INTRODUCTION

Heart failure (HF) is a huge public health problem for 2 main reasons: it is highly prevalent\textsuperscript{1,2} and is a major cause of hospital admission.\textsuperscript{3,4}

Several metaanalyses\textsuperscript{5-8} 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\textsuperscript{7}: 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.\textsuperscript{8} 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.
9. Name of the hospital.
10. Level of technological sophistication.
11. Presence of a heart failure unit.
12. Type of patients cared for in the unit.
13. Department in charge of the unit.
14. Departments that participate in running the unit.
15. Resources available in the unit.

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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 fewer hospitalizations, improved quality of life, increased compliance with treatment, improved personal care, and even improved survival rates. Fewer hospital admissions and improved survival rates 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, whereas in many countries no more than 10% have them. Of the 43 European countries analyzed by Jaarsma et al, 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. 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, 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.

ACKNOWLEDGEMENTS

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REFERENCES


ANNEX 1. Hospitals Included in the Study

Alcañiz
Alto Deba de Mondragón
Arquitecto Marcide de El Ferrol
Bellvitge
Blanes
Cabueñas de Gijón
Calella
Campdevánol
Caranza de El Ferrol
Carlos Haya de Málaga
Central de Asturias
Clínica 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 Valedorás
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
Dox 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 Cataluña
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

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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