Video consultations: a guide for practice

Trisha Greenhalgh, on behalf of the IRIHS research group at the University of Oxford, with input from Clare Morrison of Scottish Government Technology Enabled Care Programme and Professor Gerald Koh Choon Huat from National University of Singapore

Summary

COVID-19 creates an unprecedented situation. Many GP practices are considering introducing video consultations as a matter of urgency to reduce risk of contagion.

This preliminary document covers five questions:

1. When are video consultations appropriate in primary care?
2. How can a GP practice get set up for video consultations?
3. How can a clinician conduct a high-quality video consultation in primary care?
4. How should patients prepare for, and participate in, video consultations?
5. What is the research evidence for the quality and safety of video consultations?

Introduction

The advice in this document is based on our research,\textsuperscript{1-3} guidance produced by the Scottish Government (to which we contributed),\textsuperscript{4} guidance for patients which we developed for a hospital trust,\textsuperscript{5} and a brief review of the wider literature.\textsuperscript{2} Those sources are summarised below:

1. A large body of research, most of which has been done in hospital outpatient settings, suggests that video consultations using modern technologies appear broadly safe for low-risk patients. \textbf{There is limited research on the use of video consultations 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, video consultations 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 \textbf{relevance to the current COVID outbreak is limited.}

3. The qualitative literature suggests that introducing video consultation services in a healthcare organisation or clinical service is far more difficult that many people assume. Major changes to organisational roles, routines and processes are often needed. Such initiatives tend to be \textbf{more successful if the mindset is “improving a service” rather than “implementing a technology”.}
4. Our own research (see also Shaw et al, J Med Internet Research, under review) 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 that they are doing the examination correctly.

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**.

The diagrams below provide an outline guide to deciding when video is appropriate and setting up video services in a general practice setting. We also offer preliminary template for conducting a video consultation.
VIDEO CONSULTATIONS IN PRIMARY CARE 1:

When is video appropriate?

There is no need to use video when a telephone call will do. The decision to offer a video consultation should be part of the wider system of triage offered in your practice.

Patients who just want general information about COVID should be directed to a website or recorded phone message. But video can provide additional diagnostic clues and therapeutic presence.

Below are some rules of thumb, which should be combined with clinical and situational judgement.

**COVID-related consultations: video may be appropriate when**
- The clinician is self-isolating (or to protect the clinical workforce)
- The patient is a known COVID case or is self-isolating (e.g. a contact of a known case)
- The patient has symptoms that could be due to COVID
- The patient is well but anxious and requires additional reassurance
- The patient is in a care home with staff on hand to support a video consultation
- There is a need for remote support to meet increased demand in a particular locality (e.g. during a local outbreak when staff are off sick)

**Non-COVID-related consultations: video may be appropriate for**
- Routine chronic disease check-ups, especially if the patient is stable and has monitoring devices at home
- Administrative reasons e.g. re-issuing sick notes, repeat medication
- Counselling and similar services
- Duty doctor/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 video may outweigh its limitations)

On the basis of current evidence, we suggest that **video 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) cannot be deferred
- Co-morbidities affecting the patient’s ability to use the technology (e.g. confusion), or serious anxieties about the technology (unless relatives are on hand to help)
- 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
VIDEO CONSULTATIONS IN PRIMARY CARE 2:
How can our practice get set up?

Decide and plan
- Practice meeting (perhaps virtually)
- Involve practice manager, clinicians, administrative staff
- Agree what kind of appointments will be done by video
- Agree what hardware and software will be used
- Ensure staff know about the plans and their concerns are heard
- Develop links with local technical support team

Set up the technology
- Internet connection (preferably, fast broadband)
- Technology in place (select and install video call software and peripherals such as webcam, microphone)
- Hardware and software up to date and audio/video working
- If working remotely, ensure home technology meets standard and there is read/write access to the practice's clinical record system
- Produce information for patients on what technology they need

Set up the workflows
- Update practice website with information on video calls
- Update clinic templates to show availability for video calls
- Create appointment code for a video consultation
- Put process in place for scheduled & unscheduled appointments
- Put arrangements in place for in-person contact (e.g. collection of forms); ensure prescriptions are sent directly to pharmacy
- Make contingency plans for what to do if video link fails e.g. clinician will contact patient by phone

Training and piloting
- All staff have been trained in the new system and are competent
- Clinicians have all the necessary equipment in their rooms (or access to a shared room)
- Technical aspects have been tested by making a dummy call
- Staff have tested the process (including making an entry on patient's record, arranging follow-up, sending prescription etc)
- A patient / layperson has tested the process
How to do a high-quality consultation

Before the consultation
- Confirm that (as far as you can assess in advance) a video consultation is clinically appropriate for this patient at this time
- Use a private, well-lit room and ask patient to do the same
- Take the patient’s phone number in case the video link fails
- Ensure you have access to the patient’s clinical record (ideally, have it available on a second screen)
- On the day, check that the technology is working

Starting the consultation
- Initiate the consultation by calling or inviting the patient
- Say something e.g. "can you hear me?" "can you see me?" to prompt patient to optimise the technical set-up
- Take and record verbal consent for a video consultation
- Introduce everyone in the room (even those off camera), and ask patient to do the same or confirm that they are alone
- Reassure the patient that the consultation is likely to be very similar to a standard one, and that the call is confidential / secure

Having a video consultation
- Video communication works the same as face to face, but it may feel less fluent and there may be glitches (e.g. blurry picture)
- You don’t need to look at the camera to demonstrate that you are engaged. Looking at the screen is fine
- Inform the patient when you are otherwise occupied (e.g. taking notes or reading something on another screen)
- Make written records as you would in a standard consultation
- Be aware that video communication is a bit harder for the patient

