

## **Appendix A. Description of interventions: structured telephone support and telehealth.**

Structured telephone structured support intervention was implemented on the basis of a case-management program featuring three stages: selection of patients, initiation of the program and follow-up. Telehealth intervention was built upon the telephone structured support intervention. Accordingly, the majority of elements of the case-management program was shared by both groups and are described in detail below. *Interventions which were specifically provided to telehealth patients are also described in detail and highlighted in italic.*

### **Stage 1: Patient identification and selection**

Patient identification and selection was made based on a combined criteria: having a probability >98% of using more than 10 non planned admissions in next 12 months according to score of the GeChronic predictive model, and the confirmation of risk by a clinical team with experience on chronic patients management. Identification in Primary Health Care was led by General practitioners and identification in the Hospital was led by ward clinicians.

### **Stage 2: Initiation on the case-management (CM) program**

The initiation phase on the CM program had as objectives performing a comprehensive assessment and empowering patient self-care through education intervention. This was implemented for both intervention groups (telephone support and telehealth) and lasted for three days. *In addition to this, patients located on telehealth group were initiated with the management of technology tools. In this case, the initiation phase lasted four days.*

A team formed by a doctor and a nurse from the Hospital at Home Unit (HaH) visited the patient to perform a patient's initial assessment and an educational intervention. Before the meeting at patient's home, the HaH team prepared the visit based on the patient's chronicity profile. Support documents for professionals were developed, with checklists of care plan interventions (provided at Supplemental file 4). Also, pamphlets with recommendations related to the understanding and management of chronic diseases were provided to patients.

*The group of telehealth intervention counted with the support of a nurse in charge exclusively of the technology named Nomhad-Chronic®. Nomhad-Chronic® is a multiplatform information and communication technological (ICT) tool based on healthcare of chronic condition which allowed systematic and remote monitoring of patients through a tablet and detailed peripheral devices. The software analyzes information received through a traffic light rating system. The ICT tool was integrated with patient electronic clinical record. A user guide for patients and caregivers was provided.*

Details of the initiation stage daily activities are shown as follows.

#### Day 1

Once at home, the assessment included information about level of clinical state and morbidity, ability to perform activities of daily living, cognitive functioning and risk of falls and pressure sore. Treatment prescribed, management and adequate use of therapeutic devices by patient or caregiver were reviewed. Also, social support was considered.

This initial approach to health and psychosocial state was developed on a collaborative way by HaH team members using standardized tools. Those included: the spanish version of the EuroQol-5D, the Barthel Index, the Pfeiffer Mental Status Questionnaire, the Downton Fall Risk Index, the Norton Scale, Gijon's social-familial evaluation scale and the Visual Analogic Scale for pain assessment.

After patient consultation, HaH team determined the care plan to develop, including social worker intervention when was required and the need of additional diagnostic procedures. Information was registered on electronic notes of the hospital (OrionClinic®).

*Finally, when patient was allocated to the telehealth group, HaH was were responsible to communicate the inclusion into the program to the nurse in charge of technology (nICT) who transferred patient into the ICT platform, assigned technology devices and adjusted monitoring to the care plan.*

## Day 2

The nurse from HaH team, guided by the checklist, continued with the clinical interventions and educational activity as defined by protocol.

The second visit/consultation focused on educational and preventive intervention related to chronic disease self-management. It included a description of the disease process, common signs and symptoms of exacerbation, and how to report them to the healthcare provider. Education related to prescribed medication (dosage, route, duration of treatment, and adverse effects) was also included. Information was registered on electronic notes of the hospital (OrionClinic®) .

*Patients allocated to the telehealth intervention were also visited by the nICT who proceed to the installation of devices and developed individually teaching session orientated to device management.*

*The tablet was provided with a wireless mobile telecommunication card and was linked to a sphygmomanometer and pulse oximeter by Blue-tooth connection. Measurements as weight, glycaemia and temperature were also introduced when considered on patient care plan.*

*Training sessions incorporated caregivers and focused on device management skills and empowerment of patient's self-care. The initiation and training on the management of the ICT tools was provided during 90 minutes approximately. After that, patient/caregiver were asked for test the monitoring devices by themselves during the day next to the visit.*

### Day 3

The nurse from HaH team finished the clinical and educational activities as defined by protocol and guided by the checklist.

In particular, during the third visit, patients were encouraged to follow nutritional and exercise habits appropriate for each condition. Finally, nurse reminded how to contact with healthcare providers in case of social or clinical need appeared. Contact telephone numbers were provided.

Once the comprehensive assessment and education intervention were accomplished, the physician elaborated the discharge summary and the nurse completed the Care Continuity Form. Both forms were addressed to the nurse case manager and the

Primary Care team. Also, the referral to case management program was made via electronic medical record.

