ORIGINAL ARTICLE

Cardiovascular Evidence Gaps in Adults Over 80 Years of Age

Brechas en la evidencia cardiovascular en adultos mayores de 80 años

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ABSTRACT

Background: Current clinical practice guidelines show limitations regarding patients over 80 years of age due to their underrepresentation in clinical trials and the complex interaction between frailty, multimorbidity, polypharmacy and cardiovascular events.
Objectives: The aim of this study was to discuss existing management gaps and to establish recommendations for this population, through discussion with referring physicians in cardiology and geriatrics.
Methods: A meeting was held using structured consensus methodology in roundtables assembling 34 cardiologists and 6 geriatricians to analyze different clinical scenarios: frailty, polypharmacy, cardiovascular prevention, heart failure, atrial fibrillation and acute coronary syndromes. Management strategies were evaluated according to three categories (robust, mild frailty and moderate frailty) by structured discussion and anonymous voting. In this publication we present the results obtained in the first four scenarios.
Results: An inverse association was observed between therapeutic intensity and degree of frailty. Most physicians considered it relevant to assess frailty and extracardiologic medication, and to evaluate deprescribing during follow-up. In cardiovascular prevention, acceptance of lipid-lowering treatment initiation decreased significantly with increasing frailty (82.1% in robust vs. 23.1% in moderate frailty), whereas deprescription of statins increased (23.1% in robust vs. 41% in moderate frailty). In heart failure with preserved ejection fraction, gliflozins showed high acceptance in patients without volume overload (94.6% in robust vs. 54.1% in moderate frailty). For patients with reduced ejection fraction, initiation of quadruple therapy decreased significantly with frailty (45.9% in robust vs. 2.7% in moderate frailty), whereas maintenance of treatment in recovered ejection fraction decreased as frailty increased (91.9% in robust vs. 59.5% in moderate frailty).
Conclusions: The degree of frailty significantly influenced therapeutic decision-making in octogenarian patients, with a trend towards more conservative approaches as the degree of frailty increases. These findings suggest the need for treatment algorithms stratified by frailty and highlight the importance of incorporating comprehensive patient assessment into cardiovascular care protocols.

Keywords: Frailty - Comprehensive cardiology assessment - Evidence gaps - Cardiovascular disease - Older adults

RESUMEN

Introducción: Las guías de práctica clínica actuales muestran limitaciones respecto de los pacientes mayores de 80 años debido a su baja representación en ensayos clínicos y la compleja interacción entre fragilidad, multimorbilidad, polifarmacia y eventos cardiovasculares.
Objetivos: Discutir brechas en el manejo y establecer recomendaciones para esta población, mediante discusión con médicos referentes en cardiología y geriatría.
Material y métodos: Se realizó una reunión mediante metodología de consenso estructurado a través de mesas redondas (roundtables) para la cual se convocó a 34 cardiólogos y 6 geriatras y se analizaron diferentes escenarios clínicos: fragilidad, polifarmacia, prevención cardiovascular, insuficiencia cardíaca, fibrilación auricular y síndromes coronarios agudos. Las estrategias de manejo se evaluaron según tres categorías (robusto, fragilidad leve, fragilidad moderada) mediante discusión estructurada y votación anónima. En esta publicación presentamos los resultados obtenidos en los primeros cuatro escenarios.

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Resultados: Se observó asociación inversa entre la intensidad terapéutica y el grado de fragilidad. La mayoría consideró relevante evaluar fragilidad, la medicación extracardiológica y pensar en deprescripción durante el seguimiento. En prevención cardiovascular, la aceptación del inicio de tratamiento hipolipemiante mostró un descenso significativo con el incremento de la fragilidad (82,1% en robusto vs 23%,1% en fragilidad moderada), mientras que aumentó la deprescripción de estatinas (23,1% en robusto vs 41% en fragilidad moderada). En insuficiencia cardíaca con fracción de eyección preservada, las gliflozinas mostraron alta aceptación en pacientes sin sobrecarga (94,6% en robusto vs 54,1% en fragilidad moderada). Para pacientes con fracción de eyección reducida, el inicio de la cuádruple terapia disminuyó significativamente con la fragilidad (45,9% en robusto vs 2,7% en fragilidad moderada), mientras que el mantenimiento del tratamiento en fracción de eyección recuperada disminuyó a medida que aumentaba la fragilidad (91,9% en robusto vs 59,5% en fragilidad moderada).
Conclusiones: El grado de fragilidad influyó significativamente en la toma de decisiones terapéuticas en pacientes octogenarios, con una tendencia hacia abordajes más conservadores a medida que aumenta el grado de fragilidad. Estos hallazgos sugieren la necesidad de algoritmos de tratamiento estratificados por fragilidad y destacan la importancia de incorporar la valorización integral del paciente en los protocolos de atención cardiovascular.

