My mother is so technically challenged, she has been known to crash abacuses. Every fireman in the town of Tenafly, New Jersey, knows her by name, as they have all met her on various kitchen fires when she had inadvertently been trying to tune the toaster to a better station. In short, she is not the kind of woman you want at the other end of a “Houston we have a problem” kind of call.

That said, it came as something of a shock to me when she called and asked if I could help her get started in digital photography. However, after setting my mother up with a Kodak Easy Share camera, and showing her how to use iPhoto, I was more than a little surprised to find that, yes, she could use a digital camera.

So, to anyone who read my last column and said “Nope, not for me,” I would say, Look, if my mom can do it, I don’t think there is a primate on the planet that can’t.

So now that you’ve decided to use a digital camera in your clinical flow, here are a few tips. When purchasing the camera, remember quality is a function of the resolution (number of pixels on the imager, usually expressed as megapixels) and the lens (glass is best, from a noted manufacturer even better). Typically for medical work, you would want a 3 megapixel camera or greater. On the lens side, you should stick to manufacturers that have a long history of producing high-quality glass (Nikon, Olympus, Canon, etc). You will also need macro ability. A macro lens is a lens capable of taking close-up images (rashes, lesions, etc). Most cameras with these features will cost between $400 and $800. You will pay more for single lens reflex (SLR) capability, but if you have already invested significantly in a lens and accessories, this may be a prudent choice. Both Nikon and Canon make excellent digital SLRs in the $2000 range.

For medical use, you should always set the camera to record the highest quality image. This will use the most storage space, so invest in a large storage card; currently, a card with a capability of 256 megabytes (enough for more than 100 pictures from a 3 megapixel camera) should cost less than $100.

In our workflow, we use a standard consent for photographic images, and we don’t take an image until the consent is signed. After obtaining consent, it is our practice to photograph the consent prior to taking any pictures. This allows us to have an electronic record of the consent form that we can archive with the images. You will also need to have your consent form reviewed by your HIPAA compliance officer.

In our institution, our residents carry digital cameras and download their images to a central location. These images are then filed using an off-the-shelf software product (Portfolio). Macintosh users may take advantage of iPhoto, a free product that offers image filing, rudimentary image adjustment, and several other useful features. Images are filed with their conservative; key words are then added to the images so they can be retrieved easily. Images from our setting may have dozens of key words to allow the user to select specific images based on any parameter.

Once the images are stored, they can be retrieved for use in any format that requires them. In our setting, we use images for teaching (often in Powerpoint presentations) following a patient’s progress (and as such they can be attached to the medical record), in creating national and international teaching projects, and as a means of keeping the patient’s family and friends advised (with appropriate consent) of their course.

The size (in resolution and therefore disc space) of the final image is determined by the target medium. For example, if the image will be shown on a computer, or computer projector, it can be very small (from a memory standpoint), as the maximum resolution (dots per inch) of these devices is below 100. However, if the image is to be printed, as for a journal, it will need to be kept close to its maximum size, as many printers can resolve resolutions of thousands of dots per inch.

Next time, we will tackle the tricky area of compression algorithms, why it is important to know your jpegs from your pngs, and discuss how to add digital video to your capabilities. Oh, and Mom, if you’re reading this, it might be time to take the toast out of the radio.

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