



PALLIATIVE CARE IN HEART FAILURE: INTEGRATIVE REVIEW
CUIDADOS PALIATIVOS EM INSUFICIÊNCIA CARDÍACA: REVISÃO INTEGRATIVA
CUIDADOS PALIATIVOS EN LA INSUFICIENCIA CARDÍACA: REVISIÓN INTEGRATIVA

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ABSTRACT

Objective: to analyze scientific articles produced worldwide about palliative care for patients with heart failure. **Method:** this was an integrative review with the following guiding question: *What is the scientific production about palliative care to patients with heart failure?* The searches were conducted on the LILACS, PUBMED, and CINAHL databases from 2008 to 2012. The articles were read in full and the following information was recorded in a form for evaluation: title, authors, main objective, methodology, sample, subjects, main findings, and conclusions. The Oxford scale was used to classify the studies according to the level of evidence and grades of recommendation. **Results:** 12 articles in the English language were analyzed and divided according to the following themes: Pain (3); Heart failure and cancer (2); End of life preferences (3); Intervention studies (2); and Others (2). **Conclusion:** a deficit on the applicability of palliative care to patients with heart failure was observed demonstrating the need for further research. **Descriptors:** Heart Failure; Palliative Care; Nursing.

RESUMO

Objetivo: analisar artigos científicos produzidos, no cenário mundial, acerca do cuidado paliativo no cliente com Insuficiência Cardíaca. **Método:** revisão integrativa com a seguinte questão norteadora: *Qual é a produção científica acerca de cuidados paliativos a pacientes com insuficiência cardíaca?* As buscas foram realizadas nas bases de dados LILACS, PUBMED e CINAHL no período de 2008 a 2012. Os artigos foram lidos na íntegra e utilizou-se um formulário, contendo as informações: título, autores, objetivo principal, tipo de metodologia, amostra, sujeitos, principais resultados e conclusões para avaliação. Para classificar os estudos segundo o nível de evidência e graus de recomendação, utilizou-se a escala de Oxford. **Resultados:** foram analisados 12 artigos em língua inglesa, divididos pelas temáticas: Dor (3); Insuficiência Cardíaca e Câncer (2); Preferências ao Fim da Vida (3); estudos de intervenção (2); e outros (2). **Conclusão:** foi encontrado déficit acerca da aplicabilidade dos cuidados paliativos, demonstrando necessidade de maiores pesquisas. **Descritores:** Insuficiência Cardíaca; Cuidado Paliativo; Enfermagem.

RESUMEN

Objetivo: analizar artículos científicos producidos sobre el cuidado paliativo del cliente con Insuficiencia Cardíaca en el escenario mundial. **Metodología:** revisión integrativa con la siguiente pregunta guía: *¿Cuál es la producción científica sobre cuidados paliativos a pacientes con insuficiencia cardíaca?* Las búsquedas fueron realizadas en las bases de datos LILACS, PUBMED y CINAHL en el período entre 2008 y 2012. Los artículos fueron leídos completamente y fue utilizado un formulario que contenía las siguientes informaciones: título, autores, objetivo principal, metodología, muestra, sujetos, resultados principales y conclusiones para evaluación. Para clasificar los estudios según el nivel de evidencia y grados de recomendación, fue utilizada la escala de Oxford. **Resultados:** fueron analizados 12 artículos en lengua inglesa, divididos temáticamente: Dolor (3); Insuficiencia Cardíaca y Cáncer (2); Preferencias al final de la vida (3); estudios de intervención (2); y otros (2). **Conclusión:** fue encontrado déficit sobre la aplicación de los cuidados paliativos, en que se demostró la necesidad de una mayor investigación. **Descriptor:** Insuficiencia Cardíaca; Cuidado Paliativo; Enfermería.

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INTRODUCTION

Heart failure (HF) is a syndrome that affects 10 out of 1000 individuals after the age of 65 in the United States of America (USA).¹ It is considered the final path of all heart diseases and estimated to be the first cause of death worldwide around 2025.

