Accelerated Partial Breast Irradiation (APBI) Patient FAQs

What is MD Anderson’s experience with accelerated partial breast irradiation?

MD Anderson began treating patients with APBI in 2008, using the most current single-entry breast brachytherapy devices. To date, about 160 women have been treated, all under treatment protocols designed to evaluate this emerging concept of partial breast irradiation. None of these patients were included in the study presented at the San Antonio Breast Cancer Symposium.

Does MD Anderson offer APBI?

Yes, MD Anderson continues to offer APBI for appropriate patients who fit eligibility requirements and are registered on one of three approved MD Anderson treatment protocols.

What does the study tell us?

The study compared findings taken from the records of more than 130,000 women nationwide who were diagnosed with early-stage breast cancer and treated with either accelerated partial breast irradiation (APBI) or whole-breast irradiation. The study found that the women who received APBI had higher rates of mastectomy later on, as well as treatment-related toxicities and post-operative complications, when compared to those treated with whole-breast irradiation.

Who were the patients who participated in the study?

The group included 130,535 women with early-stage breast cancer treated between 2000 and 2007, treated in centers throughout the United States and who were Medicare beneficiaries, over the age of 66 years. They received either APBI or whole-breast irradiation at many hospitals and from many doctors around the nation.

What methodology was used?

This was a “retrospective” study in which the investigators reviewed medical records to determine the experiences of patients in the Medicare claims database. This study did not compare the two treatments with the intent of determining if one treatment is superior to the other in a prospective randomized fashion, which is generally considered the gold standard method for establishing clinical practice guidelines. Such a prospective trial is ongoing with results expected in the next several years.
How should I interpret “higher rate of mastectomy” among those who received accelerated partial breast irradiation?

A higher rate of mastectomy for APBI patients could be attributed to several factors: tumor recurrence, side effects of therapy, infections or other complications, etc. In the study population, the rate of subsequent mastectomy was 2.2% for those patients receiving whole breast irradiation and 4.0% for those receiving APBI. While the APBI mastectomy rate is double the rate for whole breast irradiation patients, both rates are quite small. With the data that was available, the investigators were not able to either evaluate the quality of care or the particular type of APBI the patients received.

What are the study’s limitations?

This is a large national study, looking back at the experiences of many women treated all over the nation as long ago as 2000. Study data do not necessarily reflect current treatment methods or outcomes specific to MD Anderson or any particular hospital and/or physician today.

Is this study definitive? Will it change practice at MD Anderson?

MD Anderson will continue to offer accelerated partial breast irradiation for appropriate patients who meet eligibility criteria and make an informed choice to participate in a treatment protocol. MD Anderson’s decision to continue to offer APBI to patients is supported by position statements from other leading national radiation oncology and surgery societies and organizations. APBI is still a relatively new modality that we consider a worthwhile alternative to whole-breast irradiation in select groups of patients. There is still not enough data to determine its efficacy and, in the meantime, enrollment in clinical trials or protocols that ensures quality control is highly encouraged.

What criteria will be used to determine if APBI is suitable?

The clinical eligibility requirements for APBI patients at MD Anderson are very specific, and are based on the patient’s age, the size of the breast tumor, lymph node involvement and marker specifications. All trials are in progress so results are not yet known, but the trials should provide additional and long-term data needed to show the efficacy of APBI.

Has the APBI procedure changed since the study participants’ experience?

Yes. When the study data were gathered, there was not the selection and range of devices that are available now. The new devices can offer each patient a better fit to the surgical cavity and spare more normal tissue from undue radiation exposure. These improvements have occurred after the time frame of the Medicare study. In addition, we now have clear guidelines available from national radiation and surgical societies about who is and is not a good candidate for APBI. These improvements are likely very important for minimizing local recurrence and toxicity events and could not be directly assessed in the Medicare study.
If a woman has received APBI or is considering it, what should she do?

If a woman has had – or is considering – APBI at MD Anderson, she should talk to her radiation or surgical oncologist if she has concerns about the technique. Women who have received APBI for early-stage breast cancer should continue to follow established guidelines for follow-up care.

Why is accelerated partial breast irradiation given?

For some women, whole breast irradiation, given in daily treatments over five to six weeks, can be a hardship. There is even a risk that some patients may not complete the full course of radiation therapy. Not completing prescribed radiation treatment could lead to the risk of tumor recurrence. With APBI, radiation is given twice a day over a much shorter course of up to seven days. For some women, APBI is a more manageable way to complete treatment. Furthermore, APBI is limited to the affected area immediately surrounding the tumor and minimizes toxicity to healthy breast and surrounding tissue.

Is it difficult to make decisions about an MD Anderson practice when it is MD Anderson research that raises the questions?

MD Anderson is a research-driven, academic institution where debate is considered healthy and productive. Research and debate drive advances and innovations, regardless of where the research is conducted.