

PALLIATIVE CARE - INTEGRATION MODEL INTO ONCOLOGICAL ASSISTANCE FOR THE PATIENTS OF REGIONAL INSTITUTE OF ONCOLOGY IASI

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PALLIATIVE CARE - INTEGRATION MODEL INTO ONCOLOGICAL ASSISTANCE FOR THE PATIENTS OF REGIONAL INSTITUTE OF ONCOLOGY IASI (Abstract).

Aim: This paper aims to present a retrospective analysis of activity from Palliative Care Compartment of Regional Institute of Oncology Iasi during 12 months of activity and to propose a model of integration of the palliative care in oncology. **Materials and methods:** Data were collected from 415 patients hospitalized to the Palliative Care Compartment using the computerized database, records and books of existing appointments. **Results:** Data analysis reveals that 170 cases (40%) were aged higher or equal to 70 years and a number of 142 patients (34%) were aged between 60-69 years. Results regarding the provenience of the patients shows that most of them are from urban areas. Gastrointestinal neoplasms were present at about one-third of the patients – 133 cases (32%) and 95 (71%) of these cases had metastases. Most patients - 114 cases (27%) required hospitalization for a period between 8 and 14 days. Palliative care has interdisciplinary relations with other specialties. In 2013 from other specialties were transferred to palliative care a number of 156 patients, most of them (87 cases) from Oncology Department. **Conclusions:** Integrating palliative care in oncology would increase the quality of life of patients, would relieve the other sections or hospitals by patients who need palliative care, would decrease hospitalization costs and would avoid performing aggressive maneuvers at the end of life. **Keywords:** PALLIATIVE CARE, CANCER, INTEGRATION, ONCOLOGY

Palliative care is a holistic approach to relieving the suffering of people with chronic and life ending illnesses. The science of palliative care has undergone rapid developments, most notably with advances in pharmacological interventions to help control chronic pain and distressing symptoms. This vital and essential aspect of

optimizing patients' quality of life has undoubtedly contributed to the widening acceptance of palliative care (3, 7).

The World Health Organization (WHO) states that “palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through

the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual". WHO sustain that PC interventions should start early in the course of illness, in conjunction with other therapies that are intended to prolong life. Therefore, in the care of advanced incurable cancer patients, there should not be a transition from oncology to palliative care but a continuous adaptation or change of goals (6).

Palliative care treats people suffering from serious and chronic illnesses such as cancer, cardiac disease such as congestive heart failure, chronic obstructive pulmonary disease, kidney failure, Alzheimer's, Parkinson's, amyotrophic lateral sclerosis and many more (3).

Palliative care is interdisciplinary in its approach and encompasses the patient, the family and the community in its scope. In a sense, palliative care is to offer the most basic concept of care – that of providing for the needs of the patient wherever he or she is cared for, either at home or in the hospital. Palliative care affirms life and regards dying as a normal process; it neither hastens nor postpones death. It sets out to preserve the best possible quality of life until death (1, 5).

In most of the world, the majority of cancer patients are in advanced stages of cancer when first seen by a medical professional. For them, the only realistic treatment option is pain relief and palliative care. Effective approaches to palliative care are available to improve the quality of life for cancer patients. The WHO ladder for cancer pain is a relatively inexpensive yet effective method for relieving cancer pain in about 90% of patients (7).

In Romania it is estimated that less than

7,000 of the 4 million people who need palliative care actually receive care. Romanians receiving palliative care report improved pain and symptom control, less anxiety, greater choice in place of death, an overall improvement in quality of life and great satisfaction with services provided. Many aspects of oncological care are under rapid development, but there is a high variability on access to high level quality palliative care and substantial regional (rural/urban) disparities. Recent successes focus on access to pain medication and the perceived need of HCP (Health Care Professionals) for improvements in education and access is growing (2).

In Romania there is no unique way of collaborating relationships with other health care providers for the specialized Palliative Care services providers. Each Palliative Care provider establishes relationships according to their own developing strategy definitely based on the financial backgrounds they have available at one point in their development (4).

The primary mission of Palliative Care services in Romania over the foreseeable future is to improve the quality of life of those people with illnesses not responsive to curative treatment and their families care.

MATERIALS AND METHODS

This paper aims to present a retrospective analysis of activity from Palliative Care Compartment of Regional Institute of Oncology Iasi during 12 months of activity (January 1 to December 31, 2013). Data were collected from 415 patients using the computerized database, records and books of existing appointments.

The inclusion criteria were represented by patient consent, the presence of oncological

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diseases (which is also one of the hospitalization criteria) and age over 18 years.

The exclusion criteria were patient refusal, the absence of an oncological disease and age less than 18 years.

