

RESULTS OF THE FIRST YEAR OF A PALLIATIVE CARE UNIT IN A GENERAL HOSPITAL

Resultados de um ano de atividade de uma Unidade de Cuidados Paliativos em um hospital geral

Fernando Cesar Iwamoto Marcucci^a , Alexandra Aparecida de Jesus Moreira^b ,
Ivone Aparecida Soares Mendes^a , Jeanina Scalon Cotello^a , Júlio César Trannin de Oliveira^a ,
Kellen Litchteneker Hossette^a , Leila Marins da Silva Casú^a 

ABSTRACT

INTRODUCTION: This study aimed to report the results of a Palliative Care Unit's first year of operation in a general hospital of medium-complexity care. **METHOD:** Data on demographic and clinical characteristics, functional status, and number of in-hospital deaths were collected regarding patients admitted to the unit during its first year of operation. Descriptive statistics were used to analyze the data. **RESULTS:** In total, 129 patients were treated (140 admissions and 11 readmissions). Their mean age was 80 years, and 57% were female. Patients died in 67% of unit admissions, while in 32% they were discharged. The mean length of hospital stay was 11.1 days, and the mean length of Palliative Care Unit stay was 5.5 days. Most patients had neurological conditions, such as sequelae of cerebrovascular diseases and dementia syndromes, and low functional scores. Of all in-hospital deaths recorded in the period, 59% occurred in the Palliative Care Unit, with a higher proportion in older ages. **CONCLUSION:** The unit met an existing demand related to increased prevalence of chronic diseases and population aging, requiring palliative care services. Expanding access to palliative care is needed for patients admitted to hospitals.

KEYWORDS: palliative care; hospital; hospital units; humanization of assistance.

RESUMO

INTRODUÇÃO: Este estudo teve o objetivo de apresentar os resultados do primeiro ano de atendimento da Unidade de Cuidados Paliativos de um hospital geral de média complexidade. **MÉTODO:** Foram coletados dados demográficos, clínicos, *status* funcional e o número de mortes ocorridas no hospital dos pacientes internados no primeiro ano da unidade, os quais foram analisados por estatística descritiva. **RESULTADOS:** Foram atendidos 129 pacientes (140 internações e 11 reinternações), com idade média de 80 anos, e 57% eram mulheres. Em 67% das internações na unidade, os pacientes morreram, e em 32%, receberam alta. O tempo médio de internação foi de 11,1 dias e o tempo médio na Unidade de Cuidados Paliativos foi de 5,5 dias. A maioria dos pacientes tinha doenças neurológicas, como sequelas de doenças cerebrovasculares e síndromes demenciais, e baixo escore de funcionalidade. Dos óbitos ocorridos na instituição no período analisado, 59% foram na Unidade de Cuidados Paliativos, com maior proporção nas faixas etárias mais elevadas. **CONCLUSÃO:** A unidade atendeu uma demanda existente relacionada ao aumento das doenças crônicas e ao envelhecimento populacional, que necessitam de cuidados paliativos. É necessário expandir o acesso aos cuidados paliativos para pacientes internados em hospitais.

PALAVRAS-CHAVE: cuidados paliativos; hospital; unidades hospitalares; humanização da assistência.

^aHospital Dr. Anísio Figueiredo, Secretaria de Saúde do Paraná – Londrina (PR), Brazil.

^bConsórcio Intermunicipal de Saúde do Médio Paranapanema (CISMEPAR) – Londrina (PR), Brazil.

