

Register of short-stay units in Spain, the REGICE Project, study 1: location, organizational features, and staffing

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Objective: The aim of the REGICE project is to describe the real situation of short-stay units (SSU) in Spain. The project's first study provided information on their organizational structure, location, responsible hospital department, and staffing.

Methods: Cross-sectional study based on a survey of all Spanish hospitals listed on the web page of the Ministry of Health in 2012. Hospital directors who reported that their facilities had SSU were asked to provide information on how they were structured and how staff were organized.

Results: Of the 591 hospitals surveyed, 67 (11.3%) had a SSU; 48 of them (71.6%) were included in the database for the REGICE 1 study. Sixty-five percent of the units were administered by the emergency department (ED), 23% by internal medicine and 12% by another department. Fifty-two percent were located on a conventional hospital ward and 44% in the ED area. The mean (SD) number of beds was 15.08 (6.34) (range, 5-30 beds). The ED chief was responsible for the unit in 60% of the hospitals and the internal medicine department in 23%; 42% of the units had a chief of service other than the head of the department the unit belonged to. The number of staff physicians and their work scheduled varied greatly. The ratio of physicians to beds was 1:5.8 (range, 1:2-1:12). Nursing staff was more similar across hospitals. Seventy percent of the short-stay units participated in training resident physicians.

Conclusions: Only 11.3% of the surveyed hospitals have a SSU. These units usually belong to the ED. Staff organization in these units varies greatly from hospital to hospital. [Emergencias 2014;26:57-60]

Keywords: Short-stay unit. Emergency health services. REGICE Project.

Introduction

The problems related to emergency department (ED) overcrowding have been analyzed from multiple perspectives¹ leading to the implementation of different strategies to minimize the impact of emergency admissions. Among the various measures are short stay units (SSU), intended for hospitalization of patients expected to show rapid stabilization, with estimated average stay times of 48-72 hours^{2,3}. SSU have been shown to be useful in the management of hospi-

tal beds^{4,5}, with good safety profile and patient satisfaction, no increase in mortality or readmission rates⁶⁻⁸. Given the lack of beds available for ED patients, SSU may constitute a possible solution⁹.

In the last two decades this has spread in Spain. We have heard about their existence at medical congresses or from scientific articles, but many questions arise as to: how many there are, where they are situated, how many beds they contain, how they are organized, who runs them and what their activity is. This is the reason for the project REGICE (Registration of Short Stay

Units in Spain). In the present REGICE 1 study, we present the results on structural features, location, functional dependence and professional staffing.

Method

We performed a cross-sectional study based on a survey completed by the professionals responsible for SSU in Spanish hospitals in 2012. The study was conducted in two stages: 1) a first exploratory survey by telephone contact with a member of each center, coordinator of admission service or emergency department (ED) of 591 hospitals featured on the website of the Ministry of Health (available at: <http://www.msc.es/ciudadanos/prestaciones/centros-ServiciosSNS / hospitals / home.htm>) to determine the existence of a SSU and willingness to participate in the REGICE study and 2) a second descriptive survey using a form sent electronically to those responsible for the SSU, or a specifically designated physician, of the 67 centers with a SSU that responded in the first survey.

A first questionnaire explored the following questions: Does your hospital have a SSU that admits patients from the ED? and To what department is it attached? (ED, Internal Medicine, Pulmonology, independent or other). The second questionnaire contained 6 questions on structural data and 10 questions on the organization of staffing each SSU.

Qualitative variables are presented as frequencies and quantitative variables as mean and standard deviation (SD) or median and interquartile range (IQR) if not normally distributed. Statistical analysis and data processing was performed using the Excel program.

Results

Of all the 591 hospitals surveyed, we identified 67 (11.3%) SSU, located in most of the autonomous communities of Spain except Navarra, Aragón, Extremadura and the Canary Islands. As at 8th February 2013, 48 (71.6%) SSU had contributed their data and formed part of the REGICE 1.

The first SSU date from the late 1980s (1986 Hospital Virgen de la Macarena in Seville, 1989 La Fe hospital in Valencia and Vall d' Hebron in Barcelona). In the mid-1990s these units began to appear in greater numbers (Figure 1): 15 in the period 1995-2000 and 29 more from 2001 onwards, the more recent being Vilamoura Hospital in Barcelona, Complejo Asistencial in Soria in 2011 and Hospital Virgen de las Nieves in Granada in 2012.

