Assess frailty but avoid frailtyism

Cristiana Vitale1* and Loreena Hill2

1Department of Medical Sciences, Centre for Clinical and Basic Research, IRCCS San Raffaele Pisana, via della Pisana, 235, 00163 Rome, Italy; and
2School of Nursing and Midwifery, Queen’s University, University Rd, Belfast BT7 1NN, Northern Ireland

KEYWORDS
Heart failure;
Frailty;
Frailtyism;
Ageing

The assessment of frailty in heart failure patients can help clinicians to build a tailored care plan, aimed at improving the selection of patients likely to benefit from one treatment vs. another, thereby improving outcomes. Although progress has been made in the ‘operationalization’ of frailty assessment, there is still the need to provide an improved instrument to assess frailty that is easy, quick and at the same time predictive within the setting of a busy clinical practice. Using such an ideal instrument, clinicians would be able to optimize the use of limited health care resources and avoid what has been termed ‘frailtyism’. This term, similar to ageism, can be defined as prejudice or discrimination based on the presence of frailty.

Introduction

The awareness of the importance of frailty in heart failure (HF) has grown considerably in the past decade and has become increasingly relevant within the cardiology community. Heart failure being more common in advanced age, the loss of skeletal muscle, the risk of poor nutrition, and physical inactivity all make frailty a high risk for HF patients. The availability of new treatments and evolving technical innovations have enabled clinicians to refer more patients for implantable devices and to undergo ‘high risk’ procedures, for which historically many advanced HF patients would have been deemed ‘ineligible’. In addition, the improved survival from ischaemic heart disease, and the progressive ageing of the population have contributed to a sustained increase in the prevalence of HF and with it, the potential number of patients with frailty. Hence why there is a consequential increase of interest on this condition.

Recognizing the importance of frailty in determining prognosis and in influencing HF management taken together with the lack of a consensus definition of frailty or any adequately validated assessment instruments for use in the frail HF patient, the Heart Failure Association (HFA) of the European Society of Cardiology (ESC) was motivated to produce a position paper. Frailty has been defined by the HFA/ESC as a multidimensional dynamic state, independent of age, that makes the individual with HF more vulnerable to the effect of stressors. These stressors can be both clinical and non-clinical variables, acute, or chronic, and can be grouped into four main domains: clinical, physical-functional, cognitive-psychological, and social. These domains dynamically interact with each other, causing a state of vulnerability or disproportionate change in patient’s health state. This increases the risk of decompensation and dependency, responsible for the complex phenotype of frail patients with HF and the occurrence of negative outcomes. Patients with HF and frailty have been shown to be more susceptible to drug adverse reactions, have a greater risk of surgical complications, rehospitalization, an increased risk of mortality at 1 year and a lower probability of surviving more than 10 years. They also have prolonged hospital stays following HF admissions and an impaired quality of life, compared to HF patients without frailty. Therefore, the identification of frailty using a validated and predictive instrument is of considerable importance.

Among all the components—clinical, functional, psycho-cognitive, and social-causing frailty, some can be reversible (treatable) whilst others are irreversible (requiring supportive care). The identification and understanding of the...
role of each component are of outmost importance in patients with HF and frailty, in order to prioritize therapeutic choices and build an individualized and tailored plan of care. To this end, the identification of frailty using a holistic multidimensional approach, according to the cumulative index model is appropriate.

Although progress has been made concerning the role of frailty in HF patients, one of the main barriers is the lack of a consensus instrument to assess frailty in clinical practice. Recently, Sze et al. compared the ability of three of the main instruments (Fried phenotype, Deficit Index, and Edmonton frailty score) used in HF to identify frailty. The authors found that less than half of those patients classified as frail with one of the frailty instruments were similarly classified as frail when all the three different instruments were used simultaneously. This highlights the need to find an appropriate instrument to identify HF patients who are also frail. Indeed, the erroneous attribution of frailty to a patient who in reality is not frail may have serious and legal consequences.

**Patient management and the risk of frailty**

Due to its prognostic and therapeutic implications, the identification of frailty is of outmost importance in patients with HF and the vague clinician’s subjective door- way assessment, so frequent in the past, is no longer acceptable. Initially considered as a progressive and largely irreversible condition, it is now known that frailty may be controlled and potentially corrected with appropriate multidisciplinary interventions. Recognizing those individuals who are frail or ‘pre-frail’ will allow an earlier and prompt implementation of an individualized and tailored management plan. A tailored plan of care based on medical therapy, cardiac rehabilitation, nutritional, psychological, and educational counselling as well as social support, can focus first in the treatment of the reversible determinants of frailty, thus prioritizing the treatments that will maximize their likelihood of a positive outcome. This is of outmost importance in an era in which we need to optimize resource allocation. The growing economic constraints on health care systems have intensified appropriate patient selection to prevent patients from receiving costly but harmful or futile interventions. Frailty, due to its well-recognized association with prognosis and its ability to predict negative outcomes, is an appealing and suitable parameter recognized association with prognosis and its ability to predict negative outcomes, is an appealing and suitable parameter.

