

Spain



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About the Heart Failure Policy Network

The Heart Failure Policy Network (HFPN) is an independent, multidisciplinary network of healthcare professionals, advocacy groups, policymakers and other stakeholders from across Europe. It was established in 2015 with the goal of raising awareness of unmet needs and seeking meaningful improvements in heart failure policy and care. Our aim is to help reduce the burden of heart failure – on people living with it, those supporting them, health systems and society at large. All members of the HFPN provide their time for free. All Network content is non-promotional and

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About Heart failure policy and practice in Europe

Heart failure (HF) is a common and complex condition responsible for extensive avoidable morbidity, mortality and healthcare costs. There is a clear need to advance HF policy and practice across Europe, and this requires recognising the real challenge in each country.

To this end, the Heart Failure Policy Network (HFPN) has developed *Heart failure policy and practice in Europe* – a comprehensive analysis of key gaps and best practice in both HF policy and clinical performance in 11 European countries. In this work, we investigate each country's progress in addressing the HF challenge, for example in terms of the existence and implementation of HF policies and the provision of multidisciplinary and integrated HF care. Findings are presented in an overarching report outlining the methodology for this work and including a pan-European narrative, and in standalone country profiles with dedicated national-level analysis.

Urgent action is needed to address the growing burden of HF and ensure the sustainability of our healthcare systems. This country profile aims to assist HF advocates across Spain in engaging healthcare system leaders to demand constructive changes to HF policy and care provision, to reduce the impact of HF on people living with the syndrome, their families and carers, the healthcare system and society.

Heart failure in Spain

SUMMARY

The burden of heart failure (HF) in Spain is growing, both in terms of pressures on the healthcare system and impact on people with HF and their families.¹ This challenge is increasingly being recognised by the Spanish government, as demonstrated by the inclusion of HF in the forthcoming national strategy on cardiovascular health.² Experts have consistently called for investment in optimal HF care and the development of an HF specialist healthcare workforce,³⁴ particularly of HF nursing staff. Although nurses are trained in HF care, as yet there is no formal recognition of the HF specialist nurse role.⁵

National professional societies and individual centres of excellence have led the way in terms of multidisciplinary and integrated care. ⁶⁷ However, the challenge posed by system transformation is considerable and the management of HF in other settings is typically fragmented. Improvements are needed in diagnosis, ⁸ hospital care and discharge, ⁹ and community care. ¹⁰¹ to achieve better outcomes for people living with HF and reduce the burden of HF in Spain.

HF is a common syndrome

Prevalence of HF in Spain is high, affecting between 4% and 7% of the general population, which is higher than in most European countries. ^{12 13} Many countries have experienced an increase in HF prevalence due to population ageing, a trend that has been particularly pronounced in Spain: the number of people aged 65 and over has increased steadily and reached 19% of the population in 2016. ¹⁴

7%

living with HF

The high prevalence of HF may also be due to reduced mortality rates for cardiovascular diseases ¹

Patient outcomes are often poor, and the burden on families and carers is significant

Although there are gaps in available data, the historical picture suggests a major role for HF in driving hospitalisations, including avoidable admissions. ¹⁴ HF was the main cardiovascular cause of hospital admissions in 2013, when hospitalisation lasted a mean of 8.5 days. ⁴ In 2012, one in three people hospitalised for HF was readmitted for cardiac issues within one year of discharge, and 63% of these readmissions were due to exacerbation of HF. ¹⁵ COVID-19 may also increase the risk of an HF exacerbation – recent data from a hospital in Madrid suggested that people living with HF were at significant risk of acute HF following COVID-19 infection. ¹⁶

People living with HF in Spain have reported lower quality of life than the general population and more limitations than people with diabetes, cancer or Alzheimer's disease in terms of mobility, pain, anxiety and depression.¹⁷ HF also has a substantial impact on the health, career and social life of informal carers, who are often partners or family members.¹⁸ ¹⁹

Mortality in people living with HF is significant – the one-year all-cause mortality rate ranges from 10% to 14%. People with HF who are older or have increased burden from additional health conditions (comorbidities), such as stroke, cancer and heart attack, are at increased risk of in-hospital mortality. ¹⁵

HF is associated with high expenditure

Available cost figures for HF are dated, calling for more recent studies on the economic impact of HF in Spain. However, the historical picture is one of concern. HF was estimated to account for 2% of total health expenditure in Spain in 2012.²¹ However, this may vary across regions (autonomous communities). For example, in Catalonia, HF costs accounted for over 7% of the regional healthcare budget in 2013.²⁰



of health expenditure

Almost 40% of this expenditure was attributed to hospitalisation, which suggests that preventing hospitalisation is crucial to reducing HF-related costs.

