EDITORIAL

# Direct admission to home hospitalization from the emergency department: feasible, efficient, and necessary

## *Ingreso directo desde urgencias a domicilio: factible, eficiente y necesario*

Carlos Bibiano Guillén

In the coming years, it is necessary to reconsider our care model due to the existence of several challenges, especially in relation to the aging of the population and the increase in complex chronic diseases such as acute heart failure (AHF). More than 80% of admissions for AHF are directly from the emergency department (ED),[1] and it represents the most frequent cause of hospitalization in elderly patients.[2] Furthermore, it has a high in-hospital mortality, as well as a high readmission rate[3] of close to 20% after discharge. Hospitalization due to AHF accounts for 2.5% of total health care costs[4] and the cost of hospitalization due to decompensation is the most important factor in the costs of these patients.

In recent years, many hospitals have opted to develop hospital at home (HaH) units as an alternative to conventional hospital care (CHC) for patients with acute[5] or exacerbated chronic diseases. A growing number of studies point to the potential risk of adverse effects and complications associated with CHC, especially in older patients, which can have a significant impact on clinical outcomes.[6] A recent meta-analysis has shown that patients treated in HaH[7] have lower hospital readmission rates and greater satisfaction with the care received, without compromising quality and safety.

Despite the efforts made to improve the care of patients with AHF, especially in the ED, there is still a need to address this issue in a more comprehensive and effective manner.[8] In this regard, the complexity of factors that influence the final results, such as frailty, advanced age and comorbidity, must be taken into account.[9] In this scenario, the recent article published in EMERGENCIAS by Sánchez Marcos et al.[10] A retrospective study was carried out in 2 EDs to compare direct admission from the ED in HaH with admission to CHC in patients with AHF. This study is relevant due to the lack of definitive conclusions in previous studies.[11]

On the one hand, we evaluated all patients with AHF included in the Epidemiology Acute Heart Failure in Emergency departments (EAHFE) registry, in three different periods, and who were admitted to CHC. On the other hand, we retrospectively identified patients with AHF who were admitted directly from the emergency department to HaH during a 3-year period. In total, 348 patients with AHF at HaH and 646 patients at CHC were included in the study. The results suggest that HaH could be an equally safe and effective option as CHC, since no significant differences were found in terms of in-hospital mortality, 30-day adverse events, and 1-year mortality between the two groups. Furthermore, even though patients in the HaH group presented a more unfavorable baseline situation, the strategy of direct admission from the emergency department to HaH proved to be more efficient, with a 76% reduction in the cost per episode, even with a significantly longer mean length of stay, representing a significant saving in health care costs.

This study presents a comprehensive approach that gives it clinical relevance and numerous strengths. First, the HaH group was mostly composed of elderly patients with preserved ejection fraction, frailty, and dependency, representing a complex and high-risk population. Currently, the selection of AHF patients expected to benefit from the HaH model is a challenge for the implementation of this innovative approach.[12] Although the authors of the article mention this aspect as a potential limitation, it actually becomes a strength, as it identifies the characteristics of a population with frequent hospitalizations that can benefit from hospital-quality care at home, which offers advantages for both the patient and the healthcare system. Secondly, the present study confirms the safety of admitting patients with AHF directly from the emergency department to their homes after stratifying the severity of the episode using the MEESSI scale,[13] which makes admission safer and reduces the variability that is often present in the in the care of AHF in the ED.[14] Although safety during HaH during HaH remains an issue of concern, as the authors point out, experiences of integrating technology[15] at home are improv-

**Author Affiliations:** Emergency Department, Short Stay Unit and Home Hospitalization Unit, Hospital Universitario Infanta Leonor, Madrid, Spain. Faculty of Medicine, Universidad Complutense, Madrid, Spain.
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**Corresponding Author:** Carlos Bibiano Guillén. Emergency Department. Infanta Leonor University Hospital. Avenida Gran Vía del Este 80. 28031 Madrid, Spain.
**Email:** cbibianoguillen@gmail.com
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ing detection and anticipation of complications in these patients. These new tools will make it possible to increase the complexity and safety of HaH patients.

Thirdly, but no less important, this study shows that the economic benefits are remarkable for our system. This fact ensures the sustainability and scalability of this model.

Regarding limitations, it should be noted that the study was carried out in two hospital centers, probably with variability in care, as reflected in different studies,[11] and that this does not allow generalization of the results without prior confirmation. Furthermore, this is a retrospective observational study that may be subject to selection bias where the inclusion method was based on clinical criteria without confirmation in all cases. Finally with respect to the outcome variables, it does not reflect whether patients admitted to HaH had to be admitted to CHC within the same process, which could reflect a deficiency in the conclusions of the safety outcomes.

In conclusion, the study by Sánchez Marcos et al.[10] demonstrates that HaH can be a safe and effective option for home admission directly from the emergency department for patients with AHF, representing an innovative and efficient alternative in health care. Despite the limitations of the study, the results are promising and suggest the need to continue exploring new care strategies to address the complexity of AHF patients' needs and improve health outcomes, where the integration of technology will represent a definitive transformation.

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