Issue 35: April 2017

AccuBoost®
for image guided breast irradiation

BOOSTER CLUB

CEO'S CORNER

The saying "use it, or lose it" has taken on new meaning in radiation oncology circles that offer HDR brachytherapy. Recent cost-cutting efforts have forced radiation oncology facilities to either increase source utilization or face losing the HDR capability. The pressure to increase source utilization has been a blessing for AccuBoost, as many have found that not only is AccuBoost the best option for the patients, but also it can rescue and revitalize the brachytherapy offering as elaborated in this issue.

Also, the practice-altering approach of preoperative Accelerated Partial Breast Irradiation is featured in this issue. In the p-APBI procedure, radiation therapy is targeted to the tumor prior to surgery, offering a multitude of benefits. The newly released protocol on p-APBI, for which AccuBoost is ideally suited, is available on request.

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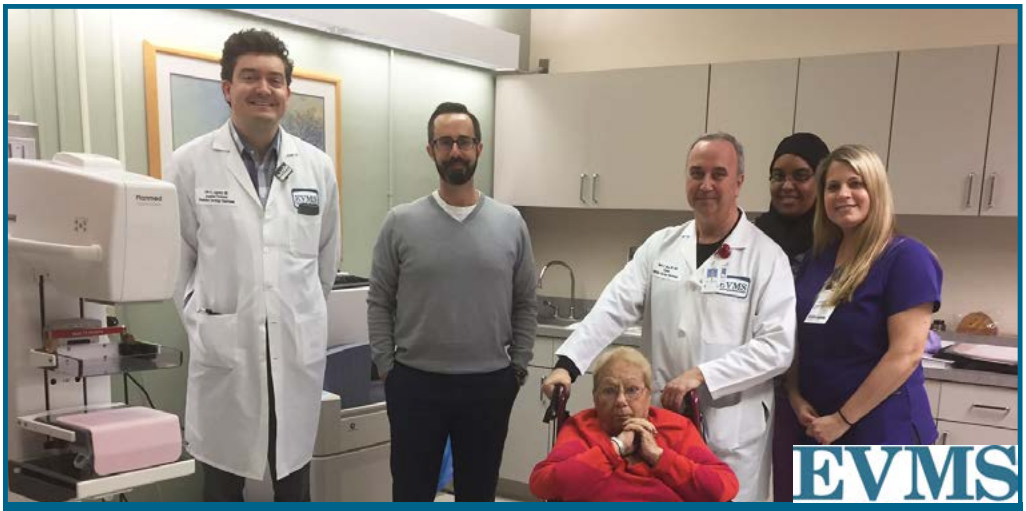
ACCUBOOST WELCOMES NEW SITES



From Left: AccuBoost team with patient sitting, Erik Lappinen, MD, Sam Dunn, Physicisict, Mark Sinesi, MD and Chairman, Jennifer Hutchinson, Lead AccuBoost Therapist

Norfolk General Hospital in Virginia has recently launched AccuBoost. This facility, part of the Sentara Network of hospitals, is the third installation in the city of Norfolk to offer the AccuBoost procedure. The effort at this site is spearheaded by Mark Sinesi, MD, Ph.D., Chair of Radiation Oncology. He is assisted by doctors Ed Crandley, Erik Lappinen and Mark Shaves.

Dr. Sinesi stated, "I have not experienced this level of customer support from any other vendor," during the launch of AccuBoost. He added, "without the on-site support, we could not have treated a challenging case in a patient that required special attention."

InterCommunity CANCER INSTITUTE
Technology You Need, Care You Deserve

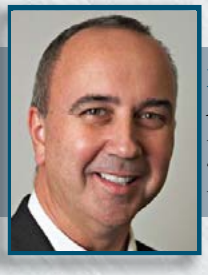
InterCommunity Cancer Center at Lady Lake, part of the Vantage Oncology Group, has recently initiated the AccuBoost offering from this Central Florida location. The effort at this site is led by Dr. David Catalano.

NEA Baptist in Jonesboro, AR is one of the latest additions to the family of AccuBoost users. This is the third site within the Baptist Memorial Hospital Group to be offering AccuBoost, following the lead of Baptist Memorial Golden Triangle in Columbus, MS and Baptist Memorial in Oxford, MS. The addition of the third Baptist Memorial facility speaks volumes about the clinical successes of the offering and the fit and function of AccuBoost in rural community hospitals, who are striving and succeeding to make the best technology available to their patients.

NEA BAPTIST
FOWLER FAMILY
CENTER FOR CANCER CARE

ACCUBOOST PREPARES YOU FOR SUCCESS

"In all my interactions, I have never experienced customer service like this…"



Mark Sinesi, MD
Medical Director
Radiation Oncology
Sentara Norfolk General Hospital-Norfolk, VA

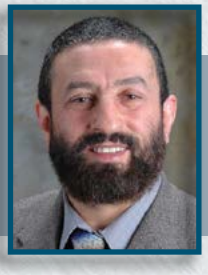
REVITALIZE YOUR HDR PROGRAM

"with the addition of AccuBoost we intend to go from 4 source changes to 6 source changes a year."

