



## END-OF-LIFE CARE IN A LONG-TERM INTENSIVE CARE UNIT



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### Abstract

**Background:** The paper details the last day of the life of a selected group of terminal patients in a long-term intensive care unit in 2020 and 2021.

**Methods:** The study comprises descriptive evaluation research focusing on retrospective monitoring and detailed documentation of predefined indicators based on a developed evaluation form. The aim of this analysis of the medical records was to assess the care provided to the terminal patient in the long-term intensive care unit in relation to the recommendations in the field of palliative care.

**Results:** The main outcome of the research is that palliative care or palliative approach in the particular ward is lacking. Patients are thus burdened with many invasive diagnostic and therapeutic interventions at the end of life, which usually do not bring any benefit to the patient. The findings include frequent measurements of physiological functions, collection of biological material, administration of antibiotics and infusion therapy, most often via a venous catheter, preventive positioning and active rehabilitation, and the absence of psychosocial and spiritual care.

**Conclusion:** The research confirms the necessity of implementing palliative care or its principles into patient care in the department of long-term intensive care. This is possible with the support of senior staff, the involvement of all members of the nursing team, and the development of valid standards or recommendations in the care of terminal patients. The situation would also be helped by the presence of a palliative care team throughout the hospital.

**Keywords:** Long-term intensive nursing care – Terminal patients – End-of-life care – Palliative care – Dying.

### Introduction

Nowadays, the number of patients in the Czech Republic indicated for transfer or admission to a long-term intensive care unit (LTICU) is increasing. This is a unit that is able to provide the patient with the comfort of intensive beds with the aim of minimizing intensive interventions, with targeted enteral nutrition, rehabilitation, open airway care, and psychological preparation for further recovery and reintegration. All of this is done with professional and experienced staff able

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to immediately apply intensive and resuscitation care options when needed, immediately treat shock, or even initiate urgent resuscitation in its entirety.<sup>2</sup>

Patients in LTICU are most often admitted with severe impairment of consciousness or varying degrees of more severe neurological impairment, either musculoskeletal or reduced cognitive ability. These are patients e.g. after respiratory failure, heart failure, prolonged resuscitation, post-stroke conditions, polytrauma, often in a persistent vegetative state. The condition of admission is that patients are not dependent on artificial pulmonary ventilation. The airway is secured by tracheostomy, they breathe spontaneously, circulation is preserved, but there is impairment of consciousness, mobility and nutrition. Patients often stay in LTICU for months or even years. It is often very difficult to discern whether the medical treatment is still of benefit to the patient and when it is no longer of any benefit.<sup>3</sup>

The basic goal of intensive care medicine is to care for critically ill patients, i.e. people with a life-threatening illness or condition, but also with the possibility of recovery. The generally accepted goal of intensive care is always to preserve the life and health of the patient. Where these goals cannot be met, the principle of transition from intensive to palliative treatment and care is applied with the aim of eliminating pain, discomfort and distress, preserving human dignity and meeting physical, psychological, social and spiritual needs.<sup>4</sup> Regardless of the treatments, even those that involve life support, often the patient fails to be cured, and this is when the question of discontinuing treatment due to futility criteria arises. Once this decision has been taken, efforts should be focused on applying the necessary care to achieve an end of life free of pain and suffering, and efforts should be made to ensure that the patient is accompanied by his or her loved ones. Palliative care is becoming an important, integral part of intensive care medicine, in accordance with medical, legal and ethical principles.<sup>5</sup>

In the Czech Republic, the Czech Medical Chamber issued a recommendation in 2010 on the procedure for deciding whether to change from intensive to palliative treatment in patients in terminal condition who are unable to express their will. The document defines the basic principles for the decision-making procedure for changing intensive to palliative treatment in terminally ill patients, and also states the objectives of the recommended decision-making procedure.<sup>6</sup> However, it is very important to keep in mind that palliative care does not have to follow curative treatment, but can be simultaneously integrated into it for patients of any age and stage of the disease.<sup>7</sup>

Although there is much scientific evidence of the benefits of palliative care (improved quality of life with reduced intensity of unwanted symptoms, prolonged life, greater satisfaction of patients, caring professionals and the loved ones, etc.),<sup>8</sup> we still encounter barriers to the inte-

gration of palliative care into clinical practice. This is often due to ignorance and, unfortunately, sometimes unwillingness to change the ingrained habits and practices of health professionals and their preconceptions about death and dying in the hospital. The result of this perception and attitude can be that patients (especially in the LTICU) die exhausted, alone, without saying goodbye to their loved ones, often undignified, in large rooms without privacy. Nursing staff devote their time and energy to aspects of 'victorious medicine' (preparing and assisting with diagnostic tests and ineffective therapeutic interventions), leaving no time to seek out and meet the needs of patients whose condition is suitable for palliative care.

