

4. López-Herce J, Carrillo A, Rodríguez A, Calvo C, Delgado MA, Tormo C. Paediatric life support instructors courses in Spain. Spanish Paediatric and Neonatal Resuscitation Group. *Resuscitation*. 1999;41:205–9.
5. López-Herce J, Matamoros MM, Moya L, Almonte E, Coronel D, et al. Red de Estudio Iberoamericano de estudio de la parada cardiorrespiratoria en la infancia (RIBEPCI), Paediatric cardiopulmonary resuscitation course program in Latin-America: the RIBEPCI experience. *BMC Med Educ*. 2017;17:161.

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## Donation after circulatory death. What is the opinion of pediatric intensive care professionals?



### Donación en asistolia controlada. ¿Qué opinan los profesionales de cuidados intensivos pediátricos?

Dear Editor,

Donation after circulatory death (DCD), also known as controlled asystole donation, is a new method of donation that is added to the traditional approach of donation after brain death. In Spain, DCD is practiced in adult patients and is in its initial stages when it comes to the paediatric population.<sup>1,2</sup> Donation after circulatory death is contemplated in critical patients when the decision to withdraw or withhold life-sustaining treatment (W/WLST) has been made due to the futility of available treatments.<sup>2</sup> Both processes (shared decision-making about W/WLST and consideration of DCD) must be conducted objectively, independently and with coordination of the professionals managing the critical child and the transplant team in each hospital.

Since this is a novel strategy, and taking into account the uncertainties and ethical dilemmas that it may generate, we conducted an anonymous non-standardised survey of health professionals working in paediatric intensive care units (PICUs) in Spain. The aim of the survey was to find out the perceptions about and clinical approaches to donation and DCD of health care professionals, especially those involved in the care of critically ill children.

We made the questionnaire available to PICU paediatricians and nurses through the website of the Sociedad Española de Cuidados Intensivos Pediátricos (Spanish Society of Paediatric Intensive Care, SECIP) and social media (Twitter®), accepting responses submitted in January and February 2020.

We analysed 86 valid responses corresponding to 66 paediatricians (76.7%), 10 nurses and 10 medical residents in paediatrics. They worked in paediatric or mixed units (63.6% with 10 or fewer beds). Most were female (69.7%) and predominantly aged 30–40 years (45.3%) or 40 and 50 years (31.4%). **Table 1** presents the main findings of the survey, and **Table 2** the degree of agreement with donation under 3 possible circumstances (after brain death, after WLST in a patient admitted to the PICU and after W/WLST in a patient in palliative care).

We found that the typical respondent profile corresponded to a female paediatrician aged 30–50 years employed in a PICU with fewer than 10 beds. Although in general respondents worked in units where very few donations took place, most had participated in the donation process at least once and would like to become donors if they found themselves in that situation in the future. Most reported that their units had protocols for donation and for W/WLST. Although respondents had been involved in the past in the process of informing families, 3 out of 4 were not satisfied with their training on the subject. Nearly all were familiar with the concept of brain death, whereas 1 in 3 did not know the criteria used to define circulatory death. Although all participants agreed that children could become donors after brain death, 9.3% was unsure about or disagreed with contemplating donation after W/WLST. This percentage rose to 18.6% when it came to patients receiving palliative care.

Donation after circulatory death is a challenge in paediatric practice. It is framed in a new health care reality in which paediatric mortality is very low and death frequently occurs in the context of decisions regarding W/WLST made in consultation with the family.<sup>3</sup> This new approach is not limited to critically ill patients but may also be con-

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**Table 1** Survey of PICU professionals about DCD processes.

