

ICU Follow-up Clinics: A New Frontier in Inter-Professional Collaborative Practice

Ariel M Modrykamien has provided an excellent review of the long-term consequences of treatment in the ICU and the importance of developing ICU clinics to provide comprehensive care to ICU survivors.¹ The long-term outcomes of post-ICU admission include reductions in quality of life, lung function, and nutritional status, and impacts on psychological outcomes and cognition. Patients and their close relatives are affected by the trauma of ICU experiences.

ICU follow-up clinics emerged in the United Kingdom, Norway, and Sweden around 1990. "Intensive care aftercare" was introduced in 2002 as a collaborative effort by a nurse and a physician in the United Kingdom,² but, as pointed out, most clinics were led by nurses. Many follow-up clinics were initiated by nurses, who also provided intensive care diaries for the patients, to help them come to terms with their ICU experiences, many of which they had no recall.³ Patient diaries assist the patient in reconstructing the illness narrative.⁴ A randomized controlled trial in 6 European countries demonstrated that diaries reduced new-onset post-traumatic stress disorder following critical illness.⁵

My main concern in the presentation of the follow-up clinic as a new paradigm for intensivists is that physicians are encouraged to "take over" a practice that was pioneered by nurses. Follow-up clinics are indeed an area that calls for inter-professional collaborative practice, including nurses, physicians, respiratory therapists, physiotherapists, psychologists, and others. It is a shame if the concept of ICU follow-up becomes medicalized, and fails to recognize the emotional and existential aspects of post-ICU care.

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The author replies:

I appreciate that Dr Egerod has taken the time to read my review¹ and shared her view and experience on this interesting and growing topic, the ICU follow-up clinic.

The concept of following post-ICU patients after hospital discharge originated in Europe, about 20 years ago.² As mentioned in Dr Egerod's letter, these clinics have been led by nurses, and then evolved to include participation by a number of other specialties such as physical, respiratory, and speech therapists, nutritionists, pharmacists, and social workers.³

Dr Egerod's concern is that my review may suggest that physicians are encouraged to "take over" a practice that was pioneered by nurses. In my opinion, the review is far from supporting the aforementioned statement. Conversely, it suggests that a multidisciplinary team should follow these patients.

The review mentions that in the U.S.A. the concept of an "ICU follow-up clinic" remains in its infancy. We are still learning from prior ICU clinic experiences, but we also recognize that healthcare systems present several differences among countries. Therefore, adjustments and variations from

pioneer models are usually required. In our clinic, we promote participation from many services. Our clinic design is truly oriented toward a constructive and comprehensive "add on" rather than the implications of an isolated and competitive "takeover." This is the philosophy I aimed to communicate in the ICU follow-up clinic review.

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The Role of Transient Epithelial Ion Transport Reduction in Rapidly Reversible Pulmonary Edema

In a recent symposium paper including an explanation of the pathophysiology and histopathology of ARDS, the author stated that the early phase of acute lung injury is characterized by leakage of protein-rich edema fluid into the lung.¹ This is not the case: a recent study showed that in this phase of ARDS the pulmonary leak index, as calculated by measuring extravasation of gallium-labeled transferrin, was not elevated.²

A key mechanism in early ARDS is reduced pulmonary fluid clearance, which is a predictor of mortality³ and caused by a reduction in respiratory epithelial sodium and chloride transport removing water from the alveolar space through osmosis.⁴ Transient ion channel dysfunction caused by inflammatory mediator induced reversible nitrosylation or phosphorylation⁵ explains the rapid reversibility of pulmonary edema in a majority of patients with sepsis induced pulmonary edema. This rapid reversibility is