Palabras clave: Fragilidad - Valoración integral en cardiología - Brechas en la evidencia - Enfermedad cardiovascular - Adultos mayores

INTRODUCTION

In people over 80 years of age, multiple factors limit the application of the different cardiovascular practice guidelines. This population faces higher mortality, a frequently compromised quality of life and, in addition, is underrepresented in the different clinical trials, generating gaps in the evidence.

The main challenges include the discrepancy between chronological and biological age, multimorbidity, atypical presentation of cardiovascular diseases often influenced by geriatric syndromes, and variable therapeutic response.

Another characteristic in this population group is the heterogeneity within the functional continuum, which includes robustness, frailty, disability, and terminality. In a context of growing life expectancy and increasing prevalence of cardiovascular diseases, it is a priority to identify these gaps in order to improve outpatient clinical management and outcomes. (1-6)

Roundtables are an effective tool for discussing controversial scenarios and promoting consensuses applicable to clinical practice.

OBJECTIVES

To address this problem, the Cardiogeriatrics Council of the Argentine Society of Cardiology proposed and organized the first national roundtable that brought together referring physicians. The following scenarios were selected for this first meeting: frailty, polypharmacy, cardiovascular prevention, heart failure, atrial fibrillation and acute coronary syndromes. The objectives of the meeting were to discuss gaps in management and establish recommendations for this population, to promote a critical analysis of existing guidelines, and to explore strategies adapted to local needs. In the present publication we present the results obtained in the first four scenarios

METHODS

The roundtable was held in person in June 2024 in the city of Buenos Aires, Argentina, and was attended by 40 referring physicians, 34 cardiologists and 6 geriatricians, with recognized clinical and academic careers.

The methodological process was structured in three stages to systematically address the knowledge gaps.

-Gap identification: In this initial phase, the organizing team of the Cardiogeriatrics Board of Directors conducted an exhaustive review of recent literature and clinical practice guidelines. This analysis allowed the identification of areas with insufficient evidence in the management of cardiovascular diseases in older adults and to draw up a preliminary list of gaps in knowledge.

-Scenario design: In this stage, the usefulness of various frailty tools and diagnostic and therapeutic strategies in patients over 80 years of age were discussed and analyzed. In scenarios with comorbidities, the condition was postulated to be stable, without terminal pathology. It was decided to divide this population into robust, mild frailty and moderate frailty, because they are different conditions in terms of prognosis and treatment. Based on the proposed clinical scenarios, the different rounds were designed. Selected literature was sent to the participating physicians and voting forms were designed for records that would be used during the discussion.

-Table of discussion and consensus: Finally, the meeting was conducted through a structured methodology that combined open discussion and then anonymous voting.

All these stages sought to ensure a comprehensive and systematic approach, aimed at generating practical recommendations to optimize cardiovascular management in elderly people.

In each case, the degree of recommendation is presented on a scale ranging from recommended to not recommended (Figure 1).