According to the literature, the occurrence of this syndrome may have its origin in primary causes (disturbance in muscle contraction due to primary abnormality in the heart muscle as occurs in cardiomyopathies and viral myocarditis), or secondary (coronary atherosclerosis that causes ischemia and myocardial infarction as well as pathologies of the heart valves, and arterial systemic hypertension among others).²

The prevalence of this syndrome in developed countries is 1 to 2%, reaching 4.5% in the elderly. Despite medical advances, especially in the pharmaceutical area, this rate has grown since the 70s. In Brazil, according to the data from DATASUS in 2006, approximately 11.3 million hospitalizations were carried out, from which 298,380 corresponded to HF cases, corresponding to 26% of all hospitalizations due to cardiovascular disease.³ In addition, HF presented higher mortality rate than many forms of cancer (bladder, breast, and prostate) being only second to lung cancer. Death by HF is mainly characterized as resulting from lack of adherence to a proposed treatment, lack of symptoms control, high levels of depression, and low quality of life.⁴

The general principles for HF control are the pillars of palliative care. The control of symptoms and emotional or spiritual support must be employed, even before the terminal phase of the disease.⁵ The philosophy of HF clinics is suitable for this type of service, however, these clinics are in small numbers and restricted to a few centers, or teaching and research institutions. Customers and their families should have the opportunity to discuss advanced guidelines at the beginning of the HF course and re-evaluate decisions when clinical conditions change.⁶⁻⁷

We emphasize that the assistance directed to patients and their family in this context is predominantly peculiar to the nursing activity because this professional is who remains with the client most of the time and operates a large part of care.⁸ Thus, the guiding research question was formulated: What is the existing scientific production about palliative care directed to the HF client, worldwide and in the period between 2008 and 2012?

OBJECTIVE

- To analyze scientific articles produced worldwide about palliative care for the client with heart failure.

METHODOLOGY

Integrative review with a methodological approach that allows the inclusion of experimental and non-experimental studies for the complete understanding of the analyzed phenomenon. Therefore, this search method allows the synthesis of multiple published studies and enables general conclusions regarding a particular area of study.⁹

Six steps were followed for the preparation of the review process.⁹ The first is the definition of the research problem: What is the scientific production about palliative care for patients with heart failure?

The next step is establishing criteria for inclusion and exclusion of studies and literature search. The choice of keywords was based on the selection of terms inserted in Health Sciences Descriptors (Decs), heart failure, and palliative care with the intention to restrict to a minimum the number of articles found. Consequently, the search in databases in the English language used the terms Medical Subjects Headings (Mesh), heart failure, and palliative care.

The databases were electronically consulted: Latin American and Caribbean Health Sciences Literature (Lilacs) through the Virtual Health Library, the Pubmed portal managed by the US National Library of Medicine/National Institutes of Health, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) by the Capes Periodic Portal. The survey was conducted in April of 2013. The association of palliative care and heart failure descriptors with the Boolean term "and" was used in the CINAHL database where 201 potential articles were found. In the Lilacs database, the search also used the Boolean term "and" between the following indexed descriptors and their replicas in English: heart failure, palliative care; two potential articles were found. In the Pubmed Web site, the following MESH terms were used: heart failure, palliative care. When searching using the Boolean term "and": heart failure and palliative care, 150 potential articles were found.

The following inclusion criteria were used for selecting articles: published in the period from 2008 to 2012, in Portuguese, English, and Spanish; only complete articles in indexed

journals and available in the Capes Periodic Portal; from research with only a quantitative approach; Samples including patients 18 years old and older. The exclusion criteria used were: articles of limited access; sample composed by pediatric patients.

The third step includes the complete reading of the selected articles and use of a form containing the following information for evaluation: title, authors, main objective, methodology, sample, subjects, main findings, and conclusions. The Oxford scale was used to classify the studies according to the level of evidence and grades of recommendation.¹⁰

The fourth and fifth steps include the critical analysis for evaluation and interpretation of the studies' results, and were carried out through discussions of the

articles between three researchers to reach a final consensus on the presented content.

RESULTS

Twelve articles met the inclusion criteria and were analyzed in this review. These 12 studies consisted of cohort studies that were classified at level 2B of evidence and grade of recommendation.¹⁰ We opted to present them divided by themes: Pain, HF and cancer, End of life preferences, Intervention studies, and Others.

Articles that presented the symptom Pain as the theme are presented first in the discussion of palliative care and HF (Figure 1).