#### Research objectives are:

- To describe/analyse the last day of the life of a patient in a selected long-term intensive care unit between 2020 and 2021.

#### Research issue, characteristic of the research department

The development of palliative care in the Czech Republic has been evident especially since 2010, when this type of care became known to the general public, both professional and lay. A significant role in the introduction of the principles of palliative care is played by the Association of Hospice Palliative Care Providers, the Centre for Palliative Care, the Cesta domů association, the Forum of Mobile Hospices, the Palliative Institute Brno and others. The AVAST Foundation, which supports the work of professionals in the field of care for the dying, provides great support for the introduction of palliative care. The purpose of this fund is to make "palliative care accessible and open to as many patients as possible and to make it a natural part of every community in the Czech Republic."<sup>9</sup>

The Palliative Care Concept makes the recommendation that all inpatient health care facilities with patients with general or specialised palliative care needs "are required to develop a palliative care programme as an integral part of the facility's curative and preventive care plan to increase the availability of quality palliative care for the facility's patients".<sup>10</sup>

The process of introducing palliative care in the Czech Republic is described in the "Situational Analysis of Palliative Care in the Czech Republic 2016" published by the Czech Society of Palliative Medicine of Czech Medical Association of J. E. Purkyně. The data presented in the analysis clearly shows that "the majority of patients with chronic diseases who need palliative care in the last year of the life are under the care of general practitioners, outpatient specialists, doctors and nurses in inpatient acute and follow-up care facilities" In the Czech Republic, inpatient acute and follow-up care facilities are the most common place where chronically terminally ill patients die, and the period before the death is usually characterised by frequent, repeated hospitalisations. The quality of palliative care for the chronically terminally ill patient depends on a number of random variables (e.g. type of facility, specific ward, motivation and skills of the attending physician and nurses). Palliative care at the appropriate professional level ("lege artis") is thus not yet a generally available and guaranteed health service in inpatient health-care facilities.<sup>11</sup>

The facility in the research is a long-term intensive care unit located in a smaller district hospital (part of a group of five hospitals). This ward was established in 2009 to provide long-term, intensive and, in particular, nursing care. The unit is special in that it can only admit patients from

2 Jarmila Drábková, Soňa Hájková, *Následná intenzivní péče*. (Praha: Mladá fronta, Edice postgraduální medicíny, 2018) 34.

3 Jana Krivková, Šárka Tomová, *Komunikace s pacientem v intenzivní péči*. (Praha: Grada, Edice Sestra, 2016) 82-91.

4 Martin Dojčár, Monika Zaviš, Kristína Pinčková, "Spiritual accompaniment demand survey." *Acta Missiologica* 16, no. 1 (2022): 215-226.

5 Renata Pařízková, "Paliativní léčba v intenzivní medicíně" *Intervenční a akutní kardiologie* 10 Suppl. B (2011):15-17.

6 See: ČESKÁ LÉKAŘSKÁ KOMORA (ČLK). Doporučení představenstva ČLK č. 1/2010 <http://www.lkcr.cz/doporučení-predstavenstev-clk227.html>

7 Ondřej Kopecký, Kateřina Rusinová, "Úloha paliativní medicíny u akutních stavů." *Vnitřní Lékařství* 65, no. 6 (2019): 449-455.

8 Jennifer S. Temel, "Early Palliative Care for Patients with Metastatic Non-Small-Cell Lung Cancer." *New England Journal of Medicine* 363, 8 (2010): 733-742. <https://www.nejm.org/doi/full/10.1056/NEJMoa1000678>

9 See: Nadační fond AVAST: Spolu až do konce <http://nadacnifond.avast.cz/co-delame>

10 Radka Bužgová, *Paliativní péče ve zdravotnických zařízeních: potřeby, hodnocení, kvalita života*. (Praha: Grada, Sestra, 2016) 35.

11 Ladislav Kabelka, Ondřej Sláma, Martin Loučka, Paliativní péče v České republice 2016 – situační analýza. <http://www.lkcr.cz/doporučení-predstavenstev-clk227.html>

the department of anesthesiology and resuscitation, intensive care units of other types, or long-term intensive care. The unit has ten beds and is 100% occupied by patients from the hospital, but also from all over the region, and often from neighbouring regions. The department provides care for patients with impaired basic life functions whose health conditions cannot be significantly improved by medical care and whose condition deteriorates without continuous nursing care. Department admits patients older than 19, and there is no upper age limit.