Discussion scenarios:

Round 1: Frailty

The bidirectionality between frailty and cardiovascular disease is influenced by pathophysiological mechanisms and common risk factors. In turn, treatment of cardiovascular disease impacts on frailty and vice versa. (7-10)

Frailty has been incorporated into cardiology guidelines as a variable that conditions the evolution and treatment in different scenarios, including prevention. The guidelines include it from a multidomain approach with a person-centered perspective and adapted to different clinical scenarios, although despite this, both in practice and in studies, the use of the functional frailty model continues to be prioritized. Lack of a universal definition, multiple assessment tools, the proposal of a functional phenotype and another based on the

accumulation of deficits, has conditioned its use to date in clinical practice. (11)

Results: The relevance of detecting frailty in patients with cardiovascular disease was discussed, and 100% of participants agreed on its importance. Functional assessment was considered more relevant by 32.5% of participants and 50% reported using some screening method to assess frailty. More than half (55%) considered the use of frailty tools oriented to specific diseases to be more appropriate, 22.5% did not consider this option and 22.5% were in doubt. If a multi-domain assessment tool had to be chosen, 35% would opt for the Clinical Frailty Scale (CFS), (12) 20% for the Comprehensive Geriatric Assessment-Frailty Index (CGA IF), (13) 15% for the Edmonton Frailty Scale, (14) 12.5% for the Frail-VIG index (15) and 17.5% would prefer a simple screening of each domain (Annex 1).

Opinion: Although all the participants considered the importance of detecting frailty in cardiology, only 50% used some type of frailty screening (it should be noted that 6 of the participants were geriatricians). It is relevant to note that only 32.5% believe it is more important to evaluate frailty from a functional approach.

The Cardiogeriatrics Council promotes multidomain assessment, which includes the functional component, with a person-centered approach. Although no agreement was reached at the meeting on which tool to use, we understand frailty as a global condition of the patient and prefer comprehensive assessment tools rather than those specific to each pathology. Not having reached agreement on this point opens the way for future research (Figure 2).

Round 2: Polypharmacy

Multimorbidity and polypharmacy are highly prevalent in this population group. (16)

Their association with frailty exponentially increases the likelihood of major adverse cardiovascular events and poor adherence to treatment. (17,18) The criteria for appropriate prescribing and potentially inappropriate drugs described for the elderly are not frequently used in cardiology practice.

Results: The evaluation of extracardiac medication was relevant for all participating physicians and 97.5% think of deprescribing drugs during follow-up.

In 75% of cases, participants would use STOPP/START (19,20) and BEERS (21) criteria and 87.5% found it interesting to generate our own criteria on inappropriate prescription (Annex 1).

Opinion: From the Council, we emphasize the importance of evaluating the patient's total medication, assessing appropriate prescription, encouraging deprescribing of potentially inappropriate drugs, and the search for criteria that facilitate their application in daily practice at the local level. This motivated us to work on a project on appropriate medication in cardiovascular therapeutics (MATE, in progress). (Figure 3).

Round 3: Primary cardiovascular prevention

The 2023 SAC guideline on cardiovascular prevention questions the use of cardiovascular risk (CVR) scores as they are not validated in the Argentine population. (22) However, the use of scores in primary prevention in validated populations is useful and necessary and is a IC recommendation in the guidelines. Within the IC recommendations, frailty and other morbidities are included as risk modulators. (23) A 10-year CV risk estimation using the SCORE2-OP for patients over 70 years of age, strongly recommends the evaluation of the treatment risk/benefit, the presence of frailty and other risk modifiers, polypharmacy and patient preferences.(24) The use of validated scores in this patient population has an impact on therapeutic decisions.

The European guidelines recommend the use of statins in patients over 70 years of age at high or very high risk (IIb recommendation) based mainly on the analysis of age subgroups of the JUPITER and HOPE-3 studies. (25) On the other hand, the American guidelines recommend their use in patients over 75 years of age at high risk (IIb recommendation), incorporating the use of calcium scoring by means of coronary angiography as a risk modifier. (26)

Results: The usefulness of CVR scores was considered to be inversely proportional to the degree of frailty: 66.7% in robust patients, 46.2% in mild frailty and 25.6% in moderate frailty.

