



EDITORIAL

Adverse effects, intercommunication, management of knowledge and care strategies in intensive nursing

Efectos adversos, intercomunicación, gestión del conocimiento y estrategias de cuidados en enfermería intensiva

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Together with technology, nurses and physicians are the most important elements in the Intensive Care Unit (ICU), since they represent the intellectual resources of these Units and are decisive for their management and results - characterizing a specific hospital area that is clearly differentiated from the rest.

The special operating and working conditions of Intensive Care Medicine typically induce interventions fundamentally in reaction to critical situations that must be resolved quickly, and which in some cases facilitate adverse events and even errors.^{1,2} In this context, 47% of the activities in the ICU are planned and 33% are of a reactive nature - the nursing personnel being implicated in 92% of the former but in only 2% of the latter.² Investigations of the nature and causes of human error in the ICU, defined as deviation from standard behavior, have revealed an average of 178 professional interventions per day and patient, with 1.7 related errors, and although nurses are involved in far more interventions (84%) than physicians (4.7%), both groups contribute similarly in this sense (55% and 45% respectively), with more errors per hour in the morning and afternoon (68.4-72.7%) than at night (27.3-31.6%).^{1,2} The growing risk of adverse effects is inherent to the healthcare processes, as a consequence of the combination of the use of complex

technologies and the interaction of professionals that are not always coordinated.³

Good intercommunication between both professional groups and information transfer are very important in relation to these adverse events. It is significant that in 37% of these errors, verbal communication is cited as the main cause.² Such errors are characterized as serious or very serious in 29% of the cases, have a fatal outcome in 3% of the cases, and require changes in treatment in a relevant 9.9% of cases.¹

Sources of conflict within the ICU have been noted by 71.6% of the professionals. In 32.6% of the cases these are conflicts between the two groups, in 27.3% of the cases among the nursing personnel, and in 26.5% of the cases among physicians. Such conflicts are fundamentally attributable to problems between individuals and to a lack of communication, and are rated as serious by 53% of the personnel - generally in association to over 40 working hours per week, an ICU capacity of over 15 beds, and the almost complete absence of meetings between the two groups.⁴

Improvement in inter-professional communication should result in improved outcomes, with a reduction in the incidence of crises,^{5,6} though there is a discordant and concerning perception of the working reality among ICU personnel, expressing lessened levels of communication as a consequence of their different responsibilities (care/ cure), degrees of authority, culture and training.^{7,8} In fact, the decision-taking process has been defined as satisfactory by 73% of the physicians and by only 33% of the nursing

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personnel,⁸ and the same percentages apply to the quality of collaboration between the two groups with respect to the withdrawal or limitation of therapeutic effort. In this sense, over 90% of the professionals consider that collaboration is needed, though only 50% of the physicians and 27% of the nurses confirm their true implication.⁶ Although these differences do not appear to be a significant predictor of patient health outcome,⁹ the fact is that maximum collaboration is viewed as an important element in relation to the satisfaction derived from the decision-taking process for both professional groups.¹⁰

The ICU is an essential area for research of the human factor and of the capacity to adapt and react to serious and complex situations (patients in life-threatening situations, with unstable physiopathological conditions, and subject to sophisticated supportive measures), but discontinuity in communication during the team interventions complicates the concentration of resources aimed at establishing high-quality processes.^{3,11} In the ICU, decision taking is the key moment of professional activity: deciding quickly and precisely, and always seeking the best option, must be constructed on the basis of psychological maturity and an important repertoire of skills and knowledge.

The tangible assets are the elements that confer value to organizations, including the intellectual contributions of the people that work in them. Management of knowledge attempts to transfer the experience of the most qualified members of an organization to the rest, so that it may be used as a higher resource, transforming it into an intelligent and shareable asset. In this context, it is precisely the ICU where the human intellectual factor acquires enormous importance due to its impact upon the taking of decisions; in this setting, communication must be favored in order to avoid conflicts and unnecessary risks.^{12,13} The main instrument in the management of knowledge is organizational learning, which makes it possible to increase the capacity of the organization through personal progress, interactions among the members and capture, structuring and scientific transmission processes - with the aim of transferring to routine healthcare those advances that can benefit patients through improvements in the knowledge of the professionals.^{14,15}

This issue of *Medicina Intensiva* offers an interesting analysis of the level of knowledge among ICU nurses in southern Europe, in reference to the prevention of pneumonia associated to mechanical ventilation - the latter being the main cause of a prolongation in stay, support measures, healthcare costs and mortality in Intensive Care - comparing it among the different participating countries and in relation to the rest of the continent.¹⁶ The study is based on protocols previously implemented in Canada,¹⁷ and shows that although still moderate, the level reached by nurses in Spain (46.6%) in this field is comparatively higher.¹⁸ In the same way as with the strategies designed to reduce the incidence of nosocomial infections,¹⁹ fundamentally those associated with the use of catheters²⁰ and surgical wounds,²¹ the European group recommends introducing such care modules in refresher educational programs,²² thus implicating nurses in the improvement of the outcomes of critical patient care.²³

Clinical teamwork and communication skills must be improved, using modern training techniques such as

e-learning, online debates, collaboration software and protocols, together with other alternatives that currently constitute specific tactics to increase the safety, effectiveness and efficiency of organizations, as is the case of airline crew, with perceptions that are very similar to those found in our Intensive Care Units.²⁴ Avoiding adverse effects should be a priority concern in the management of critical patients, and the healthcare supervisors and policy makers must favor increased intellectual resources on the part of the professionals, since this contributes to improve quality and the safety of our patients, with a lowering of costs and an increased prestige for our healthcare system.

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