Correspondence data

Fernando Cesar Iwamoto Marcucci – Rua Odilon Braga, 199, Conjunto Sebastião de Melo César – CEP: 86084-600 – Londrina (PR), Brazil – E-mail: fcim@msn.com

Received on: 07/28/2018. Accepted on: 10/26/2018

DOI: 10.5327/Z2447-211520191800045

INTRODUCTION

Caring for patients with chronic diseases or life-threatening conditions usually requires hospital support, especially in cases of severe symptoms or in the most advanced stages of disease. Therefore, hospitals are the most common setting of occurrence of death and must provide appropriate support for patients and their families.¹ However, although recommended, access to palliative care (PC) is still limited in Brazil, particularly in hospital services.¹⁻³

This situation increases the risk of poor or fragmented control of physical, social, psychological, spiritual, and family symptoms during the course of disease, as well as the occurrence of deaths with no planning. Especially in the most advanced stages of disease, support is usually associated with the use of intensive resources which, if not correctly indicated, may lead to dysthanasia, or “death with suffering,” by using procedures for artificial prolongation of life regardless of patient’s quality of life.^{1,4}

In the current context of increased incidence of chronic diseases and population aging, the World Health Organization (WHO) recommends expanded access to PC as an essential component of health care, especially in public health, for appropriate support during the course of life of patients with life-threatening diseases. This would provide reduced suffering, control of symptoms, health care planning, and comprehensive care for patients and their families.^{4,6}

As the dissemination of PC in Brazil is still under development, few studies have investigated how the use of PC may influence hospital services, which demands are generated by this approach, and what the clinical characteristics of patients requiring PC are, particularly in the Brazilian Unified Health System (Sistema Único de Saúde — SUS). Thus, this study aimed to report the results of the first year of operation of a PC unit (PCU) implemented in a medium-complexity hospital in the city of Londrina, Paraná, Brazil. The demographic and clinical characteristics of patients admitted to the unit were identified, as well as their functional status and the effect of the implementation of this service on the distribution of in-hospital deaths.

METHOD

The Hospital Dr. Anísio Figueiredo, northern Londrina, is a general hospital under state public administration providing multiprofessional emergency care, clinical, pediatric, and surgical wards, with a surgical center for minor and moderate elective and urgent procedures, totaling 118 beds.⁷ With a population of approximately 507,000, Londrina has full management of the municipal health care system and is the main city for health care support in its region.⁸

In 2014, the institution created a PC Committee to identify cases associated with no chance of cure and reduced survival time. Following multiprofessional team training and performing adjustments in the service, a 5-bed ward was implemented in May 2016 for exclusive care of patients with indication for PC. Referring a patient to the ward requires agreement from two physicians: an attending physician, who requests referral when the palliative approach is believed to be necessary; and a committee’s physician, who receives the request, evaluates the patient, and accepts or refuses the request, with considerations.⁷

Other changes implemented in the work process are as follows:

- extended visiting hours during the whole day and increased family support by means of technical guidance, end-of-life care planning, and shared decision-making;
- routine adaptation targeting control of symptoms (adjusted use of opioids, performance of hypodermoclysis, favoring oral diet, changes in frequency of collecting samples for tests or performing invasive or uncomfortable procedures, etc.);
- raising staff awareness about understanding, indicating, and referring patients to PC;
- care provided by PC trained professionals.⁶

This study reviewed the electronic medical record database of patients referred and admitted to the PCU during its first year of operation, from May 2016 to April 2017. Demographic (age, sex, marital status) and clinical characteristics (major life-limiting disease, secondary or associated diseases, functional status measured by Palliative Performance Scale [PPS] — Portuguese version) were collected, in addition to admission data (length of hospital stay, length of PCU stay) and reason for exiting (discharge, death, or transfer). The number of deaths of PCU patients was compared to that of patients who died in other hospital units, classified by age range.

Data were statistically described using measures of central tendency, dispersion, and percentages. The study was approved by the relevant Research Ethics Committee (CAEE protocol n. 79540017.7.0000.8056) and authorized by the hospital board of directors.

RESULTS

During the PCU’s first year of operation, there were 140 admissions, including 11 readmissions (129 patients). Of these, 73 (57%) were women and 56 (43%) were men. Patients’ mean age was 80 (SD, 9.9) years — a mean of 82 years for women and 78 years for men. Only 10 patients were younger than 65 years at the time of PCU admission.

