

Accelerated Partial Breast Irradiation Using IMRT (APBIMRT)

Treatment of the whole breast with fractionated radiotherapy is the current standard of care for breast conservation therapy. If a failure should occur with these patients, the primary site of recurrence is near the site of the primary lesion. A current trend is to deliver radiation to a smaller volume at an accelerated fractionation scheme. This is typically done with brachytherapy sources over the course of several days. The procedure is invasive, and involves radioactive liquids or HDR seed applications. This would deliver a high dose to a limited volume, and could therefore be treated at an accelerated fractionation schedule. A similar alternative to this course of therapy would be to use linac based IMRT (Intensity Modulated Radiation Therapy) to produce the desired dose distribution. Surrounding tissues could possibly receive less dose than using conventional whole breast irradiation. Possible limitations on the efficacy of this treatment would be intratreatment patient motion, normal expected variation in daily setup, and identification of treatment volume.