

EDITORIAL

Inside prehospital emergency services: an x-ray view*Radiografía de los servicios prehospitalarios de emergencias*

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Pre-hospital medical emergency services (EMS) have been on the health map of Spain for around a quarter of a century¹. They are a common and now essential part of the current model of health care. Due to their characteristics, they are public services with frequent appearances in the media, but they are also unknown to citizens and other healthcare professionals. When in 2002, during the Florence congress of the European Resuscitation Council, the first hour quintet was defined, the acute processes in which the first hour is key to patient prognosis, acute myocardial infarction, cardiac arrest, severe trauma, stroke and severe respiratory failure², the central objective of EMS was clearly visualized. Almost 20 years have gone by and the EMS have evolved to adapt to modern medicine, with its own quality criteria³, with a solid presence in these key processes⁴⁻⁷ and opening the way to other care possibilities that show the growing presence of these services in a wide range of clinical processes⁸⁻¹¹. However, a description such as that proposed by Escalada et al.¹² is needed to have a real and updated vision of these services.

Through their work, they go over in detail aspects that usually go unnoticed. The large number of services they provide, both in consultations through the coordination centres and with direct assistance to patients on site. The very important number of professionals involved, considering also that they use downward estimates, taking as an annual working day a number of hours that exceed the recognized public working day of 37.5 hours per week. Even so, when these figures are extrapolated to the reality of the entire State they are overwhelming. It is true that they should be taken with caution, as recommended by the authors themselves, because the health structure in Spain is complex and there may be differences between theoretically very similar services that are difficult to explain¹³. However, even if they are estimates, they reveal some services with a care burden that could not be assumed by other levels of health administration. An ordered activity, with specific protocols in time-dependent pathologies, the activation codes, essential for the final prognosis of these patients. A work developed by professionals from very diverse academic backgrounds, without a homogeneous pattern of training and, therefore, without specific criteria that standardize their capacity and profes-

sional development. When these EMS data are added to the vision gathered in the information series on hospital emergency departments in Catalonia (SUH-CAT studies) that the Catalan Society of Emergency Medicine (SOCMUE) began to publish in 2014¹⁴, the overall vision of the emergency department shows a magnitude of which the health administration does not seem to be very aware. The number of professionals, care figures, and their impact on the health system and the population are unquestionable. It is difficult to understand, and very difficult to explain to other European physicians, how is it possible that in Spain there is no specialty that recognizes this specific activity, this scientific body, this enormous volume of professionals and healthcare activity.

The study provides some other interesting data on the training and research activity carried out in these services. Training and research are key elements at any health level, they are part of their obligation and it is encouraging that they are present in the EMS. On the one hand, the continuous training of its professionals, which is more complex than in other areas because its work system, exclusively by shifts, and a marked dispersion of its professionals make it very difficult to carry out joint training actions. Even routine activities, such as traditional hospital clinical sessions or weekly primary care meetings that take place within working hours, are practically impossible in the EMS. In this sense, the average percentage of time included in the annual working day, dedicated to internal training, 3.4% on average, seems short, especially due to the wide interval it presents. We do not know this data from other EMSs but probably because of these characteristics, continuous training in these services should receive special attention and consideration. It would also be very interesting to know the subjects that are the target of this internal training and to know if it follows a homogeneous pattern with the rest of the Spanish EMSs. It is important, however, to know the proportion of professionals who "rotate" and do internships in the EMS, especially professionals in postgraduate training. This is an enriching aspect for the whole health system. As is the presence of professionals from the EMS in the academic training of doctors and nurses. It is not a high percentage, but the presence of doctors and university professors in the EMS

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is very relevant and encouraging, especially if we take into account that the lack of specialty plays against it.

The research section was a pleasant surprise for us. The EMS, in its pure welfare aspect, is not a finalist service. They treat patients for a short period of time and require collaboration at an internal level to obtain key, essential results, diagnostic confirmation and variable morbidity and mortality outcomes. On the other hand, the conditions for carrying out any type of research are objectively more difficult in the pre-hospital setting, including the ethical aspects that must accompany the process¹⁵. For all these reasons, the figures provided are modest but hopeful. They reflect interest on the part of the professionals, a small number of publications but in indexed journals, in a proportion similar to other more consolidated levels of care, despite a low proportion of professionals with a sustained dedication to research. A figure that also denotes a certain lack of institutional support. It seems that research in the EMS is not recognised or valued by the responsible administrations. It should not be forgotten that only medium and long-term projects offer results in research. It is unrealistic to expect interesting contributions without a long-term background. Even so, it would be very interesting to know if similar figures are given in the Spanish EMS as a whole. Incorporating these services into regulated research should be a firm decision of the health administrations. Their involvement in processes of high morbidity and mortality also requires direct involvement in their research. It is a healthy envy to observe how in other countries measures are adopted which favour transversal research in response to the growing social demand for services which form an inescapable part of modern medicine¹⁶. We need to know and integrate the different responses that the health system must offer citizens. A complete and updated X-ray of the emergency services of our country.