| Item   | n     | Percentage |
|--|-------|------------|
| Have you been involved in any organ donations? (Yes/No)  | 69/17 | 80.2/19.8  |
| Number of donations per year at your PICU (<1 a year/>1 a year)  | 65/21 | 75.6/24.4  |
| Are you satisfied with your training on the subject? (Yes/No)  | 21/65 | 24.4/75.6  |
| Is there a specific protocol in your PICU? (Yes/No)  | 60/16 | 69.7/30.3  |
| Have you ever participated in the providing information in case of a donation? (Yes/No)                | 63/23 | 73.2/26.8  |
| Do you know what brain death is? (Yes/No)  | 82/4  | 95.3/4.7   |
| Do you know the criteria to define circulatory death? (Yes/No)   | 57/29 | 66.3/33.7  |
| Do you know the duration of asystole required to define circulatory death? (Yes/No)                    | 52/34 | 60.5/39.5  |
| Does your PICU have a protocol regarding withdrawal/withholding of life-sustaining treatment? (Yes/No) | 38/48 | 44.2/65.8  |
| Would you want to donate your organs if you were in such a situation? (Yes/Have not thought of it)     | 82/4  | 95.4/4.6   |

DCD, donation after circulatory death; PICU, paediatric intensive care unit.

**Table 2** Degree of agreement that organ donation and transplantation could be performed in 3 possible clinical situations (results expressed as absolute frequencies and percentages).

|   | Agree      | Unsure     | Disagree |
|---|------------|------------|----------|
| Brain death   | 86 (100%)  | 0 (0%)     | 0 (0%)   |
| Withdrawal/withholding of life-sustaining treatment in PICU patient                       | 78 (90.7%) | 5 (5.8%)   | 3 (3.5%) |
| Withdrawal/withholding of life-sustaining treatment in paediatric palliative care patient | 67 (77.9%) | 11 (12.8%) | 5 (5.8%) |

PICU, paediatric intensive care unit.

sidered in patients undergoing palliative care with a short life expectancy and very poor quality of life.<sup>4</sup> This may give rise to uncertainty and ethical dilemmas that produce moral anxiety in providers.<sup>5</sup>

Based on our survey, we conclude that paediatricians in the PICU setting wish to receive training on the subject, including protocols for W/WLST and DCD. For the management of children involved with donation to proceed with the highest scientific, technical and ethical rigour, active collaboration with the transplant coordination team of the corresponding hospital is of the essence. Thus, we believe that it is essential for the Asociación Española de Pediatría (Spanish Association of Paediatrics) and the Organización Nacional de Trasplantes (National Transplant Organization) to get involved in the development of educational activities and to provide support in these processes.

## References

- Weiss MJ, Hornby L, Rochweg B, van Manen M, Dhanani S, Sivajaran VB, et al. Canadian guidelines for controlled pediatric donation after circulatory determination of death – summary report. *Pediatr Crit Care Med.* 2017;18:1035–46.
- Rodríguez Núñez A, Pérez Blanco A, Grupo de Trabajo de la AEP-ONT. Recomendaciones nacionales sobre donación pediátrica. Documento de consenso de la AEP y la ONT. *An Pediatr (Barc).* 2020;93(2):134.e1–9.
- Agra Tuñas C, Rodríguez Ruiz E, Rodríguez Merino E, on behalf of the MOMUCIP-2 study group of the Spanish Society of Pediatric Intensive Care (SECIP). How do children die in PICUs nowadays? A multicenter study from Spain. *Pediatr Crit Care Med.* 2020;21(9):e610–6, <http://dx.doi.org/10.1097/PCC.0000000000002359>.
- García Salido A, Santos Herranz P, Puertas Martín V, García Teresa MA, Martino Alba R, Serrano González A. Estudio retrospectivo de pacientes derivados de cuidados intensivos pediátricos a cuidados paliativos: por qué y para qué. *An Pediatr (Barc).* 2018;88:1–3.
- Larson CP, Dryden-Palmer KD, Gibbons C, Parshuram CS. Moral distress in PICU and neonatal ICU practitioners: a cross-sectional evaluation. *Pediatr Crit Care Med.* 2017;18:318–26.

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