**It’s no longer optional.**

- Starting June 21, 2010, third- and fourth-year students at UCLA’s David Geffen School of Medicine are required to have a PDA or handheld computing device loaded with required software.

- At The Medical College of Wisconsin, handheld devices are considered a critical part of clinical education, providing quick access to reference materials and acting as a helpful tool for tracking patient encounter experiences. In fact, PDAs have been required there for a decade and are regarded as a key component in meeting LCME accreditation standards.

- At the University of Virginia School of Medicine, all third-year students are required to own one of the recommended PDAs. Moreover, because they are mandatory, the devices are eligible for inclusion in financial aid packages, and med students can get reimbursed up to $250 toward the purchase of a recommended PDA.

- At the Yale School of Medicine, while PDAs are not required until the third year, it is estimated that 85% of students use them.

It’s the same story everywhere. Mobile technologies are changing the way we teach and practice medicine, and many medical professionals consider possessing a PDA during the clinical years to be nearly as essential as owning a stethoscope. According to a 2007 study published in *Family Medicine*, more than 87% of all the residents and faculty surveyed used a PDA, with highest use in the third and fourth years.

In parallel with these developments, medical school librarians have been optimizing their institution’s online resources so students can more easily access handheld software applications. The Student Source Web site for the University of Virginia School of Medicine, for example, has a page devoted to Mobile Medicine that provides resources designed for the handheld browser.

In a Manhattan Research report released at the recent Healthcare Information and Management Systems Society conference in Atlanta, senior director of research Monique Levy noted that adoption of mobile technologies continues to grow among physicians.

From the Editor-in-Chief:

**Sea Change**

VisualDx on the iPhone is a sea change for medical care and education. How did we get to this exciting stage, what are the future challenges, and what the heck is a sea change? I’ll address the last question first. In the past decade, the term *sea change* has applied to changes that are generally thought to be major and very significant. So, what is the origin of this term?

(continued on next page)
Med Schools Adopt Handheld Technology

(continued from front page)

According to Levy, “Sixty-four percent of physicians owned a PDA or smartphone in 2009, compared to just 30% in 2001, 40% in 2004, and 50% in 2007. We predict it to go to 81% in 2012.” 7

Additionally, Levy finds that, “Almost 9 in 10 physicians say the Internet is essential to their practice, and a growing number of physicians are using the Internet during or between the practice of seeing patients.” Such statistics, she says, “suggest that mobile technology really is supporting their workflow rather than weighing it down.” 8

Today’s Internet-savvy medical students have used PDAs for years and comfortably navigate digital research streams and manage workflow. They already use hundreds of applications on their iPods and iPhones. And as future clinicians, they expect to use mobile devices for on-the-spot assistance and information, no matter where they are. In fact, the iPhone already has 1,000 medical applications for patients and physicians, making vast libraries of knowledge and information instantly accessible at the point of care.

Now, with the launch of VisualDx Mobile, medical students and clinicians can access the power of VisualDx from the palm of their hands. They can enter findings and build differentials, study and compare images, search by disease for next steps and management, and consult concise, regularly updated clinical abstracts prepared by experts – all within one system that fits in their pocket.

VisualDx Mobile will become a trusted tool, helping students learn more about skin conditions, improve application of knowledge, and get better point-of-care training. Its intuitive interface helps make learning engaging and interactive – a vast improvement over the limited text-based resources of the past.

And there’s more good news for students. Your AMSA membership gives some great deals on excellent medical apps. And you can get VisualDx iPhone app through the discounted VisualDx subscription. (http://www.amsa.org/AMSA/Homepage/MemberCenter/MemberBenefits.aspx).

Sign up now to go mobile with VisualDx!

References:
2. http://www.mcw.edu/display/docid1425.htm
4. http://www.statref.com/Products/PIERonPDA2.html
8. ibid
Meet Aida Lugo-Somolinos, MD, Dermatologist

We are pleased to welcome Aida Lugo-Somolinos, MD, to the Logical Images Editorial Team. Dr. Lugo-Somolinos, an Associate Professor in the Department of Dermatology at the University of North Carolina, Chapel Hill, is one of two senior editors currently working on the next book in the VisualDx Essential Dermatology series, VisualDx: Essential Dermatology in Pigmented Skin.

This visually rich book will cover skin conditions in darker skin tones, with attention to unique diagnosis and treatment considerations, an area in which most major dermatology resources are deficient. Like the first two books in the series—VisualDx Essential Pediatric Dermatology and VisualDx Essential Adult Dermatology—this book is designed for use at the point of care and in conjunction with the online system VisualDx.