In this unit, patients died in 67% of admissions during the analyzed period, while 32% were discharged. The mean length of hospital stay was 11.1 (SD, 9.9) days, and the mean length of PCU stay was 5.5 (SD, 5.0) days. The longest hospital stay was 64 days, while the longest PC unit

stay was 25 days. Among patients who died in the unit, 47% stayed less than 3 days and 31% stayed from 3 to 7 days. Additional information is provided in Table 1.

Table 1 Data on patients admitted to the Palliative Care Unit from May 2016 to April 2017.

Sex	n	%
Women	73	56.6
Men	56	43.4
Age range (years)		
Below 65	10	7.1
Between 65 and 79	47	33.6
Above 80	83	59.3
Reason for exiting		
Death	94	67.1
Discharge	45	32.2
Transfer	1	0.7
Length of PCU stay (days)		
Less than 3	62	44.3
Between 3 and 7	44	31.4
More than 7	34	24.3

PCU: Palliative Care Unit.

Most (54%) major life-limiting diseases derived from neurological dysfunctions, such as sequelae of stroke, Alzheimer’s disease, and other dementia syndromes. Patients with cancer accounted for approximately 15%, followed by other organ failures (heart, lungs, liver, kidney, etc.). Infections were also considered to be a major disease when no other chronic or advanced conditions were identified, with relevant risk for older patients (Figure 1). The most common secondary diseases, i.e., associated or opportunistic clinical conditions following major diseases, were pneumonia, urinary tract infection, and wounds.

Functional status assessment at the time of PCU admission using PPS showed that all patients scored less than 50, i.e., most part of the day sitting or lying, signs of extensive disease, considerable assistance required, normal or reduced intake, and normal or altered level of consciousness. Most (77%) patients scored 30 or less, i.e., totally bed bound, completely dependent on assistance, normal or reduced intake, and possibly altered level of consciousness (Figure 2).

A total of 160 in-hospital deaths occurred during the period. Comparing numbers from the PCU and other hospital units, 94 (59%) patients died in the PCU and 66 (41%) died in other units. Also, a higher proportion of deaths of older patients was found in the PCU, where 84% of those who died were older than 65 years (Figure 3).

