LABORATORY *e* ECONOMiCS

Competitive Market Analysis For Laboratory Management Decision Makers

PathGroup Moving Toward 100% Digital Pathology

PathGroup (Nashville, TN) is the largest privately held pathology lab company in the United States. Its 225 pathologists serve more than 15,000 referring physicians and over 200 hospitals. PathGroup, which processes about 4 million slides per year, went live with digital pathology in March 2020. Here's a summary of our Q&A with Derek Welch, MD, Chief Medical Officer and Executive Vice-President at PathGroup:

Derek Welch, MD

What were some of the factors that convinced PathGroup to get into digital pathology?
Our decision was driven by three primary parameters. First, we anticipated an improvement in professional service quality. Secondly, there was an expectation that we would improve pathologist productivity and efficiency. Lastly, we were waiting for FDA endorsement of a complete platform, so FDA-approval of the Philips solution for primary diagnostic use in 2017 allowed for proceeding with an investment.

In addition, AI algorithms may eventually augment quality and efficiency. But you can't use AI unless you've got digitized slide images.

How many scanners does PathGroup have installed?
We've got a total of 28 scanners at six locations. The majority are installed at our main anatomic pathology lab in Nashville, although we also have scanners at select hospitals and dermatopathology labs. We're using Philips UFS scanners and moving new installations to their SG300 model, which produces higher-quality images.

Philips high-definition monitors are used by our pathologists to view digitized slide images.

We're also using Proscia's Concentriq Dx viewer software, which allows pathologists to quickly manipulate digitized slide images and move from slide to slide, with scanner agnostic capability.

Was there any reluctance from your pathologists?
The overwhelming majority of our initial user pathologists were on board with digital pathology from the beginning. There was a minority, less than 10%, who were initially skeptical about the ability to fluidly move from slide to slide using digitized images versus their microscope.

Can you describe PathGroup's progress in transitioning to digital pathology?
About 30% of our pathologists made a 100% transition to reading digitized images in March of 2020. On a Friday in early March, they used their microscope and on Monday they were signing out cases from their computer monitors. The transition covered all cases except for cytology and bone marrow biopsies.

The learning curve was very short. Our pathologists became comfortable with digital pathology in a matter of a few days.

Currently, about 35% of our pathologists have switched to digital pathology. Our plan is to reach 100% within the next few years.

Are your pathologists reading many digitized slides from home?
We have cohorts of pathologists that are reading entirely from home, and others that hybridize their office and hospital read time with additional home reading capabilities.

Has PathGroup realized efficiencies through digital pathology?
We have found that pathologists are faster using their computer screen and mouse versus the microscope. They are moving more quickly from slide to slide and between separate cases. Less time is spent with activities such as changing objective magnification levels, organizing paperwork and slides, and confirming slide identity.

Digitization has also sped up turnaround times. We scan slide images throughout the day and these images are immediately available for pathologist interpretation.

Finally, digital pathology allows our pathologists to share difficult cases with their colleagues throughout the country almost in real time. Second opinions are received in five minutes as compared to 24 hours or more when shipping glass slides.

What advice would you give other labs considering digital pathology?
You need to identify a group of employees who will earnestly champion digital pathology, including pathologists, histotechs and IT staff. These champions can help plan and manage the transition.

Don't underestimate the importance of image management in terms of where to store images, how to distribute and assign cases, and how long to store. We are storing our digital slide images for three months. And we continue to store our physical slides forever.

Finally, labs need to realize that although going digital is not cheap, there can be a return on investment (ROI). The ROI is achieved through increased pathologist productivity. But you've got to be willing to adjust your pathologist staffing model and caseloads.

Where is PathGroup in terms of adding AI tools for pathologists?
AI for pathology is still a naïve market. We're vetting different vendors and their AI algorithms. We're looking for best-in-class algorithms with a focus on human error reduction. We're also looking at the cost of AI and any progress in the reimbursement landscape for algorithm utility.