A hundred percent of participating physicians considered frailty as a CVR modifier. The relevance of these modifiers in clinical decision making reached 84.6% in both robust and

Fig. 1. Grade of recommendation

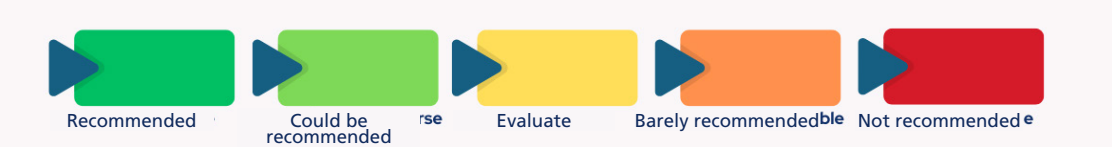


Fig. 2. Frailty

Fig. 3. Polypharmacy

mild frailty patients, dropping to 64.1% in moderate frailty (with 33.3% doubt/indecision in this scenario).

Regarding the initiation of lipid-lowering treatment, acceptance showed a descending gradient according to frailty: 82.1% in robust patients, 69.2% in mild frailty and 23.1% in moderate frailty, with significant uncertainty (51.3%) in the latter group.

Screening for subclinical atherosclerosis was accepted by 64.1% of participants in robust patients, 56.4% in mild frailty (30.8% of doubt) and 20.5% in moderate frailty (43.6% of doubt).

In the case of statin prescription in primary prevention with documented subclinical atherosclerosis, acceptance was 76.9% in robust patients (12.8% of doubt), 64.1% in mild frailty (15.4% of doubt) and 38.5% in moderate frailty (28.2% of doubt).

Statin deprescribing with documented subclinical atherosclerosis was considered in 23.1% of robust patients, 20.5% with mild frailty and 41% with moderate frailty. (Annex 1).

Opinion: As we can see, the lack of evidence in older patients limits decisions, whether from risk stratification with scores or their use in primary prevention.

Although the guidelines postulate frailty as a modifier of CVR, and taking into account that frailty increases the risk of major events, the indication for statins decreased as the degree of frailty increased, even in the presence of subclinical atheromatosis. (27,28) The board recommends the use of statins in these groups of patients while the evidence progresses (Figure 4).

Round 4: Heart failure

Heart failure (HF) represents a major epidemiological challenge with a high number of hospitalizations, deterioration in quality of life and high morbidity and mortality. Multimorbidity, polypharmacy and frailty are highly prevalent in both aging and HF, to which we must add the heterogeneity of this population and their longer life expectancy, turning decision-making difficult.

Frailty may affect up to 45% of HF patients and, in turn, increases the risk of HF. (29)

Symptoms are often assumed to be part of aging, which generates difficulty and delay in their diagnosis. Moreover, in this group of patients the cut-off values of natriuretic peptides for diagnosis are higher and are strongly influenced by renal function and other comorbidities, which often reduces their degree of certainty. (30)

Heart failure with preserved left ventricular ejection fraction (HF-pEF) is a complex clinical syndrome affected by comorbidities, and it is also multicausal, since it can be a manifestation of cardiovascular dysfunction or a combination with other morbidities. At the time of the Round Table discussion, the specific therapy was reduced to gliflozins. (31) The publication of the FINEARTS-HF study with finerenone was later. (32)

In HF with reduced left ventricular ejection fraction (HF-rEF), quadruple therapy is the cornerstone of treatment with class IA indication (33-35).

a. HF-pEF

Results: The indication of gliflozins in patients without volume overload was accepted by 94.6% of participants in robust patients, 86.5% in mildly frail patients and 54.1% in moderately frail patients (40.5% of doubt). In the scenario of creatinine clearance between 20 and 30 ml/min, 78.4% would indicate them in robust patients (16.2% of doubt), 45.9% in mildly frail patients (43.2% of doubt) and 24.3% in moderately frail patients (51.4% of doubt).

