

## EDITORIAL

## Frail older patients in the emergency department: main challenges

*El anciano frágil en urgencias: principales retos*Mireia Puig-Campmany<sup>1,3,4</sup>, Josep Ris-Romeu<sup>1,2,4</sup>

The aging and progressive over-aging of the population is related to an increase in healthcare needs, which undoubtedly include emergency consultations and hospital admissions. The National Institute of Statistics describes a fact equally common throughout the developed world: in 2035, 26.5% of the Spanish population will be over 65 years of age and life expectancy in 2069 for these people will add 22.5 years for men (3.8 years more than at present) and 26.3 years for women (3.6 years more).<sup>1</sup>

Elderly patients in urgent need have specific characteristics that differentiate them. In addition to the diseases specific to the age group and those that are more similar to those of the general population, they often have geriatric syndromes, may manifest characteristically nonspecific signs and symptoms, and often have atypical presentations. Finally, polypharmacy is a common condition that is often intermingled in the clinical picture.

In addition, elderly patients suffer greater risks derived from their stay in the hospital emergency department (ED), such as the appearance of delirium, and longer hospital stays, higher admission rates and higher mortality have been well documented. Also typical of this population group is “under-admission”, which causes inappropriate delays in care, as well as under-diagnosis and under-treatment and, on the contrary, increased adverse events resulting from examinations and treatments or over-treatment.

The current organization and operation of the ED corresponds to a quality and highly protocolized approach, but more focused on the diagnosis-treatment binomial. However, a different, broader, and more complex approach is required in frail patients with urgent demand, focusing on the comprehensive assessment of the problems and needs (clinical, social and functional) of the person,<sup>2</sup> with a clearly differentiated vision from the more conventional one. For all these reasons, it is necessary to have tools that allow easy identification of the population at risk and it is essential to adapt the care process and to arm both the services and their professionals with specific competencies,<sup>3</sup> appropriate protocols and, preferably, use an adapted environment.<sup>4</sup>

Triage is a relevant point in emergency care. Its aim is to assign the level of priority to avoid adverse events related to the eventual delay. However, classic triage systems show serious shortcomings in the assessment of elderly patients.<sup>5</sup> The literature identifies the peculiarities of the elderly population as barriers to correct assessment; for example, atypical, subtle or non-specific symptoms and signs, the existence of cognitive impairment that makes patient participation difficult, or physiological changes that mean that vital signs must be interpreted differently. All these factors contribute to under-prioritization, and very often consultations are lumped into a heterogeneous level of priority,<sup>3</sup> which we know can lead to inappropriate delays in care.<sup>6</sup>

Despite the difficulty, triage can and should also be an opportunity to identify a patient with special characteristics of vulnerability and, consequently, to detect whether an adaptation of the care provided is necessary. The literature describes different strategies useful in the ED to improve identification of the problem, although there is no unanimity in the use of a particular tool, so that the guidelines recommend a reasonable selection of the population based on the characteristics of their environment.<sup>4</sup> The systematic use of certain frailty scales is not well established, since they are not optimized or sufficiently validated in the ED setting and their results may be poorly evaluated in the context of an acute condition.

For this reason, and for any age group, there is a growing interest in finding scales that allow early detection in the ED of patients at increased risk of suffering an unfavorable event, such as hospital admission, intensive care, or death.<sup>7-9</sup> In this issue of EMERGENCIAS, Arévalo et al.<sup>10</sup> report their experience. The authors translated the NEWS-2 scale into Spanish, trained triage nurses and conducted a pilot study. In a second phase, they studied its predictive capacity for events such as those described or for cardiorespiratory arrest in the ED. This is the first study of these characteristics in our setting and they report a very good predictive capacity with very low interobserver variability. The results are not separated by age segments, and the characteristics of the sample, with a mean age of 56.8 years, short ED stays (mean 1.32) and 50.6% of priority 4 and 5 sug-