The mortality rate in the department is high. It was 69% in 2020 and 45% in 2021. The significantly lower figure in 2021 was influenced by the Covid-19 pandemic, where the ward admitted patients after the acute stage of Covid-19 had subsided, and the patients after recovery were discharged to rehabilitation facilities. The hospital group management has long been discussing the implementation of palliative care into the current system. Currently, only two of the five hospitals have established a palliative team. There is no palliative team at the researched site. Hospitalized patients are very often under the burden of diagnostic and therapeutic interventions, they die exhausted, alone, without the company of their loved ones, often undignified, in large rooms without privacy. The nursing staff provides care for the patient, however, much of the time is taken up with preparations for diagnostic tests and therapeutic interventions, leaving little time for an active approach to seeking out and meeting the needs of the dying patient.

### Methods

The presented research is descriptive and evaluative research, focusing on monitoring and detailed documentation of predefined indicators. The research itself was preceded by the development of an evaluation form, where 16 domains were assessed on the last day of the patient's life. Data for the evaluation research was collected from the medical records of the hospital information system in the LTICU department for patients who died during the study period for the years 2020 and 2021. The data collected from the medical records were entered into a pre-designed evaluation form.

The findings were recorded and evaluated in summary tables. The paper presents the most significant results.

The research was organized in the following steps.

- 1, Discussion of the topic with the head of the department - the research itself was preceded by a discussion with the ward management, who agreed to conduct the research. The head of the department and the head nurse agree to the research, actively assist, and discuss the topic. They are aware of the pitfalls and potential reserves in the delivery of care on the ward. The research team is committed to keeping the ward management up to date.
- 2, Research Permission Request - After discussion and approval of the research by the department leadership, the research team requested permission from the Deputy Director of Nursing. The request was granted.
- 3, Data collection and analysis - the results were recorded in an evaluation form, discussed with ward management and compared with the recommendations of palliative medicine experts.

### Results

The research sample is a group of patients hospitalized in the LTICU ward in the terminal phase in 2020 and 2021, the time period of observation for each respondent is 24 hours before the actual death. There were 25 patients in 2020 and 16 patients in 2021. The age varied from the youngest patient of 28 years (a man after a car accident) to the oldest patient of 88 years

(a woman in the terminal stage of COPD). The average age of patients admitted to the LTICU ward on the last day of life was 70 years. In both years of the study, the respondent groups were predominantly male (2/3). The length of hospitalization for both study periods also varied widely. The shortest hospitalisation period was 2 days, the longest reached 806 days. The average length of hospitalization is 100 days. The main (principal/admitting) medical diagnoses of the respondents for both periods are shown in Table 1. In addition to the principal diagnosis, each patient had on average four other diagnoses in the list of diagnoses. Only two patients had COVID-19 disease as their main diagnosis in 2021. The representation of main diagnoses does not differ between 2020 and 2021.

**Table 1: Main diagnosis of respondents**

Main diagnosis	2020	2021
Heart failure	5 (20 %)	2 (12.5 %)
Stroke	3 (12 %)	2 (12.5 %)
Metabolic disorder	1 (4 %)	1 (6.25 %)
Septic shock	3 (12 %)	2 (12.5 %)
Respiratory failure	6 (24 %)	2 (12.5 %)
Alzheimer's disease	1 (4 %)	-
Cancer disease	-	1 (6.25 %)
Persistent vegetative state	4 (16 %)	2 (12.5 %)
Trauma	2 (8 %)	2 (12.5 %)
COVID-19	---	2 (12.5 %)
<b>Total</b>	<b>25 (100 %)</b>	<b>16 (100 %)</b>

### Monitored items

#### 1. Monitoring of laboratory values

The monitoring of the laboratory values of the respondents in both researched periods is shown in Table 2.

**Table 2: Laboratory examination methods performed**

	2020	2021
Haematology - blood count, differential	14 (26.42 %)	5 (21.74 %)
Glycemia	15 (28, 30 %)	9 (39.14 %)
Haemoculture	4 (7.55 %)	2 (8.69 %)
Biochemical - minerals, liver tests, renal function	15 (28.30 %)	7 (30.43 %)
Microbiology, culture and sensitivity	5 (9.43 %)	-
<b>Total</b>	<b>53 (100 %)</b>	<b>23 (100 %)</b>

#### Interpretation of Table 2

A total of 53 laboratory samples were collected from 25 respondents in 2020 and 23 samples from 16 respondents in 2021. The most frequently monitored values in the terminal phase patients are glycemia, mineralogram and renal function. Blood values are also frequently monitored, most commonly haemoglobin levels, and blood was also taken for haemoculture. In 2020, microbiological examination was also indicated, this was urine culture + sensitivity and a swab from the wound.