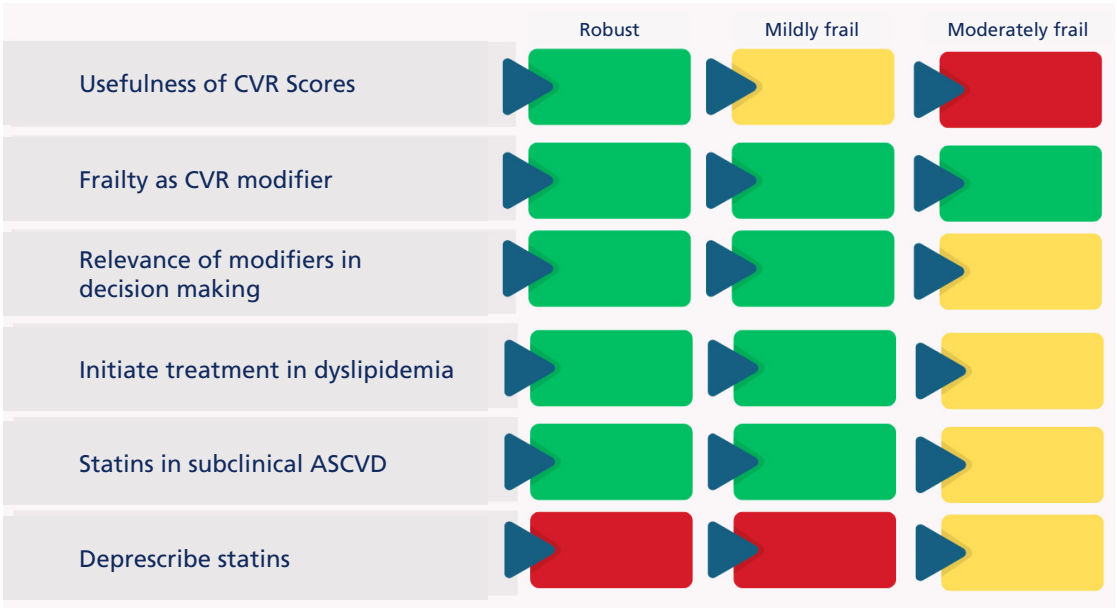
In patients with atrial fibrillation (AF) and obesity, the use of glucagon-like peptide 1 receptor agonists (GLP-1 RA) had an acceptance rate of 40.5% in robust, 16.2% in mildly frail and 5.4% in moderately frail patients. Uncertainty was 29.7%, 45.9% and 32%, respectively.

The usefulness of the N-terminal pro B-type natriuretic peptide (NT-proBNP) as a diagnostic tool was accepted by 59.5% of participants for robust, 48.6% for mildly frail and 40.5% for moderately frail patients, with 21.6% were in doubt about its usefulness in robust, and 29.7% in mild and moderate frailty (Annex 1).

b. HF-rEF

Results: Simultaneous initiation of the four therapeutic pillars in the absence of clinical signs of HF showed an acceptance rate of 45.9% in robust, 27% in mildly frail, and 2.7% in moderately frail patients (24.3%, 29.7%, and 35.1%, respectively). In the pharmacological prioritization, in the 3 scenarios, gliflozins emerged as the first option, followed by sacubitril valsartan and mineralocorticoid receptor antagonists.

Fig. 4. Primary cardiovascular prevention



ASCVD: atherosclerotic cardiovascular disease; CVR: cardiovascular risk.

In the presence of a clearance <30 ml/min, in all three scenarios, gliflozins were the drugs of choice with 81.1% acceptance for robust and mildly frail patients and 70.3% acceptance in cases of moderate frailty.

In patients with recovered left ventricular ejection fraction, 91.9% of participating physicians would maintain treatment in robust, 73% in mildly frail and 59.5% in moderately frail patients, with a doubt rate of 8.1%, 24.3% and 21.6% for the respective scenarios.

The implementation of palliative care from the diagnosis of HF was supported by 32.4% for robust patients, 43.2% for mild frailty (with an equal percentage of doubt) and 89.2% for moderate frailty. The use of tools such as the NECPAL (36) appeared to be useful in 43.2% for robust, 51.4% for mildly frail and 64.9% for moderately frail patients.

Prioritizing intensive care management in the emergency room over hospitalization had an acceptance rate of around 64.9% in both robust and moderately frail patients (Annex 1).

Opinion: In HF-pEF, the use of NT-proBNP as a tool was not considered of great relevance, losing even more value as the degree of frailty increases. We consider that in the case of HF presentation and multimorbidity in this group, the diagnosis remains a major challenge. Regarding the prescription of specific treatment with gliflozins, it had high acceptance for robust and mildly frail patients and decreased by half in moderate frailty, with a high percentage of doubts, and the indication was somewhat lower in renal patients as frailty increases.

