

P252 PROTOCOL FOR TELEHEALTH MANAGEMENT AND STRATIFICATION RISK OF ELDERLY PATIENTS WITH CHRONIC HEART FAILURE DURING THE COVID-19 PANDEMIC: A MID-TERM PROGNOSTIC EVALUTATION BY TELEHFCOVID-19 SCORE

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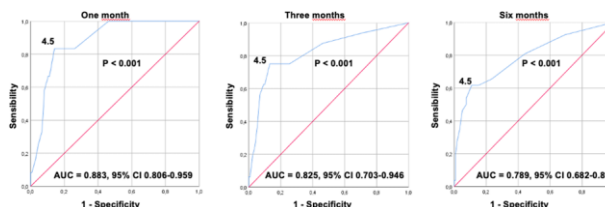
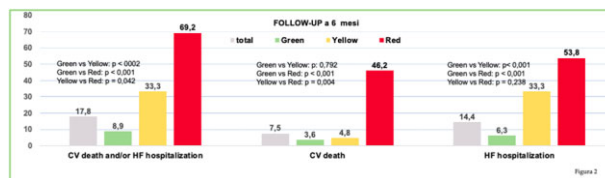
Introduction: The Coronavirus Disease (COVID-19) pandemic and its consequences has forced physicians to develop telematic methods in order to follow up patients with cronic diseases, such as heart failure (HF).

Objectives: To evaluate TeleHFCovid-19 score as a mid-term (six months) prognostic score in terms of prediction of hospitalitazion and cardiovascular mortality in patients with chronic HF during Covid-19 pandemic.

Methods: During COVID-19 pandemic (from March 2020 to May 2020), we were forced to cancel nearly all follow-up checks in our HF outpatient clinic. We hence standardized a telephone follow-up by developing a questionnaire (Fig. 1) from which we then obtained a score, later called the "TeleHFCovid-19 score" (0-29). This score stratified patients in three risk score groups: green (0-3), yellow (4-8), and red (≥ 9), for which the next telephonic evaluation was planned after 4, 2 and 1 weeks, respectively.

Results: 146 patients were enrolled: 112 were classified as green, 21 as yellow and 13 as red. Mean age was 81 years, females were 40%. Approximately one third had EF < 40%. At six months, compared to red (69.2%) and yellow patients (33.3%), green patients (8.9%) presented a significantly lower rate of the composite outcome of cardiovascular death and/or HF hospitalization, ($p < 0.001$, Fig 2). Multivariate analysis showed that high levels of creatinine (OR 5.960, 95% CI 1.627-21.837, $p = 0.007$), dyspnea at rest or for basic activities (OR 2.469, 95% CI 1.216-5.013, $p = 0.012$) and a high loop-diuretic dosage (OR 6.224, 95% CI 1.504-25.753, $p = 0.012$) were indpendently associated with the outcome. Moreover, ROC analysis showed a high sensibility and specificity for our score at six months (AUC = 0.789, 95% CI 0.682-0.896, $p < 0.001$), with a score < 4.5 (very close to the green group cut-off) that identified lower-risk subjects (Fig 3).

Conclusions: The TeleHFCovid-19 score was able to correctly identify patients with good outcomes at six months. Furthermore, it has the ability to stratify the adverse event risk and this could represent a useful tool to appropriately schedule the reevaluation timing of these patients and to identify those who may need urgent hospital evaluation.



