Anesth Pain Med. 2016 April; 6(2): e32902. doi: 10.5812/aapm.32902

Published online 2016 April 16. **Editorial**

Intensive Care at Home: An Opportunity or Threat

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Received 2015 September 2; **Revised** 2015 November 27; **Accepted** 2016 January 4.

Keywords: Intensive Care at Home, Critical Care at Home, Intensive Care Services, Critical Care Services

Although efficient hospital and intensive care unit (ICU) throughput depends upon the expeditious admission and discharge of ICU patients (1), health care systems are facing ethical challenges of caring for complex patients that are known as multimorbidity (2-8). A vast majority of patients need ICU admission; furthermore, when hospital occupancy is near its full capacity, prompt discharge of ICU patients to ward beds may not be feasible.

According to the national coalition of health care, the cost of health care in 2009 was approximately 2.5 trillion USD equal to 17.6% of the gross domestic product of the United States. The cost of caring for patients at ICUs in the United States has been estimated as 15% to 25% of all US hospital costs and from 1% to 2% of the gross national product. By 2019, these costs are expected to increase to 6% of the gross national product; an incredible 38% of the total US health-care costs (9). The annual cost of ICU hospitalization due to prolonged hospital length of stay is 33 billion USD (10).

There are patients who are no longer in the acute phase of their illness, but are not fully ready for ICU discharge. Besides, patients who are at end staged of their lives may benefit from discharging to home and continuing intensive care services at home (13). The resultant delay in ICU discharge not only artificially increase ICU occupancy rates, LOS, and costs for the patient (14, 15), and healthcare system but may also impede the admission of new ICU patients, potentially increases the risk of acquiring nosocomial infections, and would postpone the initiation of rehabilitative treatments (10, 16).

This is that while professional society guidelines for ICU discharge has been written more than a decade ago but does not specifically address issues concerning ICU-to-home discharges (1, 11). In this regards, previous studies have shown that many patients experience an extended length of stay (LOS) (10) with up to 30% of LOS being deemed unnecessary (12).

Continuing intensive care services at home has several advantages, including an environment with reduced noise and night-time light favoring the return to more physiological circadian rhythms and better sleep, open visiting hours to allow unrestricted visits by relatives and friends, easier access to personal belongings, such as books, computers, tablets, TV, music players, and so on. The management of these individuals generally involves more than only expertise in mechanical ventilation, but rather an integrated approach with harmonized procedures conducted by a multidisciplinary team (11). Besides, continuing intensive care services at home should also represent a cost-effective alternative to the ICU for the management of patients' in need.

It is important to note that policies encouraging early discharge. Besides, care services at home would require extensive assessment of both functional capacity of the patients and the skills and coping abilities of the care givers (17). This shift in care which would lead to reduction in length of hospital stay (18-21), providing a comprehensive precise and case-individual strategy, particularly for patients with several care needs. This strategy could clearly predict the final destination where patient would receive care in, determine the care-givers and the treatment team (22, 23). Thus rehabilitation process would be expedited and decision making by treatment team would be facilitated.

In addition it would help private health care agencies to plan properly and to provide suitable equipment, staff, etc (10, 19). The care previously provided by the hospital is now being provided by support agencies and/or, more importantly, by family members of the patient.

Ultimately, we suggest that intensive care services at home for patients, family members and health care staffs is rather an opportunity than a threat; extensive original and systematic reviews in this scope is necessary.

Footnote

Authors' Contribution: Seyed Sajad Razavi, Mohammad Fathi, and Mohammadreza Hajiesmaeili made sub-

stantial contributions to the conception and design of the study, were involved in drafting of the manuscript and revising for important intellectual content, approved the final version to be published, and agreed to be accountable for all aspects of the work.

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