*The nICT, from her workplace via the NOMHAD platform, assessed the use of devices by the patient or caregiver and detected problems or incidences with the ITC use.*

#### Day 4

The nurse case manager attended the electronic proposals of admission to the case-management program (telephone and telehealth group). The first phone contact on the following of chronic disease was programmed the following day of receiving the referral.

*For the patients on telehealth group, nurse case manager also reviewed the remote monitoring through NOMHAD platform.*

*Finally, nICT visited the patient to reinforce the devices correct usability. A technical call centre telephone number was provided.*

### **Stage 3. Implementation of the CM Plan**

Care of patients enrolled on the case management program was integrated by professionals from their Primary Health Care team, out-patient specialist clinic and by hospital resources including Hospital At Home unit when needed, all them coordinated by a nurse case manager. The scheduled interventions from PHC and outpatient clinic were similar for both groups on the study. However, the intervention by the case manager was based on scheduled phone contacts but adding the remote telehealth technology for the telehealth group as a differentiating attribute.

Clinical pathways depended on the health status of the patient, differentiating stable patients care pathways from exacerbated patients care pathways. Interventions developed under each care pathway are detailed according to the health staff providers as follows.

#### Detail of scheduled contacts per actor for stable patients

For both groups (telephone and telehealth), first telephone contact included the case manager personal introduction, a reminder of support telephone numbers, a reminder of critical information about the study, the review of the care program, and the resolution of doubts. This first telephone contact was planned around 24 or 48 hours after being completed the initiation phase.

Next to this initial contact, care plan objectives were continuing patient/caregiver education and training, disease monitoring, prevention of complications and early identification of chronic disease exacerbations. For that, telephone contacts from the case manager nurse were scheduled weekly for the first two weeks and later, every two weeks (15 days) until the end of the study. Case managers were also available for patients from 8am till 15 pm.

A guide to conduct the follow-up calls by the nurse case manager was designed taking as a reference the Guide developed by the AHRQ's Re-Engineered Discharge (RED): How to Conduct a Post-discharge Follow-up Phone Call.

Barthel and Pfeiffers, and Spanish EuroQoL were performed every 6 months by means of telephone calls. Satisfaction survey was made also via telephone at 12 months. Every telephone contact was registered in hospital and primary care electronic health record systems ORION and Abucasis.

*For the telehealth group, nurse case manager intervention included also remote monitoring of data sent by patients or caregivers through Nomhad platform and adjusts of care plan monitoring.*

*Telephone calls from the nICT were programmed with the aim to verify device usability over time, to strengthen usability concepts, and prevent malfunctioning. The nICT coordinated with liaison nurse for telephone calls. Phone calls were scheduled as follows: 1 per week in the first two weeks until end of initiation phase and consecutive calls every three months until study end. For teaching extra support and attending ICT needs, patients were visited each 4 months since ICT was initiated.*

The scheduled intervention by Primary Health Care team included a minimum of three contacts per year by each professional (general practitioner and nurse). Contacts were developed at home or clinic depending on the functional status and needs of the patients.

The intervention from outpatient specialist consults consisted on specialist consultation related to chronic diseases. The periodicity was between one and two visits per year but could vary depending on clinical criteria.

#### Detail of scheduled contacts per professional in case of exacerbation

Collaborative work and continuous follow up of patients between primary health care team and nurse case managers was proactive, through the scheduled intervention, on the identification of clinical instability.

For both intervention groups, if clinical state permitted it, care pathways when facing probable disease exacerbation were orientated to give a response by community based care resources. Accordingly, the initial approach was given by medical and

nursing staff from the primary health care team; if clinical condition required more intensive attention on the community setting, the patient was admitted for hospital care via the Hospital at Home unit. Nurse case manager provided communication between the primary health care team and the Hospital at Home (HaH) and coordinate the care plan with the patient and/or family.

When exacerbations could not be managed or reverted at home, patients were admitted to the hospital.