Treatment of multimorbidity in HF-pEF is a priority, together with potential decompensating causes. Following appropriate prescribing criteria, we recommend considering the use of gliflozins.

Concerning HFrEF, the upper range for inclusion in clinical trials has typically been 75 ± 5 years; for this reason, we have very few data on randomly assigned interventions in patients over 80 years of age. This could be one of the reasons why simultaneous treatment with quadruple therapy has been considered by less than half in robust patients, decreasing significantly to almost zero in moderate frailty, with a relevant percentage of doubt as frailty increases. In both HF-pEF and HF-rEF it has a generally consistent efficacy in older individuals, where target doses could be attempted with slow titration and close monitoring, considering that the greater the frailty, the greater the risk of HF and its complications and vice versa. There is also no evidence to suggest that therapies should be discontinued or doses modified in the context of frailty (Figures 5 and 6).

This shows how the degree of frailty conditions therapeutic decisions. As frailty increases, the indication for treatment decreases, with greater uncertainty about the balance between risks and benefits.

The observed results underscore the need to create clear guidelines, design specific strategies, identify and individualize clinical and hemodynamic profiles, in order to provide adequate guidance for this population group.

Limitations

The main limitations derive from the methodology used, based on expert consensus, which implies that the recommendations reflect the experience and clinical judgment of the participants. Although the group consisted of experts in cardiology and geriatrics, most of them are not exclusively dedicated to cardiogeriatrics. Therefore, it is necessary to validate these recommendations in future studies to confirm and adjust these findings in clinical practice. The approach of multiple scenarios also limited the discussion time.

CONCLUSION

The number of elderly patients has increased significantly, reaching 20% of the total population, and demographic trends show that this population will increase even more in the coming decades. The evidence

and guideline recommendations for the management of older patients are often not as robust and rigorous as for younger patients (atypical presentations, presence of frailty, evidence gaps, etc.).

Aging is a complex and heterogeneous biological process, where we can observe that chronological age alone is not sufficient to define conducts. The results show how frailty significantly conditions therapeutic decisions in most scenarios, with a tendency towards more conservative approaches as the degree of frailty increases.

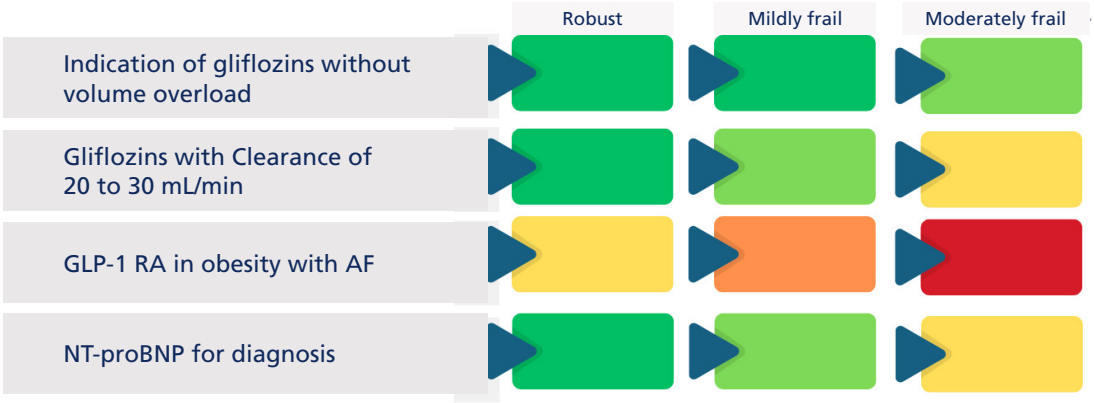
Frailty, unlike age, is a multidimensional and potentially reversible concept that is associated with poor clinical outcomes. To this end, it is crucial to approach frail patients with the necessary caution, but avoiding excessive care that may lead to unfairly denying them potentially beneficial treatments as in robust elderly patients.

Our goal is to incorporate frailty into the decision-making analysis and as part of the treatment strategy.

