MEDICAL PODCASTS IN ENGLISH FOR NON-NATIVE SPEAKERS

Telemedicine

Introduction

Hello and welcome back to the IFMiL medical podcasts in English for non-native speakers. These podcasts come to you courtesy of the Catalan Institute of Medical Education and Leadership or IFMiL. My name is Alice Byram, and I am a Family and Emergency Medicine Physician. Today we will be looking at telemedicine. All the references and the links to articles and resources cited are in the show notes on the website.

What is it?

Telemedicine is, as its name explains, medicine at a distance. This can be synchronised in time with both doctor and patient being in contact at the same time or asynchronous with a time lag. Telemedicine has existed in one form or another as long as doctors have. Currently, telemedicine is usually understood to mean phone, email and video calls. A local example within the Catalan EHR is the e-consults where patients can email their doctor and receive a response within 48h working hours.

Advantages and disadvantages.

Like all technologies, there are pros and cons. In these times, especially, the lack of direct face to face contact is a basic infection control measure. A recent Cochrane review concluded that there were probably economic savings to be made, although there is generally a lack of evidence at this point(1). Savings can also be non-monetary. A Michigan geriatric service went from 0 to 91% of their visits virtually in the space of 5 weeks. They calculated that during this time that over 1135 travel miles had been saved with an average of 24 miles per virtual visit which probably reflects the geography they practise in(2).

However, telemedicine does have its detractors or at least those who point out that we should exercise a certain level of caution. The first point is the same as our first cited advantage, the fact that there is no contact. Many physicians feel that the face to face and indeed hand to body part of their interaction is fundamental. They struggle with the thought of not having this part of the consult available. In another podcast, we will look at the digital health tools which are available to overcome at least in part this aspect.

Another negative which has been spoken about widely recently with people working from home is the fact that video calling is tiring. Video consultations are dependent on the availability and stability of the internet connection which, even at it's best, will always have a slight lag. As Philippa Perry points out, video calling "is tiring because of the delay of the spoken word and gestures and expressions. So you have to listen to words and notice body language in two separate streams in your poor head". She also points out that you

get distracted by your own face. Video calling takes more concentration than our usual conversations.

There is also a perceived elitism that telemedicine is for young and smart technology-savvy patients, not for the older or patients with accessibility issues. However, the University of Chicago reports that 1 in 5 of people over 70 have had a telehealth visit since the pandemic started. 49% of these over 70s said that the experience was about the same as an in-person visit with only 4% saying it was much worse.

Resources.

Telemedicine is a new skill that has to be learnt for everyone. But there are resources out there to help both physicians and patients deal with the challenges. When it comes to breaking bad news remotely, the BMJ provides guidance which includes thinking about your tone of voice when you don't have non-verbal communication to help you(3). The palliative care team at Chelsea and Westminster hospital have also produced a useful infographic, dealing with bad news. The NHS (links in the show notes) have produced infographics, videos and leaflets to help patients with video consultations. The NHS resources specifically recognise the varying demographics and possible challenges of all patients.

Another aspect is patient confidentiality. Clinicians have to bear in mind that they may not be able to see who else is listening in to the video consultation and that in situations of domestic abuse the patient's freedom to give all the information may be limited. At the same time, a video consultation gives you a privileged view into someone's life. There has been much discussion recently about what your zoom background says about you and when it comes to patients, it can help you decide if you feel they can cope at home or need extra help.

Regulatory aspects.

This leads us on to regulatory aspects of telemedicine. It goes without saying that the method of communication used needs to be compliant with data protection regulations. You can listen to previous podcasts dealing with health data and the GDPR.

However, regulation goes beyond the purely technical. Back as early as 2002, the Barcelona College of Physicians emitted a statement about the use of email and other types of electronic means for interacting with patients. Telemedicine was defined then as a complement to the interpersonal physician-patient relationship with a patient who had previously been seen in person. The current COVID-19 pandemic has accelerated the use of telemedicine, and the Madrid College of Physicians emitted new guidance in March 2020 saying that in the context of the current health emergency, a previous face to face visit may no longer be necessary.

