

COVID-19: switching to remote neurology outpatient consultations

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BACKGROUND

Teleneurology and telephone consultations have long been used in neurology.^{1,2} There is a lack of research data on using remote consultations for new neurology outpatients and only low-level evidence for their use in general practice. Remote consultations provide a mechanism for neurology care during the COVID-19 pandemic. Switching from face-to-face new appointments to remote (telephone or video) consultations allows continued provision of neurological services to patients while reducing hospital footfall; this could limit the spread of COVID-19 and avoid exposing vulnerable patients who attend the clinic to unnecessary risk.

We have built this document using advice from the UK General Medical Council (GMC) on remote consultations.³ However, the GMC's advice is not wholly applicable in the setting of COVID-19; their safety concerns are mostly mitigated by the fact that we are the patient's regular health-care provider, with access to their notes and referral letters. The GMC also makes specific provision for departure from established procedures to care for patients in the highly challenging but time-bound circumstances of the peak of an epidemic.³

Given that the clinical history provides the greatest part of the information that leads to a diagnosis,⁴ remote consultation should be able to help many patients. In general practice, remote consultations were not associated with any statistically significant change in visits to the Emergency Department or any differences in rates of admissions or of patient satisfaction.⁵ However, remote consultations have been linked to more repeated visits: an average of two additional contacts for every 10 patients.⁶ Although a quarter of all patient consultations now occur on the telephone in general practice, there is no evidence base upon which to

inform clinician training in this skill.⁷ This paper aims to help neurologists to conduct remote consultations, particularly in relation to the current COVID-19 circumstances, and to help to embed remote consultations as standard practice following the pandemic.

PRE-CONSULTATION

The advice regarding who should attend outpatients, social distancing and more stringent infection control measures are being updated frequently as the pandemic develops. This will be subject to further changes, and national guidance needs to be followed. The clinical need for an appointment will need to be balanced against the resources available at the time.

Virtual (telephone or video) consultations should be booked in the usual way, so that the patient, the clinician and the hospital each has a record of the appointments taking place. The patient must be made aware of the time and type of the consultation, with clear instructions on how to join the consultation, and to know that they should be in a quiet place with appropriate telephone or internet reception. It is important to confirm a reliable means of contact with the patient.

Some remote consultations pose particular problems, for example for those patients who have communication or cognitive difficulties. In some instances, it may help to involve caregivers or next of kin, with appropriate consent. Those who speak only limited English will require an interpreter (services are available). Some patients need to come up for a face-to-face consultation in order to be examined; thus, clinicians need access to clinical space to allow examination of carefully selected patients (subject to national guidance in place at the time). A deferred examination in person may represent the best balance of risks and benefits for the



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patient, a decision that will balance the current COVID-19 risks against the neurological problems.

Follow-up appointments are likely to be easier to run remotely, and some neurologists have used such consultation methods for some time.^{1 2}

CONSULTATION

- ▶ A **video calling platform** is preferred for new patients. However, if video access is limited, then the patient can be contacted initially by telephone before deciding the need for a video consultation or a ‘phone-to-examination’ clinic (see below). Many people, especially the elderly, may be unable to manage a video consultation and need assessing by telephone.
- ▶ **Headphones or a speakerphone** help to allow the clinician to be hands-free and to document the consultation more easily. If using a telephone with a speaker, it is important to maintain confidentiality, such that the conversation cannot be overheard.
- ▶ **Verify the patient’s details** (name, date of birth and location). Check who is with them, as confidentiality issues are no different from the usual face-to-face setting.
- ▶ **Introduce yourself**, including showing your identity card to the camera if the consultation is by video, and explain why the consultation is by telephone instead of face to face and state the time available for the consultation.
- ▶ **Check that the patient can hear and understand you.**

Taking the history

This is taken in the usual way as for face to face appointments with the following additional considerations:

- (a) Collateral history—if needed, ensuring the patient has provided consent.
- (b) Advocate—some people may choose to have someone else to give their history. Ensure there is consent for this.
- (c) Clarify any uncertainties in the symptom description, as there will not be the usual visual cues.

Examination

- ▶ **Video** (see [box 1](#)).

Clinicians do not necessarily need all of these: it is a targeted examination. For some of these, it may help to demonstrate to the patient what you mean.