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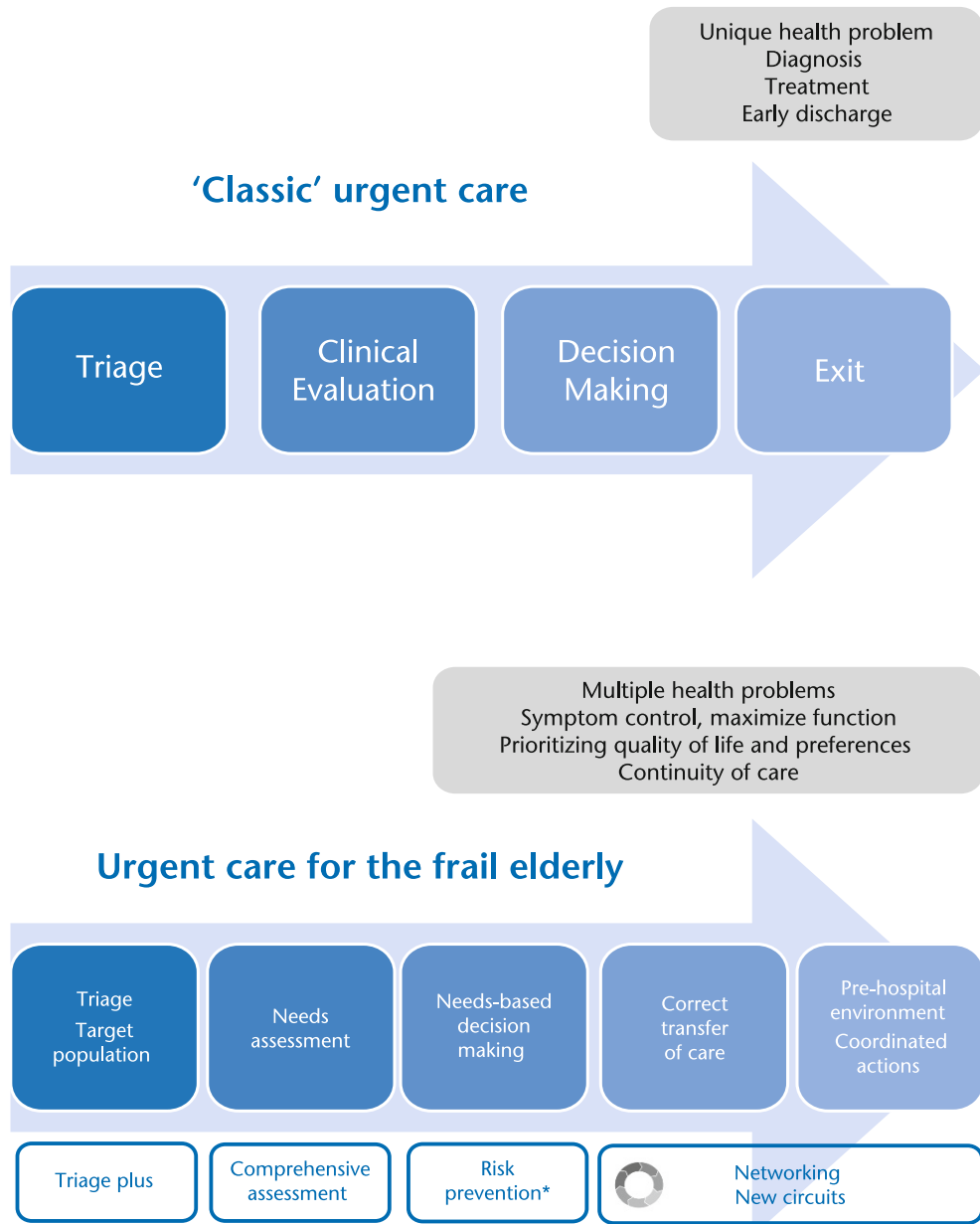
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**Figure 1.** Classic emergency care adapted to the frail elderly patient. The current organization and operation of hospital emergency departments corresponds to an approach that is very much centered on the diagnosis-treatment binomial. A different, broader and more complex approach is required in the elderly patient with an urgent process, focused on a comprehensive assessment of needs (clinical, social and functional), multidisciplinary teams, protocols and adapted areas for the prevention of risks and incidental geriatric syndromes, giving priority to quality of life and patient and caregiver preferences, and guaranteeing quality transfers and continuity of care.

\*Adapted areas and protocols.

gest a low representation of elderly or very elderly patients in the sample studied. This is an initial study of great value, which could be complemented by a multicenter study including hospitals of different levels and specifying the results by age range, in order to be able to assess the usefulness of the scale in all age ranges and in all hospital settings.

The identification of the vulnerable target population is an essential factor. It allows the initiation of a

differentiated care process, which also incorporates a comprehensive geriatric assessment to facilitate obtaining a situational diagnosis, to adjust the diagnostic and therapeutic intensity to the needs and preferences of the patient and, finally, to establish a plan of care and possible solutions. In our experience, systematic identification of the vulnerable population in triage can be done in less than 3-4 minutes when done by trained emergency professionals. We have obtained good re-

sults using relatively simple, but reproducible, structured tools that allow the initiation of tailored care as soon as the patient arrives.<sup>2</sup> However, there is a need to consolidate standards with more evidence. In short, the addition of a specific care plan for the vulnerable elderly offers the opportunity to improve health care outcomes in this population<sup>11,12</sup> by reducing and preventing avoidable complications, facilitating a safe transition (preferably to their environment) and, when the plan is shared and extended, facilitating more effective coordination with the different levels of care (Figure 1).

