Medical podcasts in english for non-native speakers
S5 E1 Sorting the wheat from the chaff. Choosing a digital health app.

Introduction

Hello and welcome to back to our series of medical podcasts in English for non-native speakers from the Catalan Institute of Medical Education and Leadership or IFMiL. My name is Alice Byram, and I am a GP who trained in Barcelona. I have also worked as a Specialty Doctor in Emergency Medicine in the NHS in the UK. My passion is making digital technology work for end-users, be they patients or clinicians. All resources referenced in the podcasts are in the show notes.

Today we will be looking at digital health apps.

Why use a digital health app?

With more than 90,000 digital health apps being added in 2020 alone, physicians are bombarded with download options as much in their professional life as in their private life.[1] However, not all apps are equal, with the top 110 apps accounting for almost 50% of all downloads.[1]

So why use a digital health app? It might seem like an obvious question, but like anything related to screens, it is important to think about apps in a meaningful way. Especially in a professional context. The answers to the question include convenience, safety, and extended knowledge. Or do they?

The days of the trainee carrying around a well-thumbed Oxford handbook are over. Now the entire Harrison fits into your phone and then some. However, I'm sure that I'm not the only one who has excitedly downloaded a textbook to my mobile phone to never look at it again. The format of the information needs to be easily accessible in a clinical context. Sometimes you need to know the pathology exists to look for it. In a book, you can thumb a few pages forwards and backwards and, serendipitously, come across the diagnosis.

You also need to be able to personalise your reference tool, adding to it as you go along. Whether it is a dedicated notebook or lines in the margin, many clinicians add local protocols, bleep numbers (yes, they still exist), or extra tips learnt along the way. Often this can take a digital form in the notes document of the phone.

There is also the credibility aspect of checking a written text in front of a patient. Somehow looking up a dose on a phone is not the same as checking a paper format. Having said that, no one will argue with the fact that a doctor cannot memorise all the medical conditions and drug dosages. Having a digital memory aid, especially when tired, can be a question of safety.

Another argument favouring digital health apps is that they can easily extend your knowledge to any area for which you can download a protocol or handbook. For non-dermatologists, there is a wealth of image banks with or without artificial intelligence to aid diagnostics. Of particular note is Malone Mukwende's [Mind the Gap](#) project with St George's hospital in London to reduce the health disparities in diagnosing skin pathologies in people of colour. Of course, providing an online platform of images that can be updated is not the traditional definition of a digital health app. Still, it is arguably one of the online platforms which will have the most impact. And the app will surely follow.

However, no doctor is an island and conversations between different specialities, whether family medicine and oncologists, further everyone's knowledge. An app can never replace an interactive discussion about the best treatment for a specific patient, taking into account the available local resources, patient preference, social context, and preferred outcome. Indeed, these conversations often lead to recommendations of more specialised resources. In this day and age, these recommendations often include health apps. Anaesthetists have been at the forefront of apps and are particularly good at knowing which apps are best for drug dosage or retrieval. Family and community medicine physicians often can point you to aids to avoid pharmacological interactions or diagnoses that span various organ systems. Physicians use a lot more health apps than you might think. And the ones they use will be the ones that work. If you have any that you would like to recommend, please send them to via [Twitter](#) (@alice_bbyram) or [email](#). This brings us to the question of validating apps and knowing which ones are safe to use in your daily practice.

What do clinicians need to consider when choosing a digital health app?

When you do decide to use a health app, there are several aspects you need to think about before you start using it. First of all, is the device you will be using it on. Whether it is a personal or professional phone or computer, the memory needed for the app may affect the speed your device runs at. All portable devices should have a remote wipe and automatic delete after several unsuccessful login attempts.[2] Of course, if the hospital computer is constantly updating windows XP or the websites are blocked by generic hospital controls, there is a natural selection as to which digital resources you have access to anyway. Similarly, suppose the app is a hybrid version that needs online access to give you all the information you need. In that case, you may find yourself limited by the WIFI available at your hospital or health centre.

The individual using the apps or digital resources needs to recognise their own limitations. Few physicians receive formal digital health training, which is particularly important for prescription-only FDA-regulated digital resources.[2] There is no shame in recognising that we have been washed along with the tide of innovation and haven't any time to stop and steer our own course. This self-knowledge is fundamental when you

consider how much health care professional input is required by the app. Some diabetes apps require quite extensive physician input.[1]

Much has been made of the advantages of digital resources in aiding both physicians and their patients, with evidence available supporting the inclusion of digital health tools into health pathways. However, independent organisations caution about the need for more in-depth and long-term research to get a true picture.[1] Physicians have a history of being cautious when sold new products by pharmaceutical representatives, for example. Digital health solutions are no different, especially when free. If the product is free, you're the product as was so aptly demonstrated in 'The Social Dilemma'.[3] It is a valid question to think about who has the resources to set up and maintain a digital health resource.