Dr. Lugo-Somolinos brings unique expertise to the project. She was trained in Puerto Rico, where she is from originally and where she practiced privately for 17 years. “Being a Hispanic myself and practicing dermatology for many years in a population with a variety of skin tones,” she says, “I have seen first-hand all of these conditions as they present in patients with different degrees of pigmentation.”

Since moving to North Carolina 2 ½ years ago, Dr. Lugo-Somolinos has been happily surprised to observe an increase in Hispanic patients visiting UNC dermatology clinics. She continues to gather experience and relishes her role as mentor, sharing her expertise with medical residents and fellow physicians in both the continental US and Puerto Rico. She notes, “I am very proud to have the opportunity to be a part of the training of a new generation of dermatologists, including half of the practicing dermatologists in Puerto Rico. I feel I am opening doors and serving as a role model for Hispanic dermatologists.”

Also working on the book, under her guidance, are four 2nd- and 3rd-year dermatology residents—Chris Adigun, MD; Donna Cultron, MD; Mathew Davye, MD; and Stephanie Diamantis, MD—who bring their own unique passions to the project. Dr. Diamantis plans to specialize in cutaneous oncology and, after residency, will be training in procedural dermatology/Mohs surgery. She enjoys practicing medicine because it “blends scientific inquiry and continual learning with the privilege of taking care of people.” Dr. Adigun, whose specialty interests are pigmentation disorders and infectious disease, plans to continue practicing at an academic center, as she is drawn to an environment that fosters the pursuit of cutting-edge medical dermatology as well as provides broad access to dermatology care for those in need. Of her team, Dr. Lugo-Somolinos observes, “They are representative of the hard-working, intelligent, dedicated, and caring residents of the UNC Dermatology department and show the high quality of our training program.”

Like Dr. Lugo-Somolinos, they have experienced first-hand the dearth of medical resources available for use in managing conditions in patients with darker skin. Dr. Adigun says the team is excited to be contributing to an effort that will improve access to knowledge for clinicians, thus improving health care delivery to patients. She says, “Medical information for dermatology diseases in patients with more deeply pigmented skin is lacking. Our ultimate goal is to improve the health of people of color.”

Stay tuned for the next issue of Zoom, in which we will feature fellow senior book editor Dr. Lynn McKinley-Grant, MD, Dermatologist, of Georgetown University Hospital and Washington Hospital Center and her team of dedicated physician writers.

VisualDx: Essential Dermatology in Pigmented Skin is slated for Spring 2011 publication.

About Expert Contributors

Logical Images relies on its worldwide medical editorial board of practicing physician scholars to keep our clinical content objective, accurate, and current. Our ever-expanding team of over 100 physician experts writes, edits, consults, authenticates, and reviews to bring you authoritative medical information in concert with comprehensive visuals.

This regular feature will spotlight Expert Contributors from various medical and scientific research fields, so you can get to know us better.

Featured Case Study:

Orf: Clinicians in South Dakota use VisualDx to affirm diagnosis, reassure patients.

Orf is caused by a parapox virus that primarily infects sheep and goats but can also infect humans—e.g., farmers and their families, sheep herders and shearsers, and veterinarians—who come into contact with the virus through infected animals or because of recent flock vaccination with a live vaccine. Human infection typically presents as one or more sores on the hand that spontaneously heal within 3 to 6 weeks.

A few years ago, a patient with an orf lesion presented to Bell Medical, a 17-bed hospital and clinic in South Dakota, insisting that he receive treatment. Although a Bell Medical clinician assured him that the condition would resolve on its own, the patient demanded an emergency dermatology consult. The dermatologist agreed that the condition was likely orf and that no treatment was necessary. The patient left disgruntled because of the cost of the specialist visit.

A lot has changed since then. In Spring 2009, the same clinic admitted 3 patients with suspected orf infections. But this time, clinicians at Bell Medical used their recently acquired VisualDx system to view images of orf lesions and quickly compare them to what they saw in their patients. They then showed the patients the orf images in VisualDx and printed out information sheets for them. As a result, these patients were far more trusting of the diagnosis. And they better understood the nature of the disease, which alleviated their anxiety.

VisualDx is diagnostic decision support widely used in over 1,000 health care facilities in the US and worldwide. As chief medical officers and quality experts seek ways to improve patient safety and quality and mitigate risk, they are turning to systems that address the problem of delay to diagnosis and diagnostic error. New methodologies are being used successfully to improve decisions as they are made, at the point of care.
Informed. The response was overwhelming. “I
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tions. I asked them to inform their physicians about the
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In addition to acknowledging the app’s
powerful capabilities, Kmec credits Clancy’s
eagerness and availability with making it
easy to promote the resource internally. “I’ve
worked in this institution for almost 20 years,
and this one product has been met with more
enthusiasm than anything else,” says Kmec.

