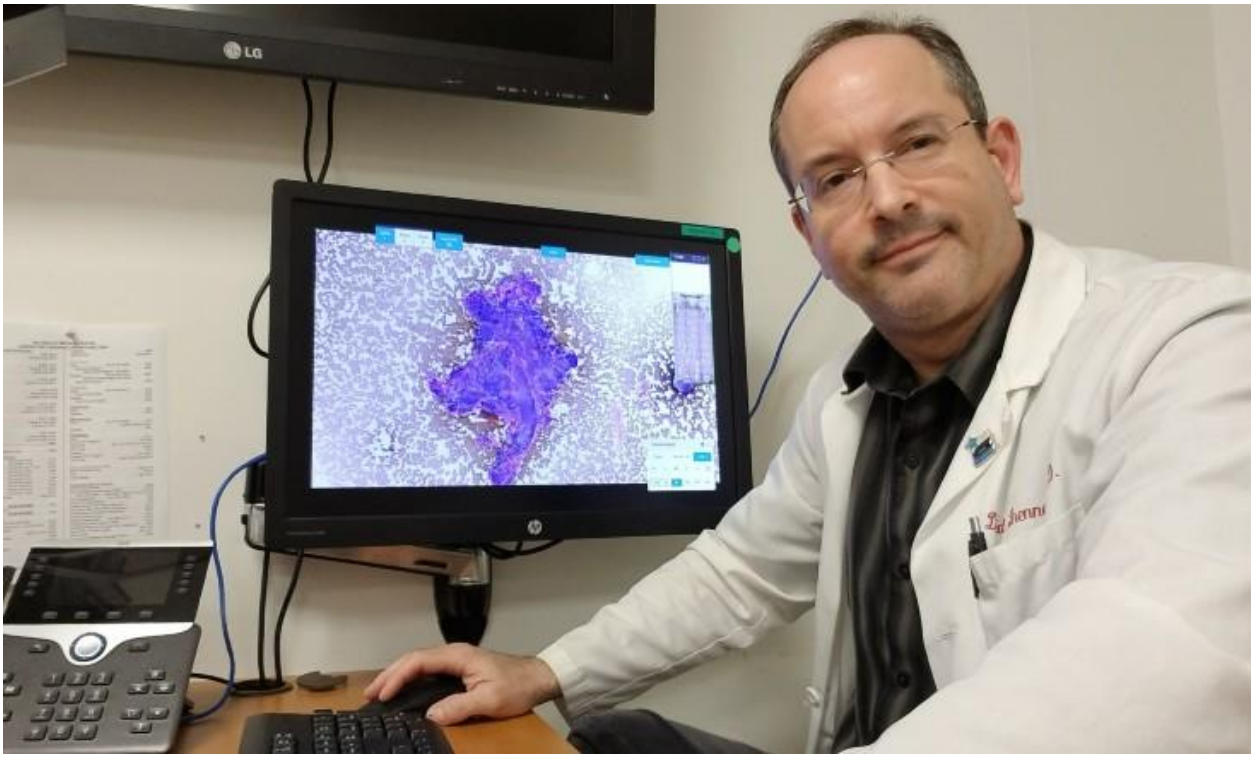

Innovative Solution Delivers Speedier Results to Bayhealth Patients

Wednesday, July 6, 2022 | Expanded Services, Bayhealth Sussex Campus

Bayhealth took a giant leap forward in telepathology by launching a new system at its Sussex Campus. Telepathology is the process of performing pathology—testing and tasks to diagnose disease—at a distance using electronic methods.

Produced by Remote Medical Technologies (RMT), a leader in innovative telemedicine solutions, the system used at hospital systems nationwide such as Memorial Sloan Kettering Cancer Center and University of Pittsburgh Medical Center (UPMC), is now elevating care locally for Bayhealth patients. It can lead to a reduced hospital stay, less waiting and anxiety, getting started earlier on treatment, and being scheduled sooner for necessary procedures.

This telepathology solution allows pathologists and cytologists to analyze samples and share results instantly and securely without being on site, thus speeding up the diagnostic process. For the health system, it improves

turnaround time and productivity, reduces travel expenses, and helps manage the reduced staffing levels that labs nationwide are experiencing.

Bayhealth Medical Laboratory Director and Pathology Department Chair David Brenner, MD, has been central to the vision, acquisition, and implementation of this new system. “The robotic technology is a game-changer,” Dr. Brenner said. “It delivers reliable, affordable, fast, secure, encrypted, HIPAA compliant, and high-quality results that improve workflows and the quality of care for our patients.”

Dr. Brenner explained that with this system, Bayhealth pathologists and cytologists—laboratory professionals who analyze slides of human cells under a microscope—can operate a microscope robotically at one location from an entirely different location. The system functions though a secure network, in real time, with live images, and allows them to make their diagnosis remotely.

For a health system like Bayhealth with more than one hospital, this technologically-advanced process enhances efficiency and collaboration among staff. For example, a pathologist at the Sussex Campus working on a complex medical case can now get a second opinion from a Kent Campus colleague within minutes. Previously these tasks depended on a courier to transport slides from one location to another.

For Dr. Brenner, having this technology for his department is a crowning achievement in his 22-year tenure at Bayhealth. He’s spent a large part of his career studying telepathology, starting with a coveted telepathology fellowship at the Armed Forces Institute of Pathology. While a chief resident at University of Maryland, he convinced a company first developing telepathology technology to lend him a system for use in a remote organ screening study. He later published several reports and presented them at international pathology conferences, identifying system limits at that time, including slow transmission times.

In his years at Bayhealth, Dr. Brenner developed and operated several homemade telepathology models to fill the gap. Finally, the technology in his industry caught up. There was a solution that offered real-time, secure, high-definition, live pathology images with robotics for a fully remote process. And Bayhealth seized the opportunity.

“We can provide an accurate, timely report to someone facing a potential cancer diagnosis. A surgeon can get instant pathology results on a particular

tissue in the operating room to determine next steps during an operation. Or a patient may go home from the hospital sooner based on testing," Dr. Brenner said. "We are very excited about being able to save time in the diagnostic process and deliver even better care for our community."

Visit Bayhealth.org/Services to learn more about all the innovative healthcare services Bayhealth offers in central and southern Delaware.

https://www.bayhealth.org/community-health-and-wellness/newsroom/2022/july/innovative-solution-delivers-speedier-results-to-bayhealth-patients