

BOOSTER CLUB

CEO'S CORNER



There was one major motive that drove us to design A c c u B o o s t. We wanted women with

early-stage breast cancer to have a better chance of avoiding radiation related side effects. As I reflect back on that time, the lyrics in "Wooden Heart", a German folk song, eternalized by Elvis Presley often come to mind. It seems Elvis was speaking to radiation oncologists, on behalf of breast cancer patients, with these words, "Treat me nice, treat me good, treat me like you really should, 'cause I am not made of wood, and I don't have a wooden heart."

We continue to receive feedback from AccuBoost patients and these words sung by Elvis speak to what we are hearing. Patients in the age of "breast cancer awareness" are concerned about radiation-related side effects, especially to their heart and lungs. Overwhelmingly, we hear they would recommend AccuBoost to their friends and loved ones.

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ACCUBOOST WELCOMES NEW SITES



From Left: Kevin Khadivi Ph.D., Chief Medical Physicist; Matthew McCurdy MD, Radiation Oncologist; Kimberly Wilke-Zumba and Abbey Tatum, Radiation Therapists

CAUCER CENTERS The Austin Cancer Center in Kyle, TX is one of the most recent sites to launch the AccuBoost procedure. The primary radiation oncologist at this site is Matthew McCurdy. Dr. McCurdy is a specialist with brachytherapy fellowship training at MD Anderson. At the time of the AccuBoost launch in Kyle, he stated: "Out of deference to my patients, everyone is screened and considered to be an AccuBoost patient, unless proven otherwise."

PATIENT FEEDBACK

After 10-years of treating patients, the feedback remains consistent. The #1 reason women opted for AccuBoost is because of less radiation to the heart, lungs, and skin.







AccuBoost

ACCUBOOST INSPIRES CONFIDENCE

"My patients are excited to have a cutting-edge technology available for treatment of their breast cancer. Accuboost inspires confidence in my patients who feel that their critical normal tissues, like heart and lungs, will be protected for the long term."



Paiman Ghafoori, MD Radiation Oncologist Austin Cancer Center Austin, TX

PATIENTS **INCREASINGLY ASK FOR** ACCUBOOST

"The other day, a patient asked me how many facilities in the country are offering AccuBoost. She was very comforted to know that she was able to receive this state-ofthe-art treatment in our own community."



Neenad Shah, MD Radiation Oncologist St. Augustine Cancer Center St. Augustine, FL

ACCUBOOST MAKES A DIFFERENCE

"When I enter the exam room for a one-year follow-up appointment, most of the time I know if it is an AccuBoost patient as all that I notice is the lumpectomy scar, otherwise the breast looks great"



Eva Lean, MD **Radiation** Oncologist Scripps Healthcare Vista, CA

SURVIVOR STORY: MEET MARGARET BERRY

Margaret is a self-employed artist from Lincoln, Nebraska. She has a lively personality with a contagious, enthusiasm for life. Her love of art and her talent as an artist has touched many lives. In speaking with Margaret, it is clear she has a strong devotion to the people and community her art has brought to her.

In 2016 when Margaret went for her annual mammogram, she felt a thickening in her breast that concerned her. Nothing was seen at that time. The thickening turned into a lump, and when Margaret went back for another mammogram, an abnormality was seen. After having a biopsy, Margaret was diagnosed with early-stage breast cancer. Fortunately, her cancer was detected early.

"AccuBoost makes sense to me. in that it targets the exact area of concern." - Margaret Berry



Margaret received her radiation treatment at Saint Elizabeth's Medical Center in Lincoln, NE under the care of Dr. Kevin Yiee. While discussing her options for treatment, Dr. Yiee told Margaret about AccuBoost. She was encouraged when he told her that the AccuBoost targeted treatment delivery would reduce the risk of a recurrence. Margaret said that to her "AccuBoost was an added insurance against the cancer coming back." She said, "It was also comforting to learn that AccuBoost minimized radiation to my skin, heart, and lungs."

