Interim summary of key literature and our evaluation of Attend Anywhere in Scotland

Professor Trisha Greenhalgh, Dr Joe Wherton, Professor Sara Shaw. University of Oxford, 9th March 2020. This rapid report summarises key points from a more detailed document which is in preparation.

Summary and bottom-line recommendations for policy

1. COVID-19 creates an unprecedented situation. Rapid scale-up of video-mediated clinical consultations (VCs) by GP practices across Scotland is now an urgent policy priority.

2. Video should supplement, not replace, the telephone, for which there is existing guidance e.g. from [NHS England](https://www.england.nhs.uk) and [Medical Protection Society](https://www.mps.org.uk). (The latter is being updated so may be offline temporarily)

3. Our data suggest that the Attend Anywhere VC technology is dependable (but not infallible), easy to use, popular with most staff and patients, and does not need installation of new hardware or software. We believe that **rapid scale-up of this solution in Scottish general practice is possible**.

4. We found that the commonest cause of Attend Anywhere “failure” was **human error**, and that **basic on-site technical support** (e.g. installing screens and monitors) and **staff training** is key. We recommend that training involves **all front-line general practice staff** including GPs, nurses, allied professions, healthcare support workers, receptionists and practice managers.

5. The commonest reason why clinicians were reluctant to consult via video was **concerns about quality, safety and accountability**. Support and guidance for an expanded VC service should be obtained urgently from **defence societies and professional bodies**.

6. COVID-related calls to a GP surgery are likely to consist of:
   - Asymptomatic people seeking **general advice**, which can usually be given by website and telephone (perhaps as a pre-recorded message)
   - Asymptomatic people who are **very anxious**, for which a VC may provide reassurance
   - Symptomatic people **seeking a diagnosis**, for which a VC may add value over telephone
   - People who are **unwell**, for which a VC may reduce the need for a visit
   These categories overlap in practice, and clinical judgement must be used.

7. For non-COVID-related conditions, and with the caveat that case-based judgements will always need to be made, our research suggests that VC will be most suitable for the following:
   - **Chronic disease reviews**, especially if patients have some self-monitoring equipment at home and an existing relationship with the clinician
   - ‘**Administrative**’ appointments (e.g. for re-issuing of sick notes, querying things)
   - Medication-related consultations (e.g. when the patient is well but needs to be seen before reissuing a repeat prescription)
   - **Counselling and similar services** involving therapeutic talking (in such consultations, video helps with rapport and reassurance)
   - **Dietetic advice** (but not for major eating disorders), some **speech therapy** and some **physiotherapy**
   - ‘**Duty doctor**’ or ‘**duty nurse**’ triage when a telephone call is insufficient
   - Any condition in which the **trade-off between attending in person and staying at home** favours the latter (e.g. in some frail older patients with multi-morbidity or in terminally ill patients, the advantages of VC may outweigh its limitations)
8. On the basis of current evidence, we suggest that VC should not generally be used for:
   - Assessing patients with potentially serious, high-risk conditions likely to need a physical examination (including high-risk groups for poor outcomes from COVID who are unwell)
   - When an internal examination (e.g. gynaecological, rectal) cannot be deferred
   - Co-morbidities affecting the patient’s ability to use the technology (e.g. confusion), or serious anxieties about the technology (though note that relatives may be able to help)
   - Some deaf and hard-of-hearing patients may find VC difficult, but if they can lip-read and/or use the chat function, this medium may increase accessibility.

9. Practice workflows (e.g. for appointment booking) and logistics (e.g. for dropping off specimens, attending for diagnostic tests, picking up prescriptions and so on) need to be addressed to gain maximum value from a VC-mediated service.

10. We strongly recommend establishing an online community of practice for practices to share ideas, concerns and resources. Concerns raised in this forum will be a rich source of learning and should be systematically captured and addressed.

Summary of the published literature on video consultations

1. A large body of research, most of which has been done in hospital outpatient settings, suggests that video consultations (VCs) using modern technologies appear broadly safe for low-risk patients. There is limited research on the use of VC in acute epidemic situations or general practice settings.