Tips & Tricks:
VisualDx Mobile for the iPhone and iPod Touch
We hope you have downloaded VisualDx Mobile for the iPhone and iPod Touch to use in your daily clinical practice. Use these tips to help you navigate:

How to Begin
When you log on to VisualDx Mobile, the Main Menu page will prompt you to either build a differential diagnosis based on patient findings or look up a diagnosis by name. Tap your selection.

How to Build a Differential
When you choose this option, select a focus area and enter patient findings. Use the search bar located at the top of the Patient Findings screen to search for a finding by name. Tap the plus and minus symbols to add and remove findings. Start over at any time by tapping the Clear Findings button located at the bottom of the screen.

When you have finished entering findings, tap the Done button in the upper-right corner of the screen. This will build a customized differential from the findings you have entered. Scroll through the disease list and tap on a disease name to view images and clinical text for that diagnosis.

How to Search for a Diagnosis
If you’d prefer to look up a diagnosis by name, use the search bar at the top of the screen to filter the complete diagnosis list. You can also use the alphabetical index at the right to browse for a specific disease (all diseases are listed in alphabetical order). Tap the disease name to view images and complete clinical text for this diagnosis.

I’ve Selected a Diagnosis. Now What Can I Do?
If you want to view all available images for the diagnosis you have chosen, tap the blue arrow to the right of the images. To view a high-resolution version of an image, tap the image. Read clinical information for the diagnosis by tapping a text concept. You can also view the diagnosis in the context of a different focus area by tapping the icon to the left of the focus area name.

Image View
You can view any image in either portrait or landscape orientation simply by rotating your device. Swipe the screen left or right to move through the available images.

Zoom capabilities:
• Pinch the screen to zoom in or out of an image.
• Tap twice to zoom in on a specific area of an image.
• Tap the image once with two fingers to zoom out.

Need More Help?
For further assistance using VisualDx Mobile for the iPhone or iPod Touch, call 800.357.7611, option 5, or e-mail us at online_support@logicalimages.com.

More information is also available at www.visualdx.com/mobile

Featured Client:
Olive View – UCLA Medical Center: Enthusiastic Response to VisualDx iPhone App
When Marsha Kmec, Director of Library Services at the Olive View – UCLA Medical Center, received an e-mail regarding Logical Images’ VisualDx Mobile iPhone app, she immediately recognized that residents and attending physicians would benefit from the resource and embrace it. “Not only are our residents proactive about staying on the cutting edge of medical technology, but many of them carry smartphones,” explains Kmec.

Kmec implemented an action plan to promote VisualDx Mobile. She sent e-mail blasts to residents and department chiefs asking them to inform their physicians about the new medical iPhone and iPod Touch application. Neurology and cardiology were also informed. The response was overwhelming. “I received more e-mails than I could handle, so I started directing them to our Logical Images account director Jenny Clancy, who responded to every inquiry.”

It quickly became apparent that an open house would be the ideal way to reach out to physicians. It was held in Olive View - UCLA Medical Center’s Health Services Library. Kmec and Clancy organized the open house so physicians could simply show up when it was convenient for them. Clancy reviewed the process of downloading and using the VisualDx Mobile app one-on-one with each physician. The event was such a great success that Kmec and Clancy are planning a second one.

The collective enthusiasm over the app has been tremendous. Because it operates on a hand-held device, it can be brought right to the point of care, improving diagnostic accuracy and the quality of health care. “Like most hospitals, Olive View has inherent issues with PC desktop accessibility. This issue is particular poignant when you’re on the floor. But VisualDx Mobile is fast and right there with incredible features,” reports Kmec. “I wish every medical diagnostic product was like this. It’s a tremendous asset.”

Additional Resources:
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Image Preservation and Library Expansion

Logical Images is now in its 10th year of identifying and preserving the highest quality and most historically significant film-based dermatology teaching collections. We continually survey and evaluate institution and privately held collections of 35-mm color transparencies to determine which images will become part of this important preservation effort and be added to our library – the foundation of the Logical Images family of products, including VisualDx.

We've most recently completed digitizing and cataloguing Dr. Fran Storrs' comprehensive collection of contact dermatitis images and are now focused on Dr. Tom Nigra's collection from the Washington Hospital Center and the personal collection of Dr. Jeffrey Callen. We have determined that these carefully organized collections are made up of valuable clinical images – expertly composed, well-documented cases accompanied by relevant case/patient notes – that may otherwise be lost.

Our process involves sophisticated scanning equipment, highly skilled operators, and an efficient, thoughtful workflow. Each image is evaluated and optimized after scanning to restore the original intent of the photographer and maintain consistent overall quality. Digital versions are tagged with searchable key words (diagnosis, body location, lesion type, etc.), simplifying retrieval; contributors no longer need to access their original slides. Master image files are then archived in a stable environment with a three-level back-up system designed for long-term storage and maintenance of image data.

