


<b>Name of Policy:</b> <u>Imaging Protocols for Simulation and Treatment</u> <b>Policy Number:</b> 3364-134-111 <b>Department:</b> Radiation Oncology <b>Approving Officer:</b> Chief Executive Officer - UTMC Professor & Chairman, Radiation Oncology <b>Responsible Agent:</b> Technical Manager, Radiation Oncology <b>Scope:</b> Radiation Oncology	  <b>Effective Date:</b> 7/1/2020 <b>Initial Effective Date:</b> 12/1/2017		
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <input type="checkbox"/> New policy proposal  <input type="checkbox"/> Major revision of existing policy         </td> <td style="width: 50%; border: none;"> <input type="checkbox"/> Minor/technical revision of existing policy  <input checked="" type="checkbox"/> Reaffirmation of existing policy         </td> </tr> </table>		<input type="checkbox"/> New policy proposal <input type="checkbox"/> Major revision of existing policy	<input type="checkbox"/> Minor/technical revision of existing policy <input checked="" type="checkbox"/> Reaffirmation of existing policy
<input type="checkbox"/> New policy proposal <input type="checkbox"/> Major revision of existing policy	<input type="checkbox"/> Minor/technical revision of existing policy <input checked="" type="checkbox"/> Reaffirmation of existing policy		

**(A) Policy Statement**

Utilization of Imaging Protocols

**(B) Purpose of Policy**

To reduce unnecessary radiation dose to patients during simulation and treatment

**(C) Procedure**

- 1) Treatment planning CT
  - a) A series of protocols have been established on the simulation CT to minimize the dose required to obtain images.
  - b) The region to be scanned is to be limited to those areas required for planning, including the full extent of those OARs determined to be parallel in dose response (e.g. lung).
  - c) For those patients requiring 4D scans,
    - i) the scan shall be limited to those areas required to perform planning on the MeanIP produced from the 4D; and,
    - ii) a determination of what forms of motion management the patient will be best able to accommodate shall be made, as best as possible, before the simulation.
  - d) Where possible and reasonable, existing diagnostic scans are to be used for treatment planning purposes.
- 2) IGRT
  - a) A series of protocols have been established on the Linac treatment console based on body site to minimize the dose required to obtain usable images.
  - b) Half-arc scans are to be used when it would not compromise alignment integrity.
  - c) Due to the significantly lower dose associated with kV imaging, CBCT IGRT is the preferred modality, excepting cases where treatment design eliminates low dose to structures not in the treatment fields.
  - d) During weekly physics chart review, the total number of imaging procedures shall be evaluated, and anomalies investigated.

<b>Approved by:</b>  _____ /s/ Changhu Chen, MD Professor & Chairman, Radiation Oncology _____ Date	<b>Review/Revision Date:</b> 12/1/2017 7/1/2020
_____ /s/ Richard P. Swaine, CPA Chief Executive Officer - UTMC _____ Date	
<i>Review/Revision Completed By:</i> Michelle Giovanoli	
<b>Next Review Date:</b> 7/1/2023	
<b>Policies Superseded by This Policy:</b> N/A	