*For patients in the telehealth group, while patient was managed on the community setting, care plan in NOMHAD Chronic® was modified (f.e. increasing telephone contacts, increasing monitoring,...) When an exacerbation implies hospital admission, NOMHAD Chronic was deactivated until patient was discharged to community care.*

Table 1. Professionals involved and scheduled interventions for the initiation phase of the case-management program for both telephone support and telehealth groups (*telehealth specific interventions are highlighted in italic*)

INITIATION STAGE				
	Day 1	Day 2	Day 3	Day 4
HaH_Physician	Visit			
HaH_Nurse	Visit	Visit	Visit	
<i>nICT</i>	<i>Reception of proposal</i>	<i>Visit</i>	<i>Phone contact</i>	<i>Visit</i>
CM_Nurse				Reception of proposal for CM
PHC_team				Handover of information

Table 2. Professionals involved and scheduled interventions for the follow-up phase of the case-management program for both telephone support and telehealth groups (*telehealth specific interventions are highlighted in italic*)

IMPLEMENTATION AND FOLLOW-UP STAGE					
	Day 5	Week 1	Week 2	Until study ends	
<i>nICT</i>		<i>Phone contact</i>	<i>Phone contact</i>	<i>Phone contact/3</i>	<i>Visits/4months</i>



				<i>months</i>	
CM_Nurse	Initial phone contact	Phone contact	Phone contact	Phone contact/15 days	Phone contact with complete assessment /15 days
PHC_Nurse				Visits/4months	
PHC_Physician				Visits/4months	
Out-patient clinic				Consultation/ 6-12 months.	

## Appendix B. Consort statement - Checklist of items for reporting pragmatic trials.

Section	Item	Standard CONSORT description	Extension for pragmatic trials	Where located
Title and abstract	1	How participants were allocated to interventions (eg, "random allocation," "randomised," or "randomly assigned")		Abstract, Title, Methods
<b>Introduction</b>				
Background	2	Scientific background and explanation of rationale	Describe the health or health service problem that the intervention is intended to address and other interventions that may commonly be aimed at this problem	Introduction and Discussion
<b>Methods</b>				
Participants	3	Eligibility criteria for participants; settings and locations where the data were collected	Eligibility criteria should be explicitly framed to show the degree to which they include typical participants and/or, where applicable, typical providers (eg, nurses), institutions (eg, hospitals), communities (or localities eg, towns) and settings of care (eg, different healthcare financing systems)	
Interventions	4	Precise details of the interventions intended for each group and how and when they were actually administered	Describe extra resources added to (or resources removed from) usual settings in order to implement intervention. Indicate if efforts were made to standardise the intervention or if the intervention and its delivery were allowed to vary between participants, practitioners, or study sites	Methods, supplemental files 1 and 4
			Describe the comparator in similar detail to the	Methods

Section	Item	Standard CONSORT description	Extension for pragmatic trials	Where located
			intervention	
Objectives	5	Specific objectives and hypotheses		Abstract, Introduction, Methods
Outcomes	6	Clearly defined primary and secondary outcome measures and, when applicable, any methods used to enhance the quality of measurements (eg, multiple observations, training of assessors)	Explain why the chosen outcomes and, when relevant, the length of follow-up are considered important to those who will use the results of the trial	Methods
Sample size	7	How sample size was determined; explanation of any interim analyses and stopping rules when applicable	If calculated using the smallest difference considered important by the target decision maker audience (the minimally important difference) then report where this difference was obtained	Methods
Randomisation—sequence generation	8	Method used to generate the random allocation sequence, including details of any restriction (eg, blocking, stratification)		Methods
Randomisation—allocation concealment	9	Method used to implement the random allocation sequence (eg, numbered containers or central telephone), clarifying whether the sequence was concealed until interventions were assigned		Methods
Randomisation—implementation	10	Who generated the allocation sequence, who enrolled participants, and who assigned participants to their groups		Methods

Section	Item	Standard CONSORT description	Extension for pragmatic trials	Where located
Blinding (masking)	11	Whether participants, those administering the interventions, and those assessing the outcomes were blinded to group assignment	If blinding was not done, or was not possible, explain why	Methods
Statistical methods	12	Statistical methods used to compare groups for primary outcomes; methods for additional analyses, such as subgroup analyses and adjusted analyses		Methods
<b>Results</b>				
Participant flow	13	Flow of participants through each stage (a diagram is strongly recommended)—specifically, for each group, report the numbers of participants randomly assigned, receiving intended treatment, completing the study protocol, and analysed for the primary outcome; describe deviations from planned study protocol, together with reasons	The number of participants or units approached to take part in the trial, the number which were eligible, and reasons for non-participation should be reported	Methods, Results, Figure 1 (Consort flowchart)
Recruitment	14	Dates defining the periods of recruitment and follow-up		Methods
Baseline data	15	Baseline demographic and clinical characteristics of each group		Results, Supplemental file 2
Numbers analysed	16	Number of participants (denominator) in each		Results, Supplemental file 3

