

I. Huespe<sup>a,b</sup>, I. Carboni Bisso<sup>a</sup>, S. Di Stefano<sup>a</sup>, S. Terrasa<sup>a</sup>, N.A. Gemelli<sup>a,\*</sup>, M. Las Heras<sup>a</sup>

<sup>a</sup> Adult Intensive Care Unit, Hospital Italiano de Buenos Aires, Buenos Aires, Teniente Perón, Capital Federal, 4190, Argentina

<sup>b</sup> Institute of Translational Medicine and Biomedical Engineering, Hospital Italiano de Buenos Aires, IUHI, CONICET, Teniente Perón, Capital Federal, 4190, Argentina

Corresponding author.

E-mail addresses: [nicolas.gemelli@hospitalitaliano.org.ar](mailto:nicolas.gemelli@hospitalitaliano.org.ar), [gemellinicolas@gmail.com](mailto:gemellinicolas@gmail.com) (N.A. Gemelli).

2173-5727/ © 2020 Elsevier España, S.L.U. and SEMICYUC. All rights reserved.

## Detection of frailty and palliative needs from discharged critical care patients in collaboration with primary care<sup>☆</sup>



### Detección al alta de UCI de la fragilidad y necesidades paliativas del paciente crítico en colaboración con atención primaria

Sir,

Our population is growing older, and this implies an increase in age-related chronic diseases. As a result, we have a growing number of elderly persons with multiple health problems and with a poor functional reserve.<sup>1</sup> All this indicates that the number of frail individuals in the Intensive Care Unit (ICU) will continue to rise.<sup>1</sup> Such patients present greater disability at the time of discharge, are more likely to be admitted to a sociosanitary center, and experience greater mortality and longer convalescence periods.<sup>2,3</sup>

In view of the above, early detection of frailty is needed, and we should be aware of the prognostic usefulness of frailty as a complement to the usual mortality-centered scales employed (APACHE, SAPS3, etc.). In this way we could redirect our efforts to ensure earlier empathic and honest conversations focused on the shared planning of care, respecting the desires, preferences and values of our patients and their relatives.<sup>3</sup> In addition, the detection of frailty at discharge from the ICU could be of help in continuous clinical decision making and in improving the efficiency of the healthcare system.

The Health Plan<sup>4</sup> of Catalonia (Spain) 2011–2015 sought to place priority on prevention and care in people with advanced chronic disease conditions. The primary care teams (PCTs), using the NECPAL (NECesidades PALiativas [Palliative Needs] tool,<sup>5</sup> identified two frail person profiles: complex chronic patients (CCPs) and patients requiring an advanced chronicity care model (ACCM), with the idea of adopting an individualized care plan (Individualized Shared Intervention Plan [ISIP]) including advanced decision planning (ADP). All this in turn is recorded in the shared case

history of Catalonia (SCHC) with the purpose of facilitating decision making.

The NECPAL tool was designed by the Qualy-ICO-CCOMS observatory, and has been validated in our setting for the identification of people with advanced chronic disease, an estimated life expectancy of 12 months, and a need for palliative care of some kind – the activation of specific plans therefore being necessary<sup>5</sup> (Appendix B, see Supplementary material).

Given the new populational paradigm, the important and persistent barriers facing decision making regarding the adequacy of life support care (ALSC) and end-of-life care,<sup>6</sup> which obliges intensivists to decide in this regard, and in concordance with the Health Plan<sup>4</sup> of Catalonia, we decided to be more proactive in detecting these patients, conducting prognostic follow-up and seeking to ensure early detection of their predictable palliative needs.