## 2. Monitoring physiological functions and indications for examination methods

In the LTICU department, monitoring of physiological functions is standard for all patients two times a day. In 2020, physiological monitoring was ordered in two cases four times a day and in 2021 monitoring was carried out every hour until the patient died in three cases.

In both years, there was one case of the last day of life lung X-ray, one pulmonary concilium in 2020 and one CT scan in 2021. No invasive examination methods were indicated.

## 3. Inserted invasive venous accesses

The number of peripheral and central venous catheters inserted during both periods is presented in Table 3.

**Table 3: Number of inserted venous catheters**

	2020	2021
PVC	12 (80 %)	10 (77 %)
CVC	3 (20 %)	3 (23 %)
PICC, PORT	-	-
<b>Total</b>	<b>15 (100 %)</b>	<b>13 (100 %)</b>

### Interpretation of Table 3

In 2020, 15 patients had venous catheters inserted and 13 patients in 2021. A peripheral venous catheter was the most frequent invasive access in patients during both researched periods. In both 2020 and 2021, three patients had a central venous catheter, via subclavia dextra, inserted throughout the entire period of hospitalization in the LTICU. In one patient it was inserted in the terminal stage. The reason for this was the poor condition of the peripheral venous system and the physician's instruction to administer IV antibiotics. None of the patients studied had a PICC or PORT, nor did they have a subcutaneous catheter.

## Infusion therapy, administration of antibiotics

The administration of infusions, transfusions and antibiotics in patients in the in terminal phase for both observed periods is represented in Table 4.

**Table 4: Application of infusions, transfusions and antibiotics**

	2020	2021
infusions	5 (25 %)	9 (56.25 %)
ATB	15 (75 %)	6 (37.50 %)
transfusions	-	1 (6.25 %)
<b>Total</b>	<b>20 (100 %)</b>	<b>16 (100 %)</b>

### Interpretation of Table 4

Infusion therapy was administered in 5 of the 25 cases studied in 2020, and in 9 patients in 2021. Saline, Hartman's solution, Isolyte or 5% Glucose with mineral supplementation were administered, most often in quantities of 1000 ml - 2000 ml. The administration of antibiotics immediately before the patient's death is very common. Antibiotics were administered in 15 patients in 2020 and in 6 patients in 2021. When antibiotics are administered, a combination of two or three preparations and types is common. The most common reason for the administration of ATBs is respiratory tract infections (MRSA), clostridial infections and septicemia from extensive

decubitus. Transfusion was administered to one patient at this stage in 2021. Transfusion is administered at a critical haemoglobin value detected incidentally during laboratory collection.

## Pain monitoring

The prevalence of pain in the respondents for both observation periods is shown in Table 5.

**Table 5: Pain prevalence**

	2020	2021
Patients on continuous analgesic medication for persistent pain/VAS	17 (68 %) /2.1	10 (62.5 %) /2.5
Patients without continuous analgesic medication for persistent pain/VAS	8 (32 %) /1.5	6 (37.5 %) /2.5
<b>Total</b>	<b>25/1.8</b>	<b>16/2.5</b>

### Interpretation of Table 5

The patient's pain is monitored and assessed by staff on a regular basis 3 times a day using VAS. In addition to the occurrence of pain and assessment of pain intensity, nurses also monitor the effectiveness of the analgesics administered. Pain control on the last day before death is established very well. Staff focus on pain elimination for patients who show signs of pain. Patients most frequently report pain when being moved and handled. Most often, patients of LTICU in the terminal phase are given opioid analgesics - morphine subcutaneously or via IV linear dosing. However, they are combined with oral analgesics such as Novalgín, Zaldiar or transdermal fentanyl patches.

## Rehabilitation

The use of rehabilitation in the observed sample of patients for both periods is represented in Table 6.

**Table 6: Use of rehabilitation**

	2020	2021
RHB by a physiotherapist + nursing RHB	17 (68 %)	10 (62.5 %)
Nursing RHB	8 (32 %)	6 (37.5 %)
<b>Total</b>	<b>25 (100 %)</b>	<b>16 (100 %)</b>

### Interpretation of Table 6

In the LTICU department, rehabilitation is arranged with a physiotherapist for each patient on admission. For a patient in poor condition, the doctor will consider a change and usually prescribes nursing rehabilitation, which consists mainly of positioning the patient. The aim of the positioning is to relieve the patient, especially of pain, and to make him or her feel comfortable. RHB with a physiotherapist was suspended in 8 patients in 2020 and in 6 patients in 2021. In the remaining patients, rehabilitation such as passive breathing rehabilitation, balling, prevention and stretching of contractures were performed in the terminal phase. As for active rehabilitation, a physiotherapist attempted uprighting in a high walker followed by walking in the walker.

