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## Pain Management in Intensive Care EfCCNa Recommendations



European federation of  
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# Introduction

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## Pain Management in ICU

Pain is a multi-dimensional sensation [1] which is individually experienced by a person and is influenced by the cultural background, personal history, country, religion and social situation [2]. Due to all these influences, pain relief is a challenging duty for ICU nurses.

Furthermore, to be pain free is a basic human right [3]. Pain is an independent predictor for delirium, and pain may lead to immobilization and complications like pneumonia [4, 5].

There is plenty of evidence on how to care for patients in pain. The difficulty to transfer this knowledge into practice is due to the complexity of European health care systems, education levels of nurses and work environment in European ICUs.

Nevertheless it should be a standard in European Intensive Care Units that pain management regimes to avoid and reduce pain in order to support patient's wellbeing, autonomy and recovery are available for all patients.

## Aim

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Many ICU patients suffer from pain [6]. ICUs in Europe treat a huge variety of patients – there may be conscious or unconscious patients, disabled or patients with dementia. Additionally there are patients at their end of life with a more palliative care aspect.

Assessment of pain is a pure nursing duty [7]. As there is no unique indicator for pain the goal to collect evident information in order to apply an individualized pain management to a patient is a multidimensional challenge.

A variety of tools is available for pain assessment. All tools have to be chosen carefully according to the patients' age as well as the caring situation the patient is in [8, 9]. To use them successfully implicates that the users are well educated in using these tools.

The aim of this recommendation is, to provide intensive care nurses with the currently most evident opportunities to assess and to treat pain.

## Recommendations

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*Every patient should be assessed continuously due to individual feeling of pain: once a shift; before and after painful interventions, regularly if the patient suffers from pain and receives pain medication) [10, 11].*

The goal is, to keep the patient's pain status below the recommended cut off points of a scale while he is resting and not more than medium level points when mobilized (depending on the individual scoring system used by the ICU personnel) [12].

There are some different tools for pain assessment which are comparable and comfortable to use [8, 9, 13].

For patients who are able to communicate one may use the VAS (Visual Analog Scale) or the NRS (Numeric Rating Scale).

For patients who are ventilated, sedated or having cognitive dysfunction, the ZOPA (Zurich Observation and Pain Assessment), BPS (Behavioral Pain Scale), CPOT (Critical Care Pain Observation Tool) and FLACC (Behavioral Pain Assessment Scale) are the most common tools to assess pain [14, 15].

It is not recommended to use physiological parameters like heart rate and blood pressure for the assessment of pain as these parameters may be influenced by the intensive care therapy itself [16]. However, the use of physiological parameters in combination with an assessment tool may assist interpretation.

Limitations in using these assessment tools are that they are susceptible for subjective findings, that their use is restricted in sedated patients and that they are unfeasible in paralyzed patients.

*The pain management of each patient should be patient centered.*

Pain management should be individualized to the patients' pain experience and targeted to the pain level expressed by the patient. According to the evaluation of the patients' pain level ICU nurses must respond in their pain relief care plan. ICU nurses' duty is to titrate the application of analgesics according to the patients' needs.

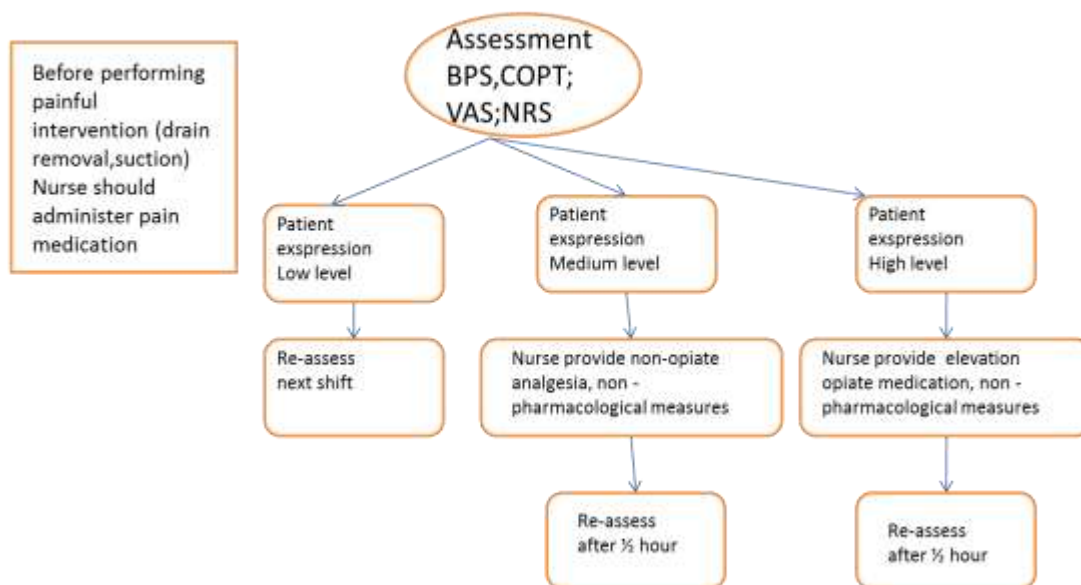
Additionally, the ICU nurse may also use non-pharmacological resources to relieve pain. There is evidence that interventions like aromatherapy, music, mobilization and passive exercises, transcutaneous electrical nerve stimulation (TENS), massages are able to reduce pain, increase wellbeing, reduce pharmacology support and restore functioning [17, 18]. The easy application of these interventions gives nurses some opportunities for a pain management independent from medical prescription.

Nurses should be aware of the stress of illness which might have an effect on the expression of pain. There are many tools to assess acute stress which nurses can use to differentiate between pain and stress. Acute stress reaction (ASR) disorder can be used to assess stress. If the patient scores high on the ASR tool then other interventions/medication to relieve stress can be used instead of pain medication.

*All ICU nurses should be educated in using pain assessment and management tools.*

Ideally, the national health care system provides respective educational programs for ICU nurses. However, it is imperative that education and training in pain management is provided within the ICU by a clinical instructor. It would be advantageous in this matter to qualify nurses as 'Pain Management Nurses'; furthermore problems and strategies in pain management should be subject of clinical rounds of interdisciplinary experts.

## Pain management



### **Abbreviations:**

BPS - Behavioral Pain Scale  
 CPOT - Critical Care Pain  
 Observation Tool  
 VAS - Visual Analogous Scale  
 NRS - Numeric Rating Scale

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