

COVID-19 Working from home in medicine during coronavirus: What equipment do you need to get started and what can you do to help from home?

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ABSTRACT

The COVID-19 pandemic looks set to significantly change how we practice medicine. It is vital that the vulnerable and immunocompromised members of our workforce are protected, which may mean that they do not go into clinical areas. While the medical field has been slower than many professional areas to catch on to working from home, many trusts are already moving towards telephone or video outpatient appointments during COVID-19. We describe the equipment needed to set up working from home for healthcare practitioners (HCPs) and discuss a variety of other opportunities for home-based HCPs, including teaching, learning, carrying out audit and quality improvement work and offering psychological support for colleagues working on the front line.

KEYWORDS: Coronavirus, COVID-19, working from home, virtual learning, technology

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Introduction

Coronavirus disease 2019 (COVID-19) looks set to change the world significantly and has already led to huge changes in how we practice medicine. There is an ever-increasing number of cases worldwide, with many healthcare practitioners (HCPs) dying from complications of COVID-19.¹ Therefore it is vital that we protect our workforce through proper use of personal protective equipment (PPE) while at work and by shielding members of the workforce who are vulnerable. Public Health England (PHE) has released guidance on those deemed to be at high risk, including those under 70 with a variety of health conditions such as heart disease, diabetes and severe asthma.² The surge in the use of drugs such as novel biologics and other immunosuppressives to treat a variety of autoimmune and other inflammatory conditions has led to a situation where more HCPs are immunosuppressed than ever before. Now the question is what they can do to help at home.

Providing healthcare from home

The phrase 'work from home' was searched for four times as many times in March compared to February this year.³ A study in 2019 by the Trades Union Congress (TUC) has shown that even before

the pandemic there were 370,000, or 27.7%, more 'workers from home' in the UK compared to 10 years previously.⁴ This has been largely facilitated by technological advancements and a change in work culture during this time period.

The medical field has been slower to catch on to this, largely because most medical professionals associate face-to-face communication with better history taking and examination. A study by McKinstry *et al* showed that telephone consultations by GPs included less data collection and counselling and were also less likely to include sufficient information to exclude serious pathology.⁵ However, certain services, such as virtual fracture clinics, have been shown to have similar outcomes to face-to-face consultations and are associated with reduced emergency department recurrence rates due to fewer missed appointments;⁶ along with many other initiatives, these new services are part of the NHS Long Term Plan to reduce outpatient appointments by one third over the next 5 years.⁷ Even so, the general feeling is that virtual consultations are good in certain scenarios but there will always be situations where face-to-face consultations are better. Since the start of COVID-19, trusts around the country have switched to telephone or video outpatient appointments and it is likely that COVID-19 may expedite this transition towards more remote consultations. It is currently unknown how these consultations will affect outcomes but this would be an interesting avenue for future research.

So, what equipment do you need to set up home working as a healthcare professional? The ideal set up would be a computer with access to the internet, a telephone, headset and a microphone. Most trusts in the country now have electronic patient notes and are able to organise remote access from home. If this is the case then you have the tools you need to run a virtual clinic from home. This is a good solution for GPs, hospital consultants, registrars, specialist nurses and other HCPs who run independent clinics. HCPs should remember to use the prefix '141' when calling a number to hide their own number if using a personal mobile or home phone. Some trusts may run virtual consultations using applications which their staff can download on their phones or access via the internet, using inbuilt cameras and speakers on their devices or a headset with an attached microphone or a separate microphone, which may be a more comfortable solution when using a computer for long periods of time. The website 'Which' has many articles which compare similar products and can give details about what equipment will work best for your needs (www.which.co.uk).

Teaching and learning

For many HCPs it may not be feasible to run a virtual clinic as they do not have the required skills and expertise to practice

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independently, or they may not have the required remote access to healthcare records. The good news is that there is still lots that can be done from home. For example, HCPs can help with teaching by producing their own content or helping to organise and coordinate teaching resources. Many HCPs on the front lines have a flood of information from different messenger groups, social media and the news, which for many has been overwhelming. It is also important that non-COVID-19-related topics continue to be taught. Due to social distancing many trusts are using virtual teaching sessions and there are a wide variety of ways in which content can be distributed. Websites such as 'WordPress' (<https://wordpress.com>) and 'Adobe Spark' (<https://spark.adobe.com>) offer free easy-to-use interfaces for making interactive content. You could also consider creating your own content using a USB microphone and/or your computer's video camera and distributing this via podcast or a host of other social media platforms. It is worthwhile to spend some time researching whether there is a perspective or area that is not being covered and consider whether you would want to fill that niche.

There are also many learning opportunities, with huge numbers of teaching resources online to keep up with the latest information. The website Future Learn (www.futurelearn.com) acts as a host for multiple courses on COVID-19. The course on COVID-19 run by the London School of Hygiene and Tropical Medicine offers great overview of the topic and 'COVID-19 critical care' is also very useful when interpreting research papers.^{8,9} Future Learn also offers a huge range of other learning opportunities on topics ranging from 'Computer coding' to 'Animal feed production' at levels ranging from 2-week free courses to degree-level courses. This is also an opportunity to improve your wider skillset, for example doing the Edward Jenner Leadership course run by the NHS Leadership Academy,¹⁰ which helps healthcare professionals develop essential leadership skills for their future practice. You could also use this time to learn a completely new skill such as a new instrument.

Quality improvement

We are also seeing that trusts are changing pathways and procedures near daily, along with constant changes in staff allocations, equipment being used and the role and scope of different specialties. There is a huge amount of new and vitally important audit and quality improvement (QI) work to see if these changes are efficient and lead to better outcomes and have as minimal a negative impact on patient care as possible. It is likely that people working within the system currently are so stretched that small and important changes could be made that would lead to better outcomes for patients. Having someone to look at new processes from a quality improvement perspective is a way in which HCPs outside the hospital can have a significant impact on the running of the hospital and improving patient safety. As of the time of writing this article there are no published QI papers relating to COVID-19 so this is an area of research that needs to be addressed. The exact focus of QI will depend on the hospital you work in, but areas such as A&E, medicine and ITU have experienced significant changes due to COVID-19. It would also be interesting to see how other departments such as orthopedics and general surgery have been indirectly impacted.

Supporting colleagues

It is also important to realise the psychological support that can be offered to colleagues who are working on the 'front lines'. Many

HCPs will live together, so offering your support and debriefing may be good for someone who has had a hard day at work. Similarly, we are all connected more than ever via social media and the positive impact you can have from home by talking to people cannot be understated.

Conclusion

Many HCPs who are isolating at home will feel helpless not being able to work on the frontline. Many will feel a sense of guilt that they aren't able to help their patients and fellow colleagues during one of the biggest challenges the NHS has faced. But there are many things you can do to maximise the positive impact you can have. The most important thing is to be flexible and to identify and then seize upon ways in which you can help your hospital without even stepping foot on a ward.

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