

BRIEF REPORT

Role of the hospital emergency department staff in the organ donation process: opinions of professionals working in the Spanish autonomous community of Aragon

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Objective. To determine the opinion of hospital emergency department staff on their involvement in the process of organ and tissue procurement and on aspects that might improve their participation.

Methods. Emergency department physicians and nurses responded to a questionnaire during a course on the procurement of organ and tissue donations in the emergency setting. A total of 149 questionnaires were received from 78 nurses (52%) and 71 emergency physicians (48%) from 10 hospitals. Sixty-three percent of the respondents worked in hospitals with intensive care units and 37% in centers without such units.

Results. The respondents felt that the greatest difficulties in the donation process are related to communication and conveyance of information to the patient's families (39.6%) and to the assessment of prognosis (29.2%). The physicians felt that evaluating prognosis was the main hurdle, whereas the nurses thought that communication with the family presented the greatest problem ($P=0.021$). They also felt that the health care professional's involvement in the donation process was the key to improving organ procurement (83.1%). The availability of protocols (47.2%) and the need for training opportunities (31%) were considered necessary for increasing the involvement of emergency department staff in the process.

Conclusions. The attitudes of hospital emergency department staff to organ and tissue donation are very positive, as suggested by their opinion that their own involvement in the process is the most important factor to target for improvement. These emergency physicians and nurses would like relevant protocols and training in the organ donation process.

Keywords: Tissue and organ procurement. Transplants. Hospital emergency health services.

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Opinión de los profesionales sanitarios de Aragón acerca del papel de los servicios de urgencias hospitalarios en el proceso de donación

Objetivo. Conocer la opinión de los profesionales de los servicios de urgencias hospitalarios (SUH) sobre su participación en el proceso de donación y los aspectos que pueden mejorar su implicación en el mismo.

Método. Se realizó una breve encuesta a médicos de SUH (MSUH) y diplomados de enfermería (DUE) durante el desarrollo de un curso sobre donación en urgencias. Se analizaron 149 encuestas correspondientes a 78 DUE (52%) y 71 MUH (48%) de 10 centros hospitalarios de Aragón. El 63% trabajaban en hospitales con unidad de cuidados intensivos (UCI) y el 37% en hospitales sin UCI.

Resultados. Los profesionales opinaron que las mayores dificultades para el proceso de donación en los SUH son la comunicación y transmisión de información a la familia del paciente (39,6%) y la estimación del pronóstico (29,2%). Para los MSUH la mayor dificultad es estimar el pronóstico, mientras que para los DUE es la comunicación con la familia ($p = 0,021$). Para el 83,1% la implicación de los propios profesionales es el factor más determinante para mejorar el proceso de donación en el SUH. La disponibilidad de protocolos (47,2%) y la formación (31%) son las principales necesidades para implicarse de forma más intensa con la donación en urgencias.

Conclusiones. La actitud de los profesionales de los SUH frente a la donación es muy positiva, puesto que identifican su propia implicación en el proceso como el factor más importante para mejorarlo. Sus principales demandas son el desarrollo de protocolos y la formación en donación y trasplante.

Palabras clave: Donación. Trasplante. Servicios de urgencias hospitalarios.

Introduction

In 2013, there were 1,655 solid organ donors recorded in Spain (the highest rate in the world: 35.12 donors per million population) and a record 4,279 trans-

plants were performed¹. Nonetheless, more donors are needed since there remain 5,418 patients on the transplant waiting list.

Intensive care units (ICUs) have long been leaders in the detection and maintenance of potential donors af-

ter brain death, but now the donor profile has changed and hospital emergency departments (EDs) are increasingly important in this field^{2,4}. In 2013, 83% of donors were aged > 45 years and, for the third consecutive year, more than 50% were over 60 years of age. Furthermore, the most common cause of donor death was stroke (66%), while head injuries produced by accidents accounted for only 4.4%¹. In this scenario, the "Donation 40 Plan" recommends, among other strategies, improving the detection of potential donors in EDs and hospital wards⁵. The National Transplant Organization (ONT in Spanish) and the Spanish Society of Emergency Medicine (SEMES) are conducting a study to estimate the number of potential donors from EDs (pending publication)⁶.

ED-ICU collaboration with the transplant organization (ONT) increases the detection of brain death donors even in hospitals without neurosurgery^{6,7}, but little information is available about the opinion of ED professionals concerning their role in organ transplantation. The objective of this study was to determine the willingness of ED for professionals involved in the donation process and aspects that could help improve it.

Method

We performed a survey among emergency physicians (EPs) and registered nurses (RNs) working in the ED who participated in the first course emergency donation organized by SEMES and the Transplant Coordination of Aragon, with financial support from the national ONT. During the course we used an interactive voting system (Power-vote[®]) aimed at getting feedback from professionals about their involvement in the donation process, perceived difficulties and aspects that could facilitate matters.

