

## DIGITAL CARDIOLOGY

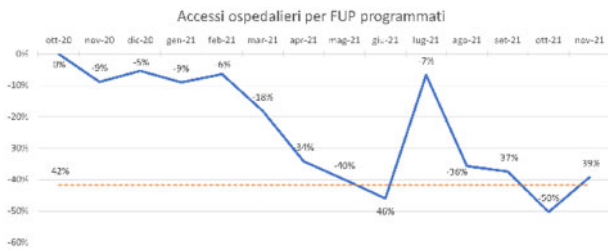
**C19 REMOTE MONITORING OF IMPLANTABLE CARDIAC DEVICES: ANALYSIS AND CHARACTERISATION OF ONE CENTRE'S ACTIVITY SINCE THE START OF THE COVID-19 PANDEMIC**

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**Introduction:** The COVID-19 outbreak has accelerated the diffusion of remote monitoring (RM) in patients with Cardiac Implantable Electronic Devices (CIEDs). The primary objective of this analysis was to characterize the number of remotely monitored CIEDs in our centre since the start of the programme (November 2017) by comparing the number of patients monitored before and after the beginning of the pandemic (1 March 2020). The secondary objective was to quantify the number of scheduled hospital visits following the introduction of RM as an alternative to traditional outpatient monitoring from the first scheduled remote follow-up (1 November 2020) to the end the observation period (30 November 2021).

**Materials and Methods:** All patients with CIED compatible with RM technology (860 patients) were included. Information regarding CIED was obtained from CardioRef software (3A Sistemi, Castel San Pietro Terme, BO) and from the informative system in use in our Cardiology Department Log80 (Log80, Forlì, FC). All data were collected and analysed using Microsoft Excel software (Office 365 version).

**Results:** Seven hundred sixty-eight patients were provided with RM devices, which represent the 89.3% of monitorable CIEDs. Fig. 1 shows the number of RM patients characterised by type: pacemaker (PM), implantable cardiac defibrillator (ICD) and loop recorder (LR). The number of RM patients has substantially increased in the months following the start of the pandemic. Moreover, during the 13 months observation period, hospital visits decreased by an average of 42%, excluding the period July-August 2021, during which no scheduled follow-up visits in our centre are performed (Fig. 2).



**Discussion:** Our RM activity, which started only for ICD and LR patients, was extended since March 2020 to PM patients, increasing from 125 to 768 MR patients. This has reduced the time spent by the patient and the caregiver in travelling to the hospital, attending for the visit. As a consequence, also the consumption of health-care resources accordingly decreased, as documented by the 42% reduction in hospital visits. This result was achieved through the setting up of a multi-professional working group (doctor, nurses, biomedical engineer) dedicated to the daily management of incoming transmissions and phone interviews.