

# Physics Tip Sheet

For any additional questions, please email [support@mroqc.org](mailto:support@mroqc.org)

Last Updated December 2025

## Breast

### TG-263 Required Structures:

All Patients:	Node Positive Patients (only regions irradiated):
CTVsb	LN Ax L1 L/R
PTVsb	LN Ax L2 L/R
Heart	LN Ax L3 L/R
Lung L/R	LN IMN L/R or LN IMNs
PTV_Breast_L/R (whole breast)	LN_Sclav_L/R
Breast_L/R (partial breast)	

### Full DICOM Upload Requirements (EBRT only):

- CT
- Dose
- Plan (scaled to delivered fx)
- Structures

**Physics Form: Filled out once per patient at the end of treatment**

- Breast Radiotherapy Technical Details Form (BRTD)

### 2026 Quality Measures:

- Increase utilization of prone positioning for breast patients (40% target collaborative wide)
- Lymphedema assessment measure: TG263 nomenclature and Rx dose required for irradiated nodal groups
- Fewer than 5% of 2026 patients have a quality report error as of 12/31/26

## Lung

### TG-263 Required Structures:

GTV/IGTV/ITV
PTV
Esophagus
Heart
Lungs-GTV/IGTV/ITV
SpinalCord or SpinalCanal

### Required if within 2 cm of PTV

Chestwall / Rib or Ribs
GreatVes
Bronchus_Prox

### Full DICOM Upload Requirements:

- CT
- Dose
- Plan (scaled to delivered fx)
- Structures

**Physics Form: Filled out once per patient at the end of treatment**

- Lung Radiotherapy Technical Details Form (LRTD)

### 2026 Quality Measures:

- Follow [fractionation and dosimetric guidelines](#) for hypofractionated (6-20 fx) patients (75% target collaborative wide)
- Fewer than 5% of 2026 patients have a quality report error as of 12/31/26

## Bone Mets

### TG-263 Required Structures:

PTV
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### Full DICOM Upload Requirements:

- CT
- Dose
- Plan (scaled to delivered fx)
- Structures

### DICOM Collection:

- Full DICOM only for FIRST complex course

**Physics Forms: Filled out once per each plan in a course at the end of treatment**

- Bone Mets Radiotherapy Technical Details Form (MRTD)
- Report plans in the same course if plans are adjacent or overlapping in time
- Report a new course start date if there is a break other than a weekend

### 2026 Quality Measures:

- Use of shorter course radiotherapy ( $\leq 5$  fractions at your facility)
- Re-irradiation: For cases with concern for toxicity due to cumulative dose, the physics consult must occur prior to physician approval. For Type 1 reirradiation cases with no concern for toxicity, the consult must occur prior to the start of treatment.
- Fewer than 5% of 2026 patients have a quality report error as of 12/31/26

## Prostate

### TG-263 Required Structures:

CTVp/CTVsb
PTVp/PTVsb
Bladder
Rectum

### Full DICOM Upload Requirements (EBRT & Brachytherapy):

- Image Set (CT, MR, US)
- Dose
- Plan (scaled to delivered fx)
- Structures

**Physics Form: Filled out once per patient at the end of treatment**

- Prostate Radiotherapy Technical Details Form (PRTD)

### 2026 Quality Measures:

- EBRT patients: Increase MRI utilization for intact prostate cancer (70% target)
- Fewer than 5% of 2026 patients have a quality report error as of 12/31/26

## 8.2 Guiding Principles for Target Nomenclature

1. The first set of characters must be one of the allowed target types:
  - GTV
  - CTV
  - ITV
  - IGTV (Internal Gross Target Volume—gross disease with margin for motion)
  - ICTV (Internal Clinical Target Volume—clinical disease with margin for motion)
  - PTV
  - PTV! for low-dose PTV volumes that exclude overlapping high-dose volumes (See the section discussing segmented vs non-segmented PTVs.)
2. If a target classifier is used, place the target classifier after the target type with no spaces. Allowed target classifiers are listed below:
  - n: nodal (e.g., PTVn)
  - p: primary (e.g., GTVp)
  - sb: surgical bed (e.g., CTVsb)
  - par: parenchyma (e.g., GTVpar)
  - v: venous thrombosis (e.g., CTVv)
  - vas: vascular (e.g., CTVvas)
3. If multiple spatially distinct targets are indicated, then Arabic numerals are used after the target type + classifier (e.g., PTV1, PTV2, GTVp1, GTVp2).)
4. If designation of the imaging modality and sequential order in the image set need recording for adaptive therapy, then the nomenclature follows the type/classifier/enumerator with an underscore and then the image modality type (CT, PT, MR, SP) and number of the image in the sequence (e.g., PTVp1\_CT1PT1, GTV\_CT2).)
5. If structure indicators are used, they follow the type/classifier/enumerator/imaging with an underscore prefix and are values from the approved structure nomenclature list, (e.g., CTV\_A\_Aorta, CTV\_A\_Celiac, GTV\_Preop, PTV\_Boost, PTV\_Eval, PTV\_MR2\_Prostate).
6. If dose is indicated, the dose is placed at the end of the target string prefixed with an underscore character.
  - The task group strongly recommends using relative dose levels instead of specifying physical dose
    - High (e.g., PTV\_High, CTV\_High, GTV\_High)
    - Low (e.g., PTV\_Low, CTV\_Low, GTV\_Low)
    - Mid: (e.g., PTV\_Mid, CTV\_Mid, GTV\_Mid)
    - Mid+2-digit enumerator: allows specification of more than three relative dose levels (e.g., PTV\_Low, PTV\_Mid01, PTV\_Mid02, PTV\_Mid03, PTV\_High). Lower numbers correspond to lower dose values.
  - If numeric values for the physical dose must be used, then specification of the numeric value of the dose in units of cGy is strongly recommended (e.g., PTV\_5040).
  - If numeric values for physical dose must be used and these must be specified in units of Gy, then 'Gy' should be appended to the numeric value of the dose (e.g., PTV\_50.4Gy). For systems that do not allow use of a period, the 'p' character should be substituted (e.g., PTV\_50p4Gy)
7. If the dose indicated must reflect the number of fractions used to reach the total dose, then the numeric values of dose per fraction in cGy, or in Gy with the unit specifier, and number of fractions separated by an "x" character are added at the end (e.g., PTV\_Liver\_2000x3 or PTV\_Liver\_20Gyx3).
8. If the structure is cropped back from the external contour for the patient, then the quantity of cropping by "-xx" millimeters is placed at the end of the target string. The cropping length follows the dose indicator, with the amount of cropping indicated by xx millimeters (e.g., PTV\_Eval\_7000-08, PTV-03, CTVp2-05).
9. If a custom qualifier string is used, the custom qualifier is placed at the end after a '^' character (e.g., PTV^Physician1, GTV\_Liver^ICG).)
10. If it is not possible to follow the guidelines and remain within the 16-character limit, then preserve the relative ordering but remove underscore characters, progressing from left to right as needed to meet the limit (e.g PTVLiverR\_2000x3.) This last resort scenario undermines the use of automated tools.

## Helpful Links

[TG-263 Online Approved Structure List](#)

[TG-263 Template Maker](#)

[Incentive Program Measure Criteria](#)