

### Case Study of the Inadequacy of CT Screening for AccuBoost (Cont.)

prone position than those in the supine position as the breast tissue flows forward and is separated from the chest wall. Images taken in both C-C and M-L directions for this case study (Figures B & C) clearly show a more anterior target easily allowing for adequate posterior coverage of the target volume for AccuBoost. The availability of the Wedge Applicator upgrade, described in this newsletter, is an additional enabling option to provide treatment of challenging cases involving posterior lesions.



Figure A: CT image of a patient in supine position. Posterior surgical clips appear at the chest wall

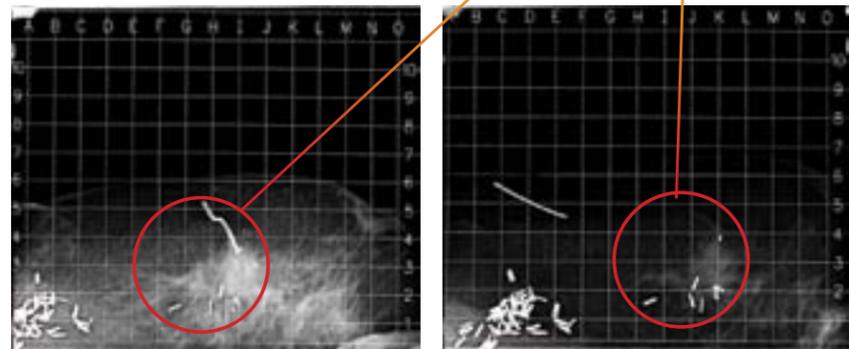


Figure B & C: AccuBoost images in the C-C and M-L directions showing adequate posterior margins



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# AccuBoost® Booster Club

### Notes from the Editor:

With each issue AccuBoost is gaining more traction and is measurably more popular among radiation oncology facilities that take pride in offering the best options for their patients. This issue reports on the latest AccuBoost developments: new installations, new staff, an upcoming AccuBoost APBI Webinar, and participation in trade-shows and conferences. The case-study presented provides yet another confirmation that CT simulations are often misleading for patient selection for AccuBoost.

The main feature is the coverage of the new generation "Wedge AccuBoost applicators" with a tapered and beveled posterior edge - especially designed for coverage of posterior tumor beds.

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### New AccuBoost Installations:

There have been many new installations recently. Some of these additions include:



**St Agnes Hospital** in Baltimore is the only site in Maryland to offer the AccuBoost procedure. Dr. Richard Hudes, Chief of Radiation Oncology at this site, made the following observation at the time of the procedure launch: "AccuBoost is an elegant way of delivering the partial breast dose." Dr. Hudes added "It is not the simplicity of the treatment but rather the elegant streamlining of the complex steps of targeting and treatment together that impresses me." Dr. Hudes and his team, shown in the picture, began patient treatment in September.



The AccuBoost team at Saint Agnes Hospital: *From left, standing:* John Weiffenbaer, Dr. Richard Hudes, RTT, Mark Hall, physicists Shahid Naqvi, & Gui Minzhi, RTT, Amanda Isac, RTT *Seated:* Debbie Roulands, RTT, Fabjola Cangonji RTT, and Lisa Alley, RTT

in Florida. This Vantage Oncology facility, operating under the banner of "The Technology You Need and the Care You Deserve" takes pride in offering the latest innovations for the benefit of its patients. ICI Leesburg started patient treatment in October of 2013. The effort at this site is headed by Dr. Alison Calkins - board certified radiation oncologist.



**Intercommunity Cancer Centers** of Leesburg is the most recent center to begin delivering clinical treatments

**Northern Nevada Radiation Oncology**

**Northern Nevada Radiation Oncology of**

Reno is the first facility in northern Nevada to offer the AccuBoost Technology. Michael Kos, MD, spearheads AccuBoost efforts at this site.

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**AccuBoost at ACRO Booth No. 15**

Visit us at the 2014 ACRO Annual Meeting February 27- March 1 in Orlando, Florida.

**New Addition to the Team**



**Kimberly Cherelli** has just joined the AccuBoost team as the Manager of Clinical Support. Kim has over 20 years of clinical experience in radiography and mammography and has served in various hospital positions.

In her capacity as Manager of Clinical Support, Kim will be travelling to existing AccuBoost sites to provide continued training in patient selection and positioning in challenging cases. Her enthusiasm to communicate the benefits of the AccuBoost procedure combined with the ability to “read” x-ray images and experience in patient positioning is highly valuable to both the new and established AccuBoost users. Kim will be scheduling regular visits to AccuBoost facilities to share the latest techniques and newest lessons learned about managing difficult cases.

**AccuBoost New Installations (Cont.)**



**Northern Boulevard Radiation Oncology in Flushing and Brooklyn Radiation Oncology** are two Vantage Oncology facilities in the greater New York City area that have started offering the AccuBoost procedure. Drs. May Lim and Paul Gliedman are the Medical Directors and primary breast treatment providers at the Northern Boulevard, and Brooklyn facilities, respectively.