Authors	Study Design	Sample	Intervention	Results and Conclusions
Goebel JR, et al. ¹³	Cross-sectional	96 pcts with HF	(NA)	This study evaluated the pain in HF patients. Questionnaires that measured symptoms were applied. 55.2% of the patients reported pain, in most cases moderate to severe. The pain was more reported than dyspnea. Age, depression, anxiety, social and spiritual status, frequency of symptoms, and functional status correlated with the severity of pain indicating the need for multidisciplinary actions to treat this symptom.
Goebel JR, et al. ¹⁹	Cross-sectional	634 pcts, 95 with HF	(NA)	HF patients presented more comorbidities than others, < general health, suffered more chest pain, and were more likely to have a history of cancer. 67.3% of HF patients and 68.4% without HF reported moderate to severe pain. Although HF did not show pain as an identified condition, the study suggests that it is a significant symptom in patients with or without HF.
Evangelista LS, Sackett E, Dracup K. ¹⁸	Cross-sectional	300 pcts with HF	(NA)	This study evaluated pain and quality of life. 67% of the patients showed some kind of pain. The severity of pain was greater when the functional class was worse, and when the number of comorbidities was higher. The measure of quality of life was worse in patients who experienced pain demonstrating the need for treatment of this symptom that is little recognized.

Figure 1. Heart failure and Pain. Rio de Janeiro, RJ, 2013.

All published periodicals were of foreign origin, two specialized in geriatrics and gerontology (Journal of the American Geriatric Society and Gerontology), four specialized in cardiology (Journal of Cardiac Failure; European Journal of Cardiovascular Nursing; European Journal of Heart Failure; Canadian Journal of Cardiology), two in palliative care (Journal of Pain and Symptom Management

and American Journal of Hospice & Palliative Medicine), and two in general medicine (Journal of General Internal Medicine and Archives of Internal Medicine). It should be noted that only one periodical is in Nursing (European Journal of Cardiovascular Nursing).

Figure 2 shows studies that compared patients with HF and cancer with palliative care needs.

Authors	Study Design	Sample	Intervention	Results and Conclusions
O`Leary N, Murphy NF, O`Loughlin C, Tiernan E, McDonald K. ¹¹	Comparative Cross-sectional	50 pcts with HF and 50 pcts with Cancer	(NA)	HF patients had greater community and social support, professional supervision, monitoring of medicines, ease of access to services, phone support, and a professional in the HF unit. However, they were less referred to palliative care services.
Bekelman DB, et al. ¹⁴	Comparative Cross-sectional	60 pcts with HF and 30 with Cancer	(NA)	Patients in the study had similar numbers of physical symptoms, depression at different levels, and spiritual well-being. In advanced HF, patients showed worse health quality, greater number of physical symptoms and depression, and less spiritual well-being than those with advanced cancer. It is concluded that both cancer patients and/or advanced HF, require similar needs for palliative care, even if it is not an applied practice.

Figure 2. Heart failure and cancer. Rio de Janeiro, RJ, 2013.

All articles were published in the English language; authors of Brazilian origin or studies in Brazil were not found. Two articles were

published in 2008, six in 2009, one in 2010, one in 2011, and two in 2012.

Figure 3 presents the three studies that addressed the theme related to end of life.

Authors	Study Design	Sample	Intervention	Results and Conclusions
Formiga F, López-Soto A, Navarro M, Riera-Mestre A, Bosch X, Pujol R. ¹⁵	Control case	80 pcts with HF or Dementia ≥ 90a + control group 52 pacts 65-74a	(NA)	Procedures related to end of life care outlined in medical records were evaluated. Non-resuscitation orders in 56% of cases, graduation of therapeutic decisions in 35%, awareness of relatives about prognosis in 61%, withdrawal of medication in 66%, and end of life care in 69%. Greater predominance of women, percentage of orders to not resuscitate, and of graduation of therapeutic measures was detected in older patients compared to younger seniors.
Strachan PH, Ross H, Rocker GM, Dodek PM, Heyland DK. ¹²	Cross-sectional	106 pcts with HF	(NA)	The study evaluated the improvement of care at the end of life of hospitalized patients with advanced HF. Thus, decreased physical and emotional load on the family, adequate plan of care after discharge, effective relief of symptoms, and opportunity for an honest communication were presented as relevant strategies. The three most important issues for patients were: avoid life support if there was no hope of recovery, provision of information on the part of the doctor, and avoid the load on the family.
Taitel M, Meaux N, Pegus C, Valerian C, Kirkham H. ²¹	Descriptive retrospective	217 pcts with HF	(NA)	A quasi-experimental design, non-group equivalent was used to assess the place of death among patients with terminal HF enrolled in the Walgreens inotropic infusion program and compare death rate at home of these patients with a national sample. With the data adjusted for age and sex, the study showed that the proportion of death for patients at home (or hospice) was 35.9% in the national population and 64.5% in the studied sample.

Figure 3. Heart failure and end of life. Rio de Janeiro, RJ, 2013.