At the time of the survey, participants had received general information on transplantation, the basics of the donation process in cases of brain death and data on changes in the profile of potential donors, and the detection of potential donors in the ED. The survey was approved by the Research Ethics Committee.

We analyzed 149 surveys completed by 78 RNs (52%) and 71 EPs (48%) from 10 hospitals in Aragon. Two thirds (63%) of respondents worked in hospitals with an ICU and 37% in hospitals without an ICU. About half (45%) worked in hospitals in the city of Zaragoza.

Absolute frequency distributions were analyzed and relative qualitative variables were compared using the chi-square test and Fisher exact test when appropriate. Differences with a P value <0.05 were considered statistically significant. All analyses were conducted using SPSS version 20.0 for Windows.

Results

According to our respondents, the major difficulties

for the donation process in the ED are communication with and information for the patient's family (39.6%), followed by estimating the prognosis (29.2%). Between 10% and 15% identified the disparity of criteria among other professionals or the difficulty of obtaining an ICU bed which acted as a barrier to the donation process in their departments. A significant difference was observed between the views expressed by EPs and RNs (Figure 1); for EPs, the greatest difficulty was estimating patient prognosis, while for the RNs it was communication with / information for the family ($p = 0.021$). There were no differences in group responses by type of hospital (with or without an ICU, or geographical location).

The factor that would most facilitate the donation process in the ED (Figure 2) would be the implication of the professionals themselves for 83.1% of respondents, without significant differences according to professional category, type of hospital or geographic location. For a small percentage of respondents, the process would require greater involvement of neurologists or neurosurgeons (7.7%) or the transplant coordinator (7%).

The needs of professionals in the ED for more intensive involvement in the donation process include the availability of protocols (47.2%) and training (31%), whereas most did not consider participation in coordination teams or improved ED facilities as priority needs (Figure 3). No differences in the responses of different subgroups were observed.

Discussion

Since 2009 the ONT and SEMES have run training courses for EPs and RNs in the process of organ donation⁸. The present survey, conducted in one of these courses, shows a very positive view of ED professionals, since they identified a desire to be involved as the most important factor for improvement.

Some studies have identified as barriers to ED-based donation the special difficulties of raising the possibility of donation in the ED and the lack of confidence in being able to cope with this additional burden^{9,10}. Communication with and information for the family is the first of the difficulties that our study found, and we believe there is a need for training to improve their communication skills in critical situations. The current and prognostic information well transmitted by EPs should facilitate the work of transplant coordinators, whose involvement is essential for a successful outcome in the process and helps maintain the current rate of family refusal at around 15%¹.

The difficulty of accurately estimating the prognosis of the patient is a major concern reflected in our study, especially among EPs, and 47% of respondents felt the need for appropriate protocols. These data suggest that programs/protocols on the treatment of critical patients, in agreement with other specialists involved in the process, would be highly valued by ED professionals. Implementation of such protocols in hospitals for the detection of potential donors is contemplated as an

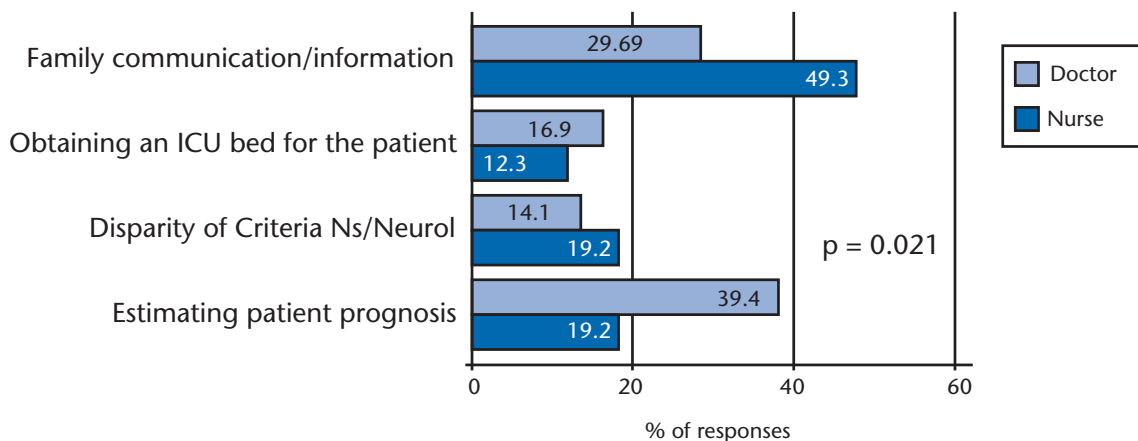


Figure 1. Results for Question 1: What is the greatest difficulty for the donation process in the emergency department? ICU = intensive care unit; Ns = Neurosurgeon; Neurol. = Neurologist.

inseparable part of medical care and is one of the recommendations of the ONT in their benchmark document⁷.

