

1 Mobile is here to stay, but don't let your patients' pics go viral

Smartphone cameras offer tremendous capabilities, but, as iPhone convert and dermatologist

Amanda Oakley explains, we need to ensure security and patient confidentiality as well



I have the world's most popular camera, the iPhone 6, and – like some professional photographers – I am considering ditching my others. The iPhone's eight megapixel iSight camera has 1.5-micron pixels, an *f*/2.2 aperture and features including face detection, autofocus, auto-HDR (high-dynamic range imaging), image stabilisation and noise reduction. And I can FaceTime friends and family free of charge.

My commentary "Mobile tele dermatology is here to stay" was published in the *British Journal of Dermatology* (1 April 2015). In it, I pointed out that high-end cellular phones have excellent cameras, and that they have various advantages over standard digital cameras. These advantages include availability, light weight, front camera (for FaceTime communicating and selfies), touch screen, low energy consumption and image analysis software. Images taken on the iPhone 6 are very convenient for sharing for second opinion, referral and education.

With increasing smartphone use in clinical settings, we must consider how to ensure safe and effective practice, patient confidentiality, consent and data security. This article aims to cover some of these points as they relate to the iPhone. For Android and Microsoft users, many of the recommendations will be helpful as well.

Clinical image policy

Does your organisation have a policy on clinical images? Waikato DHB's Image Policy Committee (I am its chair) has been reviewing its policy, first issued in 2002. There are some points to note:

- Clinical images are part of the clinical record.
- Patients' rights to access their clinical images are the same as for the clinical record.
- Patient consent is required under most circumstances (exceptions include non-accidental injury of a child).
- Clinical images must be identifiable, eg, by NHI number.

Patient consent is a must

The ethical and medicolegal considerations surrounding digital images and smartphones are complex. The main thing for health professionals is to obtain adequate consent, where possible in writing.

The committee was horrified to learn how many images were taken without documentation of the consent process. As it is very difficult to prevent images being used for all sorts of purposes in the future, I suggest getting full consent whenever possible; luckily, patients are usually very happy to provide it. Potential future uses include:

- clinical – documentation, referral, second opinion, triage
- education – lectures, tutorials
- publication – articles in general and peer-reviewed journals, in print and online
- research – now or at some future date
- promotion – of a drug, hospital, clinic or who knows what.

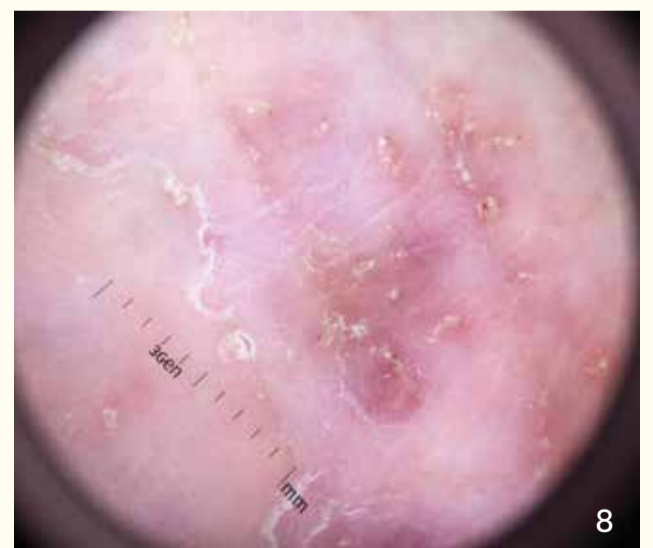
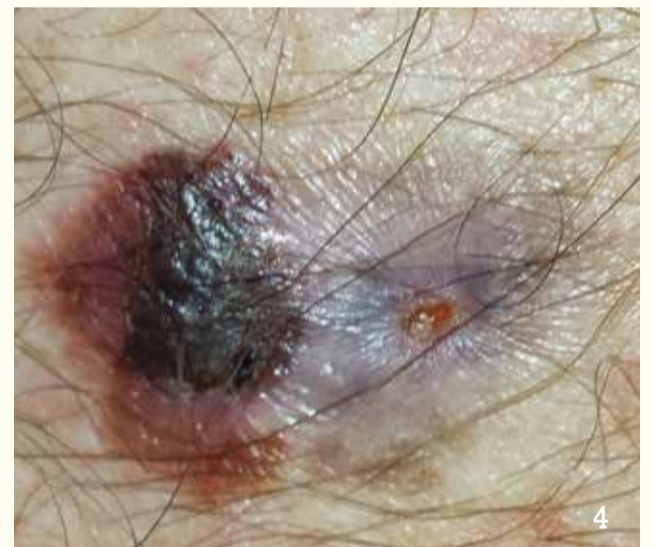
Mobile phone and back-up security

You may be surprised to learn many smartphone users do not use the screen lock on their phone or they disable auto-lock. If taking clinical images with your phone, you should password-protect it. Touch ID protection on the iPhone 5 and 6 is very secure, and using a finger or thumbprint to unlock the screen is convenient. (I wonder how people with hand dermatitis get on?)