This meeting highlighted the need for a multicenter registry to know our population and to work on the development of a multidomain frailty score that combines the best tools. For this reason, the registry of frailty, multimorbidity and polypharmacy (RAFA) is under development.

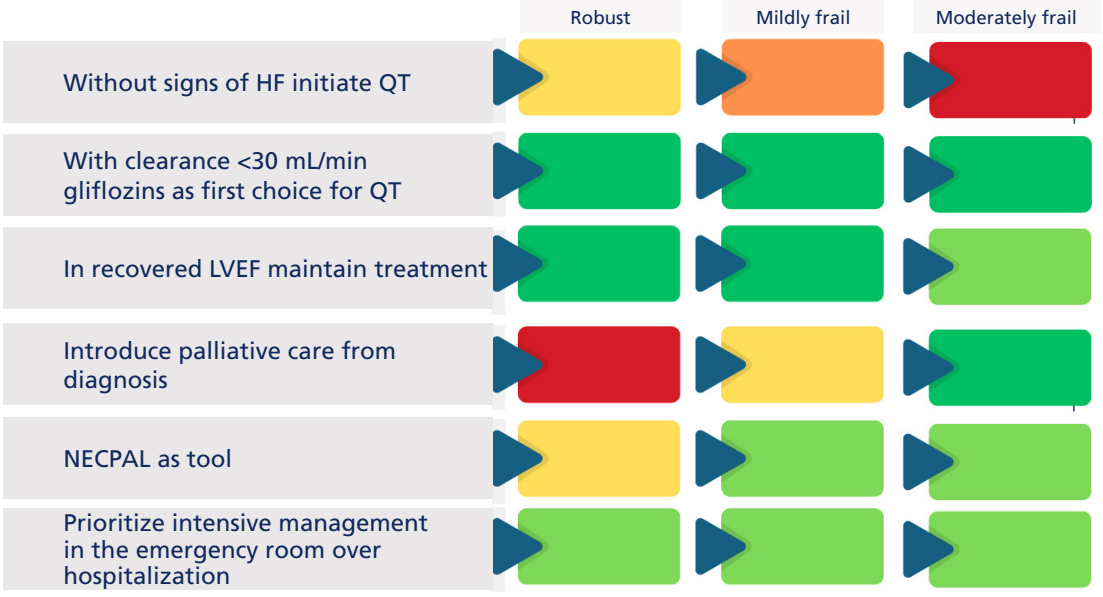
It was also proposed to develop our own criteria, based on existing criteria such as STOPP/START and BEERS, to address appropriate and inappropriate prescribing in patients with cardiovascular diseases.

Fig. 5. Heart failure with preserved left ventricular ejection fraction (HF-pEF)



AF, atrial fibrillation; GLP-1, glucagon-like peptide-1 receptor agonists; NT-proBNP: N-terminal pro-B-type natriuretic peptide

Fig. 6. Heart failure with reduced left ventricular ejection fraction (HF-rEF)



HF: heart failure; LVEF: left ventricular ejection fraction; NECPAL: need for palliative care; QT: quadruple therapy.

The Council is currently working on this registry proposal (MATE: Medication Appropriateness in Cardiovascular Therapeutics).

While progress is being made in more studies, consensuses from referent scientific societies can provide guidance in current practice. For this reason, we are planning the second Roundtable based on heart failure, with the aim of generating recommendations with expert opinion in this scenario.

Conflicts of interest

None declared.

(See authors' conflict of interests forms on the web).

Roundtable participants in alphabetical order:

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ANNEX 1.

The results are expressed in percentages

POLYPHARMACY	YES	I DOUBT	NO
Do you find extracardiological medication important?	100	0	0
Do you think about deprescribing drugs in follow-up?	97.5	2.5	0
Do you think the STOPP/START and BEERS criteria could be used in cardiology practice?	75	22.5	2.5
Is it of interest to you that we make our own criteria from the existing ones on inappropriate prescribing?	87.5	7.5	5