**Riverside Cancer Care Center** of Newport News, Virginia is another state-of-the-art, community-based radiation oncology facility with multiple offices in Virginia that has committed to make the AccuBoost procedure available for the benefit of patients in Southeast Virginia. Radiation oncologists, Melva Penn-Bingham, Joseph Layser and Veronica Eisen are primarily responsible for the AccuBoost treatments at this site.

**Upcoming AccuBoost APBI Webinar**



AccuBoost, in cooperation with the Varian BrachyTherapy Group, is sponsoring a Webinar at 1 PM EST on February 24. The Webinar by Jaroslaw Hepel, M.D. from Rhode Island Hospital/Brown University reviews the state-of-the-art technology of AccuBoost as the non-invasive alternative to other procedures that offer a short course of therapy of partial breast irradiation, otherwise known as APBI (Accelerated Partial Breast Irradiation).

in the study have been closely monitored and the clinical outcome for this group of patients is the subject of the upcoming seminar. The registration for the Webinar is accessible from the Varian website [myvarian.com/webinars](http://myvarian.com/webinars). The webinar will be recorded and will be posted shortly thereafter on the AccuBoost website and accessible at [www.accuboot.com/webinar\\_feb\\_2014](http://www.accuboot.com/webinar_feb_2014).



Jaroslaw Hepel, MD

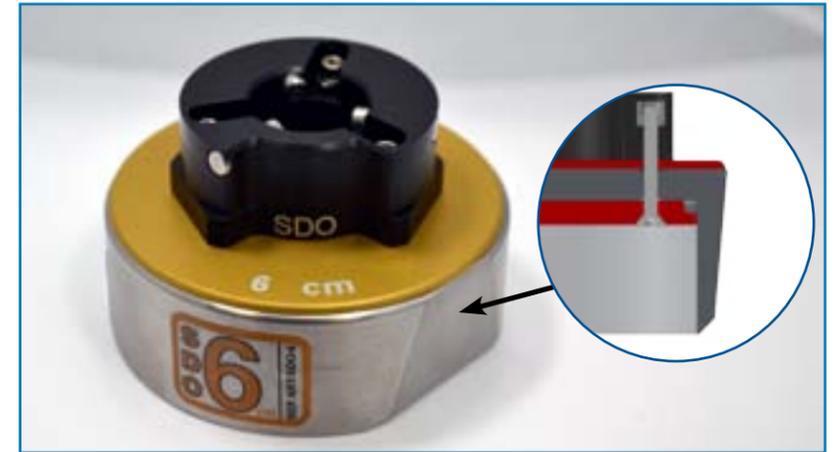


**AccuBoost at ABS**

AccuBoost will be exhibiting at the ABS annual meeting held in San Diego, April 3–5. There will be numerous presentations on the AccuBoost procedure at this year’s meeting.

**AccuBoost Launches New Generation “Wedge” Applicator**

One of the challenges for AccuBoost has been providing adequate posterior coverage for deep seated tumor beds – especially a concern for large breasts and lesions located close to the chest wall. Up to this point, many patients who would have been perfectly suitable candidates for AccuBoost were excluded from treatment based on the fear of inadequate coverage of posterior margins. The new generation “Wedge Applicators” are designed to address this concern.



The Wedge Applicators, as shown in the diagram, have a slanted posterior wall with

a beveled edge. The beveled edge has a radius of curvature that matches the curvature of the mammography paddle. The combination of the two features, allows for the applicator to be placed closer to the chest wall and gain an additional 5 mm of posterior range. Both the round and D-shape applicators incorporate this new wedge feature in their design.

These applicators have been distributed on a limited scale to date. Field reports clearly indicate the utility of these

applicators for the intended purpose. Facilities that have tested these applicators report 72% of patients, that based on previous experience, would have been excluded from treatment were successfully treated with AccuBoost.

The Wedge Applicators are being distributed as a substitute to the traditional applicators. AccuBoost facilities are requested to return the original hardware once they have received and commissioned the new design.

**Case Study of the Inadequacy of CT Screening for AccuBoost**

Previous newsletters have pointed out the misleading appearance of tumor beds, as seen in CT simulations. The case study presented here provides yet another example that CT simulation in the supine position is not appropriate for patient selection for AccuBoost where posterior targets are concerned.

The CT image of the patient presented on the next page shows that the clips, placed to mark the posterior edge of the surgical bed, to be abutting the chest wall, thus, seemingly grounds for disqualifying the patient for the AccuBoost treatment. However, when the same patient is positioned in a mammography set up for

AccuBoost, the images as presented on the next page, show plenty of posterior margin for the patient to qualify for the AccuBoost procedure.

The breast images from the AccuBoost system, where the patient is in a standing or sitting position, are more similar to breast CT Images taken in the

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