

Digital lessons from COVID (Part 2): Apps and software fit for a pandemic

In the second of a two-part series, Dr Y Suthahar and Dr C Mitchell, Consultant Geriatricians and members of the BGS Telehealth SIG, share some of the digital challenges and successes they have experienced during the coronavirus pandemic. In their previous piece, they focused on infrastructure and systems. This article looks more specifically at the apps and programs which made a difference.

As discussed in our first article, the way we work in the hospital, community, boardrooms or university is almost unrecognisable to six months ago. The COVID pandemic has enabled (or forced) the NHS to rapidly embrace the digital and remote workplace revolutions. We have put together this two-part series in an attempt to take stock and record the digital changes we have ourselves experienced, in London and Essex. Our hospitals, although both in South East England, are at different levels of digital maturity and so we hope it reflects some of the wider reality - but your experience may well differ!

Messaging apps: WhatsApp and Pando

Dr Suthahar (Mid Essex Hospital Trust)

WhatsApp and Pando became invaluable tools in drawing up, implementing and communicating out our COVID strategy. Pando [formerly known as Forward] is the NHS approved communication messenger tool that, like WhatsApp, can be downloaded to your mobile phone. Its main benefit is that it enables a secure log-on and log-off at the end of the day via a link to your NHS email. Both messenger apps have high-level of encryption. However, WhatsApp benefits from its near monopoly and universality of adoption (i.e.

being on everybody's' phone) that it is unmatched in terms of connecting all tiers of hospital workers. It suffers from the drawback that it is 'always on' and you can't turn off the messages at weekends, though you can choose to 'mute' the conversation or just not to read them!

In my hospital, WhatsApp became an invaluable aid in communicating with or re-organising staff at short notice. During the early and peak periods of the COVID pandemic, there was massive service re-organisation within hospitals, not to mention significant levels of staff sickness.

Within a matter of days:

- We had to run two dedicated accident and emergency pathways - one for COVID patients and one for non-COVID patients.
- Create COVID wards and non-COVID wards.
- Adapt the rotas for all staff doctors, nurses, allied health professionals.
- Deal with rota gaps which seemed to increase day by daydue to the 14-day quarantine of symptomatic staff.
- Troubleshoot issues that arose during the day, such as shortage of PPE in some areas, or clarifying what the PPE should be in set areas.

Having the means to instantly communicate messages to large groups of people was a game-changer. As an illustration, junior doctors were able to communicate that they were off sick, and their gaps were instantly advertised on the 'Extra shifts' WhatsApp group that was populated with 120 junior doctors. This meant that we were rapidly able to find cover or re-allocate doctors to areas of clinical need. Invaluable information was also shared in the group, like the latest COVID updates from the College or what the current hospital PPE guidance was. The hospital as a whole was (and remains) in a state of constant of evolution as we learnt more about the disease and pathways keep changing in response to different challenges. It was useful to set up groups, like the Geriatric Consultant group, so that we could communicate with each other, share bad jokes but more importantly to check in that we were OK and provide support virtually which was priceless as we were the sole consultant on the ward most days.

Dr Mitchell (Imperial College Healthcare NHS Trust)

As a Trust we've previously tolerated but not encouraged the use of WhatsApp, while exploring alternative forms of team communication (and repeatedly found none are as convenient



or user-acceptable as WhatsApp, irritatingly). As in Dr Suthahar's experience, there is no doubt that WhatsApp groups were a key part of professional cohesion and personal support during the first phase of the covid pandemic.

One of our two acute hospitals changed to a 'pod' working model, while the other stuck with its traditional model of acute medical teamworking but augmented each team with additional staff at all levels, and new trainee work patterns. At the time we wondered if this would be a sort of natural experiment in how best to respond to increased workload and stress while maintaining some form of team cohesion. In the end, both worked well, and as much as that perhaps reflects core aspects of our NHS and Trust values, it also was no doubt facilitated by flexible and responsive communication particularly among trainees – much of which occurred in WhatsApp.

Tele-communication apps: Zoom, Starleaf, Skype and Microsoft Teams

Dr Suthahar (Mid Essex Hospital Trust)

As we tried to adhere to isolation guidelines, the two-metre rule, remote working and staff who were shielding, video communication tools became an invaluable medium for connecting people and sharing ideas. A number are available, although there was no mandated single communication app for the NHS.

Zoom

Zoom is a US-based technology company that provides a means of video communication through a cloud-based peer-to-peer software platform. It enables a large number of people to join a video call through the internet, mobile or landline. Zoom has revolutionised the way people collaborate and has been used across the globe to help alleviate the restrictions of a global lockdown. From schools delivering virtual lessons, to international board meetings, this has been the go-to medium for talking, teaching and even dating in the COVID lockdown. There were concerns about third party intrusion and security, but Zoom has been a clear winner and its basic package is free to use. Due to security concerns, its use was curtailed in the NHS and blocked on our local intranet, though it is available on most people's personal phones.