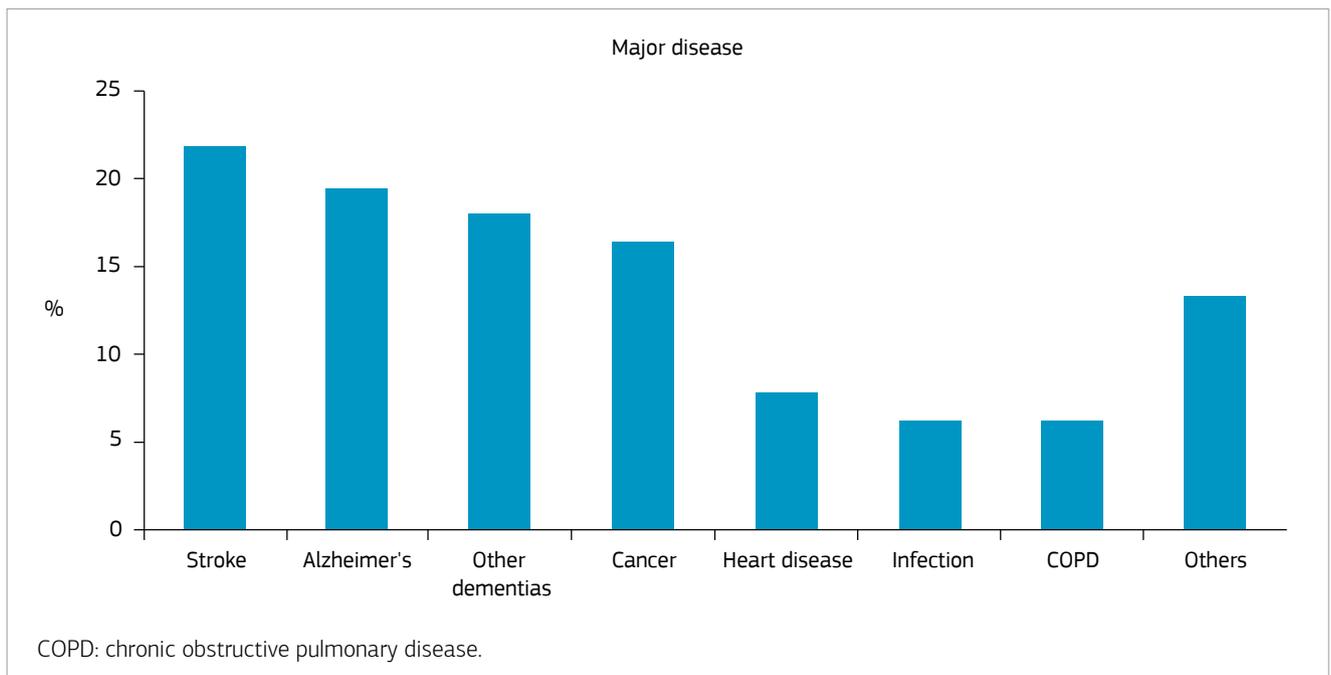


Figure 1 Distribution of major life-limiting diseases affecting patients admitted to the Palliative Care Unit at a general hospital.

DISCUSSION

In the context of a general hospital of medium-complexity care, there was found to be demand for PC care, especially for older patients with chronic diseases mostly caused by neurological dysfunctions. These conditions require continuous care and involve frequent readmissions until the end of a patient's life; thus, the institution must be prepared to deal with the needs of inpatients and their families.^{3-5,9,10} Of all unit admissions, in 67% patients died and in 32% they were discharged, and there were 11 readmissions.

PCU patients were mostly (57%) women, probably because of higher life expectancy in this group, and neurological

conditions were the most common life-limiting diseases, including sequelae of stroke, dementia syndromes, and cancer. This profile was similar to that of a population-based study conducted in Spain¹¹ and another study conducted in a Brazilian long-term care facility.¹²

Few Brazilian studies identifying the profile of PC patients in general hospitals were found. In a study conducted in a tertiary teaching hospital, Roncarati et al.¹³ identified 39 patients requiring PC and found their mean age was 64 years, i.e., lower than that of the present study, and an equivalent proportion of men and women. Regarding major life-limiting diseases, there was a higher frequency of patients with cancer, followed by those with sequelae of stroke and traumatic brain injury. These differences in patient profile between the studies may have resulted from Roncarati's inclusion of data from specific units, such as intensive care units (ICU), in operation at the tertiary hospital.

A study using a PC screening tool in a Minas Gerais general hospital reported that, of 231 admissions, 41% (96 patients) had indication for PC. The most prevalent conditions were heart diseases (32%), neurological diseases (27%), respiratory diseases (25%), and dementia syndromes (18%). In disagreement with the present study, most patients (60%) were male and mean age (62 years) was lower.¹⁴ In another similar study of 211 inpatients from a teaching hospital, 58 (27%) had indication for PC. Most of them were male, and mean age was 61 years. The most common conditions were

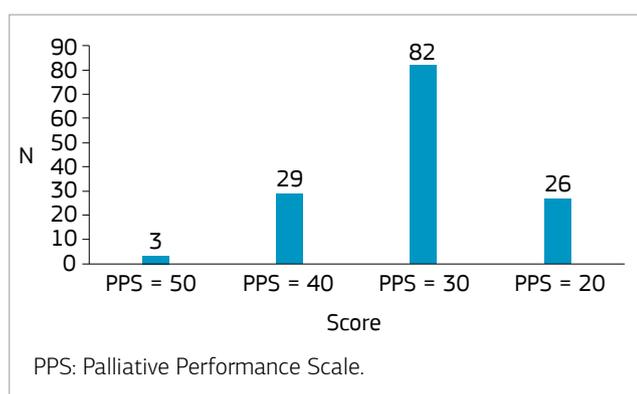


Figure 2 Distribution of functional status of patients admitted to the Palliative Care Unit, classified by Palliative Performance Scale scores.