Closing the consultation
- Be particularly careful to summarise key points, since it’s possible something could have been missed due to technical interference
- Ask the patient if they need anything clarified
- Confirm (and record) if the patient is happy to use video again
- To end, tell the patient you’re going to close the call now, and say goodbye (before actually closing the connection)
VIDEO CONSULTATIONS IN PRIMARY CARE 4:
A guide for patients on consulting by video

Decide if video is right for you
- If you just need general information and self-care tips, use a website (e.g. put 'NHS coronavirus advice' into Google)
- You don't need a video consultation if a phone call will do
- Video consultations provide more visual information and can be more reassuring if you're anxious
- Your doctor or nurse may be self-isolating and working by video
- Check your GP practice's website to see what is on offer

Get set up technically
- A good internet connection
- A quiet place where you won't be disturbed
- A computer, tablet or smartphone with a built-in camera and microphone
- Test your audio and video connection and adjust the settings so you can see and hear well (or get someone to do this for you)
- Check your practice website for what else you need to do (different video platforms have slightly different set-up steps)

Booking and connecting
- Make a video appointment by following instructions from your GP practice (on the practice website or answering machine)
- Just before your appointment time, click the connection
- Say hello or wave when you see the doctor or nurse (you may both have to fiddle a bit to get the sound and picture working well)
- Make sure the doctor or nurse knows your phone number so they can call you back if the connection fails

Having your consultation
- Look at the screen (there's no need to look directly at the camera)
- If all goes well, the call will feel like a face to face appointment
- Use the screen camera to show things (e.g. a rash)
- If you get cut off and can't reconnect, wait for a phone call
- Write down any advice or instructions, and make sure you understand the next steps (e.g. where to leave a specimen)
- When you've both said goodbye, disconnect
Preliminary template for a video consultation in primary care with a patient who may have COVID

This template is under development and may change as new data emerges

Get set up technically
- Follow local procedure to make the link
- Check video and audio (“can you hear/see me”)
- If necessary, prompt the patient to check and adjust their microphone (you may need to call them on an ordinary telephone to troubleshoot this)
- Open the patient’s medical record, preferably on a second screen
- Note the patient’s phone number in case you need to call them back

Get set up professionally
- Confirm the patient’s identity (e.g. if not known to you, ask name and date of birth)
- Ask where they are right now (at home – or somewhere else?)
- Confirm that you are alone (or introduce anyone else in the room, even if they are off camera), and ask the patient to do the same
- Assure them that the conversation will be private and confidential, like a standard clinic encounter
- Scan their medical record summary and tailor the rest of the consultation accordingly

Begin the consultation
- Assess the patient visually (do they look sick? are they distressed? too breathless to talk?) and go straight to key clinical questions if appropriate
- Establish why the patient has chosen to consult now, by video (e.g. are they or a family member very anxious?)
- Establish what the patient wants out of the consultation (e.g. clinical assessment, sick note, referral, advice on self-isolation, reassurance)
- Check medical record for high-risk status including immunocompromised (diabetes, chronic kidney or liver disease, pregnancy, chemotherapy, steroids or other immunosuppressants), cardiovascular disease, asthma or COPD

Take a history
- COVID contact, especially confirmed cases with < 1m contact for > 30 minutes (incubation period is 2-14 days, mean 5.5)
- Is anyone else in the immediate family unwell?
- Travel to a known hot spot (e.g. put “WHO Situation Report” into Google for latest)
- Temperature: how high? For how many days? (COVID typically > 38.0 and persists beyond 5 days)
- Cough (dry, persisting for > 5 days)
- Shortness of breath
- Note date of first respiratory symptom to date-stamp onset of disease
- Coryza and allergic symptoms make COVID less likely
- Gastro-intestinal symptoms are rare (< 5%) in COVID but can occur
- Red flag symptoms for other serious conditions (e.g. passing urine regularly? eating and drinking OK? severe headache? neck stiffness? non-blanching rash?)

Remote examination
- General physical assessment e.g. skin colour, view of pharynx plus assessment of relevant comorbidities
- Assess respiratory function: high respiratory rate occurs only in advanced cases but inability to complete sentences is common in COVID*
- Assess relevant comorbidities
- Psychological assessment e.g. do they look upset or distressed? Do you need to use a formal mental health instrument for anxiety/depression?
- Are there relevant family issues in view e.g. small children?

Tests
- Patient may be able to take own peak flow, temperature, pulse, BP, and oxygen saturation if they have instruments at home
- Bring your own device into camera view to show them how to use their equipment if necessary (they may have only recently purchased it)
- Fitbit-type gadgets and smartphone apps may measure biomarkers but their accuracy can be hard to judge
- Advise on local procedure for how to undertake self-swabbing

Discussion and shared decision making
- Share information and explain uncertainties
- Provide therapeutic presence (active listening, empathy)
- Offer options and invite questions
- Advise and reassure as appropriate
- Discuss and agree on next steps

Arrange follow-on as appropriate
- Unwell and needs admission (➔ 999 protocol)
- Unwell and needs monitoring
- Safety netting: if becomes more unwell, difficulty breathing, faint, stops passing urine, unable to keep down fluids, call GP or out of hours service as appropriate
- Needs management of comorbidities
- Needs reassurance and clear advice on self-management
- Medication, certification, home swabs etc

Ending the consultation
- Ask if anything else?
- Wish the patient better, say goodbye and “I’m going to sign off now”
- Document and code the encounter on patient’s record

* There is some evidence for the validity of the Roth or ‘8-second test’: Ask patient to take a deep breath and count from 1 to 30 their native language as fast as they can. If they take less than 8 seconds before taking the next breath, hypoxia is likely.6
References