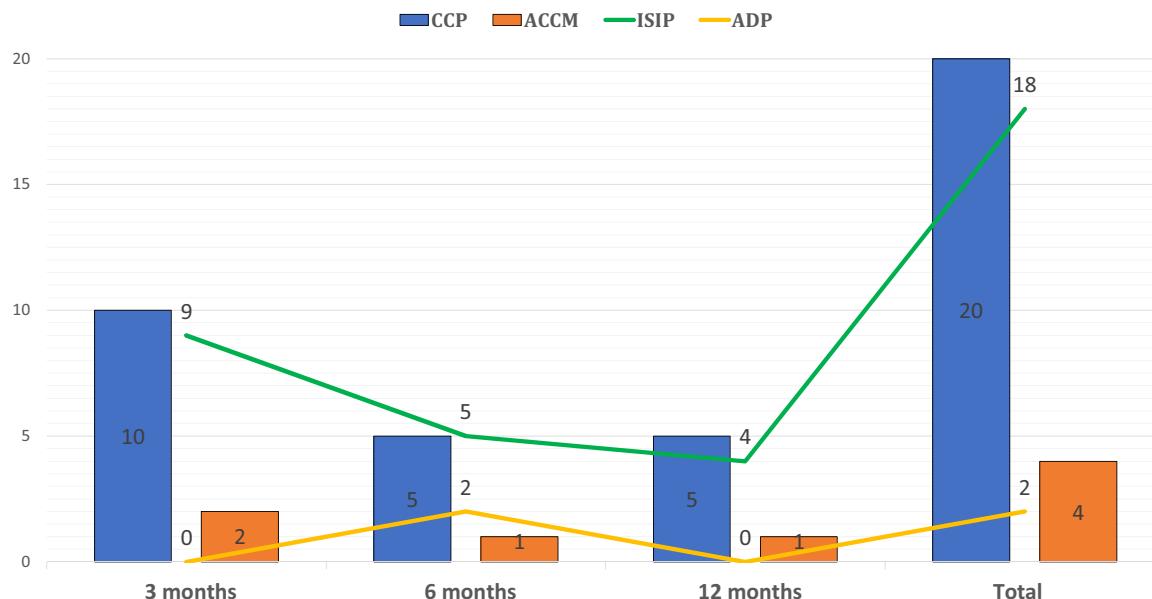
In this context, over a period of 6 consecutive months and in all patients discharged from our ICU, we determined whether they were identified as CCPs or ACCM, and whether they had ISIP and/or ADP. If the patients were identified but did not have ISIP and/or ADP, interconsultation of the liaison nurse with the PCTs was made, recording the time to implementation of the ISIP and/or ADP. In turn, based on the NECPAL, we identified those patients in need of palliative care, reporting them to the LN to facilitate their identification as CCPs or ACCM and implementation of the ISIP and/or ADP. Lastly, during one year of follow-up, we checked how many patients were finally catalogued and whether they had their ISIP and/or ADP.

The study was approved by the Ethics Committee of our center. Since no interventions different from those of routine practice were involved, informed consent from the patients or their representatives was not considered necessary.

Of the 471 discharged patients, 24.6% (n = 116) were NECPAL positive, with a predominance of males (66.4%, n = 73) and a mean age of 66.3 ± 13 years. The mortality rate at one year was 28.9% (n = 33). Of all the subjects, 16 (13.7%) were previously CCPs (n = 14) or ACCM (n = 2), and 9 (56.2%) had their ISIP, while only one of them moreover also had ADP. After the year of follow-up and the pertinent LN interconsultations, a total of 10 ISIP (62.5%) and 4 ADP had been established (25%). Of the other 100 NECPAL positive patients at discharge, information corresponding to the SCHC could not be obtained in 5 cases, thus leaving 95 patients. At one year, 25.2% of them (n = 24) were catalogued as CCPs (n = 20) or ACCM (n = 4) by the PCTs, though 75% (n = 18) had been catalogued as such at 6 months. In this same period of

<sup>☆</sup> Please cite this article as: Ferré C, Canelles S, Daniel X, Rubio O, Esteban F, Pobo A. Detección al alta de UCI de la fragilidad y necesidades paliativas del paciente crítico en colaboración con atención primaria. Med Intensiva. 2022;46:101–103.

## Progression over time of ISIP and ADP of the CCPs and ACCM



**Figure 1** Progression over time of ISIP and ADP of the CCPs and ACCM during the year of follow-up.  
PCC: Paciente Crónico Complejo; MACA: Enfermedad Cronicidad Avanzada; PIIC: Plan Intervención Individualizado Compartido; PDA: Planificación Decisiones Anticipadas.

time almost 60% (58.3%, n = 14) of the ISIP were established, together with the only two ADPs registered during the entire year of follow-up (Fig. 1).

Previous experiences with the NECPAL<sup>5</sup> tool are available in other populations for detecting chronic patients with palliative care requirements,<sup>7</sup> and even in seeking to predict their mortality.<sup>8</sup> To our knowledge, however, this is the first time the mentioned tool is used to detect the palliative needs of patients at discharge from the ICU and to try to implicate the professionals of the PCTs.

