The Evolution of Intensive Care Medicine: From Recumbency to Fully Functioning in Every Day Life

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Abstract
The paper delivers a short introduction to the discussion on progress in intensive care medicine.

Zusammenfassung
Der Beitrag liefert eine kurze Einführung in die Diskussion über den Fortschritt in der Intensivmedizin.

Progress in intensive care medicine has significantly improved survival rates for life-threatening conditions in recent decades. Survivors, however, often suffer from significant restrictions, including cognitive impairment, mental disorders, loss of mobility and social isolation, and experience significant limitations with regard to health-related quality of life (Elliott et al. 2014, Pandharipande et al. 2014). This symptom complex is also referred to as “Post-Intensive Care Syndrome” (PICS) (Tempel and Pfeifer 2013). PICS also comprises persistent cognitive dysfunction, acquired weakness and post-traumatic stress disorder (Elliott et al. 2014). Mobility restrictions can still be detected five years after discharge (Herridge et al. 2003). In 40% of all patients, cognitive damage still exists three months after discharge, which is still detectable in 34% of patients after one year (Pandharipande et al. 2014). Functional restrictions ultimately affect more than half of all patients receiving intensive care (Elliott et al. 2014).

To counteract PICS, clinical trials increasingly focus on improving functional outcomes, i.e. preservation of physical and mental integrity (Schweickert et al. 2009). A milestone in this is the 2015 DAS guideline on analgesia, sedation and the management of delirium (Taskforce DAS et al. 2015), which is increasingly viewed as a quality indicator of German intensive care units. There are new scientific, social and economic challenges associated with the reduction in the quality of life faced by survivors of critical illness, as well as with a paradigm change in intensive care towards a conscious, cooperative patient who actively participates in the healing process. These challenges will be presented and critically analyzed with international experts as part of the Nova Acta Leopoldina “The Evolution of Intensive Care Medicine”. However, current evidence and technical progress are not enough for patients. The quality of life after a severe illness is considerably restricted and attention and memory disturbances, as well as depression and post-traumatic stress disorder, are frequent. There is still a lack of awareness of these gaps in care in society, the economy and politics. Gaps be-
between the ideal patient-centered state (Fig. 1) and the current state (Fig. 2) will be specified, discussed and presented as a central part of the *Nova Acta Leopoldina* “The Evolution of Intensive Care Medicine”.

First, we will focus on socio-political and individual medical issues, the significance of PICS in the national and international context, as well as the adaptation of intensive care medicine necessary to meet these new challenges. Furthermore, scientific multisystem approaches
for improving functional outcomes will be merged to promote an interprofessional discussion and elucidate functional outcomes with emphasis on cognition and mobility from the perspective of various disciplines and areas of research. In this high-stake area, our ultimate goal is to improve the well-being of our patients – a patient-centered outcome, in which attention is placed on the patient (Fig. 1) – by focusing on the development of science, evidence and excellence in order to meet our individual medical and social responsibilities.

References


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