### Treatment of chronic wounds

The methods of treatment of chronic wounds in the respondents for both periods in the study are shown in Table 7.

Table 7: Methods of treatment of chronic wounds

	2020	2021
Moist dressing	19 (79.2 %)	14 (93.3 %)
Sutures	2 (8.3 %)	-
Necrectomy	3 (12.5 %)	1 (6.7 %)
<b>Total</b>	<b>24 (100 %)</b>	<b>15 (100 %)</b>

### Interpretation of Table 7

For the treatment of chronic defects, especially decubitus, wet healing products (antiseptic, antibacterial cover, hydrocolloid) are commonly used in the department, even in the case of a dying patient. In most cases, patients are admitted to the ward for long periods of time and often develop decubitus ulcers. In 2020, 2 patients had a necrectomy on the last day of life and one in 2021. In 2020, a wound suture was performed in 2 patients.

### Monitoring fluid intake and output

The monitoring of respondents' fluid intake and output over the two studied periods is shown in Table 8.

Table 8: Monitoring fluid intake and output

	2020	2021
Monitoring fluid intake and output	25 (100 %)	16 (100 %)

### Interpretation of Table 8

Monitoring of fluid intake and output is arranged for all patients in the ward. This includes the sum of fluid and nutrient intake by NG tube, PEG, per os and infusion administration over 24 hours. Daily diuresis, and drainage from drains or tubes over 24 hours is included in the output. All patients in the LTICU have an inserted permanent urinary catheter.

### Enteral feeding administration

Methods of enteral feeding administration in both monitored periods are displayed in Table 9.

Table 9: Methods of enteral feeding administration

	2020	2021
PEG	8 (32 %)	4 (25 %)
NG tube	16 (64 %)	11 (69 %)
Jejunal feeding tube	-	-
Per os	1 (4 %)	-
Per os + PEG	-	1 (6 %)
<b>Total</b>	<b>25 (100 %)</b>	<b>16 (100 %)</b>

### Interpretation of Table 9

In the LTICU department, patients are most often fed enterally. Depending on the length of hospital stay, they have either a nasogastric tube or a percutaneous endoscopic gastrostomy. The nasogastric tube is inserted for a maximum of 30 days, after which a PEG is inserted. Almost all patients are fed by NG tube or PEG using an enteral pump, bolus fed every 3 hours with an overnight break. Most commonly administered food for special medical purposes is Nutrison multi fibre. Patients receiving per os usually have a regular diet or puréed diet. They often receive nutridrinks or creams to balance their diet. In one case in 2020 a patient was fed per os, and in 2021 a patient received per os diet and fluids via PEG.

### Initiating resuscitation

The use of life-saving interventions in patients on the last day of life for both study periods is shown in Table 10.

Table 10: Use of life-saving interventions

	2020	2021
CPR	-	-
DNR	20 (87 %)	14 (88 %)
Non-extended care	3 (13 %)	2 (12 %)
<b>Total</b>	<b>23 (100 %)</b>	<b>16 (100 %)</b>

### Interpretation of Table 10

Cardiopulmonary resuscitation was not performed 24 hours before the patient's death in the ward. Most patients for both study periods had a DNR order, meaning do not resuscitate. Non-extended care was given to 3 patients in 2020 and 2 patients in 2021. This type of care is for patients for whom treatment options are exhausted, diagnostic procedures are limited to the most necessary laboratory procedures, antibiotics and infusions are not administered, and the focus is on pain control and nursing care.

### Psychosocial and spiritual care

The use of aspects of psychosocial and spiritual care for both periods under review is shown in Table 11.

Table 11: Use of aspects of psychosocial and spiritual care

	2020	2021
Psychological help to the patient or family (by psychologist or psychotherapist)	-	-
Care by a social worker	1 (10 %)	2 (33 %)
A phone call informing the family about a deterioration in health	6 (60 %)	4 (67 %)
The possibility of a loved one being present on the last day of the life	1 (10 %)	-
Spiritual services (visitation by a minister, service)	2 (20 %)	-
Other types of help	-	-
<b>Total</b>	<b>10 (100 %)</b>	<b>6 (100 %)</b>

### Interpretation of Table 10

In the observed ward, there is no professional psychological help for the family and the patient from a psychologist or psychotherapist. In 2020, a total of 10 interventions were provided to patients in the terminal phase and only 6 in 2021. The care of a social worker was used only in isolated cases. On the last day of life, a family was summoned in case of the deterioration of the health condition in 10 cases only in total for both reporting periods. The possibility of the presence of a loved one in the last day of life is offered minimally. This was due to restrictions due to the COVID-19 pandemic as well as the capabilities of the ward which does not have separate cubicles or double rooms. Spiritual services were used for two patients in 2020, which involved the presence of a cleric who performed the Sacrament of the Sick.

