

Treating hypertension through telemedicine in the COVID-19 era: will we ever go back to conventional consultations?

Martino F. Pengo¹, Camilla Torlasco¹, Grzegorz Bilo^{1,2}, Gianfranco Parati^{1,2*}

¹ IRCCS Istituto Auxologico Italiano, Department of Cardiovascular, Neural and Metabolic Sciences, Milan, Italy

² Department of Medicine and Surgery, University of Milano-Bicocca, Milan, Italy

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Abstract

The recent coronavirus disease 2019 (COVID-19) outbreak has shown that adopting telemedicine to obviate the need for physical meetings between patients and health providers is a sensible approach in particular when patients are asked to stay at home to prevent the spread of COVID-19 infection. Hypertension centres could continue to provide high quality health care while minimising the risk of COVID-19 exposure and integrating telemedicine in the routine evaluation and follow up of patients with high blood pressure.

Keywords: COVID-19 Pandemic, Telemedicine, Information and Communication Technologies, Arterial Hypertension.

The recent coronavirus disease 2019 (COVID-19) outbreak has shown that adopting telemedicine to obviate the need for physical meetings between patients and health providers is a sensible approach in particular when patients are asked to stay at home to prevent the spread of COVID-19 infection. (1)

Notwithstanding this, telemedicine in the field of cardiology is not a novel tool as it has been exten-

sively used since a couple of decades: from the use of pre-hospital electrocardiogram sent to cath-labs in cases of suspected ST-segment elevation myocardial infarction to the recent use of the most complex information and communication technologies (ICT) for the management of high risk patients. (2)

The post-acute phase of COVID-19 has speeded up the process of extending telemedicine services to a broader range of healthcare services and, particularly in the field of hypertension, such tool could now become the standard care for the management of patients with high blood pressure.

Over the years, telemedicine for patients with high blood pressure has evolved from telephone follow-up to web-based and computer-tailored solutions and dedicated devices (eHealth). (3)

Furthermore, giving that home blood pressure monitoring (HBPM) has now been proven to be an effective management strategy by promoting

*Correspondence to: Gianfranco Parati MD, FESC
University of Milano-Bicocca.
IRCCS, Istituto Auxologico Italiano, S.Luca Hospital;
Cardiology Unit and Dept of Cardiovascular, Neural and Metabolic Sciences.
San Luca Hospital, piazzale Brescia, 20 - 20149, Milano, Italy
Phone: +39 02 619112890; Fax: + 39 02 619112956
E-mail: gianfranco.parati@unimib.it