When asked about her experience during treatment Margaret said that it was calming to listen to TED talks on her iPad. They helped keep her relaxed and in a positive place. Another thing that helped Margaret was her treatment team at Saint Elizabeth's. She specifically recognized Dr. Yiee and Mashala, the therapist, and the entire treatment team, and said, "They truly made me feel special and cared for. It was as if I was home and they were family."

ACCUBOOST WELCOMES NEW USERS



AccuBoost welcomes Samuel Richter, MD, the new radiation oncologist at Lynn Cancer Institute at **Boca Raton Regional** Samuel Richter, MD Hospital in Florida.



Michael Payne, MD

AccuBoost also welcomes the return of Dr. Michael Payne, from sabbatical, at the CTCA facility in Tulsa, OK.

Q & A: PREOPERATIVE INITIATIVE



Jaroslaw Hepel, MD

Breast radiation therapy is about to witness a paradigm shift. Delivering radiation prior to surgery is common in many organs, but the concept has not been widely explored for breast in any significant way, until now.

The AccuBoost Technique that combines the features of real-time

mammography image guidance and the conformal dose of (non-invasive) brachytherapy is uniquely qualified for the preop initiative, where radiation is delivered first to the tumor and the surrounding tissue followed by surgery. approach is that the volume of breast tissue, consisting of the tumor and the surrounding highrisk tissue, is significantly smaller. Published articles suggest that the volume of tissue that receives the therapeutic dose is about half or less when treated preoperatively. Studies at our own institution show that using the mammography platform will further reduce this volume. Smaller volumes are directly tied to better cosmetic outcomes and the underlying motivation for breast conservation in the first place.

(): How about target identification?

A: This is one of the enabling features of AccuBoost,

The new protocol to evaluate the preop option will soon be launched at Rhode Island Hospital. The project's principal investigator is Dr. Jaroslaw Hepel. Questions related to the study were posed to Dr. Hepel:

Q: What do you consider to be the main contribution of AccuBoost?



mammography as the real-time and platform images allow for precise target identification. The study relies on patients to undergone have biopsy before the treatment with a marker inserted at the center of the lesion. The presence of the fiducials makes targeting the dose much easier.

Q: What other potential benefits do you expect

with the preop approach?

A: The non-invasive nature of the AccuBoost Technique and mammographic images are essential for the study. Compression of the breast where healthy tissue is pushed out of the treatment field, allowing us to get close to the target with less intervening tissue, is considered to be an enabling feature.

Q: Is there a volumetric advantage to the preoperative approach?

A: One of the main advantages of the preop

A: Delivering radiation preoperatively may trigger the body's immune system to release antigens that augment its own ability to fight the cancer. One of the goals of the study is to evaluate the contribution of preop radiation to stimulate the body's immune response for disease control.

Q: What is the dose and fractionation in the study?

A: The study calls for a total of 28.5 Gray in 5 fractions over a span of 5 to 10 days. This is the

exact fractionation that we have used previously for postoperative APBI with satisfactory results.

(): What is the recommended time for surgery?

The partial mastectomy [lumpectomy] surgical procedure is to be performed between 4 and 12 weeks after completion of APBI.

Q: How many patients are in the study?

This is a small proof-of-principle, feasibility study of only 26 patients treated at 2 to 4 institutions. Based on the satisfactory results of this study we expect to open the research to include other institutions to collect more data and longer follow-ups.

Q: Could you describe the patient selection criteria?

Eligibility for participants in this study is limited to early-stage patients with a confirmed histological diagnosis of invasive carcinoma or DCIS who are candidates for breast conservation surgery, with an age of at least 60 years.

The tumor size by imaging must be less than 2 cm and patients must be lymph node negative.

Tumor size for the patients?

Any other information related to the study that you want to point out?

A: The primary goal of this Phase I study is to evaluate the feasibility of the p-APBI approach and report on tumor control as well as acute and late toxicity and surgical complications, if any, associated with the procedure. A positive outcome will encourage followon studies to assess the long-term value and potential contribution of the procedure.

Q: How soon do you expect the study to start?

A: All preparations are in place as we expect FDA and IRB approvals shortly.





Preop radiation may unleash the body's immune response