

## A solution to provide efficient use of intensive care beds: Long-term intensive care hospitals

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### Dear Editor,

With the increase in the elderly population, chronic diseases are also increasing in Turkey as throughout the world (1). The increasing population of patients with Chronic Critical Diseases (CCD) causes a significant increase in the clinical and economic burden (2, 3). Trauma or exposure to acute disease and diseases, which require weeks or months of care and life-support in the Intensive Care Unit (ICU) are defined as CCD (4). Developments in IC which have reduced the mortality of acute critical patients while extending life have also caused an increase in those with CCD who are mechanical ventilation dependent and have other IC treatment requirements (2). Loss et al reported that although only 11% of patients in ICU have CCD, they consume 40.6% of the resources (4). Long-Term Care Hospital (LTCH) were first introduced in the USA and came into practice in the 1980s. Between 1988 and 1996, the budget assigned by Medicare to LTCH increased by 31% per annum from 0.2 billion dollars to 1.7 billion dollars and since 1997, 200 hospitals have been licensed by Medicare as LTCH (5).

Medicare, the health insurance system in the USA, as a hospital where patient care is applied to those who require 25 days or more of intensive care after acute care, for complex medical conditions, which are more stable, compared to patients in ICU but have still not been resolved, defined LTCH. In later years, research started into how the costs could be reduced for the care of these patients who needed long-term acute care and because of the lower costs of LTCH, they became an important component of LTC after IC (6). The level of care in LTCH is between that of ICU and a care home, including patients who have been discharged from ICU but need more care than they could receive in a nursing home or rehabilitation centre or at home and require mechanical ventilation, have respiratory failure, have recently undergone surgery, have a gastrectomy

tube, are on total parenteral nutrition, have a bladder or central venous catheter in place or have co morbidities such as diabetes, pressure ulcers or malnutrition (7).

Outside of the USA, there are no LTCH, which provide care for CCD after IC in other European countries, but there are care institutions, which come under the general heading of LTC (8).

In Turkey in recent years, both the quality of care and the number of ICUs have increased. According to the 2014 statistical data of the Ministry of Health, an increase of approximately 13-fold was seen between 2002 and 2012 (9). The costs of ICU patients are paid in full by the SGK (the Turkish National Health System) without any restrictions. Due to developing ICU conditions, patients are supported with advanced machines and medications. In the 'Intensive Care Units Research' made by the State Hospitals Institution, it was reported that between June 2014 and May 2015, of a total 5784 patients followed up in ICUs, 41.5% were aged >65 years, length of stay in ICU was >30 days in 3.5% and length of stay was > 30 days in surgical ICU in 11.4% (10).

Due to the increasing elderly population in Turkey and developments in IC, there is an ongoing increase in CCD and consumption of healthcare resources. As 'Do No Resuscitate' and 'termination of treatment' decisions do not yet have a place in the legal system, the traditional structure of society and lack of awareness on this subject have resulted in stays in ICU prolonged for weeks or even months. As there are no LTCH, the care of patients with CCD is provided in the better-equipped ICUs of university and training and research hospitals, which have even higher costs.

Although the ICU of Ankara Ulus State Hospital, opened in 2013, was named to provide IC, it only meets a small part of the requirement for LTIC in Ankara. By transferring CCD patients with a prolonged treatment process and who have not recovered from the ICUs of university and training and research hospitals, which are better equipped but have high bed costs, care is provided at a lower cost without restricting the length of stay. Although the care quality and cost-effectiveness has not yet been fully established, with the transfer of patients who will block ICU beds for a long time in university and training and research hospitals in Ankara, care can be provided for acute critical patients who

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require follow-up in ICU and have a chance of full recovery in a short period.

In the USA, physicians working in LTIC are the most important members of the team and comprise individuals specialized in internal diseases, family medicine or critical care subjects. They are responsible for the planning, application and supervision of treatments such as pulmonary care, wound care, rehabilitation, dialysis, IV antibiotic treatment and pain management (6).

The features of LTIC in Turkey should be:

The characteristics of the physicians and auxiliary healthcare personnel who will be on duty 24 hours a day, 7 days a week, in LTIC should be defined, A multidisciplinary team should work including nurses, physiotherapists, dieticians and speech therapists together with the clinicians, Mechanical ventilation, dialysis, comprehensive laboratory and radiology services, Training applications in areas such as respiratory therapy, wound and ostomy care, The establishment of infection prevention and control programs for infections, which are more resistant in LTIC, Definition of the SGK payment system and LTIC criteria, as in IC, Definition of the clinical characteristics of patients to be admitted to LTIC, Definition of the length of stay in both IC and LTIC, Close collaboration with the patient's family.

In conclusion, due to the increasing elderly population in Turkey and developments in IC, the increasing number of cases with CCD is increasing the consumption of healthcare resources. As there are no long-term care hospitals in Turkey, care of CCD cases is provided by the better-equipped ICUs of university and training and research hospitals, which have even higher costs. With the transfer of ICU patients to LTICU, there can be more

effective use of ICU beds and in addition to the effective use of healthcare resources, multidisciplinary care can be provided to these patients in LTICU by a specialized team experienced in CCD care. Therefore, it is of great importance that the concept of LTIC is given prominence and discussed, and LTICUs working in the same way as the ICU in Ankara Ulus State Hospital should be established throughout the country.

## REFERENCES

1. TUIK. file:///C:/Users/User/Downloads/Hayat\_Tablolar%C4%B1\_07.10.2015.pdf (access date) 10.03.2017.
2. Nelson JE, Cox CE, Hope AA, Carson SS. Chronic critical illness. *Am J Respir Crit Care Med* 2010;182(4):446-54.
3. Dinçer M, Kahveci K, Döğler C, Gökçinar D, Yarici AK, Taş H. Factors affecting the duration of admission and discharge in a palliative care center for geriatric patients. *Turkish Journal of Geriatrics* 2016;19(2):74-80.
4. Loss SH, Marchese CB, Boniatti MM, Wawrzyniak IC, Oliveira RP, Nunes LN, et al. Prediction of chronic critical illness in a general intensive care unit. *Rev Assoc Med Bras (1992)* 2013;59(3):241-7.
5. Liu K, Baseggio C, Wissoker D, Maxwell S, Haley J, Long S. Long-term care hospitals under Medicare: facility-level characteristics. *Health Care Financ Rev* 2001;23(2):1-18.
6. Koranne R. The role of the long-term acute care hospital. *Minn Med*. 2011;94(9):38-40.
7. Eskildsen MA. Long-term acute care: a review of the literature. *J Am Geriatr Soc* 2007;55(5):775-9.
8. Da Roit B, Le Bihan B. Similar and Yet So Different: Cash-for-Care in Six European Countries' Long-Term Care Policies. *Milbank Q* 2010;88(3):286-309.
9. Bakanlığı TS. Sağlık İstatistiği Yıllığı 2014. Sağlık Araştırmaları Genel Müdürlüğü Ankara Sentez Matbaacılık ve Yayıncılık. 2015;79-81.
10. Sülekli HE, Küçük A. T.C. Sağlık Bakanlığı Türkiye Kamu Hastaneleri Kurumu Yoğun Bakım Üniteleri Araştırması 2015 <http://www.tkhk.gov.tr/Dosyalar/4292ab83043844b7a1e68694155679b0.pdf>: (access date) 10.03.2017.