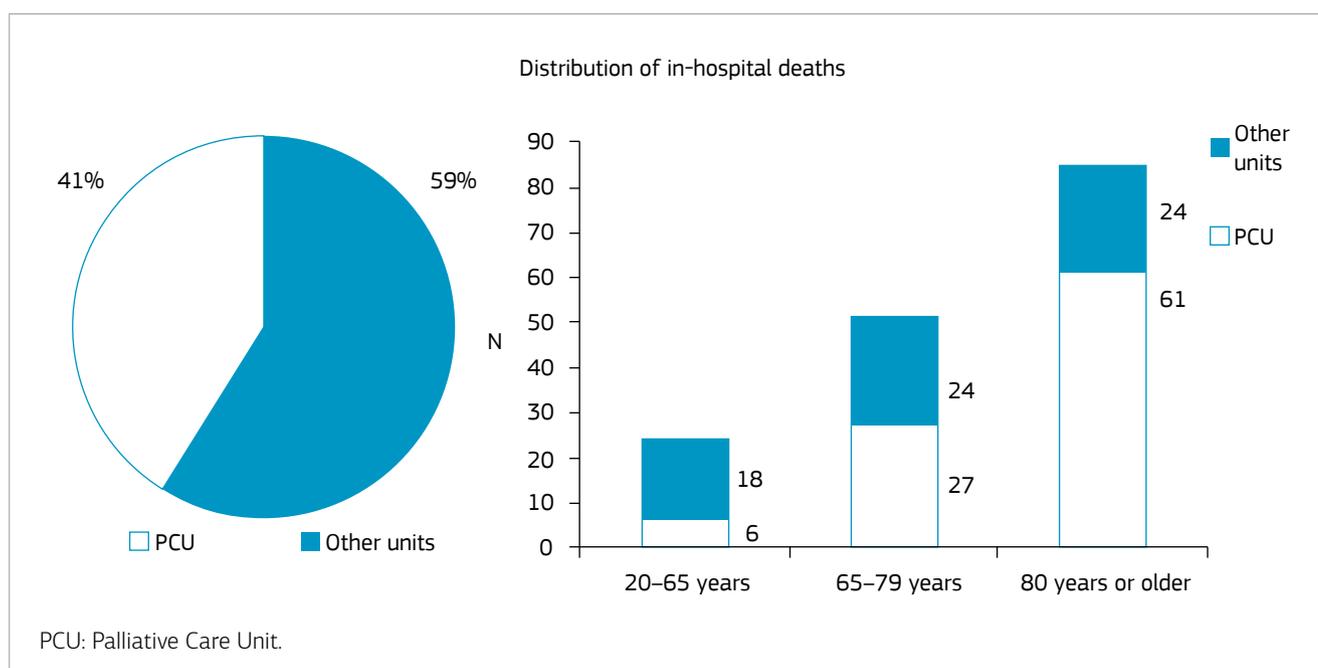


Figure 3 Distribution of percentage and number of in-hospital deaths, comparing the Palliative Care Unit with other units, and classification by age range (n = 160).

chronic liver diseases, followed by musculoskeletal and circulatory diseases.¹⁵

A study evaluating 50 patients from a Prolonged and Palliative Care Unit at a major hospital found that 66% were older than 61 years and 52% were male. The most common life-limiting clinical conditions were cardiovascular diseases, diabetes mellitus, cerebrovascular diseases, and other degenerative diseases. A prolonged length of stay was reported compared with that of the present study, probably because that unit was focused on multiple chronic diseases and rehabilitation.¹⁶