Informal care for HF also generates significant societal costs – in 2010, 37% of people living with HF required informal care, which amounted to an estimated annual cost of up to \leq 12,870 per person. ¹⁸



Heart failure policy in Spain

Formal plans on HF

Spain has no national HF strategy, but the forthcoming strategy on cardiovascular health will cover HF

The Ministry of Health has announced an upcoming strategy on cardiovascular health to address HF, coronary artery disease, arrhythmias and heart valve disease.² The government aims to reduce the incidence and burden of these conditions through health promotion and improvements in cardiovascular care. Patients and their families/carers will be at the centre of the recommendations, with special consideration of quality of life, health inequalities and socioeconomic factors.^{2 22} The strategy is currently under review by regional health authorities,² but experts highlight that finalisation and launch may be delayed due to the COVID-19 pandemic.²³ The implementation of recommendations will be determined by Spain's 17 regions.¹⁴

Investment in integrated HF models and facilitative tools

HF diagnostic tests are not consistently reimbursed, missing opportunities to streamline resource use and care pathways

Limited reimbursement of core diagnostic tests may constitute a barrier to HF diagnosis.⁸ Typically, natriuretic peptide (NP) testing and echocardiography are only covered when prescribed by specialists in hospital settings, meaning that reimbursement in primary care is lacking.²⁴ Access to these tests can also vary across the country, as each region in Spain is responsible for developing its own reimbursement policies.

Inadequate information technology infrastructure hinders integration of care

Limited interoperability of information technology (IT) systems is a challenge. Spain has been identified as an international leader in the use of electronic health records, ¹⁴ but lack of communication between systems limits integration of care. ²⁴ IT systems have been implemented in healthcare settings across the country, but software often differs between providers, settings and regions. ²⁴ ²⁵

The value of telemedicine in HF management has been increasingly recognised

The Spanish government has previously endorsed research into the benefits of telemedicine, ²⁵ and regional initiatives have demonstrated the potential of digital tools in supporting integrated care for HF. For example, the healthcare system in València invested in a remote monitoring system for people living with long-term conditions, including HF, which improved people's symptoms and reduced emergency department visits between 2012 and 2015. ²⁶ According to national experts, government interest and investment in telemedicine has increased as a result of the COVID-19 outbreak, ^{23 27} but opportunities remain for regional and national governments to implement these initiatives on a wider scale.

Development of the HF healthcare workforce

National professional societies offer training in HF, but HF specialism is not recognised through formal accreditation

Greater investment is needed to upskill the HF healthcare workforce. For example, in 2016, a significant proportion of medical residents managing acute HF across the country were reported not to receive adequate training, potentially making them ill-equipped for the task. The Spanish Society of Cardiology (Sociedad Española de Cardiología, SEC) has called for more training opportunities in HF for clinicians and the involvement of cardiologists and nurses in HF care.

National professional societies have worked to fill the skills gap by providing training for healthcare professionals with an interest in HF. Most notably, the SEC leads face-to-face sessions and online courses open to all healthcare professionals working in cardiovascular care.²⁸ It also coordinates a two-year online master's degree in advances in cardiology, which includes a two-month module on HF.²⁹ The SEC and several primary care societies have collaborated to develop an HF training programme focusing on multidisciplinary management of HF.³⁰ The programme combines online with in-person training. The Spanish Society of Internal Medicine (Sociedad Española de Medicina Interna, SEMI) also offers training on diagnostic tests and management of HF through its working groups.²³

Experts report that there is no formal accreditation of the HF specialist nurse role, nor standardised job criteria for HF nurses. The Spanish Association of Nursing in Cardiology offers a six-month online course for nurses on multidisciplinary HF care, this is not formally recognised by policymakers or linked to career progression. Potential barriers to an accredited nursing specialism in HF include the complex and lengthy national approval process for new healthcare roles, the lack of degree programmes for HF nursing and limited awareness among decision-makers of the benefits that HF nurses bring to patient care.

Despite the lack of formal accreditation in HF, there has been considerable progress in integrating nurses into HF care. In a 2018 survey of 84 centres across Spain, more than 70% of hospitals reported that they had an HF unit, with an average of one to two nurses employed per unit.³² In addition, the success of a recent trial has increased the implementation of nurse-led medication services (see *Case study 1*).⁵

CASE STUDY 1.

Nurse-led management of HF medication

A recent trial (Enfermera Titula Fármacos en Insuficiencia Cardiaca, ETIFIC) compared the safety and effectiveness of nurse-led and cardiologist-led adjustment of medication following hospitalisation for people with HF with reduced ejection fraction (HFrEF).³³ The trial included 20 hospitals with HF units across 10 regions in Spain. Nurses were required to have at least 400 hours of HF training and two years of clinical experience in HF to lead the intervention.³³ While cardiologists prescribed medication and provided routine supervision, nurses led weekly or fortnightly visits with participants to monitor and adjust medication, evaluate clinical status and provide therapeutic education.

The study found that medication adjustment was equally safe and effective whether led by nurses or cardiologists.³³ Participating centres are continuing to provide the service after the end of the trial, and other hospitals have adopted the same care model.⁵ Formal endorsement of the service by regional health authorities is still lacking, but there are plans to incorporate the ETIFIC training criteria for HF nurses into national standards for HF units developed by the SEC.