RESULTS AND DISCUSSION

Data analysis reveals that 170 cases

(40%) were aged higher or equal to 70 years and a number of 142 patients (34%) were aged between 60-69 years. Was registered a number of 109 patients (26%) under the age of 60 years. Must be mentioned that the minimum age was 20 years, the maximum 92 years and the average age of patients was 66.2 years (fig. 1).

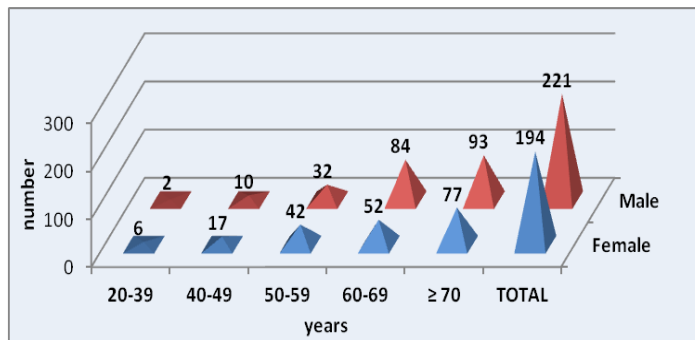


Fig. 1. Patient distribution by age and gender

The distribution based on gender shows a slightly higher preponderance of male patients, which represents a 53% (221 cases) compared with females who have a percentage of 47% (194 cases). This uneven distribution by gender shows a slight increase addressability of males to palliative care service.

Because the Regional Institute of Oncology is located in Iasi, most of the patients - 337 cases (81%) come from this county. The other counties of Moldova present a percentage of addressability between 1% and 5%. These percentages could demonstrate a poor dissemination of information outside of Iasi county regarding palliative care and a low addressability caused probably by the large distance between counties.

Results regarding the provenience of the patients show that most of them are from urban areas. We found a number of 295

patients (71%) coming from urban areas and 120 patients (29%) in rural areas, their ratio being 2.5:1 (fig. 2).

Depending on the oncological condition it was noted that the gastrointestinal neoplasm were present at about one-third of the patients - 133 cases (32%) and 95 (71%) of these cases had metastases. Was found that urogenital cancer was present in a number of 126 patients (30%), and 103 (82%) of these patients had metastases. Other localizations of cancer were respiratory, brain, bone, and skin, in a percentage that varied from 1% to 22% (fig. 3). In the other category was included a number of 35 patients (8%) who had a different type of cancer such as parotidian, thyroidian, glottic, amidgalian, tongue, non-Hodgkin lymphoma, but also the patients who had metastases with unknown starting point (tab. I).

Since most patients were in an advanced stage of illness, data analysis revealed that

more than a third – 302 cases (73%) had metastases. There is a possibility that this percentage to be higher, caused by their lack of diagnosis because they had no symptoms. Most patients who had metasta-

ses were among those with gastrointestinal, respiratory and genitourinary cancer. From the total of 302 patients who had metastases we found that 129 cases (43%) were female and 173 cases (57%) male (fig. 4)

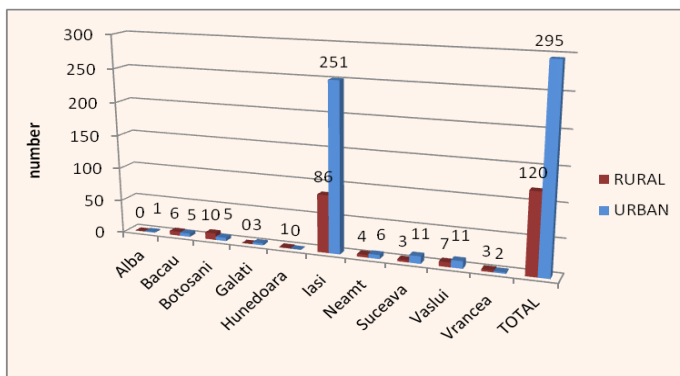


Fig. 2. Patient distribution by county and provenience

TABLE I
Patients' percentage by cancer localisation

Cancer Localization	MTS PRESENT	MTS ABSENT	%
Respiratory	63	27	22%
Gastrointestinal	95	38	32%
Genitourinary	103	23	30%
Cerebral	7	3	2%
Bone	11	4	4%
Cutaneous	4	2	2%
Other	19	16	8%