In the aforementioned studies as well as in the present study, there was variation in the distribution of the most common diseases limiting patients' life and demanding PC. In this context, PC services are still associated with caring for patients with cancer, which characterizes most of the services currently available in Brazil.^{2,3,17}

Functional status is an important survival indicator in patients with indication for PC.³ In a study of inpatients from clinical wards with indication for PC, the mean PPS score in functional status was 50, i.e., patients were more independent for daily life activities compared with the present study.¹⁵ A Portuguese study of 670 inpatients from a general teaching hospital reported that 15% (102 patients) required PC. The mean age was 70.9 years, and the number of men and women was equal. Cancer was the most prevalent condition (53%), and 78% scored less than 40 in the PPS.¹⁸

In the present study, data suggest that patients were referred late to the PCU, in view of their poor functional status — 77% scored 30 or less in the PPS — and the fact that 78% of those who died in the PCU stayed less than 7 days, i.e., indication for PC came when they were in an advanced stage or terminally ill.

Considering these data, health professionals, especially medical teams, should be more aware of the importance of initiating PC in earlier stages of disease. The literature recommends that a PPS score of 50 should be an indication for PC.^{3,4} Additionally, among the principles of PC, there is the need for providing comprehensive support for appropriate control of physical, psychosocial, and spiritual symptoms, as well as for planning the patient's end of life together with the family, to prepare them for the possibility of death, and which cannot be thoroughly applied if the patient initiates PC too late.^{3,5}

Although support in the most advanced stages of disease is mostly provided through hospital services, the implementation of PC services is still limited in the public health system, especially in general hospitals of medium- or high-complexity care. The PC approach has been systematically used

in several countries and is recommended by WHO and other international organizations, but remains under development in Brazil.^{2,3,5,6}

Regarding in-hospital deaths in the analyzed period, the prevalent age range was older than 80 years. Also, as age advances, the proportion of deaths occurring in the PCU increases, probably because of the higher frequency of patients with advanced chronic diseases or life-limiting conditions associated with aging. Although death is a frequent event in a hospital setting, especially in PCUs, it should be noted that among the major principles of PC are living life with quality and autonomy as well as considering death a normal process that should not be accelerated or delayed when this is unpreventable.^{3,5}

End-of-life care involves greater use of therapeutic resources and, thus, higher cost for health care systems. In the US, estimates show that 25% of health expenses are related to patients in the last year of life. In the UK, approximately 20% of hospital beds are occupied by patients receiving end-of-life care according to estimates.¹⁹ The implementation of PC services at hospitals may favor the appropriate use of therapeutic resources, reducing the demand for ICU beds, and avoid the performance of unnecessary procedures. Such actions may reduce the cost of admissions and, simultaneously, improve the quality of life of patients and their families.^{1,19-21}

In Brazil, according to the National Academy of Palliative Care, there were 179 PC services registered nationwide in September 2018. Twelve services were in Paraná state, and two of those were in Londrina, where the present study was conducted (the present PCU and another one at a specialized cancer hospital).¹⁷ For comparison purposes, in 2015 in the US, 67% of hospitals with at least 50 beds had PC programs, while in 17 US states, more than 80% of hospitals had PC teams.²²

In view of the limited access to PC services in Brazil, specific policies are needed to increase the supply of this type of support. In 2014, the WHO approved Resolution no. 67/19: "Strengthening of palliative care as a component of integrated treatment throughout the life course." This resolution defines the following requirements: PC services integrated into health care system structure and financing; training and expansion of specialized professionals; access to medications for control of symptoms; and further research for identifying PC-related needs and actions suitable for each context.^{6,9}

Thus, the initiative of implementing PCUs in public hospitals seems to be still an innovation in Brazil, requiring analysis and dissemination across the health

care system. The limitations of this study include the small amount of data collected or that were available from medical records for the analysis of all patients. Future studies should focus on qualitative aspects of PC, patient and family satisfaction with services, economic analyses, and use of unit resources.