### Discussion

One of the objectives of the research was to describe the last day of the life of a patient in a selected long-term intensive care unit in the period 2020 and 2021. LTICU is a specific type of ward where most patients are hospitalized for a very long time. The age and diagnoses of patients vary widely.

The overall care of patients is for both medical and nursing staff very demanding physically, but also mentally exhausting for all involved. The health facility where the research was conducted has set internal guidelines, recommendations and standards that the staff must follow. Often the terminal phase of the disease cannot be recognised. Even though a patient has a very serious primary diagnosis and secondary diagnoses, and the patient's symptoms clearly show signs of the impending end of life, doctors resort to futile and ineffective treatments such as administering antibiotics. This involves providing invasive access, laboratory tests (often several times a day), examinations or interventions that only burden the patient and do not improve the quality of life or the dying process. Regrettably, the patient often spends the last hours of life in discomfort and pain. As already mentioned, the research hospital has set up many guidelines in patient care, but what is missing is a guideline for the care of the patient in the terminal stage of the disease. Thus, ward staff very often find themselves in a moral dilemma as to when to act according to the recommended and set standards and when to try to improve the quality of care and make the last moments of the patient's life more pleasant. Often the caring staff would like to give the dying person their personal presence, a warm approach and a feeling of safety, the presence of the family and the provision of privacy, but in the multitude of medical and nursing procedures this "comfort" is not realistic under the normal ward regime.

Based on the research conducted, we can describe the last day of life of patients in the LTICU as follows. Patients in the terminal phase (on their last day of life) in this ward are often burdened with frequent blood draws for a wide range of investigations that do not benefit the patient at this stage of the disease. In addition to blood draws, patients are often burdened with urine collections and swabs of various skin defects. Patients' physiological functions are monitored twice a day for most respondents. However, it is not exceptional that the patient was burdened with monitoring of physiological functions 4 times a day, even every hour. Patients were minimally burdened by investigative methods on the last day of life. A high number of patients had a peripheral or central venous catheter in place, through which antibiotics, infusions and transfusions were administered. Pain is monitored in all patients and doctors and nurses respond appropriately and quickly to pain. A high number of patients are rehabilitated on the last day of life under the supervision of a physiotherapist and many of them have nursing rehabilitation indicated at the same time. Chronic defects

were mostly treated with moist healing agents. In addition, however, 2 wounds were treated surgically with suture and 4 wounds with necrectomy. Fluid intake and output were monitored in all patients. Enteral nutrition via PEG and NJS is the standard of care. No cardiopulmonary resuscitation was performed in the study ward 24 hours before the patient's death. Most of the respondents had a DNR (do not resuscitate) note in their records. The weak point of the research department is the provision of psychosocial and spiritual care to the patients. There is a lack of professional psychological support for the family and patient from a psychologist or psychotherapist in the study ward. The care of a social worker is used only in isolated cases. The possibility of the presence of a loved one in the last dream of life is offered minimally, the ward does not have separate boxes or double rooms. Spiritual services were used for two patients in 2020 and were limited to the presence of a cleric who performed the Sacrament of the Sick. In addition to caring for the physical aspect, palliative care emphasizes the psychological, social and spiritual areas. The effect of the aforementioned on quality of life is confirmed by Ralbovská and Závěš.<sup>12</sup>

Research has shown some gaps in the provision of palliative terminal care. There is a lack of an overall palliative care setting at the research site that is not integrated into comprehensive care. The need for proper identification of patients for palliative care and the need to initiate early palliative care is pointed out by the multidisciplinary team (physicians, nurses, social workers, psychologists, etc.) Greer et al. highlight the need to implement early palliative care, which provides the patient and their loved ones with the opportunity to become well-oriented to the trajectory of the disease, to receive support in managing a serious medical condition, to improve communication between the patient and helpers, to adjust care to match the patient's values and preferences, and also to have realistic expectations of treatment outcomes, anticipating further developments over time.<sup>13</sup> According to Kopecký and Rusinová, the most common barriers to the indication of supportive and palliative care are physicians' concerns about communicating prognostic information in particular, related to the belief that this information may "take away hope" from patients. According to researchers, it is crucial that the patient's condition is assessed as terminal.<sup>14</sup>

Palliative care is a separate branch of medicine that makes its own guidelines for the care of its patients in the Czech Republic and in other countries around the world. In the Czech Republic, palliative care has been developing only since 1989 and to date has seen a very significant and rapid development. Several professional societies, specialised institutions and research institutes have emerged, dedicated to the development of palliative care in different care settings and for different patient groups. Nevertheless, we very often witness situations where the care provided to a patient with palliative care needs is not in line with the above-mentioned guidelines.

