Confidence is an important part of a radiation therapy planning session, especially when a facility is treating as many as 30 patients or more per day. Knowing you are using the best products available and providing patients with the best technology and treatment possible can increase that confidence. When Agnesian Healthcare Cancer Care Services in Fond du Lac, Wis., installed CIVCO’s Universal Couchtop on their computer tomography (CT) and advanced linear accelerator (linac) platforms, confidence in their treatment technology was boosted in numerous ways.

The Universal Couchtop provides low attenuation, surface dose and is ideal for IGRT tracking. A dosimetrically matching CT couchtop assists in dose accuracy between planning and treatment allowing for a more efficient workflow. In addition, the Universal Couchtop offers a wide variety of extensions for both imaging and treatment, eliminating the need for overlays and ensuring equivalent setups between CT and treatment.

"CIVCO’s dosimetrically matched Universal Couchtops give us more confidence in dose calculations when planning patients who will be treated on the linac," said Brian Smaga, radiation therapist at Agnesian Cancer Center. "Not having to use overlays has definitely provided us additional conveniences."

Prior to installing CIVCO’s Universal Couchtops, the facility’s previous couchtops left them with a variety of issues to overcome, one being weight limit. Any excess weight applied to the top of their table would engage and release the locking mechanism, creating an unsafe situation for the patient on the table. The Universal Couchtop provides a lightweight yet strong couchtop, with a load rate ranging between 444-484 pounds, which is limited only by the weight limit of the linac pedestal.

"Our heavier patients would move up the old table by alternating their body weight, creating a diving board bounce effect on the top half of the table," said Smaga. "A few times the top of our old table popped off. The noise and the slight drop of the tabletop was enough to startle the patient and therapist. The Universal Couchtops’ weight limit and solidity has assured us that our patients are safe."

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In addition to implementing Universal Couchtop technology, the Agnesian Healthcare Cancer Center utilizes CIVCO’s Protura Robotic Patient Positioning System that integrates seamlessly with the couchtop and other CIVCO motion management solutions. The combination of the Universal Couchtop and robotics has provided efficiencies and increased accuracy dramatically.

"Our robotic couchtop allows rotational alignment in all planes of view — sagittal, coronal, and transverse — and allows our staff to correct the patient alignment based on what actually needs adjusting rather than making the best of using limited lateral, longitudinal and vertical movements to split the differences in rotational corrections that are needed," said Smaga. "This technology definitely gives us confidence that we are providing the best treatment possible for our patients."

Case study supplied by CIVCO.

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