The addition of the frailty score to the Meta-analysis Global Group in Chronic HF (MAGGIC) risk score, one of the most frequently used predictive scores in HF, resulted in a significant improvement in HF patient risk classification. This suggests that frailty can identify a risk not yet captured by traditional risk scores. The utility of the assessment of frailty, also in clinical trials, and the need for a validated instruments/methods to examine effect and safety of new devices and treatments in frail patients has been highlighted by the European Medicines Agency (EMA). Therefore, the evaluation of frailty in daily clinical practice as well as in clinical trials will help clinicians to improve patient selection and use treatments in a safer way, whilst avoiding the risk of frailtyism. Parallel to ageism (discrimination against people on the basis of their age), frailtyism can be defined as stereotyping, prejudice, and discrimination against people on the basis of the presence of frailty. Indeed, the presence of frailty may affect the type and timing of diagnostic procedures, as well as pharmacological and non-pharmacological treatments. Patients with HF and frailty are more likely to receive less standard HF treatments than those patients without frailty. This risk is also in part related to the lack of evidence-based criteria to help and guide the management of HF patients with frailty, due to the scarcity of clinical trials, performed in the past, which have included patients with frailty.

Cardiac rehabilitation can offer a good example of how the presence of frailty has been representing a discriminating factor in HF patient’s management. Indeed, in the past, although HF patients with frailty, in particular, if elderly, would have benefited from rehabilitation services, few were included in rehabilitation programmes. Indeed, frail and elderly HF patients were frequently regarded as too unfit for cardiac rehabilitation and sent to a nursing home rather than to exercise programmes. Conversely, a systematic review on the role of exercise interventions to manage frailty found that exercise had a positive impact on all functional outcomes (including mobility, balance, and functional performance test batteries). Cardiac rehabilitation has been associated with improvements not only in physical but also in cognitive and social functioning. Rather than being a discriminating factor responsible for using less guideline-directed HF treatments or to refuse the appropriate care, the assessment of frailty should facilitate the arrangement of care in a more patient-centred approach. Therefore, to promote a routine assessment of frailty in patients with HF is essential. However, this will be only possible using an objective and validated instrument able to correctly identify those patients with HF that are also frail. The ideal instrument to assess frailty should be easy and quick to perform in order to be used in busy clinical settings, should cause minimal distress or concern to the patient, should be performed without the need of dedicated instruments, and should be reliable, thus accurately identifying those HF patients who are also frail.

**Conclusions**

Due to its prognostic and therapeutic implications, the identification of frailty is of outmost importance in the daily assessment and management of patients with HF. An objective and easy to apply the measurement of frailty will help clinicians to better identify those HF patients that are effectively frail and thus at increased risk of negative outcomes, ultimately enabling more effective and tailored plans of care to suit the needs of the patient.

**Funding**

This paper is part of a supplement funded by the Heart Failure Association of the European Society of Cardiology.
Conflict of interest: none declared.

References

1. Ponikowski P, Voors AA, Anker SD, Bueno H, Cleland JG, Coats AJ, Falk V, González-Juanatey JR, Harjola VP, Jankowska E, Jessup M, Linde C, Nihoyannopoulos P, Parissis JT, Pieske B, Riley JP, Rosano GM, Rulíope LM, Ruschitzka F, Rutten FH, van der Me He, Pauwhers. Task Force Members; Document Reviewers. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: the Task Force for the diagnosis of and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC). Developed with the special contribution of the Heart Failure Association (HFA) of the ESC. Eur J Heart Fail 2016;18:891–975.

2. McNallan SM, Singh M, Chamberlain AM, Kane RL, Dunlay SM, Redfield MM, Weston SA, Roger VL. Frailty and healthcare utilization among patients with heart failure in the community. JACC Heart Fail 2013;1:135–141.

3. Pareek A, Chandurkar N, Dharmhadihvari S. Congestive heart failure: more common as well as an important cardiovascular outcome. Eur Heart J Cardiovasc Pharmacother 2017;3:98.

4. Hartman O, Sinisalo J, Kovanen PT, Lehtonen J, Eklund KK. Congestive heart failure and problems with frailty syndrome: why it is time to care about frailty syndrome in heart failure. Eur J Heart Fail 2018;20:723–732.

5. Vitale C, Spolleti I, Rosano GM. Frailty in heart failure: implications for management. Card Fail Rev 2018;4:104–106.

6. Hill E, Taylor J. Chronic heart failure care planning: considerations in older patients. Card Fail Rev 2017;3:46–51.

7. Suzuki T, Palus S, Springer J. Skeletal muscle wasting in chronic heart failure. ESC Heart Fail 2018;5:1099–1107.

8. Tsutsumimoto K, Doi T, Makizako H, Hotta R, Nakakubo S, Makino K, Suzuki T, Shimada H. Aging-related anorexia and its association with disability and frailty. J Cachexia Sarcopenia Muscle 2018;9:834–843.

9. Crespo-Leiro MG, Metra M, Lund LH, Milicic D, Costanzo MR, Filippatos G, Gustafsson F, Tsiu S, Barge-Caballero E, De Jonge N, Frigerio A, Hamdan R, Hasin T, Hülsmann M, Nalbantgil S, Potena L, Frigerio M, Hamdan R, Hu¨lsmann M, Nalbantgil S, Potena L, Bauersachs J, Giouzouta A, Rupharawan A, Ristic AD, Strabuzynskia-Migaj E, McDonagh T, Seferovic P, Ruschitzka F. Advanced heart failure: a position statement from the European Society of Cardiology. Eur J Heart Fail 2018;20:1505–1535.

10. Metra M, Ponikowski P, Dickstein K, McMurray JJ, Gavazzi A, Bergh JS, Frigerio M, Hamilton R, Nolte A, Römheld K, Scherjon SA, Sørensen MG, Wædehøj J, Yancy W, Zannad F, Zannad F, Zannad F, Zannad F. Frailty and heart failure: a position statement from the European Society of Cardiology. Advanced chronic heart failure: a systematic review and meta-analysis. Eur J Heart Fail 2018;20:577–590.