Clinical Education & Surgical Planning With The Anatomage Table In Medical Simulation Labs

Advanced Medical Simulation Technology For Education & Research

The Parkview Mirro Center for Research and Innovation was developed to provide advanced medical simulation technology for clinical education and research. The Advanced Medical Simulation Lab at the center features three key modes of clinical training: high-fidelity simulation manikins, task trainers, and virtual dissection. The Anatomage Table was adopted as a resource for surgical planning as well as provider and patient education.

Provider Education With 3D Images

Having the Table available to providers allows for them to focus on procedural education. This applied to endovascular procedures as well as surgical planning. Physicians used the Table to model 3D images to fully understand the spatial region of the area they were preparing to operate. For example, they have the option of comparing 2D images from a CT scan to the 3D image created by the Table's software. If the Table was being used to plan for surgical oncology, the findings could then be discussed during a tumor board review where multiple specialists review and discuss the patient's specific condition. Medical professionals from the physical and occupational therapy department also utilized the Table for general anatomy review. Therapy students also participate in student skill labs that can utilize the Table's curriculum-oriented features.

Medical Knowledge Barrier & Real Patient Scans

Having the Table available in the simulation lab encourages clinicians and medical staff to promote patient-centered care. Beyond assisting with the overall diagnostic process, the Table allows for patients to visualize their course of treatment on an intuitive display and interface. Integrating real patient data and images into the treatment process gave medical staff the opportunity to bridge the gap between doctor and patient understanding.

The use of the Table for patient education initially began with a focus on oncology patients. The Table was used to outline surgical procedures and plans of action for surgical oncology. Clinicians can load their own DICOM scans onto the Table and use its features to dissect and visualize the specific condition they are treating. By having patients view their anatomy and physiology in 3D via the Table, clinicians can optimally explain information regarding a patient's current and future treatment.

Virtual 3D Visualization For Patient-Centered Care

Parkview is looking to further patient satisfaction and positive treatment outcomes with the use of virtual dissection and 3D imaging. Using real patient imaging and data with the Table provides clinical education for students, providers, and patients. They are planning to expand the use of the Table with the establishment of the Parkview Cancer Institute in 2017. They'll continue to use the Table's 3D rendering capabilities to get a detailed spatial understanding of each patients' specific condition. Patients will get a thorough visualization of their diagnostic process and treatment protocol as they consult with their medical team.

References

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