COVID-19

COVID-19 has changed the world we live and practise in. Telemedicine, which was on the cusp of being mainstream, has now been implemented across the board. Concurrently,

research has been undertaken looking at the validity of telemedicine in the COVID-19 pandemic context.

Phone triage.

Prof Greenhalgh produced an infographic for the primary care phone triage of COVID-19 and concluded that most patients with COVID-19 could be managed remotely, with advice on symptomatic management and self-isolation (4). Phone triage was found to be sufficient in many cases, but video would provide additional visual cues and a therapeutic presence. Breathlessness was highlighted as a concerning symptom with, for this team, there being no currently validated tool for assessing breathlessness remotely.

However, a recent New England Journal of Medicine article spoke of the Roth Score to evaluate shortness of breath and hypoxia(5) via telemedicine. The Roth Score is described as simply having the patient take a deep breath and count out loud to 20 as rapidly as possible while timing the time before the next breath. Being unable to count to 7 has a sensitivity of 100% for oxygenation less than 95%. Being unable to count for 5 seconds has a 91% sensitivity for an oxygenation saturation of less than 95%. I would argue that if the patient is that compromised normal conversation would already be alerting you to the fact that the patient has severe shortness of breath anyway. The team behind this article explain that COVID patients needing transfer to hospital were often not able to count to 7 in one breath.

Video consultations.

Oxford University professionals have also produced guidance on the use of videocalls for COVID-19 related consultations. Specifically, video consultations may be appropriate if the clinician or patient is self-isolating. This would also be the case for patients who have symptoms which could be due to COVID-19 or if the patient is well but needs additional reassurance. Patients in care homes may also benefit from video consultations if staff are on hand to give them the support they may need. Video consultations were deemed not to be appropriate for a series of patients, including assessing patients with potentially serious, high-risk conditions likely to need a physical examination. This included high-risk groups for poor outcomes from COVID-19 who are unwell. Situations where internal examinations, for example, gynaecological examinations, can not be deferred also mean that a video consultation would not be appropriate. It was also pointed out that some deaf and hard-of-hearing patients may find video difficult, but if they can lip-read and/or use the chat function, video may be better than telephone.

Conclusion.

This brings us to the end of this podcast about telemedicine. If you want to find out more about virtual consultations, sign up to the online learning module in Spanish by Dr Albert Casasa Plana at the Catalan Institute of Medical Education and Leadership or IFMiL from the Catalan Colleges of Physicians.

1. Flodgren G, Rachas A, Farmer AJ, Inzitari M, Shepperd S. Interactive telemedicine: Effects on professional practice and health care outcomes. Cochrane Database of Systematic Reviews. 2015.
2. Dewar S, Lee PG, Suh TT, Min L. Uptake of Virtual Visits in A Geriatric Primary Care Clinic During the COVID-19 Pandemic. J Am Geriatr Soc [Internet]. n/a(n/a). Available from: https://doi.org/10.1111/jgs.16534
3. Rimmer A. How can I break bad news remotely? BMJ [Internet]. 2020;369. Available from: https://www.bmj.com/content/369/bmj.m1876
4. Greenhalgh Trisha, Koh Gerald Choon Huat CJC-19: a remote assessment in primary care B 2020; 368 :m1182. Covid-19: a remote assessment in primary care. BMJ. 2020;368:m1182.
5. Hollander JE, Sites FD. The Transition from Reimagining to Recreating Health Care Is Now. NEJM Catal. 2020;

Questions

1. Look at the BMJ tele triage infographic and see if it works for your population. Share any thoughts and comments with the authors via email or social media.

2. Discuss with at least one colleague the positives and negatives of teleconsultations. This can be face to face, via chat or on social media.

3. Audit your own teleconsultation practice. Write a summary in English of points learned and areas to work on.

4. If you are using video consultations, watch the NHS videos linked in the text.