

Multimedia Appendix 2

Questionnaires and surveys designed to assess participants data.

2.1. Questionnaire designed to perform prospective face-to-face interviews to heart transplant recipients. Including sociodemographic and clinical data, but also technology use and willingness

Has the patient signed the informed consent? Yes Has the patient fulfilled the inclusion criteria? Yes	Interview date by MG: _/_/___ Prospective review of the patient EHR: _/_/___
Sociodemographic and clinical variables	
Patient Hospital's code: _____ Date of birth: _/_/___ Gender <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other Weight: __ kilograms Height: __ meters	Date of the heart transplant: _/_/___ Urgent heart transplant: <input type="checkbox"/> Yes <input type="checkbox"/> No Heart failure etiology: <input type="checkbox"/> Congenital <input type="checkbox"/> Coronary/ischemic <input type="checkbox"/> Myocarditis <input type="checkbox"/> Cardiomyopathy <input type="checkbox"/> Valvular cardiac disease <input type="checkbox"/> Hypertrophic cardiomyopathy <input type="checkbox"/> Re-transplant <input type="checkbox"/> Other
Educational attainment <input type="checkbox"/> No formal education <input type="checkbox"/> Middle school graduate <input type="checkbox"/> High school graduate <input type="checkbox"/> University graduate	Employment status: <input type="checkbox"/> Incapacity <input type="checkbox"/> Retired <input type="checkbox"/> No previous employment <input type="checkbox"/> Currently employed
Need or requirement for caregiver <input type="checkbox"/> Yes <input type="checkbox"/> No	Lives with someone else <input type="checkbox"/> Yes <input type="checkbox"/> No
Number of comorbidities (EHR and confirmed by the patient): ____	
Type of comorbidity post-transplant (multiple choice): <input type="checkbox"/> High blood pressure <input type="checkbox"/> Dyslipidemia <input type="checkbox"/> Chronic kidney failure <input type="checkbox"/> Osteopathies and chondroplasties <input type="checkbox"/> Diseases of the nervous system <input type="checkbox"/> Mood and anxiety disorders <input type="checkbox"/> Digestive system diseases or disorders <input type="checkbox"/> Diabetes Mellitus <input type="checkbox"/> Neoplasia <input type="checkbox"/> Arthropathies <input type="checkbox"/> Others: _____	
Total number of drugs prescribed (EHR and confirmed by the patient): ____	
Technology availability, use and acceptance variables	
Number of devices per patient: _____	
Types of devices owned by the patient <input type="checkbox"/> Mobile Phone <input type="checkbox"/> Computer <input type="checkbox"/> Tablet	
Type of patient internet connection on their device: <input type="checkbox"/> 3G or 4G connection <input type="checkbox"/> Only connects to the internet using the WIFI <input type="checkbox"/> Does not know/does not answer	
How often does the patient use the technology? <input type="checkbox"/> Often <input type="checkbox"/> Sporadically	

<input type="checkbox"/> Never
Patient use of the internet for health-related purposes: <input type="checkbox"/> Often <input type="checkbox"/> Sporadically <input type="checkbox"/> Never
<i>Do you think it would be useful to use an app or website developed by your transplant team to improve your home-based management and therapy follow-up?</i> <input type="checkbox"/> Not very useful <input type="checkbox"/> Useful <input type="checkbox"/> Very useful <input type="checkbox"/> Not yet known until the platform is tested
<i>Are you interested in using the mHeart platform by...?</i> <input type="checkbox"/> A mobile app <input type="checkbox"/> The website <input type="checkbox"/> Both (an app and a website) <input type="checkbox"/> Not yet known until the platform is tested
<i>Do you think that you require personal assistance in using the platform?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not yet known until the platform is tested

EHR, Electronic Health Records

2.2.Survey designed to assess stakeholder agreement on the benefits and barriers associated with mHealth in multimorbid patients with polypharmacy in our catchment area

<p>Dear Respondent, Thank you very much for accepting our request to participate in this survey. We welcome your honest opinion about the benefits and/or barriers of using an mHealth platform in our catchment area for the follow-up of chronic patients taking multiple medications. Please tick <i>Yes</i> or <i>No</i> to indicate whether you agree to the following questions and also state the reasons for your answers or any relevant comments you may wish to share with us. Please note that you are welcome to add new topics or ideas not initially included.</p>	
<p>Please complete the following demographic information:</p>	
<p>Date of birth: Gender: Job category: Affiliation:</p>	
<p>Do you agree with the following statements about the benefits of mHealth in the catchment area?</p>	
<p>1. Improves knowledge of therapy, management and drug adherence in patients at home. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>2. Improves the continuity of care and the information flow between providers and levels of care. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>3. Allows for patients to be empowered to actively intervene in managing their disease and treatment. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>4. Resolves patient and caregiver queries from home due to 2-way clinical-patient communication. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>5. Allows detection of symptoms and adverse effects to drugs, thereby improving their management. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>6. Focuses on health promotion and prevention, reducing the number of acute events. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>7. Increases the cost-effectiveness of resources by reducing scheduled visits, as well as urgent visits due to decompensations. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>8. Facilitates innovation in health and documentation of evidence that translates into measurable health outcomes. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>9. Reduces inequalities in access to the health system due to traveling difficulties or lack of resources. <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>10. Improves patients' experience because of close communication with providers <i>Comments:</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p><i>Additional comments or suggestions:</i></p> <hr/> <hr/> <hr/>	
<p>Do you agree with the following statements on potential mHealth barriers in the catchment area?</p>	

1. Increase in workload for staff. <i>Comments:</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Lack of institutional guidelines for the development and accreditation of mobile applications in healthcare. <i>Comments:</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. Risk of not sharing the patient's registered information with other levels of care or with other apps (used to manage other health conditions). <i>Comments:</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Risk of not protecting confidential patient data. <i>Comments:</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Risk of creating inequalities in patient care due to resistance to use technology or the digital divide [51]. <i>Comments:</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Lack of guarantees on the long-term economic sustainability of research projects for innovative technologies and companies developing them. <i>Comments:</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Additional comments or suggestions:</i> <hr/> <hr/> <hr/>	

2.3. Questionnaire sent to Regional Health Authorities and the Hospital's Information

Analysis Department

Dear Respondent,

Thank you very much for accepting our request to participate in this survey.

With the overall aim of automatically integrating the new mHeart® platform with patients' sociodemographic and clinical electronic health records (EHR) and to share the data collected by patients in the tool with health providers across levels of care, it is necessary to consider the resources available in the catchment area.

For this purpose, please complete this short survey using your own professional expertise.

Thank you very much in advance from the Hospital Scientific Advisory Team in charge of the mHeart system.

1. Taking into account the technological resources available, how would you ensure that sociodemographic, clinical and therapeutic patient data is not being manually entered by the providers in the mHeart® prototype?

Response (free text):

2. Regarding the sharing of the data collected by patients in the mHeart® platform with health providers across distinct levels of care:

- a. How could we incorporate patient information collected in the mHeart® platform to the patient's current hospital electronic records (i.e. hospital information system)?

Response (free text):

- b. How could we incorporate patient information collected in the mHeart® platform with the electronic records other existing care levels (e.g. primary care)?

Response (free text):