

Purpose: Develop a credentialing process for the NSABP B-39/RTOG 0413 Partial Breast Irradiation (PBI) trial.

Method: NSABP B-39/RTOG 0413, a Phase III trial comparing whole breast irradiation versus PBI (3D conformal radiation therapy (3D-CRT), MammoSite[®] and multi-catheter brachytherapy). For each PBI technique, an institution, radiation oncologist and physicist team must be credentialed. The credentialing verifies that all personnel involved with treatment planning have read the protocol prior to enrolling patients to limit the number of deviations. Credentialing also allows feedback to the team prior to patient treatment to correct any mistakes. Each institution must complete online the knowledge assessment and facility questionnaires and download a PBI technique CT benchmark case.

Results: Teams at 308 distinct institutions have submitted applications for credentialing for at least one PBI technique. 733 radiation oncologists applied for 3D-CRT credentialing, 490 radiation oncologists for MammoSite[®] and 151 radiation oncologists for multi-catheter. Of those applications, 79% became credentialed for 3D-CRT, 69% for MammoSite[®], and 56% for multi-catheter. Reasons for which a radiation oncologist failed to become credentialed included; incomplete application, incorrect answers on knowledge assessment, 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 4 cases received a timely review. These reviews included a dosimetric and clinical review. Currently, this protocol has accrued 880 patients, of which 328 treated with 3D-CRT, 82 treated with MammoSite, and 31 treated with multi-catheter brachytherapy. Of the 441 patients treated to date on the PBI arm there have been no dosimetric deviations.

Conclusion: The PBI credentialing process has been successful in educating participating facilities and helping to minimize dosimetry errors.

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