CONCLUSIONS

The implementation of a PCU in a general hospital of medium-complexity care sought to meet demands related to increased prevalence of chronic diseases, increased life expectancy of the population, and higher number of in-hospital deaths. Older patients with neurological diseases were most frequently admitted to the investigated PCU.

Most patients had a low functional score, i.e., highly or totally dependent on assistance for daily life activities, and stayed less than 7 days in the unit. Sixty seven percent of unit admissions resulted in patient's death. Expanding access to PC at hospitals should improve care for patients with advanced diseases or life-limiting conditions, with appropriate control of uncomfortable symptoms and increased support for family members. Additionally, it should improve patient flow within the health care system, with decreased demand for ICU bed management and balanced use of therapeutic resources at the end of life.

CONFLICT OF INTERESTS

The authors declare no conflict of interests.

REFERENCES

- Marcucci FCI, Cabrera MAS, Rosenberg JP, Yates P. Tendências nos locais de óbito no Brasil e análise dos fatores associados em idosos de 2002 a 2013. *Geriatr Gerontol Aging*. 2017;11(1):10-7. <http://doi.org/10.5327/Z2447-211520171600068>
- Pastrana T, Lima L, Wenk R, Eisenchlas J, Monti C, Rocafort J. Atlas of Palliative Care in Latin America. Houston: IAHP Press; 2012.
- Academia Nacional de Cuidados Paliativos. Manual de cuidados paliativos. 2ª ed. Rio de Janeiro: Diagraphic; 2012. 320 p.
- Gómez-Batiste X, Stephen C. Building Integrated Palliative Care Programs and Services. Catalonia: Liberdúplex; 2017.
- World Health Organization. Palliative Care For Older People: Better Practices [Internet]. Geneva: World Health Organization; 2011 [acessado em 30 set. 2017]. Disponível em: http://www.euro.who.int/__data/assets/pdf_file/0017/143153/e95052.pdf
- World Health Organization. 67ª World Health Assembly Resolution 67.19 - Strengthening of Palliative Care as a Component of Comprehensive Care Throughout the Life Course. Geneva: World Health Organization; 2014.
- Marcucci FCI, Mendes IAS, Dias CAM, Do Nascimento LA, Pedri WLN. Implantação de uma Unidade de Cuidados Paliativos num hospital de média complexidade de Londrina - PR: relato de experiência. Espaço para a Saúde. *Rev Saúde Pública Paraná*. 2017;18(1):196-203. <http://doi.org/10.22421/1517-7130.2017v18n1p>
- Londrina. Prefeitura de Londrina. Autarquia Municipal de Saúde. Relatório Anual de Gestão da Saúde [Internet]. Londrina: Prefeitura de Londrina; 2017 [acessado em 16 jun. 2018]. Disponível em: http://www1.londrina.pr.gov.br/dados/images/stories/Storage/sec_saude/relatorios_gestao/Relatorio_Anuar_de_Gestao_2017.pdf
- Brasil. Ministério da Saúde. Resolução nº 41, de 31 de outubro de 2018. Dispõe sobre as diretrizes para a organização dos cuidados paliativos, à luz dos cuidados continuados integrados, no âmbito Sistema Único de Saúde (SUS). *Diário Oficial da União*. 2018;225(1):276.
- Sasahara T, Kizawa Y, Morita T, Iwamitsu Y, Otaki J, Okamura H, et al. Development of a Standard for Hospital-Based Palliative Care Consultation Teams Using a Modified Delphi Method. *J Pain Symptom Manage* [Internet]. 2009 [acessado em 10 jan. 2018];38(4):496-504. Disponível em: <http://www.sciencedirect.com/science/article/pii/S0885392409007039> <https://doi.org/10.1016/j.jpainsymman.2009.01.007>
- Gómez-Batiste X, Martínez-Muñoz M, Blay C, Amblàs J, Vila L, Costa X, et al. Prevalence and characteristics of patients with advanced chronic conditions in need of palliative care in the general population: A cross-sectional study. *Palliat Med* [Internet]. 2014 [acessado em 1º fev. 2018];28(4):302-11. Disponível em: <http://pmj.sagepub.com/content/28/4/302> <https://doi.org/10.1177%2F0269216313518266>
- Lucchetti G, Badan Neto AM, Ramos SAC, Faria LFC, Granero AL, Pires SL, et al. Uso de uma escala de triagem para cuidados paliativos nos idosos de uma instituição de longa permanência. *Geriatr Gerontol Aging*. 2009;3(3):104-8.
- Roncarati R, de Camargo RMP, Rossetto EG, Matsuo T. Cuidados Paliativos num Hospital Universitário de Assistência Terciária: uma necessidade? *Semina Ciênc Biol Saúde*. 2003;24(1):37-48. <http://dx.doi.org/10.5433/1679-0367.2003v24n1p37>
- de Faria JAM, Ferreira LG, Vieira MAB, Cosenza NN, Alvarenga PP, Figueiredo PL. Perfil dos pacientes com indicação de cuidados paliativos internados no Hospital Júlia Kubistchek - FHEMIG. *Rev Med Minas Gerais*. 2015;25(1):25-9. <http://dx.doi.org/10.5935/2238-3182.20150006>
- Vieira RC, de Moraes MTM, Sarmento LMC, Ferreira ADC, Muñoz RLS. Demanda por cuidados paliativos em enfermarias clínicas gerais. *Rev Ciênc Estudos Acadêmicos Med*. 2017;8:20-40.
- Souza ICP, Silva AG, Quirino ACS, Neves MS, Moreira LR. Perfil de pacientes dependentes hospitalizados e cuidadores familiares: conhecimento e preparo para as práticas do cuidado domiciliar. *REME Rev Min Enferm*. 2014;18(1):164-72. <http://dx.doi.org/10.5935/1415-2762.20140013>
- Academia Nacional de Cuidados Paliativos. Onde existem cuidados paliativos [Internet]. São Paulo: Academia Nacional de Cuidados Paliativos; 2018 [acessado em 10 ago. 2018]. Disponível em: <http://paliativo.org.br/ancp/onde-existem/>
- Da Silva MJFN. Cuidados paliativos: Caracterização assistencial e Identificação de necessidades num serviço de Medicina interna [dissertação] [Internet]. Lisboa: Faculdade de Medicina de Lisboa, Universidade de Lisboa; 2012 [acessado em 5 set. 2018]. Disponível em: <http://hdl.handle.net/10451/6327>