In 2013, the Czech Society of Palliative Medicine (hereinafter referred to as CSPM) of the Czech Medical Association of J. E. Purkyně published Standards of Palliative Care both for professionals and the lay public. These standards are conceived as a description of the target state that should be sought in the care of terminally ill patients. These are not mini-

12 Dana Rebeka Ralbovská, Monika Závěš, "Replenishing the spiritual needs in patients with infaust prognosis in Prague and the Central Bohemian Region's hospitals: research note." *Clinical Social Work and Health Intervention* 8, no. 4 (2017): 79 – 85. DOI 10.22359/cswhi\_8\_4\_10.

13 Joseph A Greer, et al. "Early integration of palliative care services with standard oncology care for patients with advanced cancer." *CA: a cancer journal for clinicians* 63, no. 5 (2013): 349-363. <https://doi.org/10.3322/caac.21192>

14 Ondřej Kopecký, Kateřina Rusinová, "Úloha paliativní medicíny u akutních stavů." *Vnitřní Lékařství* 65, no. 6 (2019): 449-455.

mum, “non-negotiable” requirements. The standards are intended to support and facilitate the implementation of palliative care for patients with terminal illness throughout the entire course of care and in all settings of the healthcare system, thus enabling the conceptual development of palliative care in the Czech Republic.<sup>15</sup> However, it must be remembered that terminal care, i.e. care only in the final phase of life, is different from palliative care, which is integrated into the patient’s care. Experts agree that end-of-life care should be reassessed in order to minimise the burden on the patient and maximise their comfort. The above-mentioned standards, together with Sláma et al., recommend discontinuing the usual diagnostic and nursing routines (blood samples, physiological monitoring, but also regular preventive positioning and rehabilitation of immobile patients) in the terminal phase, which is completely irrelevant for the dying patients. The same can be said about the administration of analgesics and infusions. The experts’ recommendation is to reconsider all the drugs used so far and to discontinue those that do not have an immediate impact on the patient’s comfort when dying. Discontinuation of medication needs to be sensitively explained to the patient and their family. Artificial hydration is viewed in palliative care as a therapeutic procedure that has both indications and contraindications. Although patients are provided with enteral nutrition, more than half of the cases require invasive venous accesses, often to replenish fluids and minerals in the form of infusions. In the majority of cases, this involves a peripheral venous catheter, and occasionally patients have a central venous catheter inserted in the terminal phase. This does not correspond with the recommendation in the care of dying patients, where Sláma et al. prefer to administer drugs subcutaneously by hypodermoclysis.<sup>16</sup>

Sláma et al., as well as Bužgová, point out the need for an active approach on the part of health-care professionals in seeking and meeting not only physical needs but also psychological, social and spiritual needs of the patient. From the research conducted, it is clear that there is a lack of a treatment and care plan for patients in the terminal stage in the researched ward. The patient often spends the last day of life undergoing various examinations, laboratory values and physiological functions are monitored, and the staff focuses more on administering antibiotics and positioning than on finding and meeting the needs of the dying patient.

An equally important topic for discussion is communication with the patient’s family, which is another weakness in the researched ward. According to Tomová and Křivková, communication in healthcare is very important, both for physicians and non-medical health professionals. Quality communication with patients and their families positively influences the care provided, the duration of treatment and the cost of treatment.<sup>17</sup> In this area, too, ward staff are often inconsistent in providing information to family members. During the period of the worsened epidemiological situation due to the COVID-19 epidemic, when hospitals banned visitors, it was very difficult for family members to obtain good quality and objective information about their loved one’s condition. Information was often given only over the phone, and a person who had not encountered such a serious condition could not have even a remote idea of their relative’s health and needs. According to Mareš and the results of an exploratory analysis in Seattle, it is clear that if physicians improve communication with the patient’s family and provide sufficient information about other treatment options with an emphasis on quality of care and patient comfort, they can gain greater family support in making

decisions about further treatment, especially at the end of life with respect to meeting the needs of the dying patient.<sup>18, 19</sup>

A very important research issue is pain monitoring and assessment. Assessment, monitoring of pain and pain control is well set up in the researched ward not only on the last day of life. Nursing staff and physicians assess patients’ pain on a daily basis. If they show signs of pain, most often during handling, the nursing staff informs the physician immediately and efforts are made to set up adequate treatment. The results of the findings do not contradict the recommendations of leading experts.