Section	Item	Standard CONSORT description	Extension for pragmatic trials	Where located
		group included in each analysis and whether analysis was by “intention-to-treat”; state the results in absolute numbers when feasible (eg, 10/20, not 50%)		
Outcomes and estimation	17	For each primary and secondary outcome, a summary of results for each group and the estimated effect size and its precision (eg, 95% CI)		Results, Supplemental file 3
Ancillary analyses	18	Address multiplicity by reporting any other analyses performed, including subgroup analyses and adjusted analyses, indicating which are prespecified and which are exploratory		
Adverse events	19	All important adverse events or side effects in each intervention group		Results, Supplemental file 3
<b>Discussion</b>				
Interpretation	20	Interpretation of the results, taking into account study hypotheses, sources of potential bias or imprecision, and the dangers associated with multiplicity of analyses and outcomes		Discussion
Generalisability	21	Generalisability (external validity) of the trial findings	Describe key aspects of the setting which determined the trial results. Discuss possible differences in other settings where clinical	Discussion

Section	Item	Standard CONSORT description	Extension for pragmatic trials	Where located
			traditions, health service organisation, staffing, or resources may vary from those of the trial	
Overall evidence	22	General interpretation of the results in the context of current evidence		Discussion

### **Appendix 3. TIDieR Checklist**

Item	Item	Where located **	
number	<i>Effect of telehealth, telephone support or usual care on quality of life, mortality and utilisation in high-risk patients with multiple chronic conditions A prospective study..</i>	Primary paper (page or appendix number)	Other † (details)
	<b>BRIEF NAME</b>		
1.	Provide the name or a phrase that describes the intervention.	Methods section (page 9); Suppl file 1	_____
	<b>WHY</b>		
2.	Describe any rationale, theory, or goal of the elements essential to the intervention.	Introduction (pages 5-6); Discussion (14); Appendix A	_____
	<b>WHAT</b>		
3.	Materials: Describe any physical or informational materials used in the intervention, including those provided to participants or used in intervention delivery or in training of intervention providers. Provide information on where the materials can be accessed (e.g. online appendix, URL).	Appendix A	_____
4.	Procedures: Describe each of the procedures, activities, and/or processes used in the intervention, including any enabling or support activities.	Appendix A	_____
	<b>WHO PROVIDED</b>		



5.	For each category of intervention provider (e.g. psychologist, nursing assistant), describe their expertise, background and any specific training given.	Methods section (page 9); Appendix A	_____
<b>HOW</b>			
6.	Describe the modes of delivery (e.g. face-to-face or by some other mechanism, such as internet or telephone) of the intervention and whether it was provided individually or in a group.	Methods section (9); Appendix A	_____
<b>WHERE</b>			
7.	Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features.	Appendix A	_____
<b>WHEN and HOW MUCH</b>			
8.	Describe the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration, intensity or dose.	Appendix A	_____
<b>TAILORING</b>			
9.	If the intervention was planned to be personalised, titrated or adapted, then describe what, why, when, and how.	Appendix A	_____
<b>MODIFICATIONS</b>			
10.‡	If the intervention was modified during the course of the study, describe the changes (what, why, when, and how).	_____	_____
<b>HOW WELL</b>			
11.	Planned: If intervention adherence or fidelity was assessed, describe how and by whom, and if any strategies	Appendix A	_____

were used to maintain or improve fidelity, describe them.

**12.†** Actual: If intervention adherence or fidelity was assessed, describe the extent to which the intervention was delivered as planned.

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\*\* **Authors** - use N/A if an item is not applicable for the intervention being described. **Reviewers** – use ‘?’ if information about the element is not reported/not sufficiently reported.

† If the information is not provided in the primary paper, give details of where this information is available. This may include locations such as a published protocol or other published papers (provide citation details) or a website (provide the URL).

‡ If completing the TIDieR checklist for a protocol, these items are not relevant to the protocol and cannot be described until the study is complete.

\* We strongly recommend using this checklist in conjunction with the TIDieR guide (see *BMJ* 2014;348:g1687) which contains an explanation and elaboration for each item.

\* The focus of TIDieR is on reporting details of the intervention elements (and where relevant, comparison elements) of a study. Other elements and methodological features of studies are covered by other reporting statements and checklists and have not been duplicated as part of the TIDieR checklist. When a **randomised trial** is being reported, the TIDieR checklist should be used in conjunction with the CONSORT statement (see [www.consort-statement.org](http://www.consort-statement.org)) as an extension of **Item 5 of the CONSORT 2010 Statement**. When a **clinical trial protocol** is being reported, the TIDieR checklist should be used in conjunction with the SPIRIT statement as an extension of **Item 11 of the SPIRIT 2013 Statement** (see [www.spirit-statement.org](http://www.spirit-statement.org)). For alternate study designs, TIDieR can be used in conjunction with the appropriate checklist for that study design (see [www.equator-network.org](http://www.equator-network.org)).

