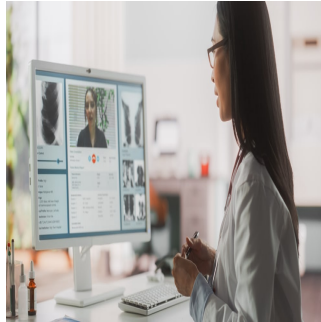

eHealth Interventions to Treat Post-Intensive Care Syndrome



Post Intensive Care Syndrome (PICS) is a critical issue affecting survivors of intensive care. PICS involves new or worsened physical, psychological, and cognitive impairments after critical illness, significantly impacting health-related quality of life (HRQoL), functional outcomes, and employment.

Critical care rehabilitation occurs in four phases: acute recovery in the ICU, recovery in the hospital ward, and two post-critical care phases—the early post-discharge period (first three months) and the late post-discharge period (which can last years). Most current interventions focus on the late post-discharge phase, but earlier intervention is crucial, especially in the early post-discharge period when survivors are most vulnerable.

Regional health inequalities limit access to early care, making the use of electronic health (eHealth) technologies a potential solution. eHealth facilitates data management, clinical decision-making, and remote care through tools like mobile apps, telemedicine, and wearable devices. While eHealth is widely used in critical care, its application in post-critical care is still emerging. Recent studies show demand for tools to detect and manage PICS symptoms in the early post-discharge phase, suggesting that eHealth could improve PICS recovery.

Evidence from other chronic conditions (e.g., heart failure, stroke, diabetes) demonstrates eHealth's effectiveness in post-hospital management, but its impact on PICS is yet to be comprehensively studied. This review aims to assess eHealth's role in improving PICS outcomes across rehabilitation phases, with a focus on identifying effective interventions, their timing, and outcomes. Additionally, the review explores the feasibility, acceptability, and barriers to eHealth interventions.

The review included studies on eHealth interventions targeting PICS outcomes. In addition to identifying effective eHealth strategies, the review clarified the recovery timeline and the specific PICS domains or outcomes targeted by these interventions.

The review included 13 studies with varying durations, eHealth formats, and outcome measures. Most studies focused on the early post-discharge phase (within three months) and prioritised feasibility as the primary outcome. The cognitive domain was the least addressed, and no intervention targeted all three PICS domains (physical, psychological, and cognitive). Interventions for the psychological domain showed generally positive but preliminary and underpowered results.

eHealth research in post-critical care rehabilitation is still in its early stages, with most studies focusing on feasibility. Preliminary results are promising, and research is moving toward larger studies to better assess effectiveness. Future research should prioritise evaluating acceptability, addressing the cognitive domain, and exploring interventions that target all three PICS domains (physical, psychological, and cognitive). eHealth is viewed as a key solution for improving access, continuity, and sustainable care in post-critical care settings.

Source: [Critical Care](#)
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