Renee Shank, BS RTT
Manager of Radiation Oncology
Mary Washington Hospital, Fredericksburg, VA

ACCUBOOST... A GENIUS IDEA!

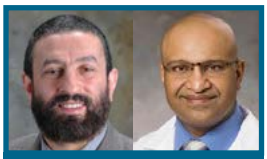
"I find the AccuBoost approach to be a genius idea, as it combines the power of mammography with the conformal dose of brachytherapy."



Ahmad Akl, MD
Medical Director
Radiation Oncologist
Genesys –Hurley Cancer Institute

ACCUBOOST WELCOMES NEW USERS

AccuBoost welcomes Paul Kocheril, MD, who has recently joined the staff of **Genesys Hurley Cancer Institute** in Flint, MI. Dr. Kocheril was quick to embrace the benefits of AccuBoost technology and has been treating many of his patients with it. Genesis Hurley is the only facility in Michigan equipped to offer the AccuBoost procedure. Dr. Ahmad Akl, the Medical Director at this site, is one of the early adopters and champions for the AccuBoost procedure. He and Dr. Oh have been offering the procedure since 2009 for the benefit of early stage breast cancer patients in Flint and, occasionally, for out of town patients who are often willing to travel for the treatment.



From Left: Dr. Ahmad Akl and Paul Kocheril

AccuBoost welcomes Gregg Goldin, MD, who has recently joined the staff of **Lynn Cancer Institute at Boca Raton Regional Hospital** in FL. Dr. Goldin has been treating patients with AccuBoost since joining the center. He is both excited and impressed by the technology and it's many benefits to his patients. Dr. Rashmi Benda, the author of the famous article "Are We Missing the Target?", when describing the boost dose, is also at this site. She is one of the early adopters and champions for the AccuBoost procedure. Lynn Cancer Institute has been offering AccuBoost since 2009 under her guidance.

Dr. Gregg Goldin, MD at the Lynn Cancer Institute

Join us at the **2017 ABS Annual Meeting**
April 20-22 at **Table #8** in Boston!

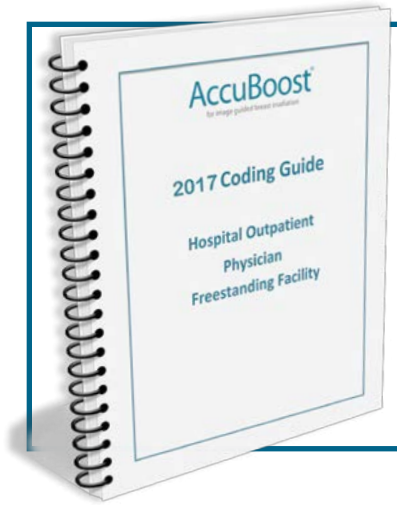
American Brachytherapy Society

AccuBoost® for image guided breast irradiation

HDR PROGRAMS UNDER PRESSURE

"Use it or lose it," is an old adage that is finding new meaning in this day and age of cost-cutting in radiation oncology circles. Facilities that have long owned and operated HDR afterloaders are coming under increasing pressure to justify the cost of source replacement/ service contracts. The pressure to increase the effective use of the source or face losing the HDR capability has forced at least a dozen facilities to mothball the equipment as of the first of the year.

The push to increase source utilization presents a golden opportunity to introduce the AccuBoost offering. Many sites have learned that the addition of AccuBoost – is not only the best for the patients, but also it rescues and revitalizes the overall HDR brachytherapy program. In the same vein, a number of sites that have been operating on a reduced source change schedule, after committing to AccuBoost offering, have resorted back to more frequent source changes. Renee Shank, Manager of Radiation Oncology at Mary Washington Hospital in Fredericksburg, VA states, "with the addition of AccuBoost we intend to go from 4 to 6 source changes a year."



2017 ACCUBOOST CODING GUIDELINES

There were few if any changes in the CPT codes for brachytherapy - as they apply to AccuBoost procedure. The updated 2017 Coding Guide Booklet for AccuBoost is available for distribution.

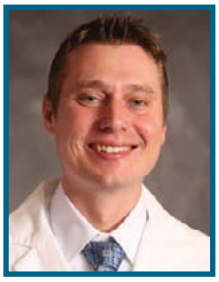
Contact info@accuboost.com or call 978-649-0007 if you are interested in receiving the information.