The countries where the studies were developed are all in the northern hemisphere and are considered first-world Nations (USA, eight studies; United Kingdom, two; Canada, one; and Spain, one). All articles were found in the Medline database via Pubmed and three in the CINAHL database; these were also in Medline.

Figure 4 presents the intervention studies found.

Authors	Study Design	Sample	Intervention	Results and Conclusions
Oxberry SG, Torgerson DJ, Bland JN, Clark AL, Cleland JGF, Johnson CMJ. ²²	Prospective with Intervention	35 pcts with HF	Use of oral morphine x oral oxycodone x placebo	Patients received three blind interventions for 4 days, each within a period of 3 days apart, without medication for dyspnea between interventions. Patients were evaluated by a numeric scale of 11 points, before and after 24 h, adding up another evaluation scale of dyspnea on the 1 st and 4 th days. The severity of dyspnea was reduced with the three interventions proving no significant difference between them.
Evangelista LS, Lombardo D, Malik S, Ballard-Hernandez J, Motie M, Liao S. ¹⁷	Prospective control case	72 pcts with HF, half submitted to intervention	Consultation for Palliative Care	Half of the patients were referred to a consultation with specialists in palliative care after hospital discharge. The other half was selected from another major study underway taking into account similarities in the following characteristics: age, sex, race, and functional class. Load of symptoms, depression, and quality of life were evaluated before and after 3 months, with improvement in both assessed groups; however, a little more pronounced in the palliative care group. It is concluded that the palliative care consultation can reduce the load of symptoms, depression, and improve the quality of life in HF patients. Nevertheless, there is a need for studies with larger sample sizes to determine the effectiveness of these findings.

Figure 4. Heart failure and intervention. Rio de Janeiro, RJ, 2013.

With respect to authors, five articles were written by physicians, five by doctors and nurses, one by nurses, and one by doctors and other professionals. Most studies had doctors as authors, which signal to an increase of production in this area by other professionals.

Figure 5 shows two studies classified as Others, however, very important. The first presents a risk score and the second deals with racial differences.

Authors	Study Design	Sample	Intervention	Results and Conclusions
Huynh BC, Rovner A, Rich MW. ¹⁶	Descriptive retrospective	282 pcts (pcts) with HF ≥ 70a	(NA)	Simple risk scores were identified based on 4 clinical parameters (urea nitrogen serum ≥ 30 mg/dL; systolic blood pressure < 120 mmHg; peripheral artery disease; and serum sodium < 135 mEq/L). The score can be used to predict mortality risk in 6 months in elderly people with HF. Contributes to the early referral to palliative care services.
Givens JL, Tjia J, Zhou C, Emanuel E, Ash AS. ²⁰	Descriptive retrospective	98.258 pcts with HF ≥ 65a	(NA)	The study found that blacks and Hispanics with HF were less referred to hospices than whites, even after the adjustment of markers such as: income, urbanicity, severity of the disease, number of hospices by municipalities, and comorbidities.

Figure 5. Risk score and racial differences. Rio de Janeiro, RJ, 2013.

DISCUSSION

Despite that the United Kingdom is the pioneer in palliative care HF, patients are less referred to treatment with this specificity than they should. Currently it is estimated in that country that more than double of HF patients could be referred to palliative care services than they really are. When referred, they are belatedly assisted or death happens before receiving the specialized care¹¹. This reality happens in other countries due to the following possible reasons: palliative care is not adequately recognized as needed for this clientele; the misperception by cardiologists that the concept of palliative care is suitable only for end of life care of cancer patients with uncertain prognosis.¹¹⁻³

Among the articles, six deal with populations where the average age is more than 60 years. This is justified by the fact that most of these research projects were conducted in first world countries where the ageing population is a reality and the largest number of HF patients is in this age group¹¹⁻⁶. In Spain, 80 patients with ages greater than 89 years were analyzed where 57.5% presented HF and 42.5% had dementia as the main diagnoses. In addition to being referred for palliative care services less than they should, it was found that patients diagnosed with dementia were more referred than with those with HF.¹⁵

Studies comparing HF and cancer patients^{11.14} show that the load of symptoms to be controlled in these populations are very similar reinforcing the importance of a multidisciplinary team caring for these patients, added to the need for the implementation of the philosophy of palliative care. This philosophy holds a current consensus in starting early evaluations in the course of HF preferably at the time of diagnosis or hospitalization because of exacerbation of symptoms, and continues during the family mourning period.¹⁷

