

Puglia, Italy: Telehomecare, Telemonitoring, Teleconsultation and telecare project aimed at patients with Heart Failure, Chronic obstructive pulmonary diseases and Diabetes.

Part 1: General Information

Publication on EIP on AHA Portal	Yes
Copyright	Yes
Verification of the Good Practice	No
Evaluation of the Good Practice	Yes
Type of the Good Practice	Notable practice

Part 2: Description of the Good Practice

Name of the Good Practice	Telehomecare, Telemonitoring, Teleconsultation and telecare project aimed at patients with heart failure and chronic obstructive pulmonary diseases and diabetes
Short name (Acronym)	TeleHomeCare project
URL of the Good Practice	Not available
Geographical scope	Local level
Country	Italy
Region(s) involved	Apulia region
Status of the Good Practice	On-going
Stakeholders involved	<ul style="list-style-type: none"> • Hospitals • Specialised physicians • General practitioners • Primary care centres • Home care centres • Nurses • Local public authorities • Informal caregivers • Private companies • Small-sized industry
Size of population covered	1,000-9,999
Targeted audience	50-64; 65-79; 80+

Summary of the Good Practice

TeleHomeCare Project is proposed as a technological support already structured the activities of home care with the main objective to affect favourably on the reduction of re-hospitalization rate and improving the quality of care at the patient's home, also validating new telemedicine models applied for diagnostic and therapeutic pathways for the management of chronicity.

Patients, opportunely selected, are followed by their family doctors with by telemonitoring using the innovative technological instruments H@H Hospital at Home, able to detect the main clinical and instrumental parameters in addition to the therapeutic administration, based on oxygen and bronco-aspiration.

The telemedicine project is to implement a new type of monitoring of the patients who suffering of chronic diseases, based on continuous collaboration and patient monitoring, by different professionals and different users. TeleHomeCare includes the following main objectives:

- Reduce the number of patients with heart disease, Chronic Diseases and Diabetes in the process of instability;
- Reduce hospitalization and re-hospitalization;
- Activate protected de-hospitalization;
- Optimize the therapy and diagnosis according to international guidelines;
- To promote the integrated management of Hospital and Territory;
- Evaluate the satisfaction of the doctor, caregiver and patient;

Key words: telemonitoring, teletherapy, de-hospitalisation, management of chronicity, innovative technological instruments.

Good practice being part of the larger programme

Yes.

Final programme of the project is to monitor all patients with chronic diseases managed by the local Health Board of Apulia Region. The ultimate objective is to create a single for all territory of Area and provide a great savings of economic resources and improving care for Italian Country.

Challenges / problems addressed by the good practice

TeleHomeCare project wants to implement a new type of monitoring of the patients suffering from chronic diseases, based on continuous collaboration and patient monitoring, by different professionals and different users. The five challenges that the Project intends to pursue are:

- Reduce the number of patients with heart disease, Chronic Diseases and Diabetes in the process of instability;
- Reduce hospitalization and re-hospitalization;

<ul style="list-style-type: none"> • Activate protected resignation; • Optimize the therapy and diagnosis according to international guidelines; • To promote the integrated management of Hospital and Territory.
<p>Importance of the challenges / problems before starting to implement good practice</p> <p>The main problems encountered during the first period of activities have been mainly due to the activity of collaboration between general practitioners, specialists and all health personnel involved in the activity. Technical difficulties have occurred in areas where there was poor coverage or absence of the Internet network coverage, and where there were technical problems with the patient's home unit.</p>
<p>Environment before the good practice was implemented</p> <p>Before the Telehomecare Project, there were no projects for telemonitoring, teleconsult or teleassistance in the territory.</p>
<p>Key innovative elements of the good practice and how the good practice improved situation compared to previous practice</p> <p>The examination of the data of the activity with the monitoring of about 100 patients, allows appreciating the effectiveness of the remote monitoring system as well as detect a favourable judgment on the part of the patients with reference to a better quality of care. patients are directly supervised by their General Practitioners, in a much faster and performance. We notice a very facilitated dialogue between General Practitioner and Specialist. Finally, the general practitioner feels more supported by the Specialist when he needs a quick consultation. 60% of patients are over 65. 30% of them suffering of heart disease, 40% of COPD, the remaining diabetes. In all patients who presented outside threshold values of blood oxygen saturation, oxygen administration by concentrator has allowed to re-establish the normal clinical condition. In approximately 30% of patients is the drug therapy was improved thanks to telemonitoring.</p>

Part 3: Transferability of the Good Practice

<p>Cost-effectiveness of the good practice (including all kind of costs and outcomes such as better health, quality of life or other resources)</p>	<p>Lower costs, deteriorated outcomes</p>
<p>Resources required for the deployment of the good practice (personnel, equipment, facilities, ICT and other resources required)</p> <p>TeleHomeCare provides:</p> <ul style="list-style-type: none"> • The involvement of general practitioners; 	

- The involvement of local specialists;
- The involvement of nurses working in the area; • the involvement of caregivers of patients;
- The patients.