Guidance and local care pathways for delivery of quality care

Guidance and care pathways for HF are supported by accreditation programmes

Spain has one of the most comprehensive guidance frameworks for HF in Europe. The SEC has formally endorsed the 2016 European Society of Cardiology (ESC) HF guidelines, 34 35 and their Spanish translation is the national standard for HF care. 27 In addition, it is standard practice for the SEC to develop national guidance to accompany European recommendations to ensure they are tailored to the national context. For example, the SEC has published national quality standards for cardiology and HF units outlining standardised criteria for the implementation and evaluation of optimal HF care. 34

Publications from other national professional societies, including joint documents developed with the SEC, guide multidisciplinary care processes for HF. The SEMI recently launched a consensus document on the management of acute HF during hospital admission.³⁶ A 2015 document from the SEC and the Spanish Society of Family and Community Medicine outlines recommended care processes between primary care and cardiology in the management of cardiovascular diseases, with a chapter focusing on HF.³⁷ Similarly, a 2016 consensus from the SEC and the SEMI proposes collaboration between cardiologists and internists in coordinating hospital HF units and management programmes.³⁸

In an effort to improve the quality of HF care, the SEC and the SEMI introduced national programmes for HF units in cardiology departments (see *Case study 2*)³⁹ and internal medicine departments (see *Case study 3*).⁴⁰

CASE STUDY 2.

Accreditation of community, specialist and advanced HF units in cardiology departments (SEC-EXCELENTE)

Following publication of national quality standards in 2016,4 the SEC introduced an accreditation programme for HF units in cardiology departments (SEC-EXCELENTE).39 This voluntary scheme differentiates between community, specialist and advanced HF units according to their offer: portfolio of services, resources, adoption of multidisciplinary care, existence of clinical care pathways, and data collection on HF care processes and outcomes.41 Applications for accreditation are reviewed by an accreditation team and approved by the SEC.41

As of 2020, 75 cardiology units have obtained accreditation.²⁷ National experts report that the programme is improving the quality of care provided in HF units through regular performance assessment and increased uptake of digital and facilitative technology.

CASE STUDY 3.

Guidance and accreditation of HF units led in internal medicine departments (UMIPIC programme)

In 2011, the SEMI launched a national programme to encourage internal medicine departments to set up comprehensive outpatient units for HF (Unidades de Manejo Integral de Pacientes con Insuficiencia Cardiaca, UMIPIC).⁴⁰ The society published guidance on the management of HF and outlined criteria for the organisation of care in the units, including the involvement of patients and their families, therapeutic education provided by nurses, and clinical assessments by internists.^{42 43}

As of 2020, 34 centres have created an HF unit under the UMIPIC programme.⁴⁴ One year after the introduction of the programme, centres reported fewer hospitalisations and emergency department visits for people living with HF, both for all causes (75% and 54% reduction) and for HF specifically (85% and 72% reduction).⁴⁵ The SEMI has developed an accreditation scheme similar to the SEC-EXCELENTE programme⁴⁶ and it is currently being implemented.⁴⁴



Public audits of performance and high-level assessment initiatives

Several voluntary registries monitor different aspects of HF care, but the lack of a centralised audit hinders full oversight of performance

There is no centralised approach for the auditing of healthcare data in Spain – methods vary not only between regions but also between healthcare providers.²⁴ This is a substantial barrier to the monitoring and improvement of HF care. However, insights into performance are available through registries run by professional societies.

The SEC and the SEMI manage national registries which collect data on:

- the resources and quality of care in cardiology units (SEC RECALCAR)⁴⁷
 or internal medicine units (SEMI RECALMIN)⁴⁸
- people admitted with acute HF to cardiology departments (SEC HF Registry)⁴⁹
 or internal medicine departments (SEMI RICA).⁵⁰

Other notable registries include EAHFE, examining people attending emergency departments for acute HF (41 centres across Spain; ended recruitment in 2016)⁵¹ and FELICITAR, exploring frailty in people on the national heart transplantation list (three centres in Madrid; ongoing).⁵²

All available registries offer valuable information about the epidemiology and burden of HF in Spain, as well as the processes involved in HF care. For example, data from the first phase of the SEC HF Registry identified substantial gaps in HF care, including the need for earlier detection and better collaboration between specialists and primary care professionals.⁵³ Registry findings such as these can be used to drive central policies at the national and regional level.



Heart failure practice in Spain

Diagnosis

The diagnosis of HF is hindered by limited access to key diagnostic tests and inconsistent knowledge of HF among professionals

General practitioners (GPs) are the first point of contact for people with symptoms of HF and act as gatekeepers for specialist care. According to national experts, when HF is suspected, GPs typically refer patients to cardiologists, who have access to echocardiography and therefore often lead the diagnostic process. As GPs typically do not have access to NP testing, the system relies on seamless identification of suspected HF based on symptoms and clinical history, with prompt referral to specialists. However, this process may not be working properly, as recent data suggest that almost half of all people hospitalised with acute HF do not have a recorded history of HF prior to hospitalisation, highlighting an urgent need to improve detection of HF in community settings. Acute HF often presents in emergency care, where internists typically lead the diagnostic process.