See: *Settings / General* and *Settings / Touch ID & Passcode lock*

You'll find photos taken on an iPhone are precisely marked with details of where and when the photo was taken. Many apps access your photos and this information (eg, Viber, WhatsApp, Dropbox). Some collect data in the background using Bluetooth. The Privacy

DERMATOLOGY



Dermatology quiz answers

- Figure 1. Jellyfish sting*
- Figure 2. Herpes simplex labialis*
- Figure 3. Discoid lupus erythematosus*
- Figure 4. Superficial spreading melanoma*
- Figure 5. Cutaneous melanoma metastases**
- Figure 6. Vesicular hand eczema and wound

- Figure 7. Dermatoscopy of superficial basal cell carcinoma
- Figure 8. Dermatoscopy of crusted scabies

*Images supplied by Dr Trevor Evans;
**Image supplied by Dr Michael Koch

settings also explain Location Services, which use GPS, Bluetooth and crowd-sourced Wi-Fi (including data sent to Apple by your device). Consider whether location should or should not be recorded for clinical images.

See: *Settings / Privacy / Photos and Location services*

Back-up is essential and easy. My back-up procedure is automated and a bit over-the-top, involving iCloud Drive, iCloud Photo Library and either iCloud back-up or encrypted back-up via iTunes. Apple tells us that iCloud has “powerful security architecture”. Back-up to “The Cloud” means I can view my iPhone photos on my desktop and portable computers or elsewhere.

See: *Settings / iCloud / Backup and Photos*

I have also downloaded the mobile Dropbox app. Touch ID or passcode is required to launch this. Photos can be included.

See: *Settings / Dropbox*

Have you thought about what might happen if you lost your phone? Keep Location services on, and explore the Find my iPhone app so you know how to erase all your data if disaster strikes.

See: *Settings / iCloud / Find my iPhone*

Avoid photographing features that may identify patients

Think carefully about confidentiality and, whenever possible, avoid taking photographs that might identify the patient.

- Take close-ups of facial lesions rather than of the entire face.
- Remove jewellery and clothing.
- Where possible, do not image tattoos.

We identify our subjects by photographing the consent form, which also confirms they have consented, and for what purposes; another reason for heightened security measures.

Digital images can spread virally, and mobile makes this really easy. Our phones are equipped with neat apps to share images. Once they have left our devices, they are out of our control and can never be destroyed. Common means of spreading digital images include:

- Air Drop to an Apple device within 30 metres
- messaging – short message service (SMS) is no longer just for texts
- email
- social media, eg, Twitter, Facebook, Flickr, Viber, WhatsApp and more
- photo sharing, eg, iCloud Photo Sharing or Dropbox shared folders.

What to keep when archiving images

There are some points to consider with regards to image archiving:

- A clinical photograph is part of the clinical record.
- Just like the notes you type at a consultation, consider the patient’s privacy. Encrypt the image, and store it securely (not that easy).
- If the patient does not consent to the photograph, or withdraws consent, it should be deleted (unless essential for clinical purposes). Otherwise, it should not be deleted. Do you delete your notes?
- If you haven’t got written informed consent, don’t use the images for anything but clinical purposes, and do not share them with anyone except the patient (if they wish).
- Back up clinical images.

So, you have clinical images on your phone

If you have clinical images on your smartphone, may I suggest you review them?

- Update your operating software to the latest, most secure version.
- Disable Photo Sharing.
- Consider changing the four-digit passcode to a more complex one with more than eight alpha-numeric characters.
- Back up images to your practice system.
- Tap on the images to “Hide” them: note, the “Hidden” album is no more secure than the others.
- Consider downloading a password-protected photographic archiving application. Designed for those who indulge in nude selfies (or worse), these apps often auto-capture photos of nosy intruders, and record their location.
- Consider deleting the clinical images: note, images remain in the “Recently Deleted” album on an iPhone for 30 days, unless you delete them from this album as well.

Try PicSafe Medi next time

Use the PicSafe Medi app to take your next clinical photo. Your patient can sign on the screen for written consent. You can scan in the patient’s bar code, email a report to yourself, your patient or your local dermatologist and archive to the Cloud. The original images are wiped from the mobile device. ●

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The committee was horrified to learn how many images were taken without documentation