## Appendix D. Supplementary tables

**Table D.1.** Health-related quality of life at baseline

		Usual care	Telephone	Telehealth	p
EQ5D	No probl.	<b>48.48</b>	<b>40.22</b>	<b>54.74</b>	0.020
<i>Mobility</i>	Some prob.	<b>43.43</b>	<b>45.81</b>	<b>29.47</b>	
	Confined to bed	<b>8.08</b>	<b>13.97</b>	<b>15.79</b>	
EQ5D	No probl.	<b>68.69</b>	<b>65.92</b>	<b>75.53</b>	0.194
<i>Personal Care</i>	Some prob.	<b>24.24</b>	<b>22.91</b>	<b>15.96</b>	
	Unable wash/dress	<b>7.07</b>	<b>11.17</b>	<b>8.51</b>	
EQ5D	No probl.	<b>62.63</b>	<b>63.13</b>	<b>68.42</b>	0.602
<i>Daily activities</i>	Some prob.	<b>24.75</b>	<b>22.35</b>	<b>20.00</b>	
	Unable usual act.	<b>11.62</b>	<b>14.53</b>	<b>11.58</b>	
EQ5D	No	<b>51.52</b>	<b>45.25</b>	<b>47.37</b>	0.410
<i>Pain / Discomfort</i>	Moderate	<b>34.85</b>	<b>40.22</b>	<b>38.95</b>	
	Extreme	<b>12.12</b>	<b>14.53</b>	<b>13.68</b>	
EQ5D	No	<b>57.58</b>	<b>51.40</b>	<b>55.79</b>	0.527
<i>Anxiety / Depression</i>	Moderate	<b>36.36</b>	<b>39.11</b>	<b>33.68</b>	
	Extreme	<b>5.56</b>	<b>9.50</b>	<b>9.47</b>	
EQ5D	Average	<b>0.6490</b>	<b>0.5598</b>	<b>0.6174</b>	0.135
Tariff 0-1	IC95%	[0.5914-0.7065]	[0.4935-0.6261]	[0.5255-0.7092]	
EQ5D	Average	<b>63.47</b>	<b>62.06</b>	<b>65.85</b>	0.323
VAS 0-100	IC95%	[60.60-66.33]	[59.14-64.97]	[61.87-69.82]	

EQ5D: EuroQol; VAS: Visual Analogue Scale

**Table D.2.** Cognitive impairment at baseline (Pfeiffer test)

		Usual care	Telephone	Telehealth	P
Cognitive	No	<b>86.60</b>	<b>79.55</b>	<b>91.49</b>	0.014
Impairment	Mild	<b>6.19</b>	<b>14.20</b>	<b>3.19</b>	
	Moderate/severe	<b>7.22</b>	<b>6.25</b>	<b>5.32</b>	
Pfeiffer	average	<b>1.18</b>	<b>1.20</b>	<b>0.83</b>	0.273
(errors)	IC95%	[0.90-1.47]	[0.91-1.49]	[0.46-1.20]	

Source: trial's Case Record Form. P statistic stands for X2 test for qualitative variables and variance analysis for quantitative variables.

**Table D.3.** Daily living performance at baseline (Barthel test)

		Usual care	Telephone	Telehealth	p
BARTHEL	Dependent	<b>2.55</b>	<b>4.47</b>	<b>1.05</b>	0.011
Feeding	Help needed	<b>1.02</b>	<b>7.26</b>	<b>3.16</b>	
	Independent	<b>96.43</b>	<b>88.27</b>	<b>95.79</b>	
BARTHEL	Incontinent	<b>4.04</b>	<b>8.43</b>	<b>2.11</b>	0.033
Bowels	Occasional	<b>11.11</b>	<b>10.67</b>	<b>4.21</b>	
	Continent	<b>84.85</b>	<b>80.90</b>	<b>93.68</b>	
BARTHEL	Incontinent	<b>7.61</b>	<b>10.11</b>	<b>4.21</b>	0.021
Bladder	Occasional	<b>28.93</b>	<b>30.90</b>	<b>16.84</b>	
	Continent	<b>63.45</b>	<b>58.99</b>	<b>78.95</b>	
BARTHEL	Dependent	<b>17.68</b>	<b>19.10</b>	<b>12.63</b>	0.391
Aseo Pers.	Independent	<b>82.32</b>	<b>80.90</b>	<b>87.37</b>	
BARTHEL	Dependent	<b>5.05</b>	<b>9.50</b>	<b>4.21</b>	0.182
Toilet use	Help needed	<b>14.14</b>	<b>11.17</b>	<b>8.42</b>	
	Independent	<b>80.81</b>	<b>79.33</b>	<b>87.37</b>	
BARTHEL	Dependent	<b>30.96</b>	<b>31.84</b>	<b>20.00</b>	0.091
Bathing	Independent	<b>69.04</b>	<b>68.16</b>	<b>80.00</b>	
BARTHEL	Dependent	<b>6.57</b>	<b>10.06</b>	<b>6.32</b>	0.171
Dressing	Help needed	<b>17.68</b>	<b>11.73</b>	<b>9.47</b>	
	Independent	<b>75.76</b>	<b>78.21</b>	<b>84.21</b>	
BARTHEL	Dependent	<b>2.02</b>	<b>4.47</b>	<b>3.16</b>	0.165
Transfers	Major help	<b>11.11</b>	<b>7.82</b>	<b>4.21</b>	
Bed to chair	Minor help	<b>12.12</b>	<b>12.29</b>	<b>6.32</b>	
	Independent	<b>74.75</b>	<b>75.42</b>	<b>86.32</b>	
BARTHEL	Dependent	<b>15.82</b>	<b>16.76</b>	<b>9.47</b>	0.019
Stairs	Help needed	<b>25.00</b>	<b>24.58</b>	<b>12.63</b>	
	Independent	<b>59.18</b>	<b>58.66</b>	<b>77.89</b>	
BARTHEL	Dependent	<b>4.57</b>	<b>7.82</b>	<b>4.21</b>	0.029

