOR NO CHANGE	
Concurrent chemotherapy?		MAJOR MINOR NO CHANGE	
GTV		MAJOR MINOR NO CHANGE	
CTVs		MAJOR MINOR NO CHANGE	
PTVs		MAJOR MINOR NO CHANGE	

OARs	MAJOR MINOR NO CHANGE
Other comments	MAJOR MINOR NO CHANGE
Review of plan parameters	MAJOR MINOR NO CHANGE
Has the recommended change been carried out in real time and subsequently agreed?	YES NO
Does case need to be brought back for further review of amendments?	YES NO
Which guideline/protocol was used?	
Time taken for discussion	
Peer review meeting format (e.g. face-to-face; via video-link etc.)	
Peer review discussion documented by	
Date	