Box 1

Higher mental function

- ▶ Note language function and patient responses during the history

Motor function—including cranial nerves

- ▶ Ask the patient to stand from a chair
- ▶ Walk across the room to assess gait
- ▶ Heel-toe walking
- ▶ Stand on the toes/heels
- ▶ Speech/voice noted during history (bulbar)

- ▶ **Eye movements.** Camera close up on the face—keep facing the camera while moving the eyes left and right, then up and down
- ▶ Move the jaw from side to side
- ▶ Facial expression/weakness (raise eyebrows, close eyes, smile, etc)
- ▶ Protrude the tongue
- ▶ Arms held out in front—looking for drift
- ▶ Finger-to-nose testing each side
- ▶ Fast repetitive hand movements and piano playing (extrapyramidal and pyramidal)

Sensory function—very limited

- ▶ Ask about sensory symptoms in the history
- ▶ Romberg’s test on camera: standing with feet together and then with eyes closed

- ▶ **Telephone Examination** is not possible, but some useful information can be gleaned in conversation
 - i. Mobility—consider asking all patients if they are walking around normally (screening question)
 - ii. Mobility problems—ask patients to describe how they walk, and can they get up from a chair without using their arms
 - iii. Visual problems—close one eye—what can they see? Close the other eye, what can they see?
 - iv. Ask the patient or a relative to describe any obvious ‘signs’ in detail
 - v. Consider asking patients to send in a picture, if this will help with clinical decision-making

Investigations

These need to be kept to a minimum to reduce the need for the patient to leave home.

- (i) **Blood tests.** Document those tests that need to be done urgently and those that can wait. These should be done in the setting which provides the lowest risk.
- (ii) **Scans and neurophysiology tests.** These require the patient to come to the hospital, so these need to be minimised. Clinicians need to be clear about the clinical urgency of imaging, as COVID-19 will affect access to investigations

Diagnosis and Management

- ▶ **Explain the diagnosis.** If the diagnosis is uncertain due to lack of detailed assessment, consider the most likely diagnosis and whether further investigation would increase the certainty of this diagnosis and change the management plan. In urgent cases, bring the patient back to face-to-face clinic. If it seems routine, bring the patient back to face-to-face clinic (created as ‘phone-to-examination’ clinic) in 3–6 months. See ‘Potential Challenges’ below.
- ▶ **Explain the management plan.** If the diagnosis is uncertain, consider what might help. Would a trial of medication be reasonable if this is safe? Any prescriptions should be delivered in the safest way possible, which may involve local community pharmacies.

- ▶ **Arrange follow-up.** Consider using the nurse specialists' telephone clinics in the immediate weeks/months as a safety net.
- ▶ **Document the consultation clearly** in a letter sent to referer and/or general practitioner, the patient and appropriate others. This might include, 'In an attempt to contain COVID-19 spread, this appointment was changed from a face-to-face to video/telephone'.
- ▶ **Safety net** should include advice line telephone numbers or administrative telephone number/email address (not an emergency line but a voicemail service where nurses will call back within one working day).
- ▶ **Check** if the patient has any questions before ending the consultation.

POTENTIAL CHALLENGES

- ▶ **Punctuality.** There may be delay to the appointment time. The outpatient appointment needs to be arranged for a time window recognising that other emergencies need to be handled during these unprecedented times.
- ▶ **Escalating emotions.** Try to remain calm and emphasise what you can do rather than what you cannot. Recap the emotions you have heard with 'It sounds as though...'. Acknowledge the patient's inconvenience if needed, for example, 'Thank you for waiting'.
- ▶ **Examination.** Some patients still need to be examined after a remote consultation. Clinicians need a mechanism in place to allow urgent (within a week or less) or routine

Key points

- ▶ COVID-19 has forced us to consider remote working as a way to continue 'seeing' neurology outpatients whilst reducing hospital footfall.
- ▶ Assessing patients using phone / video requires the usual systematic approach to diagnosis and management.
- ▶ Remote consultations cannot be a substitute for all face-to-face consultations; outside the COVID-19 context, we should consider individualised standards for such consultations.

('phone-to-examination') clinics—see above. Based on evidence from GP settings (6), this may be one clinic every 2–3 weeks.

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REFERENCES

- 1 Lerner AJ. Teleneurology: an overview of current status. *Pract Neurol* 2011;11:283–8.
- 2 Smith PE. Telephone review for people with epilepsy. *Pract Neurol* 2016;16:475–7.
- 3 General Medical Council. Remote consultations. Available <https://www.gmc-uk.org/ethical-guidance/ethical-hub/remote-consultations> (accessed 15 Mar 2020)
- 4 Hampton JR, Harrison MJ, Mitchell JR, *et al.* Relative contributions of history-taking, physical examination, and laboratory investigation to diagnosis and management of medical outpatients. *Br Med J* 1975;2:486.
- 5 Bunn F, Byrne G, Kendall S. Telephone consultation and triage: effects on health care use and patient satisfaction. *Cochrane Database Syst Rev* 2004;18:CD004180.
- 6 Downes MJ, Mervin MC, Byrnes JM, *et al.* Telephone consultations for general practice: a systematic review. *Syst Rev* 2017;6:128.
- 7 Vaona A, Pappas Y, Grewal RS, *et al.* Training interventions for improving telephone consultation skills in clinicians. *Cochrane Database Syst Rev* 2017;1:CD010034.