Mobility	Wheel chair	<b>7.11</b>	<b>5.59</b>	<b>4.21</b>	
	Help needed	<b>24.87</b>	<b>24.58</b>	<b>10.53</b>	
	Independent	<b>63.45</b>	<b>62.01</b>	<b>81.05</b>	
BARTHEL	Total	<b>1.56</b>	<b>5.11</b>	<b>2.11</b>	0.048
Total	Severe	<b>5.73</b>	<b>5.11</b>	<b>3.16</b>	
	Moderate	<b>6.77</b>	<b>5.11</b>	<b>3.16</b>	
	Mild	<b>47.92</b>	<b>50.00</b>	<b>36.84</b>	
	Independent	<b>39.02</b>	<b>34.66</b>	<b>54.74</b>	
Barthel total	Average	<b>83.72</b>	<b>81.62</b>	<b>90.10</b>	0.017
(0-100)	IC95%	[80.53-86.92]	[77.71-85.52]	[86.02-94.18]	

**Table D.4.** Healthcare utilization in the twelve months previous to enrolment

	<b>Gr_CONTR</b>	<b>Gr_PHONE</b>	<b>Gr_NOM HAD</b>	<b>p</b>
Emergency admissions / p.	<b>0.48</b> [0.36-0.60]	<b>0.45</b> [0.33-0.57]	<b>0.47</b> [0.27-0.68]	0.93 1
E. adm. Length of stay /p.	<b>3.59</b> [2.65-4.52]	<b>3.42</b> [2.31-4.53]	<b>3.07</b> [1.39-4.76]	0.85 5
ER visits / p.	<b>1.87</b> [1.55-2.19]	<b>1.90</b> [1.61-2.19]	<b>1.89</b> [1.38-2.41]	0.99 3
Planned adm / p.	<b>0.16</b> [0.09-0.22]	<b>0.23</b> [0.14-0.32]	<b>0.16</b> [0.06-0.26]	0.35 5
P. adm. length of stay /p.	<b>0.88</b> [0.38-1.39]	<b>0.86</b> [0.35-1.37]	<b>0.66</b> [0.00-1.37]	0.87 3
Total admissions /p.	<b>0.64</b> [0.49-0.78]	<b>0.68</b> [0.51-0.84]	<b>0.63</b> [0.40-0.87]	0.91 9
T. adm. Length of stay / p.	<b>4.47</b> [3.34-5.60]	<b>4.28</b> [2.96-5.60]	<b>3.74</b> [1.90-5.58]	0.79 1
Specialist visits /p.	<b>2.51</b> [2.14-2.88]	<b>2.89</b> [2.48-3.29]	<b>2.87</b> [2.32-3.42]	0.33 2
GP visits /p.	<b>13.09</b> [12.04-14.13]	<b>13.78</b> [12.80-14.75]	<b>12.21</b> [10.74-13.68]	0.21 8
PC Nurse visits /p.	<b>12.60</b> [10.24-14.95]	<b>12.61</b> [10.30-14.89]	<b>9.41</b> [6.68-12.14]	0.21 1
<i>GP: general practitioner; PC: primary care</i>				

