Introduction

Video consultation (and telehealth) in the context of emergency situations is often used to provide real-time specialist advice during resuscitation and/or stabilisation in preparation for retrieval and transfer to higher-level care. Video consultation allows for the provision of increased clinical support to rural and remote regions, improving equity of access to specialist care for these populations. This reduces the overall risk to patients and general practitioners (GPs) and can also reduce the need for retrieval transports.

The use of video consultations in the emergency medicine context can be very different from the non-emergency context. Some of the major differences include:

- non-scheduled episodes with limited preparation time
- documentation of consent and involvement of family members
- multiple clinicians and/or healthcare workers involved in the consultation, particularly when linked to a resuscitation room
- the unscheduled nature of emergency situations, particularly after hours
- issues of emergency scope of practice for unfamiliar skills in acute procedures
- unique technological requirements or specifications.
Clinical requirements

Prior to commencement of a video consultation there must be a mutual agreement between the GP and the emergency physician and/or department providing the consultation service. This agreement should include:

- agreed indications for video consultation
- agreement upon urgency and timing of consultation
- stating of the goals of the consultation (eg. treatment advice, preparation for inter-hospital transfer, performance of a procedure)
- recognition of consultation availability and limitations to provision of service
- introduction of the distant consultant to the patient and/or carers
- required access to related clinical data (eg. observation charts, ECGs, medical imaging and pathology results)
- information about the availability of the service to patients and carers to address informed consent
- documentation processes
- system failure processes (ie. reverting to telephone consultation in the case of technical difficulties).

Common situations where a video consultation between a GP and emergency physician may occur:

- Assistance with the management of cardiac arrest, acute respiratory failure, multiple trauma, severe poisoning and other immediately life threatening emergency situations.
- Assessment and triage of trauma patients, particularly in the setting of multiple patients potentially requiring transport where the arrival of a retrieval team is expected to occur too late to be of direct assistance and a potentially lifesaving manoeuvre is required.
- Guidance in critical decision making and assessment, with real-time review of ECG, X-rays and ultrasound.
- Procedural guidance.
- Coaching and education of primary care staff.
- Observation of patient response to interventions.
- Initiation of pre-hospital care prior to the arrival of a retrieval service.
- Improved communication of patient status in relation to potential retrieval. This will increase understanding of both the GP and the emergency physician regarding the degree of clinical compromise, need for patient transfer, and possibility of local intervention or non-transfer.
- Assistance in end-of-life care decisions.

Informed consent

Gaining patient consent is a pre-condition to conducting any medical treatment and should always be attempted. However, informed consent in an emergency situation can be difficult to obtain, due to:

- the urgency of the situation
- the patient being critically ill and/or unconscious and not competent to consent.

Verbal consent to the video consultation should be obtained from the patient if the attending clinician has assessed that the patient is capable of providing it.

If the patient is not competent, verbal consent should be sought from an appropriate next of kin (if present).

Clinical handover

Documentation should be in line with normal contemporaneous record keeping. It is expected that both the referring doctor and distant specialist maintain documentation.

A recording of the video consultation is not required.

1. list is not exhaustive and only provides a snapshot of common situations where GPs and emergency physicians are likely to interact via video consultation.
Operational requirements

General process in a GP–emergency physician video conference

Emergency telehealth consultations will, by their nature, be unscheduled.

An emergency consultation can often be a dynamic situation, including nursing and ambulance staff as well as relatives moving in and out of the scene. In these situations, it is not possible to mandate what third parties are involved in the consultation. However, it should be clear to everyone that a camera is recording and there is another person viewing the scene.

Advice provided during a video consultation does not constitute a treatment order unless formal arrangements exist which credential the telehealth consultant to practise within a defined scope of practice at the referral site.

It is suggested that, if not already present, a team leader is nominated at the commencement of the consultation.

When there is both a GP and emergency specialist involved, it is suggested that the referring doctor has seniority, unless they choose to delegate the responsibility of team leader to the consulting doctor (eg. in the event of an acute resuscitation).

A general overview of a GP initiating a video consultation with an emergency physician, emergency department or retrieval service is shown on page 3.
Call received from GP or delegated referring facility staff member (non-medical) requesting urgent video consultation

Telehealth coordinator/emergency department nurse will triage the call as per service guidelines

Information collected:
- Facility they are calling from
- Nature of request
- Referring doctor (if not caller)
- Essential patient information (name, DOB, presenting complaint)

Emergency physician contacted with request for urgent video consultation

Telehealth coordinator and/or emergency physician dial into referring facility (ie. GP room or clinic)

Staff members at either end who are not involved in the consultation should leave the room

Video consultation completed
- Procedural guidance
- Resuscitation event
- Follow-up actions (ie. retrieval or transfer required) are summarised

Relevant documentation at both ends is completed
**Technical requirements**

For an emergency video consultation, it is important that:

- both the GP and emergency physician are able to remotely control the video equipment, allowing them to focus on particular areas if required
- the camera is able to provide appropriate image quality of X-rays, ECGs and ultrasounds in order to be reviewed by the emergency physician
- the camera has the ability to capture a still image, which can be especially useful when dealing with certain types of wounds and, in particular, burns.

**N.B.** Still images should only be captured with the consent of the patient unless the patient is unable to give consent and it is considered a medical emergency.

As a general principle, the video conference system should have:

- high-definition video resolution
- low latency – to allow for good streaming of video data
- high-quality audio – echoes and/or feedback can be a major technical issue within emergency departments
- the ability to connect easily to real-time patient monitoring systems.

More specific information regarding system specifications is listed under *Useful resources*.

It is recommended that GPs working in rural and remote regions contact surrounding telehealth services to confirm:

- the hours during which emergency telehealth services are available
- the service’s designated response times
- what technical support (if any) is provided.

**Useful resources**