A measure to improve the current conditions for dying patients and their relatives would be a creation of an internal guideline for the care of patients in the terminal stage according to the recommendations of palliative medicine of the CSPM. These measures would help the staff in the care of patients, where the moral dilemma in providing quality palliative care will be eliminated. Moreover, patients will receive care with active search and satisfaction of psycho-socio-spiritual needs.<sup>20</sup>

### Conclusion

The presented research is a descriptive, evaluative research, focusing on monitoring and detailed documentation of predetermined indicators based on a pre-defined evaluation form. The aim of the evaluation was to give feedback and provide lessons learned from the activities implemented or guidelines and recommendations set. The essential outcome of the research is a clear finding - palliative care is absent in the researched ward. It is not provided to patients, support is not given to families and relatives of patients. The implementation of palliative care in hospital facilities is still insufficient.

The aim of the study was to analyse the last day of life of a patient in a selected long-term intensive care unit in 2020 and 2021. The nursing care in 2020 did not differ from previous years. However, the year 2021 was different. Patients were admitted to the ward mainly after having experienced COVID-19. Patients predominantly needed respiratory rehabilitation, retraining for walking, self-sufficiency and recovery after a long illness. Patients were frequently transferred to spa stays and, to a greater extent, discharged to home care. Unfortunately, even among these patients were some who needed palliative care.

The leading experts of the CSPM issue recommendations and procedures in the care of terminally ill and incurable patients. Regrettably, the implementation of these recommendations is also insufficient in the department of our study. Patient care, both curative and nursing, is at a high level, patients receive quality treatment, pain in dying patients is treated very well, but there is a lack of transition to palliative care and a change in the approach to the patient, active search and satisfaction of needs in dying patients. Also, there is a lack of communication and cooperation with patients’ relatives. Another very important recommendation for the implementation of palliative care in the ward is education in palliative care both for medical and non-medical staff. Efforts should also be made to improve the environment for dying patients in the current ward conditions. An active approach to patients, with care focusing on the whole person of the patient, meeting the physical, psychological, social and spiritual needs of each patient. Improving communication with the patient’s family and

18 Jiří Mareš, “Etické otázky současné intenzivní péče v kardiologii” *Intervenční a akutní kardiologie* 10 Suppl. B. (2010): 8-12.

19 Stapleton, Renee D. et al. “Clinician statements and family satisfaction with family conferences in the intensive care unit.” *Critical Care Medicine* 34, no. 6 (2006): 1679-1685. DOI: 10.1097/01.CCM.0000218409.58256.AA

20 Monika Zaviš, “Biologické aspekty osobnej spirituality.” in *Kultúra, religiozita a spoločnosť: Skúmanie vzájomných interakcií*. Ljubljana: KUD Apokalipsa: CERISK, 2014. - S. 224-248.

15 Česká společnost paliativní medicíny (2013): Standardy paliativní péče. [https://www.paliativnimediceina.cz/wp-content/uploads/2016/11/standardy-%20pp\\_cspm\\_2013\\_def.pdf](https://www.paliativnimediceina.cz/wp-content/uploads/2016/11/standardy-%20pp_cspm_2013_def.pdf)

16 Ondřej Sláma, Ladislav Kabelka, Jiří Vorlíček, et al. *Paliativní medicína pro praxi*. (Praha: Galén, 2022) 103-104.

17 Jana Křivková, Šárka Tomová, *Komunikace s pacientem v intenzivní péči*. (Praha: Grada, Edice Sestra, 2016) 40.

allowing the family to be present in the ward during the last moments of the patient's life. The quality of care provided to patients will then reach an even higher level, the concern about the patient will be comprehensive, and the last days of life will be spent in a peaceful environment and the caring staff will avoid moral dilemmas.

The conclusions from the research call for a proposal of organizational change in the health care facility. The recommendation is to create an internal guideline in the care of terminally ill patients. Introducing the principles of specialised palliative care into a healthcare facility is a task and a process that is not a matter of wishes or opinions of a few persons. It is a complex process that requires the interaction, interest and cooperation of many parties, factors and many people who are essential for the process. To implement palliative care well and sufficiently in the researched facility, the support of the managers is crucial, as they must systematically guide the medical and nursing staff in the process of the implementation.

#### AUTHOR CONTRIBUTIONS

All the mentioned authors significantly, directly, and intellectually contributed to the work and approved its publication.

#### CONFLICT OF INTEREST

All the authors declare that the research involved in the article and the publication of the article were carried out without having any business, financial or other relations and/or circumstances that could be considered as a potential conflict of interest. At the same time, all the authors declare that there is no conflict of interest related to this article or its review.

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