**Table D.5.** Health-related quality of life at 12 months

		Usual care	Telephone	Telehealth	p
EQ5D	No probl.	<b>47.83</b>	<b>50.98</b>	<b>61.64</b>	0.007
<i>Mobility</i>	Some prob.	<b>35.40</b>	<b>39.87</b>	<b>36.99</b>	
	Confined to bed	<b>16.77</b>	<b>9.15</b>	<b>1.37</b>	
EQ5D	No probl.	<b>67.08</b>	<b>68.42</b>	<b>84.93</b>	0.065
<i>Personal Care</i>	Some prob.	<b>25.47</b>	<b>25.66</b>	<b>12.33</b>	
	Unable wash/dress	<b>7.45</b>	<b>5.92</b>	<b>2.74</b>	
EQ5D	No probl.	<b>65.62</b>	<b>69.28</b>	<b>82.19</b>	0.126
<i>Daily activities</i>	Some prob.	<b>24.38</b>	<b>23.53</b>	<b>12.33</b>	
	Unable usual act.	<b>10.00</b>	<b>7.19</b>	<b>5.48</b>	
EQ5D	No	<b>37.65</b>	<b>44.81</b>	<b>50.68</b>	0.195
<i>Pain / Discomfort</i>	Moderate	<b>50.00</b>	<b>42.21</b>	<b>43.84</b>	
	Extreme	<b>12.35</b>	<b>12.99</b>	<b>5.48</b>	
EQ5D	No	<b>48.75</b>	<b>50.65</b>	<b>65.75</b>	0.138
<i>Anxiety / Depression</i>	Moderate	<b>41.88</b>	<b>42.21</b>	<b>30.14</b>	
	Extreme	<b>9.38</b>	<b>7.14</b>	<b>4.11</b>	
EQ5D	Average	<b>0.5418</b>	<b>0.5868</b>	<b>0.7352</b>	0.003
Tariff 0-1	IC95%	[0.4757-0.6079]	[0.5210-0.6526]	[0.6604-0.8100]	
EQ5D	Average	<b>62.07</b>	<b>62.92</b>	<b>71.16</b>	0.001
VAS 0-100	IC95%	[58.78-65.37]	[60.60-65.23]	[67.18-75.14]	

*EQ5D: EuroQol; VAS: Visual Analogue Scale*



**Table D.6.** Mortality at 12 months

		<b>Usual care</b>	<b>Telephone</b>	<b>Telehealth</b>	<b>p</b>
Mortality	Percentage IC95%	<b>5.05</b> [2.45-9.09]	<b>8.38</b> [4.77-13.44]	<b>6.32</b> [2.35-13.24]	0.427

*Fuente: CRD Estudio GeCHRONIC. La p corresponde a la prueba de X2 en las variables cualitativas, y al análisis de varianza en las cuantitativas.*

**Table D.7.** Healthcare resource utilisation at 12 months

	<b>Usual care</b>	<b>Telephone</b>	<b>Telehealth</b>	<b>p</b>
Emergency admissions / p.	<b>0.41</b> [0.30-0.53]	<b>0.41</b> [0.29-0.52]	<b>0.46</b> [0.28-0.65]	0.858
E. adm. Length of stay /p.	<b>3.34</b> [2.10-4.59]	<b>3.06</b> [1.97-4.17]	<b>3.52</b> [1.99-5.03]	0.897
ER visits / p.	<b>1.95</b> [1.59-2.32]	<b>1.83</b> [1.48-2.18]	<b>1.46</b> [1.12-1.81]	0.247
Planned adm / p.	<b>0.09</b> [0.04-0.14]	<b>0.10</b> [0.05-0.15]	<b>0.12</b> [0.04-0.19]	0.846
P. adm. length of stay /p.	<b>0.71</b> [0.28-1.14]	<b>1.46</b> [0.36-2.56]	<b>1.47</b> [0.00-3.23]	0.436
Total admissions /p.	<b>0.50</b> [0.37-0.64]	<b>0.51</b> [0.37-0.64]	<b>0.58</b> [0.35-0.80]	<b>0.813</b>
T. adm. Length of stay / p.	<b>4.05</b> [2.59-5.51]	<b>4.53</b> [2.86-6.20]	<b>4.99</b> [2.54-7.44]	0.784
Specialist visits /p.	<b>3.52</b> [3.05-3.99]	<b>3.62</b> [3.14-4.09]	<b>3.80</b> [3.24-4.35]	0.779
GP visits /p.	<b>10.92</b> [9.88-11.96]	<b>11.73</b> [10.73-12.73]	<b>11.25</b> [9.82-12.69]	0.545
PC Nurse visits /p.	12.08 [10.18-13.99]	10.68 [8.70-12.66]	11.35 [8.00-14.69]	0.629