Reference is often made to work overload in the ED as an aspect that negatively influences the donation process¹¹. Nevertheless, most respondents did not consider that the difficulty of obtaining an ICU bed, the ED infrastructure or equipment constituted barriers to the donation process. Strategies to improve donor scree-

ning in the ED should take into account their possible interference with organizational and functional aspects of the critical care process: it would seem easier to improve EP involvement in the donation process, if that does not greatly add to their usual work or consume time needed for it.

Our study has several limitations. First, random sampling was not performed to select the participants, although we believe that the number surveyed and the

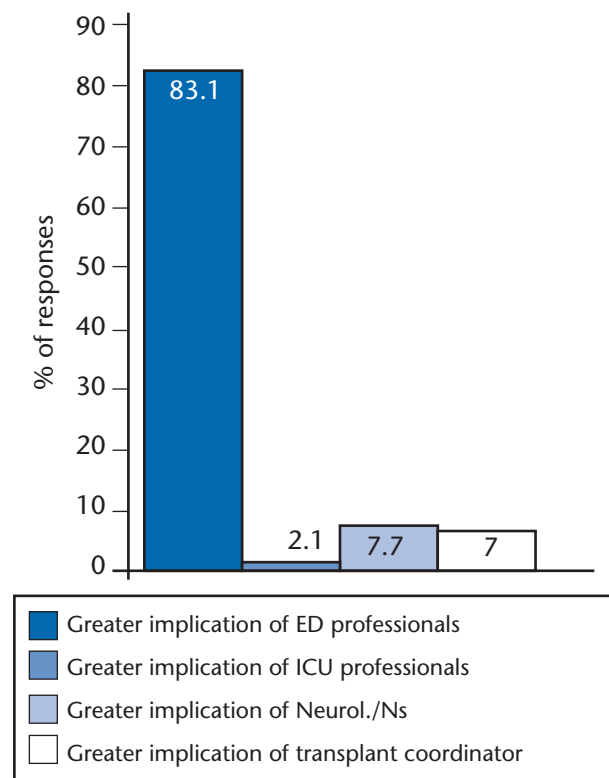


Figure 2. Results of question 2. What aspect would most facilitate the donation process in the emergency department? Ns = Neurosurgeon; Neurol. = Neurologist.

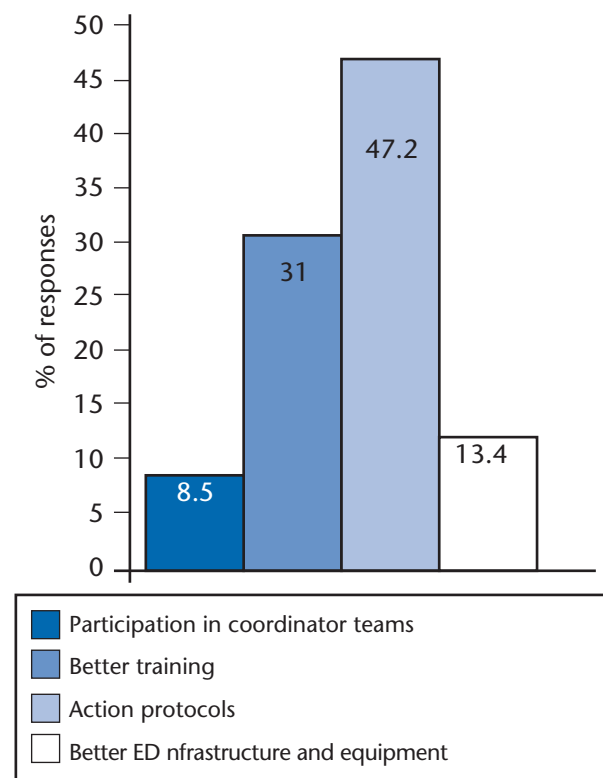


Figure 3. Results of question 3. What do emergency department professionals need to become more involved in the donation process?

fact that they were from all the hospitals in Aragon confer sufficient validity to the survey. Second, course attendance was voluntary, so there may be a selection bias with participants favorably disposed towards the donation process. Finally, we intentionally sought the opinion of respondents after receiving information provided in the first part of the course, so the survey results reflect the influence of the content and methodology of the training given.

Modification of the organ donor profile and the virtual absence of an age limit for donation makes the ED a key place to increase the detection of brain-dead donors.

The results of this brief survey show excellent predisposition among ED professionals to become involved in the donation process, and identify the main needs as training in communication skills and information for families, and the development of management protocols for critical patients.

Conflict of interest

The authors declares no conflict of interest in relation to the present article.

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