NO HDR, NO PROBLEM

There are a significant number of facilities that have no HDR program but are interested in the AccuBoost offering. For these facilities, AccuBoost offers a one-step, one-stop, turn-key solution of HDR and AccuBoost equipment. The combined HDR and AccuBoost equipment package are provided at no upfront cost, allowing the department to roll out the AccuBoost offering without the outlay of funds and pay for the service from patient treatment revenue.

From Left: Drs. Leanne Smith, Cherylle Hayes, and Laurel Warwicke at the AccuBoost exhibit during ACRO.

ACCUBOOST FOR PREOPERATIVE APBI



Jaroslaw T. Hepel, MD

PRE-OPERATIVE ACCELERATED PARTIAL BREAST IRRADIATION (APBI) USING NON-INVASIVE IMAGE-GUIDED BREAST BRACHYTHERAPY (NIBB)

Principal Investigator **Jaroslaw T. Hepel, M.D.**

Co-Principal Investigators: **David E. Wazer, M.D., Kara Lynn Leonard, M.D.**

Rhode Island Hospital
A Lifespan Partner

The AccuBoost design that combines the power of real-time mammography image guidance and the conformal dose of non-invasive brachytherapy is proving to be the ideal approach for preoperative radiotherapy – where radiation is delivered prior to surgery. The newly released protocol from Rhode Island Hospital describes the upcoming clinical trial. The study will evaluate the contribution of AccuBoost to preoperative APBI (Accelerated Partial Breast Irradiation).

The main elements of the protocol are summarized below:

Purpose – The purpose of the study is to evaluate the feasibility of APBI by the AccuBoost design, delivered pre-operatively for women with resectable, early-stage breast cancer.

Objectives – There are two primary objectives for the study:

Continued on next page...

PREOPERATIVE APBI (CONT.)

(1) Evaluate feasibility and toxicity of pre-op APBI including the rate of surgical complications.
(2) Assess and report the cosmetic outcome, tumor recurrence, comparative dosimetry of pre-op and post-op APBI, and provide preliminary data for follow-up trials.

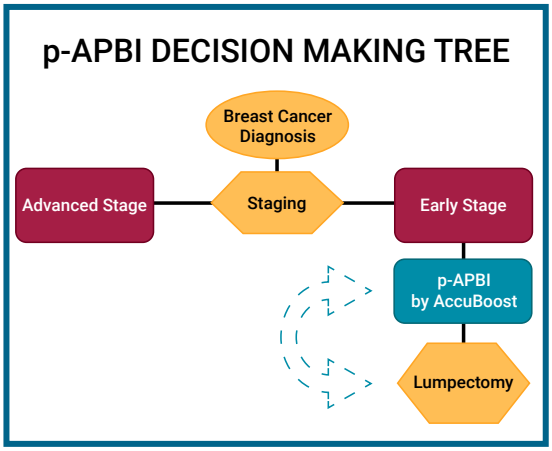
Rationale – The goal of this trial is to extend the favorable Phase I APBI trial results for AccuBoost at RIH to preoperative approach. The approach has several advantages:

1) targeting a small tumor and surrounding high-risk tissue results in significantly less tissue receiving high radiation doses causing less toxicity;

2) smaller treatment volumes are amenable to dose escalation which can further shorten the treatment and improve accessibility for patients,

3) the pre-operative approach is widely utilized in other tumor sites and can provide a novel opportunity to study radiation response in breast cancer.

Study population – Eligibility for participants in the study is limited to patients with a confirmed histological diagnosis of invasive breast carcinoma or DCIS who are candidates for breast conserving surgery with age greater or equal to 60 years and life expectancy of more than 6 months. Tumor size by imaging must be less than 2cm, and patients must be lymph node negative.



Target definition – The study relies on the presence of a radio-opaque clip placed at the time of biopsy for target localization. The gross tumor volume (GTV) will consist of the tumor as defined by AccuBoost images. The clinical tumor volume (CTV) to account for a subclinical disease will include GTV with at 1.5 cm radial margin limited by the chest wall and 0.5cm from the skin. The planning tumor volume (PTV) will consist of the CTV with a 0.2cm - 0.5cm margin. To minimize skin dose, only Skin Dose Optimized (SDO) applicators are allowed in this study.

Dose fractionation – Patients are to receive a total dose of 28.5 Gy delivered in 5 daily fractions. Both axes are to be treated in each fraction. Treatment is typically delivered over 5 to 10 days.

Surgery – A partial mastectomy (with or without a sentinel node biopsy) is to be performed between 4 and 12 weeks of completion of APBI.

Toxicity assessment and endpoints – The primary goal of the study is to evaluate the feasibility of p-APBI and report on post-operative complications. Other endpoints are assessment of late toxicity, cosmetic outcome as well as local and distant disease control.

The complete protocol is available on request from info@accuboost.com. The study is open to all AccuBoost users with interest in clinical research.

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