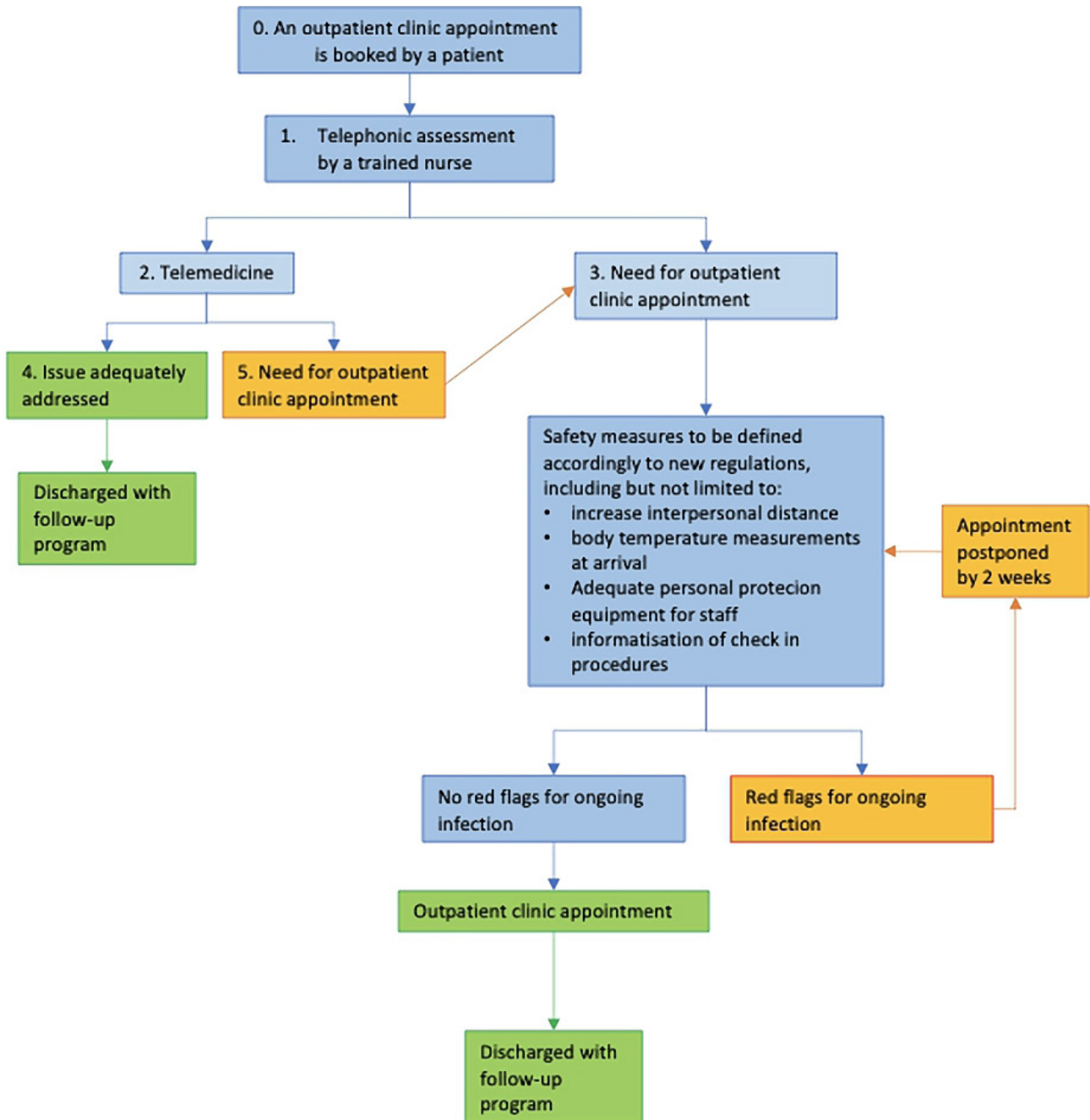


Figure 1. proposed journey for hypertensive patients in the post-acute COVID-19 phase.

empowerment and self-awareness in patients, the application of eHealth for HBPM can presumably allow a better BP control. (4-5)

Does this mean we can say goodbye to the log-book transcription of regular home BP measurements in favour of new devices to acquire and transfer BP measurements directly to the physician? Hopefully, yes.

Can we then start following hypertensive patients only through ICT based devices and video consultations without booking them in for standard clinic consultations? Presumably, no.

It should be highlighted that telemedicine is a promising reality with the potential to bringing significant improvements to the management of hypertensive patients. However, it should be considered an additional tool rather than the only way to assess patients with elevated blood pressure. Patients with hypertension are often at increased cardiovascular risk and deserve proper evaluation through physical examination in order to diagnose cardiovascular complications such as heart failure.

Nevertheless, in an era where the spread of COVID-19 has caused hundred thousand of deaths

worldwide and where there is the need to reduce risks of patients spreading the virus, it is of paramount importance that hospitals and healthcare facilities restructure their inpatient and outpatient activities implementing the use of telemedicine.

We propose a patient journey for the management of hypertensive patients including a 2 step triage: a first assessment by an experienced nurse evaluating the patient's symptoms after which either a telemedicine assessment or a standard consultation will be booked. If the patient is booked in for a regular consultation an additional triage will be performed in hospital to exclude COVID-19 referrals. (Figure 1)

In this way, hypertension centres could continue to provide high quality health care while minimising the risk of COVID-19 exposure and integrating telemedicine in the routine evaluation and follow up of patients with high blood pressure.

Due to the COVID-19 health crisis, we should rethink a big part of our lives, including healthcare. Thus, we have the great opportunity to add telemedicine to our standard care in order to answer many contemporary needs, including the needs to keep delivering a high quality, timely healthcare, to positively affect the quality of life of our patients, to reduce the need of unnecessary hospital visits and thus reduce the risk of COVID-19 exposure.

Conflict of Interest

The author confirms that there are no conflicts of interest.

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