

Prostate Fusion Biopsy

No Longer a Shot in the Dark

When Urologist Jeffrey Steinberg, MD, learned about a new technology that would revolutionize the way prostate cancer is detected and treated, he knew that it was something he wanted to offer to his patients at Milford Regional. Milford Regional was the first hospital in the area to offer multiparametric MRI and 3D MRI/Ultrasound Fusion Biopsy to detect prostate cancer using the Artemis 3D Imaging and Navigation System. This groundbreaking, leading-edge prostate biopsy technology painlessly and more accurately detects cancer that may have previously gone undetected or hidden.

"I knew that this was going to become the standard of care and wanted to offer it to my patients," Dr. Steinberg says. "This technology allows us to be very specific in targeting suspicious areas during the biopsy. As Fusion Biopsy is proven to be more accurate in diagnosing prostate cancer, conventional ultrasound-guided biopsies will eventually become a thing of the past."

Since this technology was introduced at Milford Regional last year, Dr. Steinberg has offered his patients a more accurate and painless procedure for prostate biopsy. Traditional biopsies are conducted in a physician's office using an ultrasound probe to guide a biopsy device placed in the rectum. Not only is the procedure uncomfortable for the patient, but these biopsies are conducted somewhat "blindly" because the physician has only a limited view of the prostate.

Using the Artemis System, Dr. Steinberg performs the biopsy in the hospital while the patient is sedated. A patient first undergoes a multiparametric MRI, an advanced imaging study which uses magnetic waves to detect an abnormal area in the prostate. During the procedure, these MRI images are then overlaid – or fused – with real-time ultrasound images to create a detailed 3D image of the prostate. Dr. Steinberg then uses that image as a map, allowing him to mark and accurately target an abnormality or "region of interest" during the biopsy. The procedure images are then saved to the patient's electronic medical record as a foundation upon which to plan the patient's treatment.

"The problem with traditional ultrasound biopsies is that cancer doesn't generally show up as a specific spot that you can see; it can be hidden," says Dr. Steinberg, adding that those undetected lesions are problematic for patients with early, aggressive cancers who may not have any symptoms. "With this new technology, we now

have real-time, 3D images and we know the exact area(s) of abnormality. This technology has already caught many cancers that would have otherwise gone undetected with traditional biopsies."

Dr. Steinberg says patients have been receptive to this new method, particularly those who may have avoided or delayed a biopsy knowing that previous methods were painful and somewhat unreliable. "Patients like the idea that we are not shooting in the dark," he says.

About a week after the biopsy, Dr. Steinberg meets with the patient and his family to share the images and biopsy results. "It is educational for the patients and their families to understand and see where the cancer is precisely located and discuss treatment options – whether it be robotic surgery, radioactive seed implantation (brachytherapy), 3D conformal external beam radiation therapy or active surveillance. This revolutionary technology enables my patients to truly understand the extent of their prostate cancer and how to best cure it."

To make an appointment with Dr. Steinberg, call Urology Specialists of Milford, LLC, at (508) 473-6333. ■



Urologist Jeffrey Steinberg, MD, (left) utilizes a new technology that can better detect prostate cancer.