National professional societies for internal medicine and primary care are working to improve knowledge of HF outside of cardiology, for example by enhancing understanding and interpretation of echocardiograms among professionals in their respective fields.^{23 24} More needs to be done to equip healthcare professionals to detect HF, in terms of both knowledge and access to diagnostic tests.⁸

Hospital care and discharge

Variation in the healthcare professional leading management of acute HF represents a concern for guideline-based care

National experts state that the medical specialist leading management of acute HF varies based on local resources and the clinical profile of the patient.^{23 27} Cardiologists typically lead care for younger people or people in need of complex



treatment options, while older people with multiple comorbidities are often cared for under internal or geriatric medicine.²³ Smaller hospitals may not have specialists in HF, which can have a negative impact on care quality and outcomes – for example, HF management may not adhere to the latest guideline recommendations when access to HF specialists is limited.²⁷

Provision of discharge planning is inconsistent

National quality standards for HF units outline the importance of high-quality discharge planning,⁴ but implementation of these services is inconsistent. In 2018, only 65% of hospitals with an HF unit reported HF nurse-led pre-discharge visits, and 59% reported HF nurse-led discharge planning.³² In other hospitals, people with HF may be discharged with little support and without a referral to cardiac rehabilitation¹⁰ or a care plan to address physical or psychological symptoms.⁵⁴

The SEC has developed accessible resources to support healthcare professionals in hospital management of HF and effective discharge planning (see *Case study 4*).

CASE STUDY 4.

Resources to support hospital care and discharge planning

The HF association (working group) of the SEC developed a short checklist and infographic for healthcare professionals involved in HF care. 55 56 These resources cover a typically high-risk period in the patient care journey, up to 30 days after hospital discharge. They outline crucial care elements to reduce the risk of hospital readmission, including:

- guideline-based hospital care and treatment
- requirements for safe discharge, including stable HF, patient education and empowerment, and a detailed care plan
- follow-up with a primary care physician within seven days and an HF specialist within two weeks of discharge
- nurse-led support in community settings
- confirmation of stable HF and review of the care plan at 30 days post-discharge. 55 56

Key components of quality care in community settings

Cardiac rehabilitation is not consistently provided in the management of HF

Although published research is dated, access to cardiac rehabilitation appears to be low. For example, only 2–3% of people who required cardiac rehabilitation, including people living with HF, were reported to have access to the service in 2012.⁵⁷ Barriers to cardiac rehabilitation may include the cost of implementation²⁴ and the lack of programmes designed specifically for people living with HF,¹⁹ who may have physical limitations due to their age and comorbidities. National experts report that to date, such programmes are primarily based in hospital settings,²⁴ suggesting that the location of such services may be a barrier to participation.

There is limited provision of patient therapeutic education, psychological support and palliative care in HF

According to experts, provision of therapeutic education and self-care support is limited, particularly in settings without an HF nurse.⁵ Further, people living with HF and their families/carers do not receive enough psychological support to cope with the emotional burden of the syndrome.¹⁹ HF care teams typically do not include psychologists,²⁴ as these professionals tend to work in private care settings and not the public health system.¹⁹

Provision of palliative care for people with HF is also limited. Recognising a need in this area, the SEC has recently published a consensus statement with recommendations for palliative care in HF.⁵⁸ The recommendations cover treatment options, guidance for use of cardiac devices, resuscitation preferences, palliative sedation and ethical considerations for people living with HF and their families/carers.

Tools and methods to support multidisciplinary and integrated ongoing HF care

Centres of excellence offer various tools and methods to encourage multidisciplinary HF care, which are largely unavailable in other settings

Overall, the implementation of tools and working methods that can promote multidisciplinary and integrated HF care has been inconsistent. In 2015, only 43% of HF units reported joint protocols between cardiology and internal medicine, and 48% between cardiology and primary care.⁵⁹ Where protocols are not adopted, communication between primary care physicians and HF specialists is limited. The SEC has called for greater integration of HF care,⁴ but this is not yet the reality in Spain.

Successful models of integrated care have, however, been implemented in selected regions and centres of excellence (see *Case study 5*). Remote monitoring programmes such as the ValCrònic programme in València and the TELBIL programme in the Basque Country have succeeded in reducing emergency care and hospitalisation in people with long-term conditions, including HF.^{26 60} Wider adoption of such models could offer significant benefits. The SEC has recognised this potential in a recent consensus statement outlining how telemedicine could improve outcomes for people living with HF during the COVID-19 pandemic and beyond.⁶¹

CASE STUDY 5.