Our collaborative approach to preserving these collections allows us to use the images to help physicians, medical students, and consumers around the world understand more about dermatologic conditions. In addition to VisualDx, the Logical Images library supports dermatology education with our LearnDerm program (www.logicalimages.com/educationalTools/learnDerm.htm) and consumer education through Skinsight (www.skinsight.com).

Because we do not assume the rights to original images, contributors are never limited or hindered in their continued use of their images for education, publication, and patient care. Please contact us if you have a quality image collection and would like to learn more about digitizing.

New Partners: UpToDate and VisualDx

UpToDate, a part of Wolters Kluwer Health, and VisualDx have formed a partnership that integrates these two leading clinical decision support systems to provide an even greater level of support at the point of care for current subscribers to both products.

The partnership program, expected to launch mid-year, will streamline the search process for those physicians who currently license both UpToDate and VisualDx, giving them one-click access from within UpToDate to clinical and visual diagnostic information. Institutional customers of both products will soon be able to opt in to receive the results from VisualDx, integrated within UpToDate's typical search options.

Through this partnership, UpToDate will leverage Logical Images’ internationally recognized collection of over 60,000 medical images to enhance users’ experience by delivering visual representation of many highly searched terms. UpToDate users will also have access to the VisualDx Differential Builder, giving them the ability to quickly develop a list of relevant diagnoses based on patient findings.

We’re confident that this pioneering partnership will provide a significant and valuable new information resource to today’s busy healthcare professionals. Further details on the program will be communicated to VisualDx customers in early May.

What’s New in VisualDx:

VisualDx 6.11 Released April 6th

New features and enhancements now available to all subscribers include:
- The introduction of Clinical Scenarios
- The new Image Navigator on all disease text pages
- Main Navigation Bar changes
- Differential Builder updates
- Search enhancements
- Updated Differential Diagnosis and Pitfalls texts
- 10 new diagnoses
- 246 new supporting images

If you have questions or you would like to provide feedback on this new release, contact us at support@logicalimages.com.

New VisualDx Community

Launching in May.

Facebook, LinkedIn, Twitter... the social web is growing faster than anyone could ever believe. Businesses are realizing the power of this technology to connect with their customers and to allow their customers to connect with each other.

Starting April 15th we will be launching the beta VisualDx Customer Community. Following our beta testing we plan on opening the community to all VisualDx users.

Using BlueKiwi technology, community members will be able to suggest new product ideas, respond to our requests for feedback, and engage in discussions about topics related to VisualDx.

Our expectations are quite simple: join the community and share your thoughts as time allows.

Interested in being part of the beta for our community? Simply go to https://visualdx.bluekiwi.net and sign up.
Orf Virus Infection in Humans

With today's concern about bioterrorism, clinicians should be aware of this relatively benign zoonotic virus infection.

Orf virus, a parapoxvirus, causes mucocutaneous lesions in small ruminants such as sheep and goats. Humans acquire the virus through direct contact with infected or recently vaccinated animals or contaminated fomites, generally in conjunction with skin trauma. The resulting ulcerative skin lesions can mimic those of several potentially life-threatening infections, including cutaneous anthrax, tularemia, and erysipeloid.

Four cases of cutaneous orf virus infection were reported to the CDC in 2004–2005. Three of the patients had had contact with sheep that had recently received live orf vaccine; the fourth had bottle-fed a young goat that had oral lesions. Three cases were associated with minor trauma at the lesion site. All patients developed vesicular lesions 4 mm to 2 cm in diameter on their hands, arms, or other site. All patients developed vesicular lesions associated with minor trauma at the lesion site. All patients received empirical antibiotic treatment.

Diagnosis was confirmed in three cases by real-time PCR performed at the CDC, and in one case by serology. Lesions resolved in 2–8 weeks without sequelae.

Comment: Orf virus infection is well known among those who handle sheep and goats, and these four cases are classic in presentation and course. Their reporting is important because of heightened awareness (and fear) of organisms that can cause similar lesions and are considered potential bioterrorism agents. A salient differential point, in addition to exposure history, is the lack of systemic symptoms and signs in orf virus infection.

– Stephen G. Baum, MD

Published in Journal Watch Infectious Diseases March 10, 2006


About the Journal Watch and VisualDx Partnership

Journal Watch is an online and print resource produced by the publishers of the New England Journal of Medicine that provides clinically focused perspectives of important research articles and medical news to physicians and other health care professionals, helping them to stay informed while saving time. Partnerships with publications such as Journal Watch allow VisualDx to broaden and enhance its range of disease information and diagnosis texts. With the help of Journal Watch, we look forward to bringing our customers the best possible clinical information to help them make more accurate diagnoses.