FRAILTY	YES	I DOUBT	NO
Do you think it is necessary to detect frailty in patients with cardiovascular pathology?	100	0	0
After the above, do you think it is more relevant to assess functional over multicomponent frailty?	32.5	22.5	45
Do you find it appropriate to use pathology-specific frailty tools?	55	22.5	22.5
Do you regularly perform any frailty screening?	50	15	35
If you had to choose one frailty screening tool, which one would you choose?			
Edmonton Frailty Scale	15		
FRAIL VIG Index	12.5		
CGA FI (Comprehensive Geriatric Assessment-Frailty Index)	20		
CFS (Clinical Frailty Scale)	35		
I would prefer to perform a simple screening of each domain.	17.5		
If we were to conduct a registry in search of a multidomain frailty tool, on polypharmacy and multimorbidity in people over 60 years of age, would you/center participate?	90	10	0

CARDIOVASCULAR PREVENTION	Robust			Mild fragile			Moderate fragile		
	YES	I DOUBT	NO	YES	I DOUBT	NO	YES	I DOUBT	NO
Do you consider cardiovascular risk scores to be useful?	66.7	20.5	12.8	46.2	28.2	25.6	25.6	30.8	43.6
Do you consider frailty as a modifier of CVR?	79.5	10.3	10.3	100	0	0	92.3	7.7	0
Do you consider RCV modifiers relevant for decision making?	84.6	10.3	5.1	84.6	12.8	2.6	64.1	33.3	2.6
Do you start treatment for dyslipidemia?	82.1	15.4	2.6	69.2	25.6	5.1	23.1	51.3	25.6
Does it make sense to screen for subclinical ASCVD?	64.1	17.9	17.9	56.4	30.8	12.8	20.5	43.6	35.9
Do you prescribe statins in primary prevention with subclinical ASCVD?	76.9	12.8	10.3	64.1	15.4	20.5	38.5	28.2	33.3
Do you deprescribe statins in primary prevention with subclinical ASCVD?	23.1	12.8	64.1	20.5	35.9	43.6	41	35.9	23.1

HEART FAILURE WITH PRESERVED LVEF	Robust			Mild fragile			Moderate fragile		
	YES	I DOUBT	NO	YES	I DOUBT	NO	YES	I DOUBT	NO
Without volume overload, would you indicate gliflozins?	94.6	5.4	0	86.5	13.5	0	54.1	40.5	5.4
Does a clearance of 20 to 30 indicate glyflozins?	78.4	16.2	5.4	45.9	43.2	10.8	24.3	51.4	24.3
Would you use GLP-1 RA in obese patients with AF?	40.5	29.7	29.7	16.2	45.9	37.8	5.4	32.4	62.2
NT-proBNP for Diagnostics?	59.5	21.6	18.9	48.6	29.7	21.6	40.5	29.7	29.7

HEART FAILURE WITH REDUCED LVEF	Robust			Mild fragile			Moderate fragile		
	YES	I DOUBT	NO	YES	I DOUBT	NO	YES	I DOUBT	NO
Without clinical signs of HF, do you simultaneously initiate quadruple therapy?	45.9	24.3	29.7	27	29.7	43.2	2.7	35.1	62.2
Which indicates 1st, 2nd and 3rd: Antialdosteronics Sacubitril valsartan Glyflozines									
Clearance < 30 ml/min: Antialdosteronics Sacubitril valsartan Glyflozines	 27 40.5 81.1			 18.9 40.5 81.1			 13.5 40.5 70.3		
In LVEF recovery, do you mantain the treatment?	91.9	8.1	0	73	24.3	2.7	59.5	21.6	18.9
Do you consider the introduction of palliative care from diagnosis?	32.4	13.5	54.1	43.2	43.2	13.5	89.2	0	10.8
Would tools such as NECPAL be useful to you?	43.2	29.7	27	51.4	35.1	13.5	64.9	24.3	10. 8
Do you prioritize intensive management in the emergency room over hospitalization?	62.2	2.7	35.1	59.5	24.3	16.2	62.2	10.8	27

AF: atrial fibrillation; ASCVD: atherosclerotic cardiovascular disease; CVR: cardiovascular risk; GLP-1 RA: glucagon-like peptide 1 receptor agonists; HF: heart failure; LVEF: left ventricular ejection fraction; NECPAL: need for palliative care.