2. The research literature consists mainly of underpowered randomised controlled trials on highly-selected populations who are not acutely ill. In such trials, VCs were associated with high patient and staff satisfaction, similar clinical outcomes and (sometimes) modest cost savings compared to traditional consultations. These studies have not turned up any unforeseen harms but their relevance to the current COVID outbreak is limited.

3. The qualitative literature suggests that introducing VC services in a healthcare organisation or clinical service is far more difficult than many people assume. Major changes to organisational roles, routines and processes are often needed. Such initiatives tend to be more successful if the mindset is “improving a service” rather than “implementing a technology”.

4. Our own previous research shows that dependability and a good technical connection (to avoid lag) are important. If technical connection is high-quality, clinicians and patients tend to communicate in much the same way as in a face-to-face consultation. Minor technical breakdowns (e.g. difficulty establishing an audio connection before getting started, or temporary freezing of the picture) tend not to cause major disruption to the clinical interaction. Major breakdowns, however, disrupt the ethos and quality of the remote consultation and clinicians experience them as “unprofessional”.

5. We have also shown that it is possible but difficult to undertake a limited physical examination via VC, especially if the patient has monitoring equipment at home and is confident in using it. However, such examinations place a high burden on patients, who need to not only take measurements but also ensure that the remote clinician is able to see the readings.

6. Limited evidence from natural disasters (e.g. Australian bushfires) suggests that with careful planning and additional resource, VC services can be mobilised quickly in an emergency.

Summary of our evaluation of Attend Anywhere in Scotland

1. In August 2019, we were commissioned by the Scottish government in a competitive tendering process to evaluate the VC component of the Technology Enabled Care Programme with a view to informing further roll-out of the model. We have visited 9 of the 14 Health Boards and interviewed over 100 people including clinicians, patients, managers, policymakers and the technology supplier; we have also observed and audio-recorded clinical consultations. We submitted an interim report in February 2019 and are on course to hand in our final report by end March 2020.
2. The introduction of VC services in Scotland in 2015 had a very different policy context to the one policymakers now face (March 2020). Back in 2015, a key driver was geographical. Remote patients had limited access to services. Patient travel to mainland hospitals, and staff travel to remote clinics, was costly and bad for the environment. Workforce shortages in remote areas were sometimes serious. Whilst VC became a policy priority for these reasons, until recently there was no ‘burning platform’ to introduce it to less remote areas or in general practice.

3. To date, VCs via Attend Anywhere have been most commonly used in Highland and Grampian for hospital-led reviews of common, chronic, stable conditions in patients living in remote areas who were judged unlikely to need an extensive physical examination. This service was established via an award-winning quality improvement initiative led by Clare Morrison, which focused mostly but not exclusively on hospital outpatient services. The service, branded ‘Near Me’, was highly acclaimed by many people we interviewed. Some clinical services now undertake up to 13% of consultations via video but most provide only (at most) 1-2% of consultations this way.

4. Our evaluation identified three models of VC being used in Scotland:
   - Clinic-home (VC from a hospital or GP surgery to the patient’s home) – initially not used much but has recently expanded
   - Dyadic hub-spoke (VC from a remote kiosk or clinic to a secondary or tertiary care centre) – commonly used for routine outpatient follow-ups
   - Triadic hub-spoke (as above but another health professional is present at the hub site, allowing multi-professional input and distributed clinical care); triadic models were often developed bespoke through particular working relationships e.g. between a specialist consultant and a local nurse or healthcare support worker

   Whilst the above models have important implications for the TEC programme generally, they are not especially relevant to the current crisis so will not be discussed further here. The key point is that clinic-home VC models have had limited testing in most parts of Scotland to date.