For the activities is used a new technology called H@H Hospital at Home; CE Certificate, that system is allocated at the patient's home, permanently interconnected with the doctor, by pc, telephone, tablet, etc. Also, present at the hospital in Ceglie Messapica (Brindisi) a central monitoring of all patients and all devices located at the patient's home. All clinical parameters of patients are stored on a dedicated server, respecting all the rules for the respect of privacy. The system permits to the doctor (neurologists, pulmonologist, cardiologists, diabetologists, etc) remotely, to see the patient and talk to your health care professional on a visit to the domiciles of patients, through the activation of a video special device.

In fact, in addition to real-time monitoring of physiological parameters, the doctor can monitor the physical and technical characteristics of the home device.

It is possible to deliver therapy to the patient, remotely. In particular, it is possible to deliver oxygen therapy and endocavitary aspiration. Doctor or health care professional determines the limit of the range of physiological parameter values and when the parameter is out of range, the system draws the operator's attention through the alert. Practitioner or specialist can talk to the patient because the system has a video communications system. All the data are saved on the server at any time.

Total budget of the Good Practice	€100.00 - €499,999
Source of funding	European funding

The main actions that have to be done to deploy the Good Practice

To start the project, our healthcare business has presented a project at the regional level in which they stated objectives to want to reach and how many resources. A follow-confirmation at the regional level, our company has a contact person in charge of the project, by appointing scientific head and giving him the coordinator of all activities. Were then invited the general practitioners to take part in the activities and to each nurse, specialist, etc have been assigned specific roles. Different training courses, both for the correct use of the new technology both as regards the precise rules to be followed throughout the project. They were organized also a several days of testing equipment.

Issues during the implementation of the Good Practice

The more difficulties during implementation of the Project are related to a management of the priorities of patients to be enrolled into the monitoring; for this reason, it was necessary to edit a technical and clinical protocol to identify most at risk patients. Other difficulties were technical, due to the presence of

<p>outdated technological systems in the patients' homes or because the internet network coverage was not very good in all parts of the country.</p>
<p>Additional resources required to scale up Good Practice</p>
<p>No</p>
<p>Basis to support sustainability of the Good Practice</p>
<p>No base support provided.</p>
<p>Evidence to observe the Good Practice</p>
<p>A practice report; Video or other digital media (web page, audio); visit to an implementation site www.brindisi.cs00113.hospitalathome.it</p>

Part 4: Viability assessment of the Good Practice

<p>Time needed to deploy the Good Practice</p>
<p>Between one year and three years;</p> <p>The most important steps that were made to develop the project have included the drafting of a Clinical Protocol, the training of doctors, nurses for use fixed devices telemedicine and the proper functioning of the technology. Meeting for share all choices made during the planning field. Checks and technical tests of equipment.</p>
<p>Investment per citizens / patient / client in terms of financial resources</p>
<p>Between €100 - €1.000 per targeted citizen / patient.</p>
<p>Evidence behind the Good Practice</p>
<p>Documented evidence. Evidence is based on systematic qualitative and quantitative studies.</p>
<p>Maturity of the Good Practice</p>
<p>There is evidence that the practice is economically viable and brings benefits to the target group. Further research and development is needed in order to achieve market impact and for the practice to become routine use.</p> <p>The advantages of the use of technology in the field of telemedicine and especially with the use of H @ H hospital equipment at home are: reducing hospital stays, greater assistance of the patient directly from home, improving the psychological and physical condition, improvement of the therapeutic plan, easy monitoring of physiological parameters, easy to use and flexible management system. Hospital at Home technology has also a CE certificate system and it's on the market in France.</p>

<p>Estimated time of impact of the Good Practice</p> <p>Medium impact - e.g. shortly beyond the pilot project period</p>
<p>Impact observed</p> <p>Increased sense of security (societal)</p>
<p>Transferability of the Good Practice</p> <p>The innovative practice has been transferred within the same region.</p> <p>A similar Project is launched in another area of Italy, based on a slightly different organisation of the activity; Furthermore, it proposes to achieve objectives related.</p>

Part 5: Your organisation

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