

MSN NURSING CAPSTONE PROJECT EXAMPLE

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Nurse interventions in case of delirium in the intensive care unit

The occurrence of delirium in the intensive care unit is a medical, social, and economic problem. Access to the patient is necessary and requires timely detection and treatment of delirium. Increasing patient mortality with delirium points to the importance of a systemic and holistic approach. Medical staff, with their interventions and the health care plan, prevents the occurrence of delirium, allows early recognition of the first signs of delirium, and shortens the patient's stay in the intensive care unit. Monitoring the latest guidelines and work in accordance with protocols is the foundation of good practice. The aim of the paper is to present the nurse interventions according to the symptoms that can occur in a delirium patient and to learn with a specific delirium scale for medical staff, the Nu-DESC scale. Understanding of the delirium danger in the intensive care unit extends the patient's agony. A vital-endangered patient is defined as any patient who, because of their condition, is placed in an intensive care unit. Care for such a patient is much demanding, so a systematic and holistic approach to assessing the condition of a patient and further providing care is essential. Healthcare workers working in an intensive care unit must be particularly educated about therapy, care, use of electromedicine devices and be prepared for urgent changes in an individual's health. Aggressive treatment in the intensive care unit with an emphasis on mechanical ventilation and sedation of the patient are predisposing factors for delirium. Delirium delusion is a predictor of the poor outcome of patients treated in the intensive care unit because it is estimated that 25% of non-respiratory supportive patients will develop delirium symptoms, while the number of those who are addicted to respiratory support is significantly higher, as much as 80% (Wass, Webster & Nair, 2008). Vitamin-endangered patients on mechanical ventilation require the use of benzodiazepines and opiates to improve oxygenation and relieve anxiety. The use of long-term sedatives in comparison to short-term and high daily sedation rates compared to low doses increases the risk of developing delirium in patients in the intensive care unit. Therefore, an ideal sedative should have the following features: leading to hypnosis/sleep, causing anxiolytics, amnesia, an anticonvulsive effect, being metabolically dependent on the liver and kidney function, not accumulating in the body, having a fast start and rapid recovery



after it is released, having no prolonged effect on memory, having no long-acting mental effect, and not being too expensive. Delirium is a multifactorial neurobehavioral syndrome characterized by a disturbance of consciousness and reduced ability to focus, maintain, and move attention (Bhat & Rockwood, 2007). It is epidemiologically considered the most common mental form of distress. Risk factors for delirium development in the intensive care unit, which may be affected by psychoactive drugs, previous sedation, coma, mechanical ventilation, and the use of ducts, tubes, and catheters. According to the clinical picture, delirium can be defined as hypoactive (43.5%), hyperactive (1.6%), and mixed form (50.4%). Delirium features are a disorder of consciousness that is primarily qualitative and is manifested by disorientation in time and space, and towards people, deception of the senses in the form of illusion and hallucinations (primarily visual), disturbances of the cycle of alertness and sleep, a psychomotor disorder manifested in the emergence of the first problems. Emphasis is put on the use of score scales such as are the Intuitive Care Delirium Screening Checklist (ICDSC), the Nursing Delirium Screening Scale (Nu-DESC) and the other. One of the most credible scales standardized and most commonly used is CAM-ICU, by Sharon K. Inouye. However, the Nu-DESC scale was prepared for 4 estimates of the occurrence of delirium by nurses. The scale is suitable for intensive care units when assessing the presence of delirium in non-psychiatric patients. After assessing the presence of delirium using the scale above, care planning is needed for the patient. Determining the main problems and defining goals and interventions are one of the main tasks of nurses. The most common symptoms of patients with developed delirium resulting from sedation retardation are psychomotor disorders, changes in vital signs (increase in blood pressure, tachycardia, hyperventilation), sweating, dilatation of pupils, disorientation in time and space, visual hallucinations, and disorders of the cycle of alertness and sleeping. Each of the above symptoms presents a separate problem and requires a special set of interventions to ease the patient's condition and provide adequate protection in aggressive patients. Nurses are daily involved in caring for the patient, and awareness of necessary interventions greatly facilitates work and ensures continuity in care. Interventions need to be carried out in a timely manner to ensure that the goal is achieved. Changes in vital signs are manifested as hypertension, tachycardia, and hyperventilation. It is important to correctly assess the presence of pain in a patient using VAS or a numerical scale to exclude the possibility of changes in vital signs as a result of pain. Any change in the vital signs in the patient leads to



a deterioration of discomfort, hyperactivity, dyslexic movements and actions, and emotional disorder in anxiety, irritability, euphoria and vegetative symptoms such as tachycardia, sweating, rapid breathing, increased pressure, pupil dilation and facial redness. Patients in hypoactive delirium are seldom noticed because, in the clinical picture, calmness, anxiety, and hallucinations without visible reactions dominate. In contrast to this picture, patients with hyperactive form are presented with agitation and aggressiveness. Patients often change the forms above. The development of delirium in a patient in the intensive care unit is a major problem because it often remains unrecognizable, leading to an extended hospital stay and an elevated morbidity and mortality rate. To reduce the complications above, it is important to detect delirium as early as possible and initiate adequate treatment. For patients who are on prolonged sedation therapy, there are measures to prevent symptoms of diarrhea: replacement of continuous infusion at single, predetermined doses, the use of long-acting sedatives of the same grade, reduction of total daily dose by 10%, change of route of administration from intravenous to enteral route, a2-agonist, e.g., clonidine. While in patients with delirium developed, the recommended therapeutic therapy involves the use of antipsychotics, where haloperidol is the first choice. Current protocols of sedation in intensive units include simultaneous sedation, pain therapy, and delirium therapy. The appearance of delirium is a major problem, and the care of such a patient poses a challenge, especially to nurses, especially when the hyperactive form is present. Subjective assessment of delirium by health personnel requires special education in the early detection and measurement of delirium. The nurses' interventions aim to identify the first symptoms and their adequate response and help the general condition, resulting in a prolonged stay in the intensive care unit and an increase in mortality. Nursing interventions are focused on: assessment of vital signs (blood pressure, pulse, breathing, body temperature), continuous monitoring/monitoring of the patient (noticing the onset of atypical ventricular tachycardia), in the event of hypertension, informing the doctor and administering the medication in case of occurrence of tachycardia, drug use according to the doctor's order, adequate volume compensation, microclimatic conditions, securing a calm and safe environment, monitoring laboratory findings on the patient's interference with non-pharmacological procedures (Ackley & Ladwing, 2002).



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