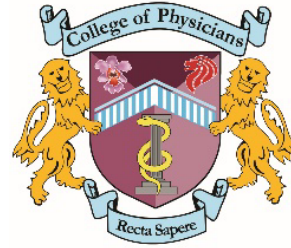




**ACADEMY OF MEDICINE
SINGAPORE**



**CHAPTER OF CARDIOLOGISTS
COLLEGE OF PHYSICIANS, SINGAPORE**

SPECIALTY SPECIFIC GUIDANCE

TELEMEDICINE

CARDIOLOGY

1 DECEMBER 2021

Developed by

**CHAPTER OF CARDIOLOGISTS
COLLEGE OF PHYSICIANS, SINGAPORE**

1. Whether first specialists' consultations must be conducted in-person for all conditions, OR if there are specialist conditions which can be managed solely over telemedicine.

The COVID 19 pandemic has accelerated the use of telemedicine in cardiology throughout the world and the use of telemedicine is supported by major cardiology organisations such as the American College of Cardiology (which has its own cardiology app for telemedicine), American Heart Association (AHA), the Asia Pacific Heart Rhythm Society (APHRS), the European Heart Rhythm Association (EHRA), the Heart Rhythm Society (HRS), Latin American Heart Rhythm Society (LAHRS), and the European Society of Cardiology. Telemedicine in cardiology is provided for both new and established patients . In the USA, the Centers for Medicare and Medicaid Services (CMS) provide reimbursement for both new and established patients. Given the current worldwide trend and the established safety and effectiveness of telemedicine in cardiology , first virtual specialist consultations are increasing become more common in major developed countries.

The Chapter of Cardiologists recommend that in-person first specialist consultations are not necessary in the following situations: -

- 1) For stable patients who have one or symptoms such as chest discomfort, sensation of shortness of breath , palpitations , and/or dizzy spells and are unable to be physically present at the clinic because they are overseas or have other social restrictions, a telemedicine first consultation can be considered with proper documentation.
- 2) For those patients who have seen other doctors and have records of tests done which are of relevance, and are unable to be physically present at the clinic because they are overseas or have other social restrictions, a telemedicine first consultation can be considered with proper documentation
- 3) For overseas patients who are hospitalised and are being managed by their inpatient doctors, a telemedicine second opinion can be offered in discussion with the patient and the attending doctor with proper documentation

First specialist consultations which can be managed solely over telemedicine include the following:

- 1) Opinion for the results of a blood test, cardiac test or radiological investigation that has been done and patients are unable to be physically present at the clinic because they are overseas or have other social restrictions.

2. Whether there are any additional patient inclusion/exclusion criteria for specialists' use of telemedicine (for first, or follow-up consults).

Exclusion criteria

If the patient is a local patient who has not seen a doctor previously, has no medical records or investigations and is able to come physically to the centre, an in-person first consultation is advised

Inclusion Criteria

Stable cardiac patients on follow up can have their follow-up consults via telemedicine, for example, hyperlipidaemia, high blood pressure, mild coronary artery disease, stable patients with previous history of heart failure, post- stenting , post coronary artery bypass graft surgery , paroxysmal supraventricular tachycardia.

3. If so, are there additional patient notifications to help patients make an informed choice on their use of telemedicine;

Stable cardiac patients on follow up with no new symptoms or change in status can be given an option of follow-up consults via telemedicine if it is expected that their results will not result in a change in management. Should there be a change in their symptoms or they are acutely unwell, an in-person consultation is advised .

4. Whether there are any speciality specific clinical red flags where if observed, specialists should escalate patients for an in-person consultation or A&E where appropriate;

For cardiac patients, the sudden onset of severe chest pain, shortness of breath at rest or with minimal exertion, lower limb swelling, frequent palpitations, and syncope will warrant an-in person consultation for local patients

5. Whether there are any specific visual cues or other indications (e.g., tests or use of devices) that should be done/used when specialists manage patients over telemedicine.

For cardiac patients a video consultation is preferred as patients can be observed for signs of dyspnoea, cyanosis, respiratory distress, lower limb swelling and this can be complemented by home blood and pulse measurements and oxygen saturation recordings.

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PUBLISHED: 1 DECEMBER 2021

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