Although a range of scales have been validated in different populations to measure frailty,<sup>9</sup> none of them have sufficient discriminating capacity to be universally used in the ICU. Until such a tool becomes available, the best approach is to use the scale that is most feasible in our setting and which allows us to make the best decisions regarding our patients. In our healthcare setting it makes full sense to use the NECPAL,<sup>5</sup> for in addition to already having been validated and allow multimodal assessment (including comorbidities, subjective aspects of demand or need for palliative care, and clinical severity, disease progression, nutritional, functional, social, emotional distress and resource utilization indicators), it can be consulted and shared by means of the SCHC.

The World Health Organization (WHO) recommends addressing frailty, individual preferences, priorities and psychosocial resources, and incorporation of the latter to the individualized planning of care, since these factors influence individual patient quality of life.<sup>10</sup>

The few ADPs established initially and at one year of follow-up offer important room for improvement which we should take advantage of.

In view of its prognostic importance, the detection of frailty should be incorporated to our routine clinical practice in order to adequately adjust life support management both upon admission to and at discharge from the ICU. In addition, this would allow us to implement early palliative care strategies and – where needed – to provide adequate end-of-life care.

### Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.medin.2020.11.007>.

### References

1. Nguyen Y-L, Angus DC, Boumendil A, Guidet B. The challenge admitting the very elderly to the intensive care. Ann Intensive Care. 2011;1:29, <http://dx.doi.org/10.1186/2110-5820-1-29>.
2. López S, Oteiza L, Lázaro N, Irazabal MM, Ibarz M, Artigas A, et al. Fragilidad en pacientes de 65 años ingresados en cuidados intensivos (FRAIL-UCI). Med Intensiva. 2019;43:395–401, <http://dx.doi.org/10.1016/j.medin.2019.01.010>.
3. Athari F, Hillman KM, Frost SA. The concept of frailty in intensive care. Aust Crit Care. 2019;32:175–8, <http://dx.doi.org/10.1016/j.aucc.2017.11.005>.
4. Programa de prevenció i atenció a la cronicitat. Departament de Salut. Dirección Carles Constante. Autores: Blay C, Cabezas C, Contel JC, González-Mestre A, et al. [Accessed June 2020]. Available from: [https://salutweb.gencat.cat/web/.content/\\_ambits-actuacio/Lines-dactuacio/Estrategies-de-salut/Cronicitat/Documentacio-cronicitat/arxius/Programa.pdf](https://salutweb.gencat.cat/web/.content/_ambits-actuacio/Lines-dactuacio/Estrategies-de-salut/Cronicitat/Documentacio-cronicitat/arxius/Programa.pdf).
5. Gómez-Batiste X, Martínez-Muñoz M, Blay C, Amblàs J, Vila L, Costa X, et al. Identifying patients with chronic condi-

- tions in need of palliative care in the general population: development of the NECPAL tool and preliminary prevalence rates in Catalonia. *BMJ Support Palliat Care.* 2013;3:300–8, <http://dx.doi.org/10.1136/bmjspcare-2012-000211>.
6. Hillman KM, Cardona-Morrell M. The ten barriers to appropriate management of patients at the end of their life. *Intensive Care Med.* 2015;41:1700–2, <http://dx.doi.org/10.1007/s00134-015-3712-6>.
  7. Calsina-Berna A, Martínez-Muñoz M, Bardés Robles I, Beas Alba E, Madariaga Sánchez R, Gómez Batiste Alentorn X. Intra-hospital mortality and survival of patients with advanced chronic illnesses in a tertiary hospital identified with the NECPAL CCOMS-ICO© tool. *J Palliat Med.* 2018;21:665–73, <http://dx.doi.org/10.1089/jpm.2017.0339>.
  8. Gómez-Batiste X, Martínez-Muñoz M, Blay C, Amblàs J, Vila L, Costa X, et al. Utility of the NECPAL CCOMS-ICO© tool and the surprise question as screening tools for early palliative care and to predict mortality in patients with advanced chronic conditions: a cohort study. *Palliat Med.* 2017;31:754–63, <http://dx.doi.org/10.1177/0269216316676647>.
  9. Dent E, Martin FC, Bergman H, Woo J, Romero-Ortuno R, Walston JD. Management of frailty: opportunities, challenges, and future directions. *Lancet.* 2019;394:1376–86, [http://dx.doi.org/10.1016/S0140-6736\(19\)31785-4](http://dx.doi.org/10.1016/S0140-6736(19)31785-4).
  10. WHO [Accessed June 2020]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/258981/9789241550109-eng.pdf?sequence=1>, 2017.
- C. Ferré<sup>a</sup>, S. Canelles<sup>a</sup>, X. Daniel<sup>a</sup>, O. Rubio<sup>b</sup>, F. Esteban<sup>a</sup>, A. Pobo<sup>a,\*</sup>
- <sup>a</sup> Unidad de Cuidados Intensivos, Hospital Universitari Joan XXIII, Institut d'Investigació Sanitària Pere Virgili, University Rovira i Virgili, CIBERES, Tarragona, Spain
- <sup>b</sup> Unidad de Cuidados Intensivos, Hospital Sant Joan de Déu, Fundació Althaia Xarxa Universitària, Manresa, Barcelona, Spain

