

# Heart Failure Units in Spain: State of the Art

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Heart failure is a huge public health problem. Heart failure units provide better care for patients with this condition. The establishment of such units in hospitals varies greatly between countries. To date, no specific data are available on the current situation with these units in Spain. A short questionnaire was used to evaluate the present-day implementation and characteristics of heart failure units in Spanish hospitals. Of the 110 hospitals surveyed, 45 (41%) had a heart failure unit. The percentage varied significantly with the technological sophistication of the hospital: level 1 (lowest), 8%, level 2, 38%, and level 3 (highest), 76%. Some 91% of units were run by cardiology departments. In 78% of the units surveyed, nurses were involved in patient care, though only on a part-time basis in the majority (63%). Their task was primarily patient education, although, in 34%, they only performed basic support tasks (ie, ECG and monitoring vital signs).

## Unidades de insuficiencia cardiaca en España: situación actual

La insuficiencia cardiaca es un problema asistencial de gran magnitud. Las unidades de insuficiencia cardiaca ofrecen una mejor atención a los pacientes con este síndrome. La implementación de estas unidades en los hospitales es muy variable en los distintos países. No se conocen datos concretos sobre la realidad de éstas en España. Mediante un breve cuestionario se han evaluado la implementación actual y las características de estas unidades en el ámbito hospitalario en España. De 110 hospitales consultados, 45 (41%) tienen unidad de insuficiencia cardiaca. Este porcentaje varía significativamente en función del nivel tecnológico (nivel 1: 8%, nivel 2: 38%, nivel 3: 76%). El 91% de las unidades depende del servicio de cardiología. El 78% de las unidades encuestadas dispone de enfermería, la mayoría (63%) con dedicación sólo a tiempo parcial; su labor es principalmente educativa, aunque un 34% sólo realiza labor de soporte (electrocardiograma y medición de constantes).

**Key words:** Heart failure. Heart failure units. Nursing.

**Palabras clave:** Insuficiencia cardiaca. Unidades de insuficiencia cardiaca. Enfermería.

## INTRODUCTION

Heart failure (HF) is a huge public health problem for 2 main reasons: it is highly prevalent<sup>1,2</sup> and is a major cause of hospital admission.<sup>1,3</sup>

Several metaanalyses<sup>4-6</sup> have reported that the creation of specialized health care systems has improved care for patients with HF. Thus, in the European Society of Cardiology Guidelines on the treatment of chronic HF its implementation is recommended as follows<sup>7</sup>: class I, level of evidence A to reduce hospital admissions, and class IIa, level of evidence B to reduce mortality.

Such specialized care systems in hospital settings are usually organized as HF units. Despite the available evidence, the implementation of these units in hospitals varies considerably between European countries.<sup>8</sup> There are no specific data on the number of HF units available in Spanish hospitals, their characteristics, and the role that nurses play in them. The aim of this study was to obtain these data.

## METHODS

A brief questionnaire was administered containing 12 items:

1. Name of the hospital.
2. Level of technological sophistication.
3. Presence of a heart failure unit.
4. Type of patients cared for in the unit.
5. Department in charge of the unit.
6. Departments that participate in running the unit.
7. Resources available in the unit.
8. Availability of nurses.

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9. Time dedicated to nursing.
10. Tasks performed by nurses.
11. Existence of a cardiac rehabilitation program for HF patients.
12. Is the unit a transplant unit?

The responses were obtained in 2 ways: 28 hospitals completed the questionnaire at the meeting of the Heart Failure, Transplantation, and Other Therapeutic Alternatives Section of the Spanish Society of Cardiology held in Córdoba (2006), and 82 hospitals completed it following its distribution through the national network of representatives of a pharmaceutical company. The hospitals were not previously selected. The list of hospitals surveyed is shown in Annex 1.

## RESULTS

A total of 110 hospitals (96 state and 14 private) with different levels of technological sophistication responded to the survey: 32.7% were in level 1 (lowest), 33.6% level 2 and 33.6% level 3 (highest). Of the 110 hospitals surveyed, 41% (n=45) had an HF unit. This percentage varied significantly in relation to the technological level (level 1: 8%, level 2: 38%, level 3: 76%). Of these 45 units, 12 (27%) were transplant units. The cardiology department was in charge of 91% of the units and internal medicine in charge of 9%. The cardiology service participated in 96% of the units, internal medicine in 11%, geriatrics in 22%, rehabilitation in 9%, and other services in 16%. The units basically looked after ambulatory patients (98%); 67% were ward patients and 31% patients attending day hospital. Of these units, 84% had a dedicated office, 24% had their own hospital beds, and 18% had beds in the day hospital. Nurses were available in 78% of the units; 63% were part-time and only 37% full-time. One nurse was available in 26% of the units, 26% had 2 nurses, 20% had more than 2, and 28% did not answer this item, probably because the number of nurses was considered to be less than one due to the lack of a full-time nurse. The nurses' main task was patient education (66%), although in 34% of cases the nurses only performed support tasks (electrocardiogram, monitoring vital signs); the nurses performed autonomous tasks in only 37% of the units. Finally, 31% of the units had an HF failure rehabilitation program.

## DISCUSSION

In recent years, different HF care models have become widespread aimed at caring for patients with this syndrome. These have led to<sup>4-6</sup> fewer hospitalizations, improved quality of life, increased compliance with treatment, improved personal care, and even improved survival rates. Fewer hospital admissions<sup>9-12</sup> and improved survival rates<sup>9,10</sup> have also been demonstrated in Spain.