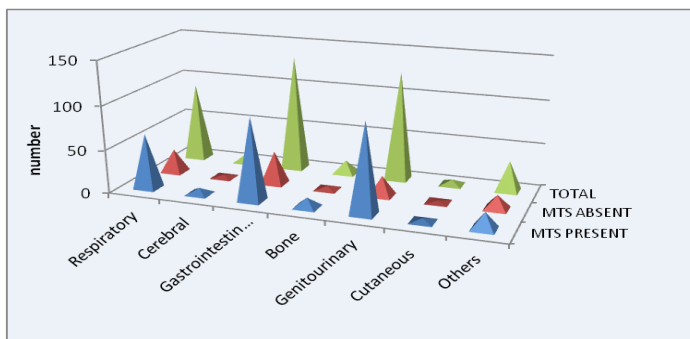


Fig. 3. Patient distribution by cancer localization and metastases

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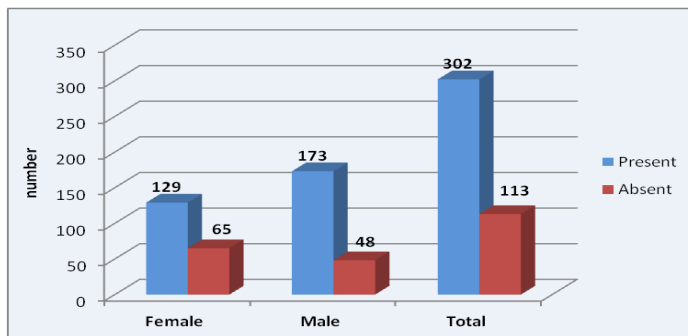


Fig. 4. Patient distribution by gender and metastases

Regarding the duration of hospitalization was noted a wide range of it, between 1 day and 166 days. This fact is explained by the death of the person immediately after admission, after the occurrence of an acute event on the background of severe chronic diseases and on the other hand by the need for a prolonged hospitalization for some complex oncological cases. It was found that a number of 151 patients (36%) had duration

of hospitalization up to 8 days. Most patients - 114 cases (27%) required hospitalization for a period between 8 and 14 days (fig. 5). Was registered a total of 96 cases (23%) who required palliative care for a period between 15 and 28 days and a relatively high percentage (13%) for more than 28 days (tab. II). Must be mentioned that the average hospitalization of the patients hospitalized to palliative care was 15 days.

TABLE II

Patients percentage by days of hospitalization

Hospital days	Number of cases	%
≤ 3 days	64	16%
4-7 days	87	21%
8-14 days	114	27%
15-21 days	58	14%
22-28 days	38	9%
≥ 29 days	54	13%

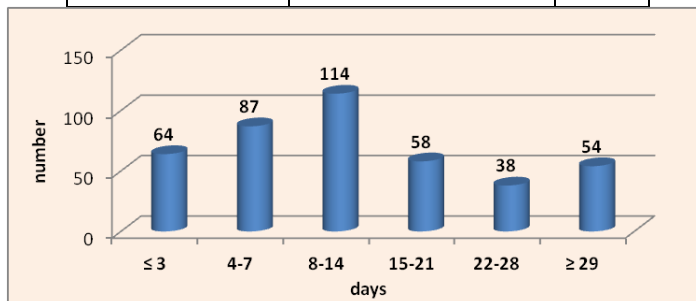


Fig. 5. Patient distribution by duration of hospitalization

Palliative care has interdisciplinary relations with other specialties. As Palliative Care Compartment is a part of Regional Institute of Oncology Iasi, most patients are from this hospital, but also from other hospitals or addressed by GPs.

In 2013 from other specialties within Regional Institute of Oncology were transferred to palliative care a number of 156 patients, most of them (87 cases) from Oncology Department. From Surgery, including plastic surgery, thoracic surgery, gynecologic surgery, oncologic surgery come to palliative care 41 patients, for different purposes such as thoracic drainage, intestinal occlusion and biopsy. The Radiotherapy and the Hematology send a

number of 15, respective 13 cases, who needed palliative and supportive treatment.

Except these patients was registered a considerable number of oncologic cases that were hospitalized to palliative care from other hospitals (Neurosurgery Hospital, Pneumology Hospital, Saint Spiridon Hospital, Cuza-Vodă Hospital, Parhon Hospital and others). The family doctors also sent to the Regional Institute of Oncology those patients diagnosed with cancer that needed specialized palliative care.

Being in a interdisciplinary relation the palliative care sent to other specialties a total number of 30 cases, distributed as follows: 14 to Oncology, 9 to Surgery, 5 to Radiotherapy and 2 to Hematology (fig. 6).