Table 1 shows the most relevant data on the structure and organization of professionals; 83% (40 /48) of SSU are open 12 months a year and 6% (3/48) between 10 and 11 months a year. Physician assignment to these units varies widely, from no specifically designated physicians (at Hospital del Bierzo in Ponferrada, the SSU is used by specialists of internal medicine or pulmonology for their patients admitted from the ED) to the involvement of all ED physicians (Manacor Hospital, Virgen de las Nieves in Granada or Hospital Severo Ochoa de Leganés), as well as exclusive and specialized practitioners for these units. The number of physicians who work in the SSU is usually 2-4 (56 %) with a physician / bed ratio of 1:5.8 (range 1:2-1:12). In all cases, the nurses and auxiliary nurses work morning, afternoon and night shifts, mostly the morning shift (the data in the table correspond to weekdays; the distribution is very similar with fewer staff on weekends and holidays). Two out of three SSU have medical residents in training, mostly from the specialties of family and community medicine and internal medicine.

Discussion

The proportion of hospitals with SSU is relatively small. These units appeared mainly over the last decade. In this period, EDs have increasingly adopted management measures to mitigate the problems of over-occupation especially in relation to the lack of beds available for hospital admission. Alternatives to conventional hospital wards (CHW) have been developed, such as SSU, observation rooms (ObR), home hospitalization units (HHU) and rapid diagnostic units (RDUs)¹⁰. There are recommendations for ObRs

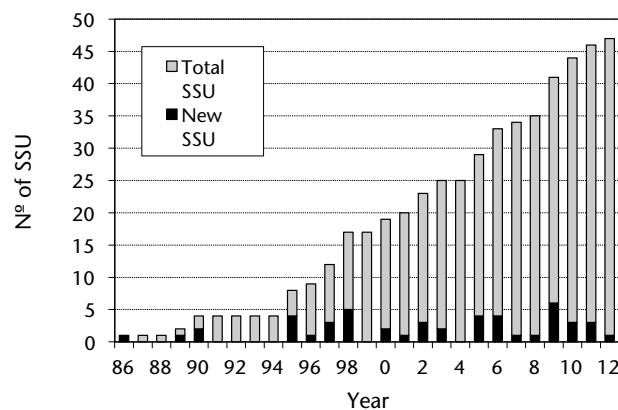


Figure 1. Year of creation of the 48 Short Stay Units (SSU) which participated in the REGICE 1 register.

Table 1. Structural and staff organizational data for the 48 short stay units (SSU) which participated in the REGICE 1 register.

	N (%)
Functional dependence	
Emergency department	31 (65)
Internal Medicine	11 (23)
Independent (management)	5 (10)
Emergency department and Internal Medicine	1 (2)
Location	
Hospital floor	25 (52)
Emergency department	21 (44)
Other	2 (4)
Nº of beds [mean (SD) (range)]	15.1 (6.3) (5-30)
Room type	
One-bed and two-bed	12 (25)
Two-bed only	11 (23)
One-bed only	9 (19)
One-bed + other combinations	5 (10)
Other combinations (bays, dormitories etc)	11 (23)
Monitored beds (telemetry)	15 (31)
Person responsible for the unit	
Head of Emergency department	29 (60)
Head of Internal Medicine	11 (23)
Hospital medical director	3 (6)
Head or Coordinator of SSU	2 (4)
Other	3 (6)
SSU Head (not departmental head)	20 (42)
Nº physicians / beds [mean ratio (range)]	1:5.8 (1:2-1:12)
Physician time-table	
Weekdays	
Morning shift + duty	28 (58)
Morning + afternoon shift + duty	16 (33)
Other combinations	4 (8)
Weekends & Holidays	
Visiting hours + duty	17 (35)
Duty (12h or 24h)	31 (65)
Duty	
SSU specific	6 (13)
Shared with the ED	20 (42)
Shared with Internal Medicine	16 (33)
Other models	6 (13)
Nurse time-table	
Weekdays [mean (SD) (range)]	
Morning	2.17 (1.01) (1-4)
Afternoon	1.83 (0.79) (1-4)
Night	1.43 (0.65) (1-3)
Auxiliary nurse time-table	
Weekdays [mean (SD) (range)]	
Morning	1.82 (0.83) (0.5-4)
Afternoon	1.61 (0.66) (0.5-3)
Night	1.16 (0.52) (0-3)
SSU Support staff	
Own administrative staff	20 (42)
Part-time /full-time (%)	12/8 (60/40)
Own orderly	11 (23)
Part-time /full-time (%)	6/5 (55/45)
Own personen of cleanliness	19 (40)
Part-time /full-time (%)	12/7 (63/37)
Medical resident training	33 (69)
Mandatory rotation	19 (58)
Optional rotation	8 (24)
Mandatory/optional rotation	6 (15)

