

# **Developing virtual clinics for managing TIA and minor stroke during the COVID-19 pandemic**

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## Scope

This document is aimed at clinicians working in stroke/TIA services who would normally assess and manage patients with suspected TIA or minor stroke in the TIA clinic. The COVID-19 pandemic requires services to be adapted to minimise face-to-face contact between healthcare professionals and patients when other means to deliver care can be put in place. The document provides pragmatic guidance and recommendations on how to deliver safe and effective care for patients with symptoms that indicate TIA or minor stroke during the COVID-19 pandemic.

This is an evolving guide. We welcome examples of solutions to deliver high-quality virtual TIA services to people with suspected TIA, which can be added to the resource hub associated with this document (<https://basp.ac.uk/adapting-stroke-services-during-the-covid-19-pandemic-an-implementation-guide/>).

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## Introduction

This implementation guide is designed to support adaptation of stroke services in the UK to meet the challenges of the COVID-19 pandemic. It offers rapid guidance on adapting to manage TIA and minor stroke (defined as patients with minimal functional disability from their stroke who can be managed in their own homes, with or without community therapy support) in the COVID-19 environment; however, many of the changes included may be sustainable after the COVID-19 pandemic ends. This guide focuses on TIA and minor stroke; patients with suspected acute major stroke should be managed in line with the new COVID-19 acute stroke guidance ([www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/04/C0033-Specialty-guide-Stroke-and-coronavirus-VI-update\\_16-April-003.pdf](http://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/04/C0033-Specialty-guide-Stroke-and-coronavirus-VI-update_16-April-003.pdf)).

The recommendations offered in this guide are based on experiences of clinicians who are already running virtual TIA clinics. Detailed case studies of these examples are provided in [Appendix 12](#).

## Referral

Reports from around the UK suggest that fewer patients with suspected TIA are being referred via their GP and from emergency departments (EDs) while the COVID-19 pandemic is ongoing. This may reflect changes in behaviour of those experiencing TIA symptoms or change in referral practices from primary and secondary care. The importance of referring patients with suspected TIA symptoms for immediate assessment to prevent fatal or disabling stroke should be emphasised to colleagues and in public health messages to the local community.

Referral systems should be easy to access; use preconfigured template referral forms. Referrals should ideally be accessed and triaged without the need for a secretary to forward to a clinician (see Case study 3 in [Appendix 12](#)).

## Triage

- Patients with suspected TIA or minor stroke should be virtually triaged by a senior clinician to minimise face-to-face their contact with clinicians and other people.

## Virtual consultation for patients with high suspicion of TIA or minor stroke

### Format

- Advice on how to undertake remote consultations is available ([www.bmj.com/content/368/bmj.m1182](http://www.bmj.com/content/368/bmj.m1182)).
- Virtual consultations can be managed over the telephone for patients without access to smart technologies, but video may be preferable, as audio calls miss non-verbal cues and the ability to visualise a persistent neurological deficit in the case of patients with minor stroke:
  - To protect personal contact details of healthcare professionals, outgoing telephone numbers from personal phones should be blocked, with calls made via a laptop or departmental phone dedicated to virtual consults for stroke patients.
  - Video-based systems could be considered, such as Attend Anywhere ([www.attendanywhere.com/](http://www.attendanywhere.com/)), CareRx ([www.carerx.com/carerox](http://www.carerx.com/carerox)) and AccuRx ([www accurx.com](http://www accurx.com)).
- Virtual consultations can be run by stroke consultants or specialist stroke nurses with experience of assessing patients with TIA:
  - Using specialist nurses can ensure more efficient use of consultant time, but additional safety nets may need to be in place, particularly during the COVID-19 pandemic, when decisions may demand more challenging risk-benefit analysis and GPs are less able to provide in-person screening, safety nets and follow-up support.

- Audit of TIA clinics is recommended following service reconfiguration. This should include capturing views of patients and carers.

## Preparation

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- Administrative staff may be able to support the virtual consultation (see Case study I in [Appendix I2](#)).
- Patients should be notified about the 1-hour window during which they will receive their call and what will be required of them:
  - Patients should make sure they are able to answer the call during this period and be sat down where they will not be disturbed for a 20-minute consultation.
  - Patients should have a list of their drugs, information on previous medical history, and weight/height to hand.
  - If possible, a witness to the event should also be available to provide a collateral history, particularly if the patient does not have a good recollection of the event.
- Clinicians should review existing records, including any recent blood tests and brain imaging before the call, as this will improve the efficiency of the call and minimise the amount of information exchange required.
  - The call should be made from a quiet, private location where the clinician will not be disturbed.

