

Title	Remote monitoring of patients with an implantable loop recorder
Agency	HAS (French National Authority for Health - Haute Autorité de santé) 5 avenue du Stade de France – F 93218 La Plaine Cedex, France Tel.: +33 (0)1 55 93 70 00 - Fax: +33 (0)1 55 93 74 35, contact.seap@has-santé.fr , www.has-sante.fr
Reference	ISBN number: 978-2-11-162633-1, link to full report in French: https://www.has-sante.fr/jcms/p_3177774/fr/suivi-par-tele-surveillance-des-patients-porteurs-d-un-moniteur-cardiaque-implantable .

Aim

The HAS undertook to assess the remote monitoring of patients with an implantable loop recorder (ILR).

ILRs are diagnostic medical devices used for continuous monitoring of cardiac activity. They detect and record the patient's arrhythmia automatically. In France, they are indicated and reimbursed for two purposes: aetiological diagnosis of unexplained recurrent syncope and aetiological diagnosis of cryptogenic stroke.

Conventional follow-up (CF) of patients consists in an analysis of the data recorded, during a medical consultation with the patient every three to six months. The aim of this report is to assess another monitoring method, remote monitoring (RM), which consists, for the medical team, of remotely reading and interpreting, via a secure internet site, the data recorded, and transmitted daily by the ILR.

The HAS selected two main assessment questions to meet this objective:

- assessment of the clinical benefit of remote monitoring compared to CF for patients wearing an ILR;
- assessment of the organisational impact of RM of ILRs on the health system and identification of optimal conditions for carrying out RM.

Conclusions and results

- RM is of greater clinical benefit than CF as it leads to early diagnosis and therapeutic management of the patient. According to the experts, this shorter time frame has a positive impact on prognosis for patients in light of the risk of recurrent syncope or stroke, which can be life-threatening for those patients.
- On the condition proper organisation is in place (see below), RM is useful in terms of organisation, and is more useful than CF (for patients: more regular follow-up, better support and less travel; for the medical team: relevant distribution of tasks between nurses and electrophysiologists, medical time saved, fewer unnecessary consultations and increased status for nursing skills in electrophysiology and therapeutic education).

This assessment therefore also serves to propose optimal organisation of follow-up by RM of patients with an ILR. It includes informing, collecting consent from and the

therapeutic education of patients, distribution of tasks between nurses and electrophysiologists for data management, fewer consultations justified by pathological tracing, intervention by the manufacturer to resolve technical problems, and regular sending of monitoring reports to the various healthcare professionals managing the patient.

Methods

The work method used for this assessment consisted in:

- a critical analysis of the literature identified after a systematic literature search and selection on the basis of explicit criteria;
- collection of the position of a group of individual experts (cardiologist/electrophysiologist, telecardiology nurse, neurologist, telemedicine specialist);
- questioning of manufacturers of ILRs marketed in France in order to collect their data on the use of RM in France;
- collection of the collective point of view of healthcare professional bodies (cardiology, state registered nurses, neurology, telemedicine) and patients' associations.

The contribution of the literature is minor due to the poor quantity and quality of data and due to the fact that the studies are old. The conclusions of this assessment report are therefore essentially based on expert opinion.

Written by

Nassima YAHIAOUI, HAS (French National Authority for Health - Haute Autorité de santé), France.