

**Raymond D. Aller, MD, and Hal Weiner**

### **Smartphone use in AP ‘immature’ but advancing**

It may never be as famous as Snapchat or Instagram, but another method of photo sharing is gaining favor with some anatomic pathologists by allowing them to use their smartphones to send images from glass slides quickly and inexpensively.

“The use of smartphones is still at an immature stage for pathology, but I think the emerging area is utilizing the camera functions in the phones to manage decisionmaking,” says Douglas J. Hartman, MD, assistant professor, Department of Anatomic Pathology, University of Pittsburgh Medical Center.

Using an adapter that attaches the phone to the ocular lens of a conventional light microscope, a pathologist can capture an image of comparable quality to one taken with a standard scope-mounted camera costing more than \$6,000, explains Dr. Hartman, who gave a presentation on integrating smartphone technology into the practice of anatomic pathology, at the annual USCAP meeting, held earlier this year. “There are about 10 adapters on the market that cost \$100 or less,” he adds. “Most are intended for broader uses than pathology, though a few have been designed just for pathologists. Although all adapters don’t work with all phones, there’s an adapter for every major type of smartphone.” Setting up the phone and adapter the first time “does take some manipulation,” Dr. Hartman notes, “but once you have it set up for your phone, it is locked into place and will stay with those adjustments over time.”

Images captured with a smartphone are stored in the phone’s photo gallery and can be emailed across the room or across the globe. “If you’re in a multi-practice pathology group, for example, and you want to get a consultation about a frozen section with a colleague who’s 10 miles away, you can take and then send the images on your phone,” says Dr. Hartman. “Of course, this can be done currently without the smartphone, but in addition to the expensive equipment, it requires several steps: Open the acquisition software on the computer, acquire the image, name the file, save it to your desktop, open your email, etc.” And for pathologists in a community practice that may not have the need or resources to purchase a standard scope-mounted camera system, the smartphone provides a means for rapid consultation with subspecialists at institutions such as UPMC.

To facilitate such consultation processes, Dr. Hartman and his team developed a free iPhone app they call Pocket Pathologist. The app, launched late last year, allows the user to create a case for consultation, add patient data along with the images, and upload the information to UPMC’s secure, HIPAA-compliant Web portal.

For iPhone users, FaceTime adds another dimension to these consultations—the ability of both parties to see each other as they converse. “You have the phone attached to the ocular on your scope, and at the same time you can look at the face of the phone, so the phone is seeing images in both directions,” says Dr. Hartman. “This allows you to switch between the two cameras [on the inward- and outward-facing sides of the phone] and have a real-time discussion about the case as you’re showing the other pathologist the image.”

In addition to using smartphones for consultation, pathologists are employing them to acquire images for tumor boards and educational purposes, Dr. Hartman says. “Another useful application is quality assurance. As a large institution, we have our cases peer reviewed in real time before they go to sign-out. But say you’re a single pathologist in a county hospital, and once a month you send 15 cases for review to a pathologist in the next county. Now you can take and send pictures of the cases and get them reviewed much more rapidly.”

The federal government has no standards or regulations that directly address the quality of smartphone images or how they are used in consultation or quality assurance, Dr. Hartman says. The most logical area for regulation, he notes, “would be the medical decisionmaking between countries, but this is new territory and not very well worked out.” Yet, he adds, the American Telemedicine Association has issued draft clinical guidelines for telepathology

that touch on some aspects of using mobile devices—for example, the draft states that mobile devices “may be used as long as they can securely display the pathology image to be viewed at an acceptable level of quality.”

Despite its advantages, the smartphone won’t replace the scope-mounted camera system anytime soon, Dr. Hartman says. “When you’re doing lots of case acquisitions, you wouldn’t want to use a smartphone. It’s mostly for small-volume, occasional use—not everyday use.”

The main drawbacks of using smartphones in AP include a lack of image-analysis software and a relatively primitive video-capture capability, Dr. Hartman continues. However, he predicts, as smartphone functionality advances, its utilization will “drastically increase.” With improved video capture, for example, “you could almost create a virtual whole slide image. Say you want a core biopsy; you may take a video of the whole core to gain a perspective of the overall architecture and then take just a few up-close images of areas you’re particularly concerned about. You could narrate the video the whole time and allow for more interaction between the person submitting the consultation and the one performing it.”

