COMMENTS ON RESEARCH ARTICLES

Multidisciplinary vision in the mobilisation of ICU patients. Critical commentary☆

Visión multidisciplinar en la movilización de los pacientes en UCI. Comentario crítico

Summary and critical commentary

Early mobilization, defined according to the German S2e guidelines as ''early positioning and mobilization in the prophylaxis or therapy of pulmonary disorders''[1] is a highly recommended therapy, given its benefits in decreasing the number of days of mechanical ventilation and improving functionality or in the possible shortening in the time delirium lasts. Nevertheless, despite this recommendation being both cost-effective and safe, it is poorly implemented in ICUs.

Mobilization of ICU patients is a multi-professional task and, as such, differences can be observed in its implementation or in the resolution of the issues encountered during mobilization. Both the barriers and estimation of the degree of patient mobility can differ depending on the professional who assesses it and, as a result, this investigation examined their impact.

The aim of this study was to explore how different professionals working in an ICU estimated patients' ability to mobilize, using the ICU Mobility Scale (IMS), in 10 different scenarios. Ten fictitious patient scenarios and knowledge related to mobilization guidelines were assessed using an online survey of ICU professionals in German-speaking countries. The survey consisted of 23 pages, 32 questions, and 161 items, resulting in five items per question, 29 of which were multiple-choice; two were multiple-response, and one was a rating scale from 0 to 100.

Physicians ($p = 0.001$) and nurses ($p = 0.002$) selected lower scores on the ICU Mobility Scale (IMS) (from −0.7, 95% CI; −0.1 to −0.3, and −0.4, 95% CI; −0.7 to −0.2, respectively) with respect to physical therapists and other professionals (respiratory physical therapists, speech ther-

Abstract

Background: Mobilization of intensive care patients is a multi-professional task. Aim of this study was to explore how different professions working at Intensive Care Units (ICU) estimate the mobility capacity using the ICU Mobility Score in 10 different scenarios.

Methods: Ten fictitious patient-scenarios and guideline-related knowledge were assessed using an online survey. Critical care team members in German-speaking countries were invited to participate. All datasets including professional data and at least one scenario were analyzed. Kruskal Wallis test was used for the individual scenarios, while a linear mixed-model was used over all responses.

Results: In total, 515 of 788 (65%) participants could be evaluated. Physicians ($p = 0.001$) and nurses ($p = 0.002$) selected a lower ICU Mobility Score (−0.7 95% CI −1.1 to −0.3 and −0.4 95% CI −0.7 to −0.2, respectively) than physical therapists, while other specialists did not ($p = 0.81$). Participants who classified themselves as experts or could define early mobilization in accordance to the ''S2e guideline: positioning and early mobilisation in prophylaxis or therapy of pulmonary disorders'' correctly selected higher mobilization levels (0.2 95% CI 0.0 to 0.4, $p = 0.049$ and 0.3 95% CI 0.1 to 0.5, $p = 0.002$, respectively).

Conclusion: Different professions scored the mobilization capacity of patients differently, with nurses and physicians estimating significantly lower capacity than physical therapists. The exact knowledge of guidelines and recommendations, such as the definition of early mobilization, independently lead to a higher score. Interprofessional education, interprofessional rounds and mobilization activities could further enhance knowledge and practice of mobilization in the critical care team.

apists, and occupational therapists) ($p = 0.81$). It is worth noting that the participants who were considered experts were those who correctly selected higher levels of mobiliza-

tion (p = 0.049 with respect to p = 0.002). Physical therapists were the professionals who considered themselves to be more expert in early mobilization than nurses and physicians (p < 0.001).

The primary variable for each scenario was the value given to each scenario using the IMS scale, a scale with scores that range from 0 to 10 (0 = immobile, lying in bed; 1 = sitting in bed, exercises in bed; 2 = passive transfer to chair; 3 = sitting on the edge of the bed; 4 = standing; 5 = transfer from bed to chair; 6 = walking in place, no displacement; 7 = walking with assistance from 2 or more people; 8 = walking with assistance from 1 person; 9 = independent walking with orthotic aid, and 10 = independent walking without assistance.[2,3] Participants were also asked to estimate the number of professionals involved in each fictitious situation.

Results

The study by Hermes et al.[4] presents the results of a survey of 515 professionals working in intensive care units who are involved in early mobilization protocols. Although the sample studied is large, it should be noted that it is not homogeneous, given that the percentages of participation among the different professional categories, such as nurses (72%) and intensivists (9%), differ notably. This fact, though it can be deemed common in surveys without a prior epidemiological design, directly affects the extrapolation of results and implies that future studies need to be carried out to corroborate them.

Physical therapists are the professionals who designated themselves the most as experts in mobilization (76%) although, of them, only 27% correctly answered the definition of early mobilization based on ''Guideline S2e: Positioning and early mobilisation in prophylaxis or therapy of pulmonary disorders''. Physical therapists, as did other healthcare professionals, respiratory physiotherapists, speech therapists, and occupational therapists, chose the highest levels of mobility, pursuing the greatest functionality or strength for the patient, while nurses and intensivists, who chose the lowest levels, mainly focused their attention on haemodynamic stability and a better relationship with families or weaning from mechanical ventilation, respectively.

So, although the need for teamwork is advocated as the key to success in mobilization,[5] how is it possible to have different points of view regardless of experience, age, and the protocols in place? Probably because there was no homogeneous training, knowledge, or ultimate goals of early mobilisation among the professionals surveyed. Indeed, No significant differences were observed in situations, such as deep sedation-induced coma, delirium, non-invasive ventilation, respiratory/pulmonary instability, or subarachnoid haemorrhage. In contrast, differences were found between nurses and physical therapists in situations such as invasive mechanical ventilation by orotracheal intubation or during renal replacement therapy. Thus, although Fontela et al.[6] state that there were no differences in the choice of the degrees of early mobilisation between physical therapists and nurses, there was no consensus in the 10 scenarios proposed in the survey among the different professionals.

Regarding the barriers to implementing early mobilisation, all the professionals surveyed agreed that the most common barriers were pulmonary/haemodynamic instability, deep sedation, and the nurse/patient ratio. Naturally, it is not feasible to create an optimal early mobilisation protocol without accompanying it with a protocol to reduce sedation levels properly and as much as possible, and collaboration among all the teams involved is necessary to achieve the best results.[7] On the other hand, the lack of human resources is a common barrier to the implementation of early mobilisation protocols.[8] An increased nurse-patient ratio directly impacts patient care,[9] facilitating greater degrees of early mobilisation. Managers should therefore aim to promote an adequate number of professionals in charge of patient mobilisation.

Conclusion

There are a variety of diverse opinions regarding early mobilisation among different healthcare professionals, but this is not and should not be interpreted as a limitation when mobilising critical patients; on the contrary, teamwork based on different professional visions will be the key to the success of early mobilisation in an intensive care unit.

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