## History

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- Include details of what access to medications the patient has, including home supplies of aspirin, ability to obtain aspirin and access to pharmacy services locally.
- Non-verbal cues that might normally alert the clinician to anxieties or concerns can be easily overlooked. Care should be taken to specifically identify these by direct questioning.
- In some circumstances it may be necessary for the clinician to examine the patient in person, and facility must be available when this need arises.

## Patients identified as having definite TIA/minor stroke

### Investigations

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- Where possible, patients seen in the ED should have investigations in the ED to reduce the need to reattend secondary care.
- The ED should have a clear protocol to ensure optimal collection of appropriate routine tests recommended in NICE guidance such as lipid profile and ECG.
- Local solutions, e.g. community testing hubs or 'investigation pods' that offer phlebotomy, one-lead ECG (e.g. Kardia Mobile, MyDiagnostic), 12-lead ECG and BP measurement, should be considered; this would benefit a wider group of patients, not just those experiencing TIA/minor stroke.

### Blood pressure

- Clinicians should ask patients whether they have a BP monitor or access to one.
  - If not, arrangements need to be made to obtain a BP reading in primary or secondary care.
  - Solutions to obtain pulse and BP remotely could be considered, e.g. MyDiagnostic ([www.mydiagnostic.com](http://www.mydiagnostic.com)) or Omron BP monitor ([www.omron-healthcare.co.uk](http://www.omron-healthcare.co.uk)), which also records pulse.
- Clear communication of the agreed BP monitoring strategy with the GP is essential to ensure continuity of secondary prevention.

## ECG

- If an ECG has not already been performed (e.g. at ED attendance), local arrangements will need to be made to obtain a 12-lead or one-lead ECG reading.
- For suitable patients, consideration might be given to home monitoring for atrial fibrillation (AF) using a mobile one-lead device such as Kardia Mobile or MyDiagnostic.
  - 12-lead ECG would need to be arranged if the screening device detects potential AF.
- Other options such as app-based AF detection, e.g. <https://cardiosignal.com/en/>, could also be considered.

## Imaging

- For patients who require imaging, this should be scheduled in advance of attendance to minimise time spent in the imaging department.
- To reduce COVID-19 transmission risk, patients should not be asked to attend early.
- Patients could be asked to wait in the hospital car park until called in by text or telephone call.
- Accompanying people should be advised not to accompany the patient to the imaging department unless their direct support is required.
- When brain imaging is required:
  - MRI rather than CT should be performed first line to reduce need for multiple attendances unless contraindicated
  - Vascular imaging need only be undertaken in those patients who would be suitable for carotid revascularisation (not major disability etc) and should be acquired in the same modality as cross-sectional imaging whenever possible e.g. paired MRI and MR angiography (MRA). CT and CT angiography (CTA) should only be used if MRI is contraindicated.
- For some patients with a clear clinical diagnosis of TIA and previous brain imaging, it may not be essential to obtain brain imaging. The risks and benefits of attending hospital in the context of COVID-19 need to be carefully considered.

## Prescribing

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- The benefits of quick administration of secondary prevention medication once antiplatelet therapy is administered are modest and should be weighed against the risk of patients or their carers acquiring COVID-19 from interactions with healthcare providers. For example, while it might be reasonable for a patient to visit a pharmacy or shop to self-administer aspirin, it may be prudent to start lipid-lowering therapy on a next repeat prescription.
- Until national prescribing systems are in place to allow secondary care to send scripts directly to community pharmacies, local arrangements will need to be made to ensure medications can be provided in a prompt and reliable manner.
- If the patient is already attending the hospital for investigations, prompt review of results and decision-making in real-time might allow quick provision of medication during a single attendance using the hospital pharmacy.
- New national guidance on managing oral anticoagulation therapy during the COVID-19 pandemic should be followed ([www.rpharms.com/development/coronavirus-cpd-resources#warfarindoac](http://www.rpharms.com/development/coronavirus-cpd-resources#warfarindoac)).

## Follow up

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- The clinic letter, sent to the GP and copied to the patient, should describe whether a video, audio or face-to-face appointment has occurred.
- Any specific considerations regarding the circumstances of constrained healthcare provision should be explicitly described (e.g. delays to carotid imaging or surgery, risk assessment decisions around brain imaging and hospital attendances, mechanism of follow up, mechanism of prescriptions issued and need for continuing provision of medication).
- Follow up at 1 month may be undertaken with virtual review.

- Consideration should be given to the need for early supported discharge team (ESDT) involvement for patients with disability relating to minor stroke. Review by the ESDT in the community may be required for the purposes of assessment when physical neurological assessment has not been possible in audio or video TIA clinic.

**Virtual clinic for managing TIA/minor stroke in the COVID-19 pandemic**

