The Credentialing Process for the NSABP B-39 / RTOG 0413 Partial Breast Irradiation

Trial

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Methods and Materials continued:

How to Submit Digital Data:

Digital data for PBI credentialing (benchmark cases) as well as ALL PBI protocol cases are to be submitted to the Image-guided Therapy QA Center (ITC) using either DICOM or RTOG Data Exchange format. The ITC will process these data and make them available for review by study chairs (or designates), the RPC, and the RTOG HD Dosimetry Group. For further information and for instruction an institution can contact the ITC (314-747-5415 or itc@castor.wustl.edu).

Methods and Materials continued:

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PBI Credentialing Requirements:

Each Radiation Oncologist and Physicist team must complete the credentialing process before a patient can be placed on the protocol (See Section 5.1 of the protocol). Once the team has met the minimum requirements for credentialing, a letter will be sent to the Radiation Oncologist from NSABP informing them that they have successfully completed the credentialing process and can begin placing patients on the study.

Each Radiation Oncologist and Physicist team at an institution must complete the PBI QA Knowledge Assessment and Facility Questionnaires and complete the benchmark case for each PBI technique for which the institution wants to be credentialled. (Note: If a Radiation Oncologist at the same institution has been credentialled previously, then all subsequent Radiation Oncologists need ONLY to complete the PBI QA Knowledge Assessment Questionnaire and Sections I and II of the PBI Facility Questionnaire.)

Questionnaires:

- PBI QA Knowledge Assessment Questionnaire
- PBI Facility Questionnaire

Benchmark Cases: For each PBI technique (3D CRT, MammoSite or Multi-Catheter) for which an institution would like to be credentialled, the specific benchmark case must be planned per protocol and submitted electronically to the ITC (see below on how to submit Digital Data). A completed PBI treatment dosimetry summary form (either 3D CRT or MammoSite/Multi-Catheter) must be completed and a hard copy of the plan, including isodose lines and BEVs, must also be mailed to the RPC at: 7515 S Main Street, Suite 300, Houston, TX 77030.

- An institution will choose one of the treatment planning systems listed below to download the proper CT image set. Some of these image files have been compressed (i.e. zipped) and must be decompressed using decompression software such as winzip. If the files cannot be downloaded, it's highly probable that your institution's firewall is preventing the transfer. This can be resolved by calling your IT department or downloading the images from outside the institution's firewall such as your home pc.
  - Philips Pinnacle
  - CMS XI
  - Varian Eclipse
  - All other treatment planning systems

Benchmarks:

- 3D-conformal benchmark
- MammoSite benchmark
- Multi-catheter benchmark

Results:

As of mid-July, teams at 533 distinct institutions have submitted applications for credentialing for at least one PBI technique. 584 radiation oncologists for 3D-CRT credentialing, 58 radiation oncologists for MammoSite and 169 radiation oncologists for multi-catheter brachytherapy. Of those applications, 82% became credentialled for 3D-CRT, 76% for MammoSite, and 71% for multi-catheter.

Reasons for which a radiation oncology team failed to become credentialled included incomplete application, incorrect answers on knowledge assessment, the treatment planning system could not submit data electronically, and the CT benchmark was not planned per protocol.

The first patient enrolled by each institution received a rapid review prior to patient treatment. The next 5 cases received a timely review. These reviews included a dosimetric and clinical review. At the present time this protocol has accrued 1571 patients, 716 treated with 3D-CRT, 152 treated with MammoSite, and 53 treated with multi-catheter brachytherapy. Of the 793 patients patients treated to date on the PBI arm there have been no dosimetric deviations.

Conclusions:

The purpose of credentialing is to verify that the radiation oncologist and other personnel involved are familiar with the protocol and can plan a case per protocol prior to placing a patient on protocol. This process enables us to give a “teaching” feedback prior to treating a patient on the trial potentially enabling us to reduce the number of deviation incurred on the trial. The PBI credentialing process has been successful in educating participating facilities and helping to minimize dosimetry errors.

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