HF - OUTPATIENT CLINIC TELEPHONIC CONSULTING

Date	Patient Code	Date of birth	Gender	<input type="checkbox"/> F <input type="checkbox"/> M
1. Interviewed: <input type="checkbox"/> Patient <input type="checkbox"/> Caregiver <input type="checkbox"/> Both				
2. Living situation: <input type="checkbox"/> I live alone <input type="checkbox"/> I live with my family <input type="checkbox"/> I live with a caretaker > 24 <input type="checkbox"/> I live with part-time caretaker <input type="checkbox"/> I live in a nursing home / rest home				
3. Psychol-emotional status: how would you define your mood? Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Great <input type="checkbox"/>				
4. Who is in charge of the purchase of essential items, food and medicines? (Mark only one option) <input type="checkbox"/> I can provide them on my own <input type="checkbox"/> My family provides them for me <input type="checkbox"/> I get help from voluntary association / Civil Protection <input type="checkbox"/> I use home-delivery <input type="checkbox"/> Other				
5. Who takes care of handling medications? <input type="checkbox"/> I am responsible for taking medication in correct dosage at correct time <input type="checkbox"/> I take my drugs by myself, but medications are prepared in advance and in separate dosage by my caregiver <input type="checkbox"/> Medications are completely handled by caregiver				
6. Do you ever forget or voluntary omit to take your medications? <input type="checkbox"/> Yes (1 point) <input type="checkbox"/> No				
7. Current therapy (check all that apply): Beta-blockers <input type="checkbox"/> ACE-I/ARB <input type="checkbox"/> Sacubitril/Valsartan <input type="checkbox"/> MRA <input type="checkbox"/> DOACs/warfarin <input type="checkbox"/> DAPT <input type="checkbox"/> Diuretics (Furosemide) <input type="checkbox"/> Diuretics high dose (eg. Furosemide 250 mg/die) <input type="checkbox"/> (1 point) Medication <input type="checkbox"/> (1 point)				
8. Has Diuretic therapy been up-titrated from the last clinical contact/evaluation? <input type="checkbox"/> Yes (1 point) <input type="checkbox"/> No				
9. Do you control the amount of fluid intake during the day? <input type="checkbox"/> Yes (1 point) <input type="checkbox"/> No				
10. Are you monitoring regularly SBP, HR and body weight? <input type="checkbox"/> Yes (1 point) <input type="checkbox"/> No				
11. Systolic blood pressure (mean of last 3 values - mmHg): <input type="checkbox"/> < 100 (1 point) <input type="checkbox"/> 100-110 <input type="checkbox"/> 110-140 <input type="checkbox"/> > 140 (1 point) <input type="checkbox"/> Not applicable				
12. Heart rate (mean of last 3 values - bpm): <input type="checkbox"/> < 60 (1 point) <input type="checkbox"/> 60-69 <input type="checkbox"/> 70-100 <input type="checkbox"/> > 100 (1 point) <input type="checkbox"/> Not applicable				
13. Body weight: <input type="checkbox"/> Available (Kg) _____ <input type="checkbox"/> Not available				
14. Body weight trend from the last clinical contact/evaluation: <input type="checkbox"/> Increasing (>1 kg) (1 point) <input type="checkbox"/> Stable <input type="checkbox"/> Decreasing <input type="checkbox"/> Not applicable				
15. If dyspnea is present, for which activities does it appear? <input type="checkbox"/> Moderate activities (doing housework, going up steps) <input type="checkbox"/> Basic activities of daily living (walking inside home, dressing, showering/bathing) (1 point) <input type="checkbox"/> At rest/PND/O2/orthopnea (3 points)				
16. Other symptoms and/or signs (check all that apply): <input type="checkbox"/> Weakness (2 points) <input type="checkbox"/> Angina (2 points) <input type="checkbox"/> Palpitations (1 point) <input type="checkbox"/> Suspected syncope (2 points) <input type="checkbox"/> New/worsening extremities oedema (1 point)				
17. How do you feel compared to the last clinical contact/evaluation? <input type="checkbox"/> Better (1 point) <input type="checkbox"/> Worse <input type="checkbox"/> Almost the same				
18. From the last clinical contact/evaluation, have you been examined by your Family Doctor? <input type="checkbox"/> Yes <input type="checkbox"/> No				
19. Did you have recent blood tests (from the last clinical contact/evaluation)? <input type="checkbox"/> Yes Date of last blood tests: _____ <input type="checkbox"/> No Creatinine (mg/dL) _____ <input type="checkbox"/> WRF (> 0.3 mg/dL) (1 point) Serum/Plasma (g/dl) _____ <input type="checkbox"/> Increasing > 30% than previous value (1 point) Haemoglobin (g/dL) _____ K ⁺ (mEq/L) _____ Sodium (mEq/L) _____				
20. Did you result POSITIVE (NF swab) to SARS-CoV-2 infection? <input type="checkbox"/> Yes (Date: _____) <input type="checkbox"/> No				
21. From the last clinical contact/evaluation, did you seek assistance from medical emergency services or have you been admitted to emergency department/hospitalized? <input type="checkbox"/> Yes <input type="checkbox"/> No				
22. If Yes, why? <input type="checkbox"/> COVID-19 without HF (2 points) <input type="checkbox"/> COVID-19 with HF (3 points) <input type="checkbox"/> AHF/ACS/PE or other serious CV causes (3 points) <input type="checkbox"/> Other				
23. Recommended pharmacological modifications: <input type="checkbox"/> GDMTs dose titration/withdrawal (1 point) <input type="checkbox"/> Loop diuretic dose increase (2 points) <input type="checkbox"/> SGLT with Thiazide or Thiazide-like diuretic (2 points) TeleHFCovid-19 Score: _____/29				
<4 GREEN PATIENT: Schedule next FU at 1 month 4-8 YELLOW PATIENT: Schedule next FU within 2 weeks ≥ 9 RED PATIENT: Schedule next FU within 1 week or consider urgent hospitalization				
Next follow-up (date): _____ Hospitalization recommended: Yes <input type="checkbox"/> No <input type="checkbox"/>				