Comprehensive HF care in the Barcelona Litoral Mar Integrated Health Area

The HF management programme of the Barcelona Litoral Mar Integrated Health Area was introduced in 2005 and spans hospital and community settings.⁷

Under the programme, when people with HF are admitted to hospital they are seen by a cardiologist, who establishes the cause of HF and an appropriate treatment plan. HF specialist nurses provide therapeutic education and assess the patient's cognitive, social, functional and frailty-related skills and needs.⁶

Members of the hospital care team meet with primary care nurses on a weekly basis to coordinate care and discuss people being discharged from hospital.⁶ All patients have a follow-up appointment with their HF care team within seven days of hospital discharge, with an option for home visits if needed. After that, people living with HF have access to home-based follow-up with primary care nurses or a combination of home- and hospital-based follow-up led by HF specialist nurses.⁶

The Barcelona Litoral Mar Integrated Health Area also has outpatient HF units (day hospitals), primary care emergency centres and social care resources (e.g. palliative care units) to support seamless care transitions and reduce risk of readmission following hospitalisation for HF.⁶ The model has reduced hospital admissions and improved survival in people living with HF.⁶ 7

The way forward

HF poses a challenge to the sustainability of healthcare systems in countries across Europe, including Spain. It is a manageable – and often preventable – syndrome, yet it continues to affect a great number of people and its burden on the national health system and society is significant.

The urgent need for coordinated efforts to address the HF challenge in Spain is underlined by the pressures of population ageing and the recent impact of the COVID-19 pandemic, both of which will exacerbate demands on the healthcare system.

The government's announcement of a cardiovascular health strategy presents a unique window of opportunity to make HF a national policy priority.

SEVERAL ACTIONS ARE ESSENTIAL TO ADDRESS THIS CHALLENGE.

Reimburse NP testing in primary care to support timely and appropriate diagnosis of HF

It is crucial to reimburse NP testing when prescribed by primary care physicians. This test can help prioritise referrals for specialist-led echocardiography, thereby facilitating timely diagnosis and access to treatment. Reimbursement will need to be implemented at the regional level given the devolved nature of the healthcare system. National primary care societies can support this by engaging with regional decision-makers and continuing to provide training for primary care physicians on the correct use and interpretation of diagnostic tests for HF.

Invest in IT systems to support communication across care settings

There is an urgent need for IT infrastructure that facilitates communication and collaboration between healthcare professionals and across care settings. An advanced IT system will enable healthcare professionals to have access to the same information, promoting fully informed decision-making. Investment in connected digital systems is likely to help address major gaps in HF care, such as fragmented post-discharge care and inconsistent implementation of joint care protocols. It is also likely to boost health system resilience in the face of future crisis adaptations.

Accredit and fund the HF specialist nurse role

The benefits of nurse-led HF management have been widely demonstrated, and it is now essential that the HF specialist nurse role be formally recognised in Spain. Nursing societies are guiding efforts to standardise requirements in terms of education and clinical responsibilities. These criteria can then be incorporated into postgraduate training programmes, which should be formally recognised by the regional and national healthcare systems and professional societies. Accreditation should be linked to financial recognition of the role to foster interest in the specialisation path and ensure seamless incorporation of specialist nurses into multidisciplinary HF care teams.

Encourage uptake of national HF guidance and performance monitoring

National professional societies, such as the SEC and the SEMI, have laid the groundwork for consistent implementation and accreditation of HF units and other integrated models. They have also helped to generate greater oversight of performance in HF care by developing comprehensive guidance and quality indicators. Regional governments can encourage best practice by incentivising participation in these programmes or adherence to a similar set of quality indicators based on local resources and priorities. In particular, it will be essential for regions, and arguably the national government, to regularly assess HF data to establish an accurate picture of performance and variation in care. This will help to identify gaps and best-practice approaches that may benefit from wider roll-out, including variation between regions.

Expand best-practice programmes shown to reduce hospitalisation and improve patient outcomes

To help reduce the number of hospital admissions for HF, it is essential to improve support in the community for people living with the syndrome and increase access to crucial elements of care, including cardiac rehabilitation. Local and regional decision-makers should urgently examine the case for roll-out of successful initiatives such as the HF management programme in the Barcelona Litoral Mar Healthcare Area, the HF units in the SEMI UMIPIC programme and the nurse-led model introduced in the ETIFIC trial. Effective telemedicine approaches, such as the ValCrònic programme in València and the TELBIL programme in the Basque Country should also be considered. Payers should outline transparent criteria for investment, for example based on improvement in patient and health system outcomes. Healthcare professionals involved in best-practice initiatives could be engaged in delivering peer-learning and training opportunities to facilitate implementation across Spain.

Focusing on these priority areas will likely offer a cost-effective opportunity to improve life for people with HF, reduce hospitalisations and mitigate future pressures.

This is an investment in a more resilient and prepared health system, not just for HF but for chronic diseases more generally.

The creation and maintenance of national strategies and plans in HF is likely to be vital to long-term success. There are many strengths and existing resources within the healthcare system on which to build. Lasting success will require effective central oversight of inequalities and unacceptable variations, as well as long-term collaboration and commitment from decision-makers, patient representatives, healthcare professionals and the private sector. Failure to pursue the actions recommended in this report will allow HF to continue to challenge the sustainability of the healthcare system in Spain.