Starleaf

Offering very similar services to Zoom but based in the UK, Starleaf is reliable and again free to use with its basic package. This was the go-to communication tool in my Trust. 'It was useful to set up groups so that we could communicate with each other and share bad jokes, but more importantly, to check in that we were OK and provide support virtually.'

Skype

Ease of use, familiarity and wide availability among healthcare staff and the general population (such as through a Smart TV) conferred it significant advantages. We used this on my wards as an alternative to Facetime (the Apple version) to help facilitate patient/family video communication. It helped to boost morale and allowed the next of kin to see how well or ill their relative was. We also used this for remote virtual meetings with external health professionals or pharmaceutical representatives.

Microsoft Teams

Imagine a marriage of WhatsApp, Microsoft Office and Zoom on one app and you get Microsoft Teams. Microsoft Teams is a digital workspace that enables secure chat, meetings, calls and sharing files between individuals and teams. Not to be left behind, Microsoft allowed free usage of Microsoft teams for NHS staff with a valid NHSmail account. This powerful tool enables easy collaboration and remote working. In my NHS Trust, Microsoft Teams enabled a geriatrician to remotely support the MDT meeting at an off-site community rehabilitation hospital – with access to notes, observations and gain input from a variety of allied health care professionals based in different locations.

Dr Mitchell (Imperial College Healthcare NHS Trust)

As mentioned in the previous article, we switched to video conferencing early and at scale, due to the early and near-total collapse of our phone conferencing system (we are a large Trust over three main sites so this was already well-used, but never intended to take the huge increase in demand that lockdown created). The vast majority of our meetings (clinical and operational) took place in Microsoft Teams which has gained quick and widespread acceptance. Indeed, our Trust has the highest usage rates of Microsoft Teams across the NHS. Early discussions with ICT about alternative solutions led to a decision to avoid unintended consequences and reduce clinical risk of failed communication (such as not blocking Zoom) but with positive encouragement to use our preferred solutions. As part of 'new-business-as-usual,' divisions are creating good practice guides and managed groups within Teams to continue the best aspects of our use of video conferencing as well as the other features of Teams (link/document sharing, text chat etc).

Virtual Outpatient clinics: Telephone and Attend anywhere

Dr Suthahar (Mid Essex Hospital Trust)

One of the areas that has been transformed completely is the humble outpatient clinic. Almost overnight (especially in older people's medicine) the face to face doctor/patient consultation that has been ongoing since time immemorial disappeared. Within days of COVID lockdown, clinic patients and referrals vanished overnight as the country went into lockdown.

'Dragging many older people up to hospital for follow-up chats was probably unnecessary and unfair... doing a lot of that work over the phone is just fine.'

As things progressed, there was a scramble for virtual consultation technology. The humble telephone came into its own. In our hospital, this became the primary mode of consultation, while other technology was being procured and installed. Talking down the telephone proved quite refreshing as an alternative to the traditional consultation model. It was successful in most aspects, bar for those that required a physical examination (think heart murmur or assessing for cog-wheel rigidity). Physical examination was a challenge to deliver, as even the original GP consult was conducted by telephone. However, on the whole, it proved a successful experiment and we are confident that phone consultation is here to stay, especially for follow-up patients who have been seen initially.

Attend Anywhere

Attend Anywhere is an Australian-based video consultation application. It enables clinicians to conduct video consultations with patients in a 'virtual clinic' setting with scope to share images or bring other people into the call. It has been in use by NHS Scotland for the last three years. With the advent lockdown, NHS England and NHS Improvement provided funding for a wide-scale role out across hospital Trusts in England. It has been adopted widely across the UK, although there have been initial teething problems, like lack of videocams. It is still to be fully implemented in my Trust, but the examples online do seem to point towards an easy-to-use online system for both patients and health professionals. There

were concerns about older people not being able to access the technology, but this is being addressed by providing access via tele-booths in local pharmacies or supermarkets.

Dr Mitchell (Imperial College Healthcare NHS Trust)

As we restarted outpatient services in Elderly Medicine, there was some divergence of opinion on virtual reviews. Some felt there was potential in video services, particularly for the somewhat-less-frail but still complex patient group (such as our liaison specialist heart failure clinic); others thought that alternative models of care using video might work well (for example, working with a community falls service to share video of gait assessments and to augment MDT or phone-clinic reviews); and others felt it just wouldn't work with our patient group, or at least that the ability to use video calling would be most likely to exclude the frailest patient group who would need it the most. All of the above are justifiable positions, and the reality of how services are delivered or reconfigured to best use technology - without excluding the most frail, most cognitively impaired and the socially isolated, yet balance the risk /benefit of in-person assessment - is yet to be determined.

However, there were two things we all agreed on: One, that the video calling technology needs to be as seamless and easy as Zoom but with more robust or less obscure security/privacy controls (our Trust uses Attend Anywhere preferentially.)

And finally, that dragging many older people up to hospital for follow-up chats was probably unnecessary and unfair, based on organisational and clinical convenience rather than patient preference/need, and that doing a lot of that work over the phone is just fine.

Dr Y Suthahar and Dr C Mitchell BGS Telehealth SIG