

Delphi study on the management of patients with Heart Failure reduced Ejection Fraction (HFrEF) in Spain: The diagnosis, a multidisciplinary approach.

Ruiz-Bustillo Sonia¹, Alvarez-Garcia Jesús², Morgado Garcia-Polavieja José Ignacio³, Garcia Quintana Antonio⁴,

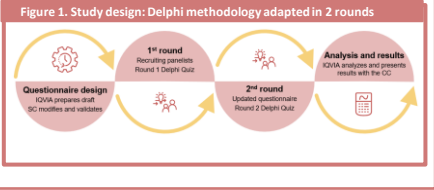
¹Hospital del Mar, Cardiology, Heart Diseases Biomedical Research Group, Hospital del Mar Research Institute, Barcelona, Spain; ²CIBER of Cardiovascular Diseases, Department of Cardiology at Ramón y Cajal University Hospital, Madrid, Spain; ³University Hospital of Virgen Macarena, Department of Cardiology, Virgen Macarena Hospital, Seville, Spain; ⁴University Hospital Department of Cardiology at Hospital Universitario de Gran Canaria Doctor Negrín, Las Palmas De Gran Canaria, Spain

Introduction and Purpose

- Despite the diagnosis of Heart Failure (HF) being primarily clinical, its management can be complex due to multiple factors, such as symptoms or signs that may be difficult to assess in some patients. Close monitoring between different levels of care, especially between cardiologists and primary care physicians, is recommended as Heart Failure with Reduced Ejection Fraction (HFrEF) requires a multidisciplinary approach that improves patient outcomes.
- This study aimed to evaluate the consensus among cardiologists to better understand their perception and management of HFrEF, and to identify the care process for such management.

Methodology

- A Scientific Committee (SC) of 4 experts in the management of HFrEF created and validated a Delphi questionnaire comprised of 257 statements, which was completed in two rounds by 79 cardiologists (Figure 1).
- Each statement was assessed by a Likert ordinal scale of 1 to 9 points (1 = Completely Disagree to 9 = Completely Agree).
- We present the results from the patient care management section related to the diagnosis



Conclusions

The findings of our study reflected that specialists agree on HFrEF diagnosis and management but identify resource gaps for effective communication and monitoring. Future efforts should focus on providing resources and awareness for optimal HFrEF management in Spanish public hospitals.

Results

- Responses were collected over two rounds, achieving consensus on 75% of the statements.
- In the first Delphi round, the defined level of agreement was reached for the 76 statements (63.3%), and in second round, 44 statements that did not reach consensus were revisited, with agreement achieved on 31.8% (Table 1).

Table 1. Results of the patient management (care and treatment) blocks of Round 1 and 2 of the Delphi Study

Blocks	Round 1			Round 2		
	Number of statements	Consensus Assessment		Number of statements	Consensus Assessment	
		Consensus	No consensus		Consensus	No consensus
Patient management (care)	120	76 (63.3%)	44 (24.4%)	44	14 (31.8%)	30 (68.2%)
Patient management (treatment)	87	40 (45.9%)	47 (54.0%)	40*	11 (27.5%)	29 (72.5%)

* The number of statements is reduced from 47 to 40 by the reformulation of some statements in round 2 with the aim of gaining greater understanding from the panelists.

- Regarding the diagnosis of HFrEF, there was broad consensus based on symptoms, signs, and an LVEF $\leq 40\%$ (median; interquartile range: 9; 8-9), confirmed by history, physical examination, electrocardiogram, echocardiography, and natriuretic peptides (BNP or NT-proBNP) (: 9; 9-9 for all items). The evaluation should be clinical (9; 9-9), etiological, and functional (9; 8-9; and 9; 9-9, respectively). (Figure 2).
- Patients with HFrEF should receive comprehensive care from a multidisciplinary team including cardiologists (9; 9-9), primary care physicians (9; 8-9), specialized nursing (9; 9-9), internal medicine (8; 7-9), geriatrics (8; 7-9), emergency services (8; 7-9), and nephrology (8; 7-9). (Figure 2).
- It was agreed by almost all panelists that nurses in the unit should act as the link between specialties (including primary care) and as the contact person for patients (9; 8-9). (Figure 2).

- Barriers to effective communication in primary care include the absence of more integrated and multidisciplinary models (8; 7-9), specific protocols coordinated between primary care and specialist care (8; 7-8), specialized nursing staff responsible for communication between primary care and cardiology (8; 8-9), optimal IT tools for clinical management (8; 7-9), and training in primary care to understand the referral or consultation processes for patients with HF (8; 7-8.5).

