

Telemedicine applied to cardiovascular and neurovascular diseases during containment

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Since its implementation on March 17, containment has proven effective in preventing the spread of the Covid-19 pandemic, but it has made access to care difficult for patients with chronic cardiovascular and neurovascular diseases. In this exceptional context, emergency admissions for myocardial infarction and stroke have decreased by more than half. In order to prevent such serious consequences, telemedicine offers a solution that limits caregiver-patient contacts when they can be avoided, without putting patients at risk.

Three telemedicine systems must be distinguished:

1. real teleconsultations with telephone contact, possibly visual contact, allowing a direct dialogue between patient and caregiver in order to detect possible alarm symptoms, to comment on the results of biological analyses, to check the therapeutic compliance and possibly adapt treatments.

They apply to patients:

- with high blood pressure, who have a self-measuring blood pressure device,
- suffering from coronary diseases, long after a myocardial infarction,
- who have suffered a stroke,
- having presented an isolated episode of complete atrial fibrillation arrhythmia, with return to a normal rhythm,
- with chronic heart failure.

This follow-up by teleconsultation can only be applied to patients in stable condition and not to patients with cardiovascular warning signs (chest pain, palpitations or feeling of irregular heartbeats, shortness of breath or abnormal tiredness), or evoking a transient ischemic attack or a stroke (sudden paralysis, unilateral or localized muscle numbness or weakness, loss of vision in one eye, double or partial vision, difficulty in speaking or being understood, static balance problems, unusual acute headache). Likewise, a significant rise in blood pressure despite a well-managed treatment should lead to a traditional consultation. Finally, rapid weight gain and/or the occurrence of lower limbs oedema should lead to the suspicion of a heart failure decompensation if this one is known.

2. simplified electrocardiogram teletransmission systems, based on commercially available applications or connected watches, allowing the identification of a possible heart rhythm disorder, and systems that automatically transmit blood pressure.

3. remote monitoring systems for implanted pacemakers and defibrillators, which have been widely used for several years to check their proper functioning, the state of batteries, and to monitor chronic pathologies such as heart failure in using standardised questionnaires.

Any emergency situation excluding telemedicine and requiring immediate recourse to the emergency services (SAMU), the National Academy of Medicine recommends:

- a wide use of teleconsultations for patients with stable cardiovascular or neurovascular disease, but conversely, a traditional consultation for any patient presenting symptoms suggesting an insufficient control of his disease;
- the alternation of teleconsultations and traditional consultations to maintain the caregiver/patient relationship and to allow a clinical examination, an electrocardiogram or other explorations that may prove necessary;
- the development of teleconsultation platforms in medico-social establishments and nursing homes (EHPADs) to ensure regular and reinforced follow-up of dependent elderly people;
- the widespread use of remote monitoring to follow up heart failure patients and patients with pacemakers or defibrillators.