19. Smith S, Brick A, O'Hara S, Normand C. Evidence on the cost and cost-effectiveness of palliative care: A literature review. *Palliat Med*. 2014;28(2):130-50. <https://doi.org/10.1177/0269216313493466>
20. Brumley R, Enguidanos S, Jamison P, Seitz R, Morgenstern N, Saito S. Increased Satisfaction with Care and Lower Costs: Results of a Randomized Trial of In-Home Palliative Care. *J Am Geriatr Soc* [Internet]. 2007 [acessado em 20 fev. 2018];55(7):993-1000. Disponível em: <http://dx.doi.org/10.1111/j.1532-5415.2007.01234.x>
21. Smith S, Brick A, O'Hara S, Normand C. Evidence on the cost and cost-effectiveness of palliative care: A literature review. *Palliat Med* [Internet]. 2014 [acessado em 21 fev. 2018];28(2). Disponível em: <http://dx.doi.org/10.1177/0269216313493466>
22. Dumanovsky T, Augustin R, Rogers M, Lettang K, Meier DE, Morrison RS. The Growth of Palliative Care in U.S. Hospitals: A Status Report. *J Palliat Med* [Internet]. 2016 [acessado em 1º mar. 2018];19(1):8-15. Disponível em: <https://doi.org/10.1089/jpm.2015.0351>