## **Partnership creates graduate medical education clinical informatics curriculum**

The College of American Pathologists, Association of Pathology Chairs, and Association for Pathology Informatics have launched a graduate medical education clinical informatics curriculum.

The curriculum—dubbed Pathology Informatics Essentials for Residents, or PIER—was developed jointly by the three organizations. The research-based instructional program presents training topics, implementation strategies, and resource options that allow residency program directors and faculty to implement informatics training that is intended to help residents meet four of the five informatics milestone requirements established by the Accreditation Council for Graduate Medical Education.

PIER, which is designed for residents specializing in anatomic or clinical pathology, exposes residents to information technology in pathology as they participate in their rotations and residency activities related to management, quality assurance and control, regulatory and accreditation issues, and the daily flow of information into and out of the lab and the proper use of that information.

Details of the PIER program are available at [www.apcprods.org/PIER/](http://www.apcprods.org/PIER/).

## **New NovoPath feature speeds report generation**

NovoPath has added NovoPath ExpressReports to its anatomic pathology system. This latest feature speeds report generation by as much as 90 percent when compared with conventional systems, the company reports.

NovoPath ExpressReports includes such capabilities as organ maps and graphs. “NovoPath ExpressReports offers a speedy alternative, regardless of the diagrams and other graphic content included,” says Rick Callahan, the company’s vice president of sales and marketing.

In other news, NovoPath reports that Precipio Diagnostics, a hematology-oncology laboratory, has installed the NovoPath anatomic pathology system to meet its unique workflow needs. Precipio engages pathologists at renowned academic institutions to provide diagnoses remotely on samples it receives and analyzes.

[NovoPath](#), 877-668-6123

## **CCHIT launches service for ONC testing and certification**

The Certification Commission for Health Information Technology has introduced a service to help prepare health information technology developers for Office of the National Coordinator-authorized testing and certification.

CCHIT is offering a guide via its self-service Web portal that includes webinars, regulatory updates, expert commentary, and certification assistance. Additional services focus on the basics of ONC certification, clinical quality measures, interoperability, and preparing for successful testing of all base EHR and complete EHR criteria. The hands-on, individualized programs address testing and certification preparation for both eligible hospitals and eligible providers.

Early this year, CCHIT voluntarily stopped providing ONC testing and certification services via its role as an ONC-authorized certification body and through its independent certification programs. The group then turned its attention to offering counsel to health care providers and health IT developers on how to satisfy the requirements for EHR certification.

## **Atlas software receives EHR certification**

Atlas Medical has reported that its Atlas LabWorks 15.2 order-entry and results-reporting system was certified as an electronic health record under the Drummond Group's Electronic Health Records Office of the National Coordinator Authorized Certification Body program. Drummond's ONC-ACB certification indicates that an EHR meets the meaningful use criteria for eligible provider or hospital technology.

[\*\*Atlas Medical\*\*](#), 800-333-0070

## **Telcor products compatible with Windows Server 2012**

Telcor recently announced that its QML point-of-care software and WebMRE add-on module are compatible with Microsoft Windows Server 2012.

The QML point-of-care middleware receives results from more than 90 medical devices used outside the traditional laboratory setting and sends those results to more than 40 laboratory information systems or EMRs. The open-vendor system has hundreds of configuration options.

WebMRE is a Web-based module that fully integrates with QML to capture manual test results. It allows all results, whether from connected devices or manual entry, to be available from within QML.

[\*\*Telcor\*\*](#), 866-489-1207

[hr]

*Dr. Aller is director of informatics and clinical professor in the Department of Pathology, University of Southern California, Los Angeles. He can be reached at [raller@usc.edu](mailto:raller@usc.edu). Hal Weiner is president of Weiner Consulting Services, LLC, Florence, Ore. He can be reached at [hal@weinerconsulting.com](mailto:hal@weinerconsulting.com).*