Several care models have been described, ranging from single-session patient education or periodic follow-up by telephone to multidisciplinary intervention. In the hospital setting, these specialized health care systems involve the creation of HF units. The establishment of these units varies considerably between European countries. For example, in Sweden, two-thirds of the hospitals have these units available,<sup>13</sup> whereas in many countries no more than 10% have them.<sup>8</sup> Of the 43 European countries analyzed by Jaarsma et al,<sup>8</sup> only 7 (Ireland, Denmark, the Netherlands, Norway, Scotland, Sweden, and Slovenia) appeared to have specialized care in more than 30% of the hospitals. This study suggests that fewer than 30% of hospitals in Spain have such care available, according to the report of 3 experts in the subject. However, the present study found that 41% of the hospitals surveyed had an HF unit, although the percentage varied considerably depending on the level of technological sophistication, reaching 76% in hospitals with a higher level.

Nurses play a key role in most health care models.<sup>4-6,8</sup> A striking finding of our study was that, even though 78% of the units had nurses, only 37% were employed full-time. The task of the nurses also strongly differs between countries,<sup>8</sup> ranging from patient education and drug titration to physical examination of the patients, and even includes being able to request complementary tests. In Spanish hospitals, the basic task of nurses is educational and they perform autonomous tasks in only 37% of units; however, they only perform basic support tasks (monitoring vital signs, electrocardiogram) in 34% of units, as in a conventional outpatient clinic.

## Limitations

Although the study included a considerable number of hospitals based throughout Spain, it obviously does not cover all Spanish hospitals. Nevertheless, state hospitals are well represented, since there are 782 hospitals in Spain, of which only 291 are state-run (National Hospital Registry, 2006). The design of the questionnaire was simple in order to encourage completion, and thus specific aspects were not addressed, such as the characteristics of the units, their relationship to primary care, or the work performed by nurses.

In conclusion, only 41% of the 110 Spanish hospitals surveyed had an HF unit, which is less than in other European countries. The availability of specialized full-time nursing staff for such units in Spain is also low.

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## ANNEX 1. Hospitals Included in the Study

Alcañiz  
 Alto Deba de Mondragón  
 Arquitecto Marcide de El Ferrol  
 Bellvitge  
 Blanes  
 Cabueñes de Gijón  
 Calella  
 Campdevàrol  
 Caranza de El Ferrol  
 Carlos Haya de Málaga

Central de Asturias  
 Clínic de Barcelona  
 Clínico de Málaga  
 Clínico de Valladolid  
 Clínico San Carlos de Madrid  
 Clínico Universitario Lozano Blesa de Zaragoza  
 Clínico Universitario de Salamanca  
 Clínico Universitario de Santiago  
 Clínico Universitario de Valencia  
 Clínico Virgen de la Victoria  
 Comarcal da Barbanza de Ribeira  
 Comarcal de O Barco de Valedoras  
 Comarcal Ernest Lluch de Calatayud  
 Comarcal de Monforte de Lemos  
 Comarcal Vélez de Málaga  
 Complejo Asistencial de León  
 Complejo Asistencial Río Carrión de Palencia  
 Complejo Hospitalario de Ourense  
 Consorci de Terrassa  
 Costa del Sol de Marbella  
 Da Costa de Burela  
 Del Mar de Barcelona  
 Doctor Josep Trueta  
 Doctor Peset de Valencia  
 Dos de Maig Creu Roja de Barcelona  
 Don Benito  
 El Bierzo de Ponferrada  
 Esperit Sant de Santa Coloma de Gramenet  
 Figueres  
 Francisco de Borja de Gandía  
 Fundació Sanitària d'Igualada  
 Fundación Hospital de Verín  
 Fundació Son Llàtzer de Palma de Mallorca  
 General de Albacete  
 General de Catalunya  
 General de Ciudad Real  
 General de Elda de Alicante  
 General Universitario de Alicante  
 General Universitario de Valencia  
 General Yagüe de Burgos  
 Germans Trias i Pujol  
 Granollers  
 Infanta Elena de Huelva  
 Infanta Cristina de Badajoz  
 Juan Canalejo de La Coruña  
 La Fe de Valencia  
 La Inmaculada de Huércal-Overa  
 La Paz de Madrid  
 La Princesa de Madrid  
 Los Arcos San Javier  
 Manresa (Althaia)  
 Marques de Valdecilla de Santander  
 Mataró  
 Miguel Servet de Zaragoza  
 Modelo de La Coruña  
 Mollet  
 Montecelo de Pontevedra

Morales Meseguer  
Municipal de Badalona  
Mútua de Terrassa  
Nicolás Peña de Vigo  
Orihuela  
Palamós  
Parc Taulí de Sabadell  
Poniente de El Ejido  
Povisa de Vigo  
Provincial de Santiago  
Puerta de Hierro de Madrid  
Puigcerdà  
Ramón y Cajal de Madrid  
Reina Sofía de Córdoba  
Reina Sofía de Murcia  
Requena  
Royo Villanova de Zaragoza  
San Cecilio de Granada  
San Jaime de Torrevieja  
San Jorge de Huesca  
San Juan de Alicante  
San Rafael de La Coruña

San Vicente del Raspeig de Alicante  
Sant Celoni  
Sant Jaume de Olot  
Sant Pau de de Barcelona  
Sant Rafael de Barcelona  
Santa Caterina de Girona  
Santa María de Rosell de Cartagena  
Santa Teresa de La Coruña  
Severo Ochoa de Leganés  
Torrecárdenas  
Universitario de Canarias  
Universitario de Elche  
Universitario Nuestra Señora de la Candelaria  
de La Laguna  
Vall d'Hebron de Barcelona  
Virgen da Xunqueira de Cée  
Virgen de l' Arrixaca de Murcia  
Virgen de las Nieves de Granada  
Virgen Macarena de Sevilla  
Virgen del Rocío de Sevilla  
Xeral de Lugo  
Xeral de Vigo