

# Critically Ill Older Patients Treated in Intensive Care Units : Long-Term Consequences

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## Chapter 8

## Valorization

## Valorization

The demographic structure of the industrialized world is shifting towards a higher proportion of older people with longer life expectancies. As a result of this demographic shift, the number of hospitalizations of older patients with acute critical illnesses in intensive care units (ICU) is also predicted to increase. The case-mix of the patients treated in ICUs is also changing toward increasing numbers of patients with cardiogenic shock and acute exacerbations of chronic obstructive pulmonary disease. Advances in medicine, nursing, and new technologies have improved the survival rates for older patients with life-threatening illnesses or accidents, while at the same time presenting new challenges for the healthcare team. The older patients are particularly vulnerable due to their critical illnesses, age-related physical and mental changes, multiple comorbidities, and the effect of the hospital environment. In addition, therapeutic interventions may be stressful for the critically ill older patients, and distressing for their family members.

The discussions on the skyrocketing costs of healthcare accentuate the challenges in treating critically ill multi-morbid older patients who require complex care. Questions arise such as: How stressful and painful are intensive care therapies? What long-term complications or consequences might be expected? How is the quality of life affected after an ICU stay?

Results of evaluations of long-term consequences for critically ill older patients following an ICU stay are increasingly significant. The previously accepted narrow focus on mortality data does not provide answers to the current questions arising from patients, family members, healthcare professionals, clinicians, researchers, administrators, health maintenance organizations, and government policy makers. Understanding long-term consequences such as pain, anxiety, agitation, health-related quality of life (HRQoL) and healthcare resource utilization will provide a starting point for goal-oriented treatment strategies that commence during the ICU stay. The overall aim of this thesis was to identify how an ICU stay influences the older patients' experiences later in life. The long-term consequences examined were: pain, anxiety, agitation, HRQoL and healthcare resource utilization. The choice of these long-term consequences is meaningful because they provide information on the burden from an ICU stay and express the nonclinical qualitative effects of the newest developments in medical, nursing and technology, and reflect the level of care and treatment necessary following an ICU stay.

## Population and Patients

The results of this study show that critically ill older patients have good long-term quality of life following an ICU stay. This is important to help older patients and families cope with the uncertainties, decisions and fear that accompany an ICU stay.

The general population needs to be aware that receiving the appropriate level of care at the right time and at the right place can improve the health of older patients and relieve their suffering. They need to know that the ICU is available and useful for all age groups, even in times of limited economic resources. Given the right situation, intensive care medicine can allow the critically ill older patients the chance to return to a satisfactory life. The goal of intensive care must be that the older patients will be able to live at home as long as possible, if necessary, with formal and/or informal care.

## Interdisciplinary Care

The collective expertise of an interdisciplinary healthcare team consisting of nurses, physicians and specific therapists is essential for the survival of critically ill older patients. The teams work under extreme stress and burdens due to the constantly changing situations. Caring for critically ill older patients may raise ethical conflicts and/or problems. The autonomy and integrity of the older patients may be at risk. The lack of feedback regarding the recovery process influences the motivation to care for the older patients and raises questions as to the meaning and purpose of intensive care treatment. Healthcare teams can find motivation through an understanding of the long-term consequences of an ICU stay.

Standardized routine interventions during the initial life-threatening phase in intensive care are essential. However, once this initial phase passes, care for the older patient needs further definition. The frequency of interventions such as intratracheal suctioning or positioning must be individually determined according to need rather than routine. Specific services following hospital discharge, such as rehabilitation or follow-up care by the family physician, should be designed to allow patients and their families to live their everyday life as independently as possible. The present study provides evidence that individually coordinated interventions and services are important during the patient's further process of recovery.

## Organizational Support and Hospital Leadership

Hospital-wide strategies are needed to care for the increasing number of critically ill older patients who are being hospitalized. Hospital management must initiate strategies and processes that offer age-appropriate hospital care in terms of “senior friendly hospitals.” This would promote positive attitudes towards older patients and their caregivers; build appropriate communication strategies; ensure respectful treatment of older patients and their families; develop policies and evidence-based guidelines; cooperate with interface institutions; and develop structures, equipment, and facilities to provide an environment that takes the vulnerabilities of older patients into consideration.

ICUs in particular are in need of change in order to find a balance between the highly vulnerable older patients and the ICU environment with its technical equipment, noise, stressors and rotating personnel.

A better understanding of the needs of older patients, family members, and the members of the interdisciplinary healthcare team in the ICU is critical. ICUs of the future will be designed with customized rooms with integrated areas for families, specially selected colouring, lighting and noise reduction, and easy accessibility. A workplace for the healthcare team with educational opportunities should be the standard in future ICUs. Innovative treatment models will allow continuity and communication, for example using mobile healthcare teams, and involving consultation with advance practice nurses.

## Cooperation and Collaboration with Healthcare Service Providers

The greater complexity of care required for the critically ill older patients complicates hospital discharge. Physical, social and functional stress factors present additional challenges when transferring patients out of the ICU or to other care facilities. Older patients need healthcare services that can be individualized during their recovery period. Healthcare services, rehabilitation institutions and general practitioners must coordinate their services, increase access by informing the public of these services, and assure that the services offered are age-appropriate. To build an optimally balanced program, providers need training and knowledge of the needs of older patients and their families. Furthermore, medical and technical developments such as digitalization, virtualization and automated feedback systems will influence care provision. Examples are the tele-medicine and tele-nursing programs. Nursing will assume new responsibilities in coordination and communication among the various healthcare providers, as in case management, thereby reducing further stress for the older patients (i.e., stress resulting from frequent physicians and medical specialist visits).

## Educational Challenges

Well-trained nurses and physicians in the ICU can positively influence the long-term consequences for older patients. It is clear that the traditional distribution of responsibilities between nurses and physicians should be critically and constructively examined and redefined. A need exists for continuing education courses in gerontology including aging, frailty, the rapidly changing societal realities, dealing with the challenges confronting the older patients and their families, and the concrete healthcare resources including legal, technical and financial issues. An important tool will be interdisciplinary case discussions and clinical supervision. These services will not only ensure professionalism but will also enhance the expertise in working with older patients.

## Political Aspects

Governmental and regulatory organizations must recognize their responsibility for the critically ill older patients by providing the necessary resources, monitoring and regulating service contracts with healthcare providers, developing national guidelines for the care of older patients and supporting initiatives for “senior friendly hospitals” and innovative care models. It is important that healthcare policy makers accept their responsibility in the care of the older patients. Sustainable and needs-based health care for older patients should be implemented with binding and comprehensive guidelines, from financial security for long-term care to end of life care. In this respect, concepts can be developed based on research of relevant clinical practices and experiences gained in cooperation with older patients, families, interdisciplinary healthcare teams and politicians.

## CAPHRI

The Research presented in this thesis was conducted at the School of Public Health and Primary Care; CAPHRI, Departement Health Sciences Research, of Maastricht University. CAPHRI participates in the Netherlands School of Primary Care Research CaRe. CAPHRI was classified as 'excellent' by the external evaluation committee of leading international experts that reviewed CAPHRI in December 2010.