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SHORT COMMUNICATION

Safe administration of sedoanalgesia in the UCI
Administración segura de sedoanalgesia en la UCI

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ABSTRACT

This document presents the development of the planning of a project for the safe administration of sedative analgesia in an intensive care unit and the benefits that this will generate for patients and for the work organization of health personnel within the service. The objective is to unify criteria through the development of a protocol for the safe administration of medications specifically opioid analgesics, sedatives and neuromuscular blocking agents. As a result of this project, it is expected that 70% of the nurses (24) will increase their knowledge on the aforementioned topics and that they will be able to correctly evaluate the level of sedation necessary according to the type of pathology and the physiological state of the patient, developing tools that will allow them to improve their daily practice with the application of this protocol. Thus, the highest possible level of quality in the care provided to patients admitted to the ICU will be achieved.

Keywords: Sedoanalgesia, Intensive Care Unit, knowledge, patient safety.

RESUMEN

Este documento presenta el desarrollo de la planificación de un proyecto de administración segura de sedoanalgesia en una unidad de cuidados intensivos y los beneficios que esto generará para los pacientes y para la organización de trabajo del personal de salud dentro del servicio. Como objetivo se pretende unificar criterios mediante la realización de un protocolo para la administración segura de medicamentos específicamente analgésicos opioides, sedantes y bloqueantes neuromusculares. Como resultados de este proyecto se espera que el 70% de los enfermeros (24) aumenten su conocimiento sobre los tópicos anteriormente mencionados y que logren evaluar correctamente el nivel de sedación necesario según el tipo de patología y el estado fisiológico del paciente, desarrollando herramientas que les permitan mejorar la práctica diaria con la aplicación de este. Así se logrará entonces, el mayor nivel de calidad posible en los cuidados brindados a los pacientes internados en la UCI.

Palabras clave: Sedoanalgesia, Unidad de Cuidados Intensivos, conocimiento, seguridad del paciente.

Currently, it can be seen that sedoanalgesia in intensive care units is a fundamental part of nursing work and thus also of patient treatment, mainly in mechanical ventilatory assistance (MVA), and in cases where this support is not used, the use of benzodiazepines such as lorazepam and clonazepam to calm the patient and adapt them to hospitalization. To achieve this, the fundamental pillar is that the nurse who uses this medication has the necessary knowledge to avoid generating adverse effects on the patient and, above all, to prevent long-term complications.

But... What is sedoanalgesia? The word sedation must be defined first, and then analgesia will be described to understand what is meant when the word sedoanalgesia is mentioned:

Sedation can be defined as the administration of sedative drugs with or without analgesia, to induce a state in which the patient is comfortable, free of pain or unpleasant memories, tolerating procedures that could be bothersome, whether therapeutic or diagnostic, with maintenance of cardiorespiratory function. (Polo Moris et al., 2019a, p.46).

Analgesia can be defined as "the disappearance, whether natural or artificial, of any painful sensation." It is artificially achieved by blocking the means of pain transmission and/or the mediators or by disconnection of the pain centers through the use of hypnosis, systemic or regional drugs, or inhalation. (Polo Moris et al., 2019b, p.46).

The vast majority of patients admitted to the ICU need ventilatory support and require the administration of a sedative, such as midazolam, propofol, or a neuromuscular blocker such as pancuronium or atracurium, or both at the same time combined with an opioid analgesic such as morphine or fentanyl, either to adapt it to VMA, due to a need for the diagnosis to be treated or because it presents respiratory distress and its anxiety, agitation, pain, among other factors, do not allow the treatment to be carried out correctly. Achieving an optimal physiological state and achieving the correct homeostasis is a fundamental aspect of therapeutic management and favorable evolution in critically ill patients.

Nurses must know about the states of consciousness a patient in VMA should have according to their pathology. To do this, they should obtain this knowledge through continuous training, a fundamental pillar in health-related professions in which scientific discoveries modify how we act daily.

The nurse must adopt an active role in managing sedation and providing comprehensive care adapted to the patient. One of the main tasks of the nursing professional in the intensive care units is evaluating analgesia and sedation. It should be noted that these must be evaluated separately despite their interdependence. (Klein et al, 2019, p.58).