References

- 1. Sayago-Silva I, García-López F, Segovia-Cubero J. 13. Verdú-Rotellar JM, Frigola-Capell E, Alvarez-2013. Epidemiology of heart failure in Spain over the last 20 years. Rev Esp Cardiol (Engl Ed) 66(8):
- 2. Gobierno de España. 2020. El Ministerio de Sanidad traslada a las CCAA el borrador de la Estrategia en Salud Cardiovascular del SNS [online]. Available from: https://www.mscbs.gob. es/gabinete/notasPrensa.do?id=4993 [Accessed 17/07/20]
- 3. Lopez-Sendon J, Gonzalez-Juanatey JR, Pinto F, et al. 2015. Quality Markers in Cardiology. Main Markers to Measure Quality of Results (Outcomes) and Quality Measures Related to Better Results in Clinical Practice (Performance Metrics). INCARDIO (Indicadores de Calidad en Unidades Asistenciales del Area del Corazon): A SEC/SECTCV Consensus Position Paper. Rev Esp Cardiol (Engl Ed) 68(11): 976-95.e10
- 4. Sánchez MA, Rodríguez JLL, Freire RB, et al. 2016. Classification and quality standards of heart failure units: scientific consensus of the Spanish Society of Cardiology. Rev Esp Cardiol (Engl Ed) 69(10): 940-50
- 5. García-Garrido LL. 2020. Interview with Marissa Mes at The Health Policy Partnership (Secretariat for the Heart Failure Policy Network) [written interview]. 03/08/20
- 6. Comín-Colet J, Enjuanes C, Lupón J, et al. 2016. Transitions of care between acute and chronic heart failure: critical steps in the design of a multidisciplinary care model for the prevention of rehospitalization. Rev Esp Cardiol (Engl Ed) 69(10): 951-61
- 7. Comín-Colet J, Verdu-Rotellar J, Vela E, et al. 2014. Efficacy of an integrated hospital-primary care program for heart failure: a populationbased analysis of 56,742 patients. Rev Esp Cardiol (Engl Ed) 67(4): 283-93
- 8. Pascual Figal DA, Casademont J, Lobos JM, et al. 2016. Natriuretic Peptides: Consensus Call for Use. Rev Esp Cardiol (Engl Ed) 69(9): 817-9
- 9. Worner F, San Roman A, Sanchez PL, et al. 2016. The Healthcare of Patients With Acute and Critical Heart Disease. Position of the Spanish Society of Cardiology. Rev Esp Cardiol (Engl Ed) 69(3): 239-42
- 10. Chamosa S, Alarcón JA, Dorronsoro M, et al. 2015. Predictors of enrollment in cardiac rehabilitation programs in Spain. J Cardiopulm Rehabil Prev 35(4): 255-62
- 11. Vidán MT, Martín Sánchez F-J, Sánchez E, et al. 2019. Most elderly patients hospitalized for heart failure lack the abilities needed to perform the tasks required for self-care: impact on outcomes. Eur J Heart Fail 21(11): 1434-42
- 12. Gómez-Martínez L, Orozco-Beltrán D, Quesada JA, et al. 2018. Trends in Premature Mortality Due to Heart Failure by Autonomous Community in Spain: 1999 to 2013. Rev Esp Cardiol (Engl Ed) 71(7): 531-37

- Pérez R, et al. 2017. Validation of heart failure diagnosis registered in primary care records in two primary care centres in Barcelona (Spain) and factors related. A cross-sectional study. European Journal of General Practice 23(1): 107-
- 14. Bernal-Delgado E, García-Armesto S, Oliva J, et al. 2018. Spain: Health system review 2018. Brussels: European Observatory on Health Systems and Policies
- 15. Martínez Santos P, Bover Freire R, Esteban Fernández A, et al. 2019. In-hospital Mortality and Readmissions for Heart Failure in Spain. A Study of Index Episodes and 30-Day and 1-year Cardiac Readmissions. Rev Esp Cardiol (Engl Ed) 72(12): 998-1004
- 16. Rey JR, Caro-Codón J, Rosillo SO, et al. 2020. Heart failure in COVID-19 patients: prevalence, incidence and prognostic implications. Eur J Heart Fail n/a(n/a):
- 17. Comín-Colet J, Anguita M, Formiga F, et al. 2016. Health-related Quality of Life of Patients With Chronic Systolic Heart Failure in Spain: Results of the VIDA-IC Study. Rev Esp Cardiol (Engl Ed) 69(3): 256-71
- 18. Delgado JF, Oliva J, Llano M, et al. 2014. Health care and nonhealth care costs in the treatment of patients with symptomatic chronic heart failure in Spain. Rev Esp Cardiol (Engl Ed) 67(8): 643-50
- 19. San Saturnino M. 2020. Interview with Marissa Mes and Stephanie Whelan at The Health Policy Partnership (Secretariat for the Heart Failure Policy Network) [Videoconference]. 14/07/20
- 20. Farré N, Vela E, Clèries M, et al. 2016. Medical resource use and expenditure in patients with chronic heart failure: a population-based analysis of 88 195 patients. Eur J Heart Fail 18(9): 1132-40
- 21. Cook C, Cole G, Asaria P, et al. 2014. The annual global economic burden of heart failure. Int J Cardiol 171(3): 368-76
- 22. Gobierno de España. Estrategia en salud cardiovascular del SNS. Available from: https://www.mscbs.gob.es/biblioPublic/ publicaciones/recursos_propios/resp/ revista_cdrom/Suplementos/ParadaCardiaca/ EstrategiaSaludCardiovascular.htm [Accessed 17/07/20]
- 23. González Franco Á. 2020. Interview with Marissa Mes at The Health Policy Partnership (Secretariat for the Heart Failure Policy Network) [telephone]. 21/07/20
- 24.Obaya JC. 2020. Interview with Marissa Mes at the Health Policy Partnership (Secretariat for the Heart Failure Policy Network) [videoconference]. 03/07/20

