Commentary

Do we really need more intensive care unit beds?

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Wide scale research and statistics are the corner stone for defining the current status as well as for optimal future planning.

Halpern and colleagues (1) continued on their way to help the critical care community and health care decision makers, not only in the United States but worldwide, to understand the trends in critical care medicine (CCM) bed changes. This analysis is novel by looking at these changes in age-specific groups. In spite of being retrieved from United States national information data, it can be applicable to other countries. Firstly, the methodology used in this analysis can guide researchers interested in health care economics to undergo similar studies in their countries (2). Secondly, the information can be used in other developed countries (e.g., Western Europe), which have the same CCM bed trends as in the US [e.g., Germany (3), Austria and Belgium (4)].

The authors showed that the number of CCM beds continue to increase, despite of decreasing overall hospital bed numbers, in the absence of guidelines mandating this expansion. This increase is concomitant with the increase in the adult patient population, but this is not true for the premature/neonatal age group. Premature/neonatal CCM beds increased despite a decrease in this patient population. This study shows that the cost of CCM increased by 61.1% per day, in the same period of time.

How can we change these trends? There is no simple answer to this and the main question remains: do we have the right incentives to facilitate the cooperation of all the involved medical disciplines in order to decrease the number of CCM beds and to optimize its use in different hospitals?

In hospitals where the different involved disciplines' budgets are capped, multidisciplinary strategies to reduce CCM beds are difficult to realize, even if it is cost-effective. Reimbursement of hospitals to develop new strategies to reduce CCM beds and optimize its use should be promoted (5).

Cost-effectiveness in general, is the balance between resources and demands. "Resource allocation" is the term that must be adopted by governments and health care providers. Applying the fast track concept outside of the intensive care unit (ICU) is an example of "macro-allocation". Palliative management outside of the ICU is an example of "micro-allocation". Most ICU health care providers are not aware of the real dimensions of the cost problem and specific methods to solve it. "Resource allocation" may be in conflict with evidence-based clinical decision making and ethical principles (6). Governments have to employ the least confrontational approach consistent with the goal.

It has been shown that center-related factors influence ICU length of stay almost to the same extent as patient- and procedure-related factor. High dependency units with precise extubation protocols and high nurse/patient ratios may allow for the management of up to 70% more patients without requiring additional CCM beds (7).

Successful strategies to reduce or even avoid ICU admission (8) should include implementation of guidelines and protocols, careful patient selection, proper patient education, regular staff training and eventually the use of new technology [i.e., telemetry (9)] to ensure patient safety on the general ward. This applies to both, the adult and pediatric patient populations (10,11).

We want to congratulate and thank Halpern and colleagues for providing us with important information about the trends in CCM and the resulting costs. A thorough analysis and understanding of an existing problem

is the first step in solving it. Needless to say CCM needs international cooperation and multinational studies to compare these trends.

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Footnote

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