Corresponding author.  
E-mail address: [apobo.hj23.ics@gencat.cat](mailto:apobo.hj23.ics@gencat.cat) (A. Pobo).

2173-5727/ © 2021 Published by Elsevier España, S.L.U.

## Public-private collaboration in Seville as a strategy to expand organ and tissue donors: Think there is no box<sup>☆</sup>



### Colaboración público-privada en Sevilla como estrategia para ampliar los donantes de órganos y tejidos: Think there is no box

Dear Editor:

Organ and tissue transplantation is currently a consolidated therapy that last year saved the lives or improved the quality of life of over 5300 patients in our country. However, yet despite this great activity, we are still not self-sufficient when it comes to meeting the needs of our population.<sup>1</sup>

In this sense, the National Transplant Organization (NTO) started a strategic plan to assess areas with room for improvement, set specific goals, and design specific actions.<sup>2,3</sup> Among the limiting factors we constantly find the number and type of hospitals involved in the process of donation in such a way that transplant centers and centers with neurocritical patients traditionally have more activity.<sup>4</sup> Over the last few years, the number of private hospitals has grown, they have become more complex, and gained prominence as part of the healthcare system with a huge number of human, material, and logistic resources.<sup>5</sup>

Considering the little involvement of the private sector in the activity of donation since 2012, the Sectorial Coordination of Transplants Seville-Huelva, Spain has signed a

public-private collaboration agreement with several hospitals from the city of Seville, Spain to support the process of organ and tissue donation in the intensive care unit (ICU) setting without having to transfer the potential donor, thus guaranteeing that he can participate in this process. Also, added to a training program for the ICU and OR staff of the private sector.<sup>6–8</sup>

This program facilitated the option of organ and tissue donation from dead people in these centers who would have never been donors otherwise. After 7 years, we wish to present the results obtained to show the room for growth of a collaborative program like this.

This was an observational and retrospective study of the activity of organ and tissue donation in private hospitals of the city of Seville from 2012 through 2018. The sex, age, blood type, presence of cardiovascular risk factors like arterial hypertension or diabetes mellitus, as well as the cause of death of every donor were recorded. Also, the type of donation was specified whether under conditions of brain dead (BD) or controlled asystole donation (CAD), as well as the number and type of organs and tissues extracted. Finally, the organs that were eventually transplanted and those that were not viable for transplantation were identified, as well as the causes that prevented the transplant. Quantitative variables were expressed as median and interquartile range (IQR), and the qualitative ones as absolute numbers and percentages.

A total of 23 organ and tissue donors were registered. A total of 82% of the cases were donations under conditions of brain dead (BD) that were predominant within the first 4 years of the study. Over the last 2 years, donation in CAD has come up as the new model of donation, using the super-fast preservation technique in two cases, and the normothermic regional perfusion (NRP) technique in another two (Table 1).

A total of 78% of the donors provided one or more viable organs for transplantation. A total of 39 organs were implanted, which represents a rate of 1.7 viable organs/donor with a distribution shown on Table 2. Only

☆ Please cite this article as: Martín-Villen L, Ruiz de Azúa-López Z, Revuelto-Rey J, Aldabó-Pallás T, Alonso-Gil M, Egea-Guerrero JJ. Colaboración público-privada en Sevilla como estrategia para ampliar los donantes de órganos y tejidos: Think there is no box. *Med Intensiva.* 2022;46:103–105.