- 25. Rojahn K, Laplante S, Sloand J, et al. 2016. Remote Monitoring of Chronic Diseases: A Landscape Assessment of Policies in Four European Countries. PLoS One 11(5): e0155738-e38
- 26. Orozco-Beltran D, Sánchez-Molla M, Sanchez JJ, et al. 2017. Telemedicine in Primary Care for Patients With Chronic Conditions: The ValCrònic Quasi-Experimental Study. J Med Internet Res 19(12): e400
- 27. García Pinilla JM. 2020. Interview with Marissa Mes Stephanie Whelan and Ed Harding at The Health Policy Partnership (Secretariat for the Heart Failure Policy Network) [Videoconference]. 11/08/20
- 28. Sociedad Española de Cardiología. Campus SEC: Explora tu talento. Available from: https:// campus.secardiologia.es/ [Accessed 15/05/20]
- 29. Sociedad Española de Cardiología. Máster Universitario de Avances en Cardiología 2020/2022. Available from: https://campus. secardiologia.es/catalogo/contenido/ master-universitario-de-avances-encardiologia-2020-2022 [Accessed 15/05/20]
- 30. Barrios V, Escobar C, Pallares V, et al. 2018. [Management of heart failure in cardiology and primary care (MICCAP) program: Improving the management of patients with heart failure]. Semergen 44(8): 572-78
- 31. Asociación Española de Enfermería en Cardiología. Título de experto en insuficiencia cardiaca para enfermería (3ª edición) (nuevas fechas): descripcion. Available from: https://campusaeec.com/producto/titulo-de-experto-en-insuficiencia-cardiaca-para-enfermeria-3a-edicion/ [Accessed 16/07/20]
- 32. Fernández Redondo C, de la Vieja Alarcón JJ, Fradejas Sastre V, et al. 2019. Diagnóstico de la situación de la Enfermería en la atención cardiológica en España. Proyecto MAREC: Justificación, diseño y resultados generales. Enfermería en cardiología: revista científica e informativa de la Asociación Española de Enfermería en Cardiología: (77): 82-93
- 33. Oyanguren J, García-Garrido LL, Nebot-Margalef M, et al. 2020. Noninferiority of heart failure nurse titration versus heart failure cardiologist titration. ETIFIC multicenter randomized trial. Rev Esp Cardiol (Engl Ed): https://doi.org/10.1016/j.rec.2020.04.016
- 34. European Society of Cardiology. National cardiac societies: Spanish Society of Cardiology. Available from: https://www.escardio.org/ The-ESC/Member-National-Cardiac-Societies/ Spanish-Society-of-Cardiology [Accessed 18/05/20]
- 35. Ponikowski P, Voors AA, Anker SD, et al. 2016. 2016 ESC guidelines for the diagnosis and treatment of acute and chronic heart failure. Eur J Heart Fail 18(8): 891-975

- 36. Fernández Rodríguez JM, Casado J, Formiga F, et al. 2020. Consenso de actuación básica durante el ingreso hospitalario por insuficiencia cardiaca aguda. Rev Clin Esp: https://doi.org/10.1016/j.rce.2020.01.002
- 37. Barón-Esquivias G, Brotons Cuixart C, Bueno H, et al. 2015. Procesos asistenciales compartidos entre atención primaria y cardiología. Madrid: Sociedad Española de Cardiología and Sociedad Española de Medicina de Familia y Comunitaria
- 38. Grupos de trabajo SEC-SEMI (Insuficiencia Cardiaca). 2016. Propuesta conjunta SEC-SEMI para la organización compartida de nuevos modelos de atención al paciente con insuficiencia cardíaca en base a programas y unidades de insuficiencia cardíaca. Madrid: SEMI-SEC
- 39. Sociedad Española de Cardiología. SEC-EXCELENTE. Available from: https:// secardiologia.es/institucional/reunionesinstitucionales/sec-calidad/sec-excelente [Accessed 22/07/20]
- 40. Sociedad Española de Medicina Interna. Programa UMIPIC. Available from: https://www.fesemi.org/grupos/cardiaca/umipic/programa [Accessed 04/06/20]
- Sociedad Española de Cardiología. 2019. Unidad avanzada de insuficiencia cardiaca: estander de calidad SEC. Madrid: SEC
- 42. Sociedad Española de Medicina Interna. Informe basico: unidades de medicina interna para insuficiencia cardiaca Proyecto UMIPIC. Available from: https://www.fesemi.org/sites/ default/files/documentos/grupos/cardiaca/ umipic/programa%2Fmemoria-estandar-umipic. pdf [Accessed 17/09/20]
- 43. Manzano Espinosa L. 2018. Manual práctico de manejo integral del paciente con insuficiencia cardíaca crónica. Madrid: IM&C
- 44.González Franco Á. 2020. Personal communication by email: 05/09/20
- 45. Cerqueiro JM, González-Franco A, Montero-Pérez-Barquero M, et al. 2016. Reducción de ingresos y visitas a Urgencias en pacientes frágiles con insuficiencia cardíaca: resultados del programa asistencial UMIPIC. Rev Clin Esp 216(1): 8-14
- 46. Sociedad Española de Medicina Interna. 2019. SEMI-Excelente: Manual de acreditación para las Unidades de Medicina Interna de Insuficiencia Cardiaca (UMIPIC). Madrid: SEMI
- 47. Sociedad Española de Cardiología. Estudio RECALCAR. Available from: https://secardiologia. es/institucional/reuniones-institucionales/seccalidad/recalcar [Accessed 11/08/20]
- 48. Sociedad Española de Medicina Interna. 2019. Registro RECALMIN: La atención al paciente en las unidades de Medicina Interna del Sistema Nacional de Salud. Madrid: SEMI

