AccuBoost®
Booster Club

Notes from the Editor
The October issue of the newsletter covers the annual ASTRO exhibit and provides an update on new sites “going live”. AccuBoost in the News highlights the launch of the procedure at the Lynn Cancer Center. The Q&A section with Dr David Wazer reflects on clinical options for localizing the lumpectomy cavity.

The main feature of the October issue is the report from AccuBoost APBI Working Group. Many AccuBoost users have shown an interest to use the procedure as a single modality for Accelerated Partial Breast Irradiation (APBI). Based on numerous requests from these sites Dr. David Wazer, Chair of AccuBoost’s Medical Advisory Board, convened a Working Group consisting of a panel of experts with a first hand familiarity with the procedure. The goal of the group was to outline general guidelines for those users that, in certain circumstances, may want to use AccuBoost for APBI. An overview of the guidelines is presented in this issue.

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AccuBoost at ASTRO
AccuBoost is being exhibited at the annual meeting of American Society of Therapeutic Radiology and Oncology, November 1-5 in Chicago. This year’s exhibit at ASTRO (booth # 3339) displays complete AccuBoost Systems and includes opportunities for prospective users to receive complete tutorials on the procedure.

There will be plenty of opportunity for the new and old users to compare notes. Arrangements have been made for luminaries in the field to share their experience in a series of 5 lectures directly delivered from the booth. The schedule for these talks is shown in the Table on the left.

The highlight of ASTRO is the AccuBoost Appreciation Dinner on Tuesday November 3 at the top floor of John Hancock Tower. This, by invitation only social event, provides an informal setting for prospective and current users to meet and exchange ideas.

Clinical Observations with Q & A session
Sun 1 November 2:30 pm Dr. David Wazer
Mon 2 November 3:30 pm Dr. Coral Quiet
Tue 3 November 10:30 am Dr. David Wazer

Physics of AccuBoost with Q & A session
Mon 2 November 10:30 am Greg Edmundson
Wed 4 November 10:15 am Greg Edmundson

AccuBoost “Go Lives”
Central Florida Cancer Institute in Davenport is one of the most recent sites that have started offering the AccuBoost procedure. Dr. Sandra Sha, the principal breast radiation oncologist at this site has made the following comments as the project was launched and she started treating her first few patients. She stated “I am very excited as I like the lower skin dose and the associated lower toxicity of AccuBoost.” Dr Sha added “I am expecting that by better targeting of the dose, I can ultimately expect better clinical results.”

Radiation Oncology Team at CFCI (L to R) Ilham Kanna Ph.D., Sandra Sha MD, therapists Michele Jolly, Cheryl Lemke and Ken Schilling

Night view from The Signature Room at the top of the John Hancock tower
The identification of the tumor bed for precise targeting is a critical issue that deserves some attention. There are different options that have been employed and the question has been posed to David E. Wazer, MD, Chairman of Radiation Oncology at Tufts Medical Center and Rhode Island Hospital to describe various options.

Q – How should one go about identifying the tumor bed/excision site in a mammogram? What are the options?

A – A comprehensive review of the pre-operative mammogram, surgical reports and planning CT images of the breast can be valuable in assisting the clear demarcation of the tumor bed. In most cases, parenchymal scarring and/or seroma are clearly visible in the weeks after surgery. However, the placement of surgical clips is the most reliable means for targeting as they accurately define the boundary of the surgical excision and are readily visualized by mammography. For patients in whom radiotherapy is delayed due to chemotherapy or when oncoplastic surgical techniques have been employed, clip delineation of the tumor bed is particularly valuable. The best practice is to encourage referring surgeons to mark with clips all sides of the excision cavity (4-6 clips).

Q – What other methods have been used for localizing the surgical cavity?

A – Palpation of post-operative induration in the breast to identify the tumor bed is an effective clinical method of localizing the surgical cavity. In dense breasts where post-operative changes cannot be easily visualized by mammography, the introduction of contrast media into the excision cavity has proven useful in many cases. The removal of 2 cc of seroma fluid followed by injection of 2 cc of contrast media (e.g. Omnipaque marketed by GE) is usually sufficient to visualize the lumpectomy cavity. The contrast media will typically last up to 48 hours as a visualization aid to subsequent fractions.
AccuBoost in the News (continued from Page 2)

geneous and is accurately targeted to the breast tissue which, if left untreated, is the most likely site for cancer recurrence."

“We are very proud of Dr. Benda for bringing this state-of-the art technology to our patients” said Phillip Smith, MD, Medical Director of the Lynn Cancer Institute. “Our program treats more breast cancer patients than any other in South Florida, so it is only natural that we make it our priority to offer the most advanced equipment for breast cancer treatment available to our community.” added Dr. Smith.

AccuBoost APBI Working Group Report

By design, AccuBoost has been developed as a non-invasive alternative to the host of invasive APBI options. In practice, as the technology was nearing market introduction, the unique role and contribution of AccuBoost as a replacement for electron boost by external beam was recognized.

The company’s marketing focus on boost therapy was based on three principles: 1) targeting electron boost to the lumpectomy cavity margin remains a clinical challenge; 2) in current electron boost practice, unnecessarily large volumes of breast tissue are exposed to high doses of radiation; 3) there are no new technologies in sight and the invasive intracavitary designs for APBI are not generally amenable for boost. These arguments when added to the fact that the APBI techniques are still looked at as experimental in some circles and not embraced universally, convinced us to shift the marketing focus of the AccuBoost to boost therapy.

The plans for the launch of AccuBoost were to market it for boost, but not impede organic growth of, and extension of, AccuBoost for APBI. Up to this point, AccuBoost has been used to treat about two dozen patients as a single modality, in some cases as salvage for patients that could not tolerate the invasive APBI procedures. Many new sites show increasing interest in a set of guidelines to use AccuBoost for APBI. To address this interest Dr. David Wazer, chair of AccuBoost’s medical advisory board, convened a Working Group of active radiation oncologists to devise guidelines for AccuBoost for APBI. The clinical issues that the Working Group reviewed are summarized in the Table above. For maximum effectiveness the Working Group...
AccuBoost APBI Working Group (continued from page 3)

Group conducted its reviews completely independently from the company. The WG considered the research at Tufts on the dosimetric comparison of the procedure compared to 3D-CRT and deliberated on reasonable criteria for offering the 3D-CRT APBI patients the alternative more conformal AccuBoost dose with real-time imaging technique.

The Working Group did not reach consensus on whether AccuBoost for APBI should be offered under a prospective clinical study or, as other APBI techniques, offered outside the confines of a prospective clinical trial.

The final draft of the report is several pages long and cannot be included in this summary. Only the patient selection guidelines from the WG report are presented in the Table on this page. For more information regarding the APBI AccuBoost Working Group, Report and Guidelines the reader is encouraged to contact David Wazer, MD at Tufts Medical Center, dwazer@tuftsmedicalcenter.org.

**PATIENT SELECTION**

- Age > 60 years
- Maximum tumor dimension < 2 cm
- Surgical margin > 2 mm
- Grade I-III
- LVSI negative
- ER positive/HER2 negative
- Histology – invasive ductal, mucinous, tubular, or colloid carcinoma
- Pure DCIS or EIC not allowed
- Nodal status: pN0 (i-, i+)

Patient Selection Criteria as provided by the AccuBoost APBI Working Group

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Advancing the frontier of breast cancer treatment...