



Caserta Promotes Ultrasound First for Ultrasound-Guided Procedures

“Ultrasound is quicker and less expensive than CT and has the primary benefits of real-time visualization”

Q. How did you become interested in the ultrasound field?

A. I first became interested in radiology during my first year of medical school. During anatomy, we had a radiologic anatomy class that I found very interesting. I also had the opportunity to shadow a radiologist and I was fascinated with how imaging made a big impact in patient diagnosis and treatment.

As an abdominal imaging fellow and junior faculty, I had a wonderful mentor in ultrasound who helped guide me towards ultrasound.

Q. Can you tell me about your current roles at your facility? How do you use these roles to educate and advance the field of ultrasound?

A. One area I work to advance is the choice of ultrasound over CT for imaging-guided procedures. Ultrasound is quicker and less expensive than CT and has the primary benefits of the real-time visualization and no ionizing radiation.

Q. How did you become interested in using ultrasound needle guidance? What has kept you using the technology after it was introduced?

A. I was introduced to the Ultra-Pro II during my residency training. I continue to use the product because it is easy to use and I find needle guidance makes the procedure go more smoothly. Even for technically straightforward procedures where a free-hand technique might seem easy, I will use needle guidance when I have the option. In general I find this makes the procedure faster, safer and easier.

Q. What ultrasound-guided procedures do you most commonly perform with needle guidance?

A. I use the Ultra-Pro II most commonly for kidney, kidney transplant biopsies and liver biopsies both targeted and non-targeted. I do not find a guide necessary for thyroid, lymph node and other superficial biopsies. The guide is large enough for an 8.5FR catheter, so I have even used it for draining fluid collections when only a small drain is needed.



BACKGROUND

Physician:
Melanie Caserta, MD
Assistant Professor of Radiology

Facility: Winston-Salem, NC

Featured Product:
Ultra-Pro II Needle Guide™

Q. Describe an instance when needle guidance helped you avoid or reduce challenges or complications.

A. In general, I find needle guidance most helpful to avoid procedural complications when training residents and fellows. The guide keeps the needle on a trajectory the operator is able to easily visualize. With ultrasound, the coordination of holding the probe and the needle while maintaining visualization of the needle can be tricky when first learning ultrasound-guided procedures. Using the needle guide helps shorten the learning curve for residents and fellows when first performing ultrasound-guided procedures.

Q. With regards to guidance technology, what advice would you offer physicians entering the profession?

A. Become comfortable with your ultrasound machine and make sure you are familiar with the machine prior to performing procedures. Practice your skills with scanning and try to use a phantom for practicing biopsies if one is available to you. Prior to performing a biopsy, preparation and planning of the procedure are essential. Make sure you have found a good approach prior to sterile preparation of the patient. During the procedure, it is essential you see the needle tip at all times. Using a guide whenever possible makes the procedure go smoothly and can help avoid complications.

Q. In your professional opinion, where do you think the future of ultrasound is headed?

A. I think ultrasound will continue to grow in popularity. It is portable, relatively inexpensive compared to other modalities and is safe. When possible, imaging-guided procedures should be performed with US over CT depending on the comfort of the operator. Various technologies such as elastography, fusion imaging, B Flow and CEUS offer many exciting possibilities.