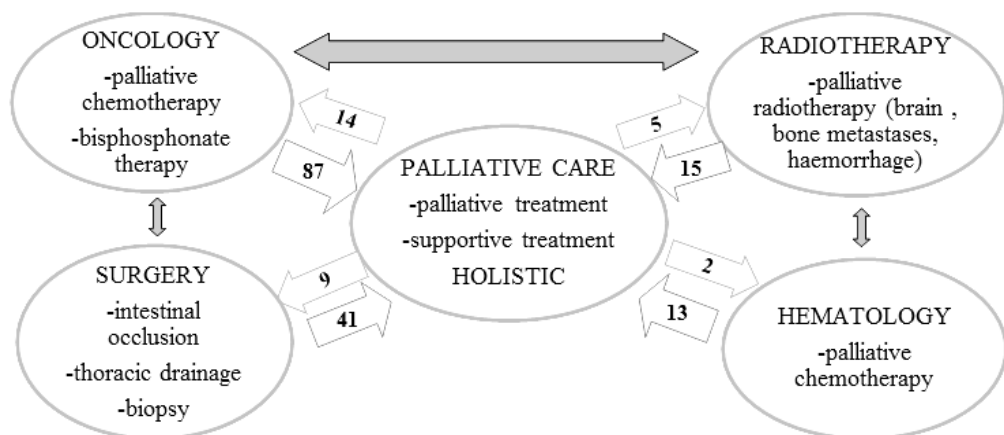


Fig. 6. Interdisciplinary relation between Palliative care and other specialties

CONCLUSIONS

Many aspects of oncological care are under development, but the high variability on access to high quality palliative care and substantial regional disparities demand a structured approach to improve patient care.

Deciding who to serve and restricting services only to these people is perhaps the

biggest challenge for palliative care services in Romania in the coming years.

Integrating palliative care in oncology would increase the quality of life of patients, would relieve the other sections or hospitals by patients who need palliative care, would decrease hospitalization costs and would avoid performing aggressive maneuvers at the end of life.

REFERENCES

1. Claessen SJ et al. A new set of quality indicators for palliative care: process and results of the development trajectory. *J Pain Symptom Manage*, 2011; 42(2): 169-182.
2. Dumitrescu L, van den Heuvel WJ, van den Heuvel-Olaroiu M. Experiences, knowledge, and opinions on palliative care among Romanian general practitioners. *Croat Med J*, 2006;47(1):142-147.
3. Ersek M, Smith D, Cannuscio C, et al. A nationwide study comparing end-of-life care for men and women veterans. *J Palliat Med*, 2013; 16(7): 734-740.
4. Mosoiu D, Ryan KM, Joranson DE, Garthwaite JP. Reform of drug control policy for palliative care in Romania. *Lancet*, 2006; 367(9528): 2110-2117.
5. Raijmakers N et al, OPCARE9. Quality indicators for care of cancer patients in their last days of life: literature update and experts' evaluation. *J Palliat Med*, 2012; 15(3): 308-316.
6. World Health Organization. National cancer control programmes (policies and managerial guidelines). 2nd ed. Geneva: World Health Organization; 2002.
7. White Paper on standards and norms for hospice and palliative care in Europe. *Eur J Palliat Care*, 2010; 17(1): 22-32.

NEWS

TUMOR NECROSIS FACTOR- α AND INTRA-ABDOMINAL CANDIDA INFECTION IN HIGH-RISK SURGICAL ICU PATIENTS

A recent study conducted by Wójtowicz and collaborators evaluated the influence of genetic polymorphisms on the susceptibility to Candida colonization and intra-abdominal candidiasis, a blood culture-negative life-threatening infection in high-risk surgical ICU patients. They conducted a prospective observational cohort study including 89 patients at high risk for intra-abdominal candidiasis (68 with recurrent gastrointestinal perforation and 21 with acute necrotizing pancreatitis). were analysed eighteen single-nucleotide polymorphisms in 16 genes previously associated with development of fungal infections from patient's DNA by using an Illumina Veracode genotyping platform. Single-nucleotide polymorphisms in three innate immune genes were associated with development of a Candida corrected colonization index greater than or equal to 0.4 (Toll-like receptor rs4986790, hazard ratio = 3.39; 95% CI, 1.45-7.93; $p = 0.005$) or occurrence of intra-abdominal candidiasis (tumor necrosis factor- α rs1800629, hazard ratio = 4.31; 95% CI, 1.85-10.1; $p = 0.0007$; β -defensin 1 rs1800972, hazard ratio = 3.21; 95% CI, 1.36-7.59; $p = 0.008$). The authors established a strong association between the promoter rs1800629 single-nucleotide polymorphism in tumor necrosis factor- α and an increased susceptibility to intra-abdominal candidiasis in a homogenous prospective cohort of high-risk surgical ICU patients and concluded that their finding highlights the relevance of the tumor necrosis factor- α functional polymorphism in immune response to fungal pathogens. Immunogenetic profiling in patients at clinical high risk followed by targeted antifungal interventions may improve the prevention or preemptive management of this life-threatening infection. (Wójtowicz A, Tissot F, Lamoth F et. al. Polymorphisms in Tumor Necrosis Factor- α Increase Susceptibility to Intra-Abdominal Candida Infection in High-Risk Surgical ICU Patients. *Crit Care Med*. 2014 Feb 19. [Epub ahead of print] PMID: 24557424).

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