Staff can, therefore, cause harm to patients through lack of knowledge. This involves what is known as patient safety, which, according to the WHO, is:

The absence of preventable harm to patients and the reduction to an acceptable minimum of the risk of unnecessarily causing them harm when caring for them. In the broader healthcare context, it consists of a set of organized activities that make it possible to establish processes, value systems, procedures, behaviors, technologies, and care environments with which to reduce risks constantly and sustainably, prevent the appearance of avoidable damage, reduce the probability of causing it and mitigate its effects when it does occur. (World Health Organization [WHO]. 2023)

To prevent people from making mistakes, they must be placed in a mistake-proof environment. Therefore, it is necessary to focus on a system that allows for improvement, which can only occur in an open and transparent environment where a safety culture prevails. In this, great importance is attached to beliefs, values, and attitudes toward safety; most people share it in the workplace. One of the fundamental issues addressed by patient safety is the safe administration of medicines related to

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medication errors, the basis of which is nursing knowledge and creating and implementing a safe practice system that underpins nurses' actions. "Medication errors are one of the main causes of preventable injury and damage in healthcare systems: it is estimated that, worldwide, the cost associated with medication errors amounts to US$42 billion annually" (WHO, 2023).

The intensive care nurse is, therefore, a key figure in achieving an adequate level of sedoanalgesia because, in their daily activities at the bedside, they carry out a continuous assessment of the patient, detect any changes in their condition, apply invasive and painful techniques and care, and administer analgesic and sedative medication. For this reason, they must know and use the sedation assessment scales (SAS) on a day-to-day basis to monitor the degree of sedoanalgesia that patients present and to help them reach their optimal level, as well as to evaluate the amount of drugs necessary according to the patient'spatient's pathology.

However, a significant proportion of nurses working in ICUs are not familiar with the evaluation process and, therefore, do not apply the SSEs. It has been proven that the use of SSEs is necessary, but they are not used, mainly because most nurses are not familiar with them or those who do not know how to use them. Another point is that there is generally no time for their application due to the high daily workload.

Nurses' assessment of pain, sedation level, and agitation, using scales and early medical intervention, is associated with a decrease in the incidence and intensity of pain and agitation. Teamwork at this level improves the quality of care and patient safety. It reduces the time spent under sedation and on mechanical ventilation and the incidence of nosocomial infections.

Inadequate levels of sedoanalgesia can have significant adverse effects on the patient, increasing morbidity and mortality and the length of stay in the ICU or other areas of the hospital. Sometimes, the after-effects require prolonged stays in the inpatient ward because the patients cannot manage independently and are a burden on a family member who cannot look after them, not to mention the fact that their homes are not structurally designed to accommodate patients with a disabling disability.

For this reason, adequate sedoanalgesia is a fundamental part of the treatment of the critically ill adult, as it reduces the patient's stress, facilitates nursing care and adaptation to mechanical ventilation, improves the prognosis, and reduces morbidity by decreasing the time on mechanical ventilation and the length of stay in the Intensive Care Unit (ICU). Achieving the discharge of a person as self-sufficient as possible, avoiding post-traumatic stress, reducing complications in activities of daily living (ADL), and avoiding expenses for the patient, the family, and the state in rehabilitation, kinesiology sessions to restore muscle strength and mobility and reducing the future consumption of oral analgesics to be able to cope with pain and anxiolytics to achieve a good night'snight's rest.

This circumstance has made the implementation of a sedoanalgesia project essential. Several articles provide examples of this, such as:

The use of sedation and analgesia projects in critical patients under MV has been used since the end of the last century after Brook et al. demonstrated that its use could reduce the duration of MV, the need for tracheotomy, and the stay in the ICU. After this initial study, others confirmed this finding, also showing the association between titrated sedation (the least amount of sedation necessary to achieve the objectives of patient well-being and safety) with a decrease in the dose of sedatives used, a reduction of costs, a lower incidence of delirium and a lower incidence of long-term cognitive disorders (Olmos et al., 2019, p.132).

