

Maximize Your Media

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High-quality medical photography is important in many areas of medicine, especially dermatology. Clinical images are essential for providing objective baseline skin assessments, treatment plans, and follow-ups. Many dermatologists also use clinical images for consultations, teaching and research, presentations at academic or society meetings, and marketing purposes. In addition, extensive, high-quality clinical images are valuable documentation for legal purposes, should the need arise. More commonly, these images are frequently valuable in demonstrating to patients the subtle incremental therapeutic changes and improvements that they may not have noticed over time.

In earlier columns, I have discussed taking clinical photographs, photographic equipment and film, as well as the composition of clinical photographs and the special issues inherent to photographing patients of color. In this column, I will discuss other essential components of clinical photography in the dermatology office, such as storing, archiving, and keeping records of these images, as well as issues raised by the Health Insurance Portability and Accountability Act (HIPAA) of 1996.

Storage

The digital revolution has greatly increased the number of clinical images being made. Depending on the condition, its severity, and the frequency of office visits, it is not hard to amass hundreds of images for one patient in very short order. All of my clinical images, which are in the form of 35-mm slides, are stored in binders in my office and at one time required a great deal of energy to track. In addition to my in-office storage, there is a permanent collection of more than 20,000 digital images from my practice that are available online at www.dermquest.com for those who wish to view them.

For those who rely on digital photography, various picture archiving and communications systems are now available that are considered practical for individual

practices. For digital equipment users, Canfield is certainly a leader in medical imaging and management software. Typically, these software suites have numerous add-on modules, which facilitate various types of image manipulation, simulation, and enhancement, as well as networking, short-term storage, and archiving capabilities. Using these types of software, patient images can be centrally archived on a server for easy access by medical staff from any computer in the office. Such systems greatly simplify the integration of images into patients' charts. If patients are moving to another location, these systems facilitate the transfer of charts with all of the images from each visit.

Electronic Medical Records

Electronic medical records (EMRs) are becoming more popular and are particularly suited for dermatology practices, where patient charts may be laden with photographs. In larger offices with multiple physicians on staff and several examination and treatment rooms, EMRs greatly accelerate and simplify the process of accessing and refiling patient charts by placing information in the right place at the right time. Another benefit of EMRs is that they can be accessed from anywhere, even home; they also greatly reduce the amount of office space dedicated to paper charts. EMRs that are accessible on monitors located in examination rooms can make it easy to bring up past examination notes or clinical photographs in order to answer questions from a patient. Providing this type of electronic accessibility has the potential to increase patient compliance, create a review of therapy, and help patients understand the results achieved. Depending on which EMR software is selected, it is possible to integrate functions, such as transmitting prescriptions to pharmacies without any handwriting issues, electronic coding, or direct-lab interfaces.

There are 2 primary categories of the EMR, the born digital record and the scanned or imaged record. The born digital record consists of information captured electronically from its inception, including the information entered into a database or the data transcribed from an electronic tablet or personal computer. The information is then transferred to a server or other host environment, where it is stored electronically.

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Scanned or imaged records include those originally produced as hard copies, such as x-ray film or scanned photographs that have been converted to digital format. These records are best described as digital records because their content cannot be modified or altered like electronic records can be, except with use of a third-party software to make overlay notations. Most medical records generated prior to 2000 fall into this category.

The process involved in converting physical records to EMRs is expensive and time consuming and must be done to exacting standards to ensure accurate capture of the content. Because many of these records involve extensive handwritten content that was potentially generated by any number of health care professionals over the life span of the patient, there is a high likelihood that at least some portions may be illegible following conversion. The records may exist in any number of formats, sizes, media types, and qualities, which further complicates accurate conversion. Consideration should be given to developing high-resolution images to determine the accuracy and usability of the scanned images prior to disposal of the physical records, if they are disposed of at all.

All electronic repositories of information need periodic conversion and migration to ensure that the formats they were captured in remain accessible during the life of the patient, and in some cases beyond. Those responsible for the management of EMRs must ensure that the hardware, software, and media used to manage the information remain viable and are not subject to obsolescence or degradation. This will require generation of backup copies of the data with protection being provided for these copies in the event of damage to the primary repository. It will also require the planned periodic migration of information to address concerns of media degradation from use. These are all costly, time-consuming processes that must be planned and budgeted for when making decisions to convert hard copies of medical records to digital formats.

Another major concern is adequate protection of privacy of the individuals whose records are being managed electronically. In the United States, this class of informa-

tion is referred to as *protected health care information*, and its management is addressed under HIPAA as well as under many state-specific privacy laws. The organization or individuals charged with the management of this information are required to ensure that adequate protection is provided and that only authorized parties have access to the information.

HIPAA Issues to Consider

Compliance with HIPAA is essential and has become more complicated with the ability to store and send electronic images rapidly and easily. Aside from self-protection, the most important aspect of compliance is the consent form that each patient signs during the first office visit. This consent form should cover permissions for a variety of uses of the images, including consultation, teaching, education, print, and media. Although many practices address the use of images for advertising in the patient consent form, if the decision is made to use a patient's clinical photographs, and if the patient is identifiable, it is wise to contact the patient and obtain written permission for that specific use.

The large screens used to display images in examination rooms and offices can be a HIPAA compliance issue. There must be a protocol understood by office personnel for removing the prior patient's image from these large format displays before the next patient is shown in.

If images are converted to digital photographs, it is essential that the partners performing this service are aware of the HIPAA guidelines and that every consideration is made to maintain confidentiality of patient names and accompanying records. In my office, I use a series of numbering conventions, and no photograph ever displays the name or descriptive information of any patient.

Summary

The ability to organize, cross-index, store, and retrieve clinical images has never been simpler. It is important for every practice, according to its size, to assess and then implement storage solutions for the thousands of medical images attendant in dermatology practices. ■