5. The reason why most hospital outpatient consultations in Scotland are not happening by VC include:
   - Clinical case mix is unsuitable or unpredictable (or clinicians believe this to be the case)
   - Particular clinicians are opposed “on principle” to VC and are powerfully positioned
   - Lack of a specific trigger (such as a retirement or critical event)
   - Lack of resource and support for getting set up
   - Lack of local capacity e.g. in IT skills or available staff time
   - Rarely, technical incompatibilities (e.g. one hospital will not install the particular web browser which Attend Anywhere needs to run on)

   Clinicians’ concerns about information governance and privacy were minor, which contrasts with our data from England (where the main provider of VC services is linked to a private company).

6. Only 9% of VC activity in Scotland currently occurs in primary care (including GP surgeries and Health and Social Care Partnerships). Our initial sample of over 100 interviewees included only 6 GPs, two of whom had never used VC for patient consultations, though we are currently extending our GP sample.

7. The limited uptake and use of VC in Scottish general practice seems to be lack of perceived need for the service. Some GP practices in remote areas had installed an Attend Anywhere screen for patients to use for consultant appointments, but had not made (any or much) use of the technology to connect with their own patients at home, mainly because the advantages of video consulting for GP appointments were seen as marginal and had to be weighed against the disadvantages (including clinical risks) and hassles (such as technical connectivity). In the context of a population that was not especially digitally literate, a traditional general practice model (with branch surgeries in remote areas and GPs still undertaking home visits where needed) was seen as offering more benefits than a technological solution.
“I’m not opposed to it; I’m quite in favour, but there’s not a lot of buy-in. Nobody’s really shouting ‘let’s do this right now’. I don’t think there’s going to be an explosion any time soon.” (49, GP in remote island practice)

8. Many GPs in remote settings use Attend Anywhere for other purposes (especially meetings and continuing professional development), and appear to be open to using it for VC if needed. There are, however, major capacity constraints in some GP practices. To quote a GP cited in our report:

“Attend Anywhere? I don’t use it for consultations. [Interviewer: Why not?] Probably because the practice that I have joined has had a major staffing issue. My assumption is that they’re continually firefighting. You do need to dedicate a bit of time and resource initially even if it saves time in the long run.” (22, GP who uses Attend Anywhere for meetings)

9. An important precondition for VC via Attend Anywhere is reliable broadband. Whilst this was generally available, we learnt of one or two remote GP practices which still do not have wifi connection, and other sites where the broadband connection “dropped” so frequently that Attend Anywhere was used for professional meetings but not considered safe enough to support patient care. These practices were a small minority, however.

10. Our recent fieldwork on Orkney suggests that practice visits to install technology and train staff were very well received and resulted in increased confidence in VC as a solution.

11. The financial model for Attend Anywhere is a flat payment of £1000 per clinic per year. This avoids major up-front investment and appears to offer good value for money in the current use case in Scotland. However, we have not undertaken a formal economic evaluation.

Additional comments on the proposed rapid scale-up of Attend Anywhere in Scottish general practice

The logistical issues for scaling up the Near Me service have been well summarised in Clare Morrison’s document ‘Coronavirus Resilience Planning: Use of Near Me Video Consulting’. We strongly support the recommendations in that document. We list below some key principles from the wider literature on spread and scale-up of complex, technology-supported change (most of which are reflected in Clare’s document).

1. Be clear what the change is. This is not just “training practices in using Near Me”; it is implementing a major change to roles, relationships and practice workflows. It will be difficult and resource-intensive.

2. Assign national, regional and local strategic leads, and make sure everyone knows who they are.

3. Ensure that the change is championed and positively communicated by local opinion leaders. Attend to the overall narrative within which the change is framed.

4. Given that clinical resistance is likely to be driven by concerns about quality, safety and accountability, get professional bodies and defence societies (nursing as well as medical) on board as a priority.

5. At practice level, visit each practice to address both technical issues (e.g. assess technical readiness for VC, install monitors) and operational ones (e.g. address workflows).

6. Enable practices to urgently release staff from other duties and ensure that they have dedicated time to devote to delivering and monitoring the change. There may be efficiency savings to be made – for example by extending repeat prescriptions to two months where appropriate.

7. Establish an online community of practice for practices to share ideas, concerns and resources. Capture and address concerns raised.

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