Another article that shows the importance of implementing a project to improve care for patients with sedoanalgesia in VAP is the PADIS (Pain, Analgesia, Delirium, Immobility, and Sleep) guidelines published in 2018 by the Society of Critical Care Medicine of the USA. Where it is mentioned that:

The text concentrates on the most significant and novel aspects of each section of the PADIS guidelines that physicians, other healthcare professionals, and administrators should consider when trying to improve the care provided to critically ill adults. Each recommendation is backed by a very

rigorous process of information evaluation, debate, and discussion, which also refers to the experience with and of the patient, a process that was carried out jointly by the panelists and patients involved. The PADIS 2018 guidelines will promote better patient care in analgesia, agitation/sedation, delirium, immobility, and sleep disturbance and stimulate pragmatic, patient-centered research in each area of interest. (Devlin et al., 2018, p.2)

Recent research studies have demonstrated the benefits of implementing projects such as the study published in January 2023 carried out in the PICU of the Pedro de Elizalde General Children's Hospital, Autonomous City of Buenos Aires, Argentina; in conclusion, this study yielded the following:

The implementation of a sedoanalgesia project was associated with a significant reduction in exposure to benzodiazepines and continuous infusion opioids; adherence reached over 90% but without an impact on the length of time on mechanical ventilation in the PICU or hospital (Taffarel et al., 2023, p.6).

In Argentina, the Argentine Society of Intensive Care (SATI) developed a specific document as a guide to sedation and analgesia, in which it mentions the following:

Two strategies have been proposed to manage sedoanalgesia in the ICU: a strategy that proposes a nurse-led sedation protocol and a plan of daily sedation interruption. Both methods aim to individualize sedation management (adjusting the level of sedation to an individual objective for each patient) and minimize oversedation and its complications by preventing the accumulation of analgesics and sedatives (SATI, n.d.).

Despite the evidence, several publications show that only 54% of intensivists use sedation protocols in their daily practice in the ICU. A variety of factors can undermine their implementation and may explain the significant difference between recommendations and daily practice in ICUs. Some of these include lack of acceptance by medical and nursing staff; staff concerns that insufficient sedation could put the patient at risk, the potential increase in the workload of the healthcare team, as well as concerns about the likely discomfort that patients might perceive (Olmos et al., 2019, p.132).

Therefore, to successfully implement a pain relief and sedation plan, it is essential to follow it strictly, have the participation of all health personnel, receive constant training, and recognize the restrictions within intensive therapies. These factors can impede its implementation and the long-term success of the measure.

Solving this problem is of the utmost importance in terms of the existing priority. The most renowned intensive care units, such as those at the Italian Hospital in Buenos Aires and the British Hospital, have a sedation and analgesia project as part of their daily work, and its implementation has yielded excellent results. This will also prevent adverse effects on patients, thus prioritizing their safety.

In this section, I cannot fail to refer to the mention made several decades ago by nursing theorists of the benefits of good care for hospitalized patients, from Florence Nightingale, Virginia Henderson, Dorothea Orem, and Hildegard Peplau, all of whom in each of their conceptions and histories made it very clear the importance of patient care and the role that nursing played in this. For example, in the case of Florence Nightingale'sNightingale's theory of the 14 needs, in the sedated patient, all of them are altered as a whole, and in the case of Callista Roy'sRoy's theory of environmental adaptation, where she argues that the environment is a very important factor in the patient under sedation and hospitalization, the environment being the factor that influences the patient'spatient's awakening and the consequences that this may have on the patient's patient's progress on the road to discharge.

In 1970, Callista Roy developed an adaptation model, the Roy Adaptation Model (RAM). He pointed out that adaptive responses favor the person's integrity regarding survival, growth, reproduction, and dominance goals. Her model presents a handy tool for understanding the nurse's role and her intervention to reduce the mechanisms that produce stress. Based on this, this model can become an effective tool for dealing with stress. (Bonfill Acsencci., et al., 2010, p. 281)

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In conclusion, therefore, it is essential, for all the above reasons, to implement a program that establishes standards for the administration of sedoanalgesia in the hospital. This is required to endorse all indications, prescriptions, and nursing actions in administering these drugs. This will result in unified work and a lower prevalence of incidents and adverse effects, thus promoting patient safety and avoiding the onset of delirium, stress, and other adverse effects associated with over-sedation.

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