and RDUs as to structure, service portfolio and quality standards for process and outcomes¹¹⁻¹⁴, and there are sufficient data for HHU¹⁴. Howe-

ver, for SSU, we had little information until the present study.

According to data from RECIGE 1, a standard SSU in Spain has about 15 beds, depends on the ED but is located outside the ED, is staffed by two nurses on morning and afternoon shifts, a variable number of physicians with variable timetables, shared duty shifts, shared supporting staff and no visiting hours at weekends.

SSUs are often the result of ED initiatives in response to the demand for care, so it seems logical that the majority are functionally dependent on the ED and to a lesser extent on other departments^{6,9,15}. This question generates debate, especially with the department of internal medicine, on the advantages and disadvantages of dependency options. This is an open discussion involving an analysis of the objective of having a SSU, motivational aspects, preferential or shared dedication, professional training, the possibility of professional development in the case of emergency physicians and, ultimately, the characteristics of each center.

With respect to staffing, the provision of nurses is proportional to the number of beds but the number of physicians is much more variable, and it proved difficult for our survey respondents to calculate and define the exclusive dedication of each professional in hours per day in the SSU since most were also working in their respective departments.

In this regard, it seems advisable that the SSU should have a separate medical team and staff distributed in morning / afternoon / evening shifts and an organization to ensure continuity of care (admission-discharge) every day of the week.

Our study has two main limitations: first, the possible bias resulting from SSU not included in the register, and second, the absence of data verification. However, the information collected may be useful both for those hospitals with an existing SSU and for those contemplating the incorporation of this medical resource.

Addendum 1

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Proyecto REGICE: registro de las unidades de corta estancia en España. Localización, aspectos estructurales y dotación de profesionales (REGICE 1)

Objetivo: El proyecto REGICE pretende conocer la realidad actual de las unidades de corta estancia (UCE) en España. El estudio REGICE 1 ofrece información sobre estructura, ubicación, dependencia funcional y dotación de profesionales que trabajan en las UCE.

Método: Estudio transversal mediante encuesta a todos los hospitales españoles presentes en la web del Ministerio de Sanidad (año 2012). Se solicitó información estructural y organizativa a los responsables de los hospitales que contestaron disponer de UCE.

Resultados: De los 591 hospitales encuestados 67 (11,3%) informaron disponer de UCE y 48 (71,6%) forman parte del REGICE 1. El 65% de UCE depende de urgencias, el 23% de medicina interna y el 12% de otros servicios. El 52% se ubica en una planta de hospitalización y el 44% en urgencias. El número promedio de camas es de 15 (rango: 5-30). En el 60% el jefe de urgencias es el responsable de la unidad, en el 23% el de medicina interna, y en el 42% disponen de jefe propio diferente al jefe del servicio del que dependen. El número y organización horaria de los médicos es muy variable, con una ratio médico/camas de 1:5,8 (rango 1:2-1:12), no así el de personal de enfermería, que está mucho más estructurado. Un 70% participan en la formación de residentes.

Conclusiones: Sólo el 11,3% del total de hospitales encuestados dispone de UCE. La dependencia funcional mayoritariamente es del servicio de urgencias y hay una gran heterogeneidad en la organización de sus profesionales. [Emergencias 2014;26:57-60]

Palabras clave: Unidad de corta estancia. Urgencias. Proyecto REGICE.