Compliance and regulatory controls are mandatory for certain types of digital health rather than wellness apps. However, you have to be aware that being American HIPAA compliant may not mean that an app is also compliant with European GDPR. The focus is different as the GDPR are person-centred, whilst the HIPAA regulations are arguably more focused on the businesses that deal with health data. You need to make sure that the regulations align with your personal requirements and beliefs around health data.

National societies provide their own guidance. The Royal College of Physicians, for example, clearly states that you should not use web apps that don't have a CE mark.[4] And it is also up to the individual physician to make sure that it is up to date. Indeed, the college cautions against being lulled into a false sense of security if you see a CE mark and has produced a fact sheet to help you decide whether you can feel confident about using a certain app.[4] Even then it is up to the individual physician to exercise professional judgement when using the app.

Digital formularies provide a library of available apps which could be held to a higher standard than an app store. The NHS has such a library of apps that have been passed according to the DTAC or Digital Technology Assessment Criteria for health and social care. This is a good starting point when you want to find an app covering a specific condition. However, users should be mindful of a possible increased cost due to exclusivity deals or newer and potentially better apps being excluded.[2]

Finally, physicians are the end-user testers and are in a unique position to identify issues that come up. There is a professional obligation to flag up any prescribing or other issues that may impact patient care, but there is also the possibility of making a real change.[5] Just as Dr Mukwende did with his dermatological diagnoses for people of colour, if you identify a need you can approach the innovation department of your hospital. Barcelona is a hotbed of digital health innovation, and places like the Barcelona Health Hub are spaces where digital health solutions are found by linking clinicians and tech companies.

What do patients need?

As physicians, we all know the need for medications to be easy and practical to take, and if not, the patient will understandably find it difficult to feel engaged. Digital health resources are no different. If an app takes up a lot of phone memory or is not easy to navigate, it will be quickly deleted. Conversely, integration with wearables such as smartwatches may lead to greater compliance. Word of mouth is also important amongst patients, and once one person sees the advantages of an app, others may well follow.

Yet digital health technology can lead to exclusion. In fact, you may not even be aware of the exclusion your patients are facing. Sitting in a doctor's waiting room recently, I saw a granddaughter teaching her grandmother how to read text messages to make sure she didn't miss health care appointments. Now that, in some countries, appointment letters are no longer routinely sent out, you may not be aware of the level of patient exclusion. Specifically, newer methods for accessing appointments were found to be the place where most patients gave up.[6]

Healthwatch UK found that exclusion can be linked to a lack of digital skills, affordability, and trust concerns.[6] However, it also found that statements about reluctance to use telehealth should not be taken at face value as once barriers are overcome, patients may be happy with telehealth options.[6]

In a nutshell

- Compliancy may come in many different forms – always use professional judgement on any decision taken.
- Knowing who is behind the app can help you make decisions and even offer feedback.
- Practicality has to come first be that automatic updates, storage use, interoperability and hybrid options
- Think of possible patient exclusions to the digital health option you are offering
- If you develop an app that is intended for use in any medical context in Europe, it will need a CE mark, whether it is free to download or not.
- Knowing the criteria used for regulatory compliance can help you as a clinician decide if this is an app you feel safe using.
- If you see a need, be reactive and either develop the digital health resource yourself or go to the people who can help you or take it over.

In short, digital health resources are valuable, not necessarily an intrusion. When used mindfully, they can be a help, not a hindrance in your practice.

Bibliography

1. Kern, J. *et al.* Digital Health Trends 2021. *Digital Health Trends* (2021).
2. Gordon, W. J., Landman, A., Zhang, H. & Bates, D. W. Beyond validation: getting health apps into clinical practice. *npj Digital Medicine 2020 3:1* **3**, 1–6 (2020).
3. Orlowski, J. *The Social Dilemma*. (Exposure Labs, Argent Pictures, The Space Program, 2020).
4. Royal College of Physicians. *Using apps in clinical practice.* (2015).
5. RCP issues new guidance on using medical apps | RCP London. https://www.rcplondon.ac.uk/news/rcp-issues-new-guidance-using-medical-apps.
6. Healthwatch England. Locked out: Digitally excluded people's experiences of remote GP appointments. (2021).