*GP: general practitioner; PC: primary care*

**Table D.8.** Cognitive impairment at 12 months (Pfeiffer test)

		<b>Usual care</b>	<b>Telephone</b>	<b>Telehealth</b>	<b>p</b>
Cognitive Impairment	No	<b>83.44</b>	<b>83.45</b>	<b>86.36</b>	0.711
	Mild	<b>9.82</b>	<b>12.41</b>	<b>7.58</b>	
	Moderate/severe	<b>6.75</b>	<b>4.14</b>	<b>6.06</b>	
Pfeiffer (errors)	average	<b>1.56</b>	<b>1.03</b>	<b>0.89</b>	0.007
	IC95%	[1.26-1.87]	[0.76-1.30]	[0.51-1.28]	
<i>Source: trial's Case Record Form. P statistic stands for X2 test for qualitative variables and variance analysis for quantitative variables</i>					

**Table D.9.** Daily living performance at 12 months (Barthel test)

		Usual care	Telephone	Telehealth	p
BARTHEL	Dependent	<b>2,34</b>	<b>2,52</b>	<b>2,70</b>	0.923
Feeding	Help needed	<b>3,51</b>	<b>5,03</b>	<b>2,70</b>	
	Independent	<b>94.15</b>	<b>92.45</b>	<b>94.59</b>	
BARTHEL	Incontinent	<b>4.12</b>	<b>3.80</b>	<b>2.70</b>	0.135
Bowels	Occasional	<b>13.53</b>	<b>12.03</b>	<b>2.70</b>	
	Continent	<b>82.35</b>	<b>84.18</b>	<b>94.59</b>	
BARTHEL	Incontinent	<b>7.10</b>	<b>8.81</b>	<b>4.05</b>	0.013
Bladder	Occasional	<b>31.95</b>	<b>22.64</b>	<b>13.51</b>	
	Continent	<b>60.95</b>	<b>68.55</b>	<b>82.43</b>	
BARTHEL	Dependent	<b>8.88</b>	<b>13.29</b>	<b>12.16</b>	0.432
Aseo Pers.	Independent	<b>91.12</b>	<b>86.71</b>	<b>87.84</b>	
BARTHEL	Dependent	<b>5.88</b>	<b>4.43</b>	<b>2.70</b>	0.620
Toilet use	Help needed	<b>15.29</b>	<b>12.03</b>	<b>10.81</b>	
	Independent	<b>78.82</b>	<b>83.54</b>	<b>86.49</b>	
BARTHEL	Dependent	<b>42.26</b>	<b>38.22</b>	<b>20.55</b>	0.005
Bathing	Independent	<b>57.74</b>	<b>61.78</b>	<b>79.45</b>	
BARTHEL	Dependent	<b>4.68</b>	<b>7.55</b>	<b>4.11</b>	0.058
Dressing	Help needed	<b>15.20</b>	<b>20.13</b>	<b>6.85</b>	
	Independent	<b>80.12</b>	<b>72.33</b>	<b>89.04</b>	
BARTHEL	Dependent	<b>2.34</b>	<b>3.12</b>	<b>1.37</b>	0.027
Transfers	Major help	<b>7.02</b>	<b>6.25</b>	<b>4.11</b>	
Bed to chair	Minor help	<b>20.47</b>	<b>10.62</b>	<b>5.48</b>	
	Independent	<b>70.18</b>	<b>80.00</b>	<b>89.04</b>	
BARTHEL	Dependent	<b>15.20</b>	<b>8.75</b>	<b>6.85</b>	0.054
Stairs	Help needed	<b>25.15</b>	<b>29.38</b>	<b>17.81</b>	
	Independent	<b>59.65</b>	<b>61.88</b>	<b>75.34</b>	
BARTHEL	Dependent	<b>4.71</b>	<b>5.62</b>	<b>4.05</b>	<0.00

Mobility	Wheel chair	<b>7.06</b>	<b>3.75</b>	<b>2.70</b>	1
	Help needed	<b>36.47</b>	<b>19.38</b>	<b>12.16</b>	
	Independent	<b>51.76</b>	<b>71.25</b>	<b>81.08</b>	
BARTHEL	Total	<b>3.11</b>	<b>3.90</b>	<b>1.41</b>	0.007
Total	Severe	<b>2.48</b>	<b>2.60</b>	<b>1.41</b>	
	Moderate	<b>5.59</b>	<b>5.19</b>	<b>1.41</b>	
	Mild	<b>55.28</b>	<b>39.61</b>	<b>32.39</b>	
	Independent	<b>33.54</b>	<b>48.70</b>	<b>63.38</b>	
Barthel total (0-100)	Average	<b>82.89</b>	<b>85.32</b>	<b>92.39</b>	0.009
	IC95%	[79.39-86.39]	[81.64-89.01]	[88.49-96.30]	