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References

- Barroeta Urquiza J, Boada Bravo N. Los servicios de emergencia y urgencias médicas extrahospitalarias en España. (Consultado 21 Enero 2020). Disponible en: http://www.epes.es/wp-content/uploads/Los_SEM_en_Espana.pdf
- Krafft T, Castrillo-Riesego LG, Edwards S, Fischer M, Overton J, Robertson-Steel I, et al. European emergency data project (eed project), ems data-based health surveillance system. *Eur J Public Health*. 2003;13:85-90.
- Zamora-Soler JÁ, Maturana-Ibáñez V, Castejón-de la Encina ME, García-Aracil N, Lillo-Crespo M. Utilización e implementación de indicadores de calidad para evaluar la atención en las emergencias extrahospitalarias: revisión sistemática. *Emergencias*. 2019;31:346-52.
- Soto-Cámara R, Trejo-Gabriel-Galán JM, González-Bernal J, González-Santos J, Cubo E. Factores asociados con la activación del servicio de emergencias médicas en el paciente con ictus agudo: un estudio prospectivo. *Emergencias*. 2019;31:86-90.
- Ali Ali B, Lefering R, Fortún Moral M, Belzunegui Otano T. Validación del Modelo de Predicción de Mortalidad de Navarra y comparación con el Revised Injury Severity Classification Score II en los pacientes con traumatismo grave atendidos por el Sistema de Emergencias de Navarra. *Emergencias*. 2018;30:98-104.
- Martín-Rodríguez F, López-Izquierdo R, del Pozo Vegas C, Delgado Benito JF, del Brio Ibáñez P, Moro Mangas I, et al. Valor predictivo del preNEWS2-L (Pre-hospital National Early Warning Score 2 Lactate) para la detección de la mortalidad precoz en el ámbito prehospitalario. *Emergencias*. 2019;31:173-9.
- Solà Muñoz S, Morales Álvarez JA, Jiménez Fàbrega X, Carmona Jiménez F, Mora Vives A, Jordán Lucas S. Código infarto prehospitalario con bloqueo de rama izquierda: ¿es igual que con elevación del ST? *Emergencias*. 2018;30:357.
- López Unanua MC, Muñoz Agius F, García Estraviz C, Sánchez Santos L. Evaluación y tratamiento del dolor de origen traumático en medicina prehospitalaria. *Emergencias*. 2018;30:66.
- Ferrés-Padró V, Solà Muñoz S, Jacob Rodríguez J, Membrado-Ibáñez S, Amigó Tadiñ M, Jiménez Fàbrega FX. Indicadores de calidad y puntos de mejora en la asistencia prehospitalaria de los pacientes adultos expuestos a monóxido de carbono. *Emergencias*. 2019;31:304-10.
- Smyth MA, Gallacher D, Kimani PK, Ragoo M, Ward M, Perkins GD. Derivation and internal validation of the screening to enhance pre-hospital identification of sepsis (SEPSIS) score in adults on arrival at the emergency department. *Scand J Trauma Resusc Emerg Med*. 2019;27:67.
- Egea-Guerrero JJ, Martín-Villén L, Pérez-Villares JM. El papel clave de los equipos de emergencias extrahospitalarias en los programas de donación en asistolia no controlada en Andalucía. *Emergencias*. 2018;30:368-9.
- Xavier Escalada, Pere Sánchez, Ricard Hernández, Emili Gené, Javier Jacob, Gilberto Alonso, et al. Societat Catalana de Medicina d'Urgències i Emergències. Estudio SEPHCAT: análisis de los servicios de emergencias prehospitalarios en Cataluña. *Emergencias* 2020;32:90-6.
- Del Arco Galán C, Rodríguez Miranda B, González Del Castillo J, Ruiz Grinspan M, Carballo C, Bibiano Guillén C, et al. Estudio comparativo de la estructura física, recursos humanos e indicadores de actividad asistencial entre los servicios de urgencias hospitalarios públicos de la comunidades autónomas de Madrid y Cataluña. *Emergencias*. 2017;29:373-83.
- Miró O, Escalada X, Gené E, Boqué C, Jiménez Fàbrega FX, Netto C, et al. Estudio SUHCAT (1): mapa físico de los servicios de urgencias hospitalarios de Cataluña. *Emergencias*. 2014;26:19-34.
- Armstrong S, Langlois A, Siriwardena N, Quinn T. Ethical considerations in prehospital ambulance based research: qualitative interview study of expert informants. *BMC Med Ethics*. 2019;20:88.
- Lindskou TA, Mikkelsen S, Christensen EF, Hansen PA, Jørgensen G, Hendriksen OM. The Danish prehospital emergency healthcare system and research possibilities. *Scand J Trauma Resusc Emerg Med*. 2019;27:100.