- 49. Sociedad Española de Cardiología. Registro IC. Available from: https://secardiologia.es/institucional/reuniones-institucionales/seccalidad/sec-excelente/registro-ic [Accessed 11/08/20]
- 50. Grupo de Insuficiencia Cardíaca y Fibrilación Auricular. Registro Nacioncal de Insuficienca CArdiaca: Información sobre el Registro. Available from: https://www.registrorica.org/info/ general/index.php [Accessed 15/06/20]
- 51. Llorens P, Escoda R, Miró Ò, et al. 2015.
 Characteristics and clinical course of patients with acute heart failure and the therapeutic measures applied in Spanish emergency departments: based on the EAHFE registry (Epidemiology of Acute Heart Failure in Emergency Departments). Emergencias 27(1): 11-22.
- 52. Ayesta A, Astiz MTV, Masa MJV, et al. 2018. Rationale and design of the FELICITAR registry (Frailty Evaluation After List Inclusion, Characteristics and Influence on Transplantation and Results). Clin Cardiol 41(3): 293-99
- 53. Sociedad Española de Cardiología. 2020. Un registro de la SEC demuestra que la detección de la insuficiencia cardiaca de debut no es óptima. [Updated 16/06/20]. Available from: https://secardiologia.es/comunicacion/notas-deprensa/notas-de-prensa-sec/11628-un-registro-de-la-sec-demuestra-que-la-deteccion-de-la-insuficiencia-cardiaca-de-debut-no-es-optima [Accessed 12/08/20]
- 54. Pacho C, Domingo M, Núñez R, et al. 2017. Early postdischarge STOP-HF-clinic reduces 30-day readmissions in old and frail patients with heart failure. Rev Esp Cardiol (Engl Ed) 70(8): 631-38
- 55. Sociedad Española de Cardiología. Transición del paciente hospitalizado con insuficiencia cardiaca. Available from: https://secardiologia. es/images/secciones/insuficiencia/ENT_ INFOGRAFIA.pdf [Accessed 12/08/20]
- 56. Sociedad Española de Cardiología. Decálogo sobre la transición del paciente hospitalizado con insuficiencia cardíaca. Available from: https://secardiologia.es/images/secciones/ insuficiencia/ENT_DECALOGO_TRANSICION.pdf [Accessed 12/08/20]
- 57. Cano de la Cuerda R, Alguacil Diego IM, Alonso Martin JJ, et al. 2012. Cardiac rehabilitation programs and health-related quality of life. State of the art. Rev Esp Cardiol (Engl Ed) 65(1): 72-9
- 58. García Pinilla JM, Díez-Villanueva P, Bover Freire R, et al. 2020. Consensus document and recommendations on palliative care in heart failure of the Heart Failure and Geriatric Cardiology Working Groups of the Spanish Society of Cardiology. Rev Esp Cardiol (Engl Ed) 73(1): 69-77

- 59. Castro-Beiras A, Anguita-Sanchez M, Comín-Colet J, et al. 2015. Organization of Heart Failure Care in Spain: Characteristics of Heart Failure Units. Rev Esp Cardiol (Engl Ed) 68(7): 633-5
- 60. Martín-Lesende I, Orruño E, Bilbao A, et al. 2013. Impact of telemonitoring home care patients with heart failure or chronic lung disease from primary care on healthcare resource use (the TELBIL study randomised controlled trial). BMC Health Serv Res 13: 1
- 61. Barrios V, Cosín-Sales J, Bravo M, et al. 2020. Telemedicine consultation for the clinical cardiologists in the era of COVID-19: present and future. Consensus document of the Spanish Society of Cardiology. Revista Española de Cardiología (English Edition): https://doi. org/10.1016/j.rec.2020.06.032



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If you have any comments or questions, please get in touch with the authors at **info@hfpolicynetwork.org**

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