EDs need to protocolize and mandate this new scenario. The American College on Emergency Physicians (ACEP) published in 2014 the first guidelines to promote the adaptation of EDs for the urgent care of the elderly,<sup>4</sup> and in 2018 created the Geriatric Emergency Department Accreditation (GEDA). Today there are 339 accredited EDs worldwide, including the ED of the Hospital de la Santa Creu i Sant Pau in Barcelona as the only European center. In 2018, the European Society for Emergency Medicine (EUSEM) and the European Geriatric Medicine Society (EuGMS) joined forces and created the European Task Force on Geriatric Emergency Medicine (ETGEM)<sup>13</sup> with the aim of developing expert clinical recommendations in geriatric emergency medicine for dissemination throughout Europe.<sup>14</sup> However, despite the growing need and rapidly expanding knowledge in this field, widespread implementation of change has not occurred. This concept must be transferred to the reality of the ED, since there seems to be no other way to face the challenge of the future that we posed at the beginning of this editorial, and its success will have a great impact, both in terms of quality of care and sustainability of the system.

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## References

- 1 Instituto Nacional de Estadística. Proyecciones de población 2020-2070. 2020. (Consultado 20 Julio 2022). Disponible en [https://www.ine.es/prensa/pp\\_2020\\_2070.pdf](https://www.ine.es/prensa/pp_2020_2070.pdf).
- 2 Puig-Campmany M, Blázquez-Andion M, Ris-Romeu J. Aprender, desaprender y reaprender para asistir a ancianos en urgencias: el secreto del cambio. *Emergencias*. 2020;32:122-30.
- 3 Bellou A, Nickel C, Ganansia O, Banerjee J, Devriendt E, Mooijaart S, et al. Creación del Currículum Europeo de Medicina de Urgencias y Emergencias Geriátrica: una colaboración entre la European Society for Emergency Medicine (EUSEM) y la European Union of Geriatric Medicine Society (EUGMS) The European Curriculum of Geriatric. *Emergencias*. 2016;28:295-8.
- 4 Rosenberg MS, Carpenter CR, Bromley M, Caterino JM, Chun A, Gerson L, et al. Geriatric Emergency Department guidelines. *Ann Emerg Med*. 2014;63:e7-25.
- 5 Puig-Campmany M, Blázquez-Andion M, Ris-Romeu J. Triage tools: a cautious (and critical) view towards their use in old patients. *Eur Geriatr Med*. 2022;3:319-22.
- 6 Levin S, Toerper M, Hamrock E, Hinson JS, Barnes S, Gardner H, et al. Machine-Learning-Based Electronic Triage More Accurately Differentiates Patients With Respect to Clinical Outcomes Compared With the Emergency Severity Index. *Ann Emerg Med*. 2018;71:565-574.e2.
- 7 Martín-Rodríguez F, Sanz-García A, Ortega Moreno L, del Pozo Vegas C, Castro-Villamor MA, Martín-Conty JL, et al. Modelo de riesgo de mortalidad precoz en pacientes ancianos con enfermedad aguda atendidos por servicios de emergencias prehospitalarias. *Emergencias*. 2020;32:177-84.
- 8 López-Izquierdo R, Albi TR, Bermejo-martín JF, Almansa R, Victoria F, Sanz V, et al. Modelos de riesgo para la predicción de mortalidad hospitalaria en ancianos con neumonía por COVID-19. *Emergencias*. 2021;33:282-91.
- 9 Spencer W, Smith J, Date P, De Tonnerre E, Taylor DMD. Determination of the best early warning scores to predict clinical outcomes of patients in the emergency department. *Emerg Med J*. 2019;36:716-21.
- 10 Arévalo-Buitrago P, Morales-Cané I, Luque EO, Godino-rubio M, Rodríguez-borrego MA, López-soto PJ. Validación en España de la escala National Early Warning Score 2 (NEWS-2) para la detección precoz en urgencias de pacientes en riesgo de deterioro. *Emergencias*. 2022;34:452-7.
- 11 Boreskie KF, Hay JL, Boreskie PE, Arora RC, Duhamel TA. Frailty-aware care: giving value to frailty assessment across different healthcare settings. *BMC Geriatr*. 2022;22:1-12.
- 12 Amblàs-Novellas J, Espauella-Panicot J, Inzitari M, Rexach L, Fontecha B, Romero-Ortuno R. En busca de respuestas al reto de la complejidad clínica en el siglo XXI: a propósito de los índices de fragilidad. *Rev Esp Geriatr Gerontol*. 2017;52:159-66.
- 13 EUSEM. European Task Force on Geriatric Emergency Medicine (ETGEM) [Internet]. 2018.(Consultado 20 Julio 2022). Disponible en: <https://eusem.org/sections-and-committees/sections/geriatric-section/gemtaskforce>.
- 14 Lucke JA, Mooijaart SP, Heeren P, Singler K, McNamara R, Gilbert T, et al. Providing care for older adults in the Emergency Department: expert clinical recommendations from the European Task Force on Geriatric Emergency Medicine. *Eur Geriatr Med*. 2022;13:309-17.