Authors call attention to the symptoms of depression when HF and cancer patients are compared, especially in women who show

higher frequency of depression than men in the course of these diseases. Recognition and early treatment are important to prevent the exacerbation of other manifestations.^{14.17} Still in the comparison of HF and cancer, it is evidenced that HF patients have more symptoms to be treated, more depression, and less spiritual well-being when compared to cancer patients.¹⁴ In another study, this condition is not demonstrated, however, it confirms that the need for symptoms control is at least equal in these two diseases.¹¹

Some studies showed that the symptomatology presented by HF patients include dyspnea, fatigue, depression, drowsiness, dry mouth, nausea, edema, anxiety, pain, reduced appetite, constipation/diarrhea, and loss of independence.^{11, -9 13.18}

As for the specific symptom of pain, three studies identified pain in the HF patient with high percentage and relevant incidence of pain.^{-9 13.18} In the first study, developed with a large sample (n = 300), 67% of patients reported some degree of pain with increasing pain prevalence according to the increase in the individual's functional class.¹⁸ The second study involving 91 HF patients described that 67% had between in moderate to severe pain.¹³ In the third study, with 96 war veterans of the United States, 55.2% had some kind of pain, and 38% had moderate to severe pain.¹⁹

In the search for the right time to refer this clientele to hospice services, American researchers created a model of risk stratification based on four parameters (level of urea nitrogen in the blood, systolic blood pressure, presence of peripheral arterial disease, and level of sodium concentration in the blood). The risk score can predict mortality or survival by up to six months in the elderly with HF. Despite the author's claims for the need of other studies that corroborate these findings, they believe that this score could help many patients if they are referred early to palliative care services.¹⁶ An interesting data found in a large descriptive study²⁰ was that the four parameters

mentioned above were used to refer HF patients to hospice services.

In the approach to death, although most of the HF patients prefer to die at home, most die in hospitals. However, patients who die at home usually have a better quality of life during the last few days than those who die in a hospital or intensive care unit.²¹

Only two studies stood out as in fact reporting the effectiveness of treatment to this clientele. In the first one, the authors selected 36 HF patients at the time of worsening clinical condition (hospital inpatient) and offered them a consultation with experts in palliative care soon after discharge; controls were selected among patients who were part of another study and had similar characteristics. Both groups were evaluated before the appointments and three months later with instruments that assessed quality of life, load of symptoms, and depression. The outcome met statistical significance and showed that patients who received that consultation presented greater control of HF symptoms than patients in the control group. No differences were observed between the groups in relation to the submitted instruments.¹⁷

The second study was performed in the United Kingdom and compared the use of morphine and oral oxycodone in low doses versus placebo to improve dyspnea symptoms in NYHA class III and IV patients. Unfortunately the research did not showed symptom improvement in the studied sample (n = 35); the authors suggest that the study to be repeated with a larger sample and with increased medication withdrawal time (one month) because patients in this study were evaluated for only four days.²²

CONCLUSION

The literature found in this review revealed a deficit about the applicability of palliative care to HF clients. This treatment is already applied in a structured way in countries such as the US, Canada, and United Kingdom. However, it is still little offered to the HF clientele. In Brazil, this clientele does not have access to this treatment because of the lack of centers specialized in palliative care, except those who are linked to cancer diagnosis.

This study revealed the need for more research in this area to sensitize health teams in expanding palliative care to other chronic diseases such as HF. It is believed that, in this context, the nursing team is not an adjuvant, but the leading actor in this scenario because it contains the fundamental members who

must take care of these clients in various caring scenarios.

REFERENCES

1. Lloyd-Jones D, Adams R, Carnethon M, De Simone G, Ferguson B, Flegal K, et al. Heart disease and stroke statistics--2009 update: a report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation* [Internet]. 2009 Jan [cited 2013 May 5];119(3):e21-181. Available from: <http://circ.ahajournals.org/content/early/2008/12/15/CIRCULATIONAHA.108.191261.full.pdf+html>
2. Braunwald, E. Insuficiência cardíaca. In: Longo DL, Fauci AS, Kasper DL, Hauser SL, Jameson JL, Loscalzo J. Harrison: medicina interna. 15th ed. Rio de Janeiro: McGraw Hill; 2002. p.1375-86.
3. Ministério da Saúde/DATASUS [Internet]. Brasília (DF): Informações de Saúde. Departamento de Informática do SUS. 2006 [cited 2013 May 5]. Available from: <http://w3.datasus.gov.br/datasus/datasus.php?area=359A1B0C0D0E0F359G1HIJd1L2M0N&Vlnclude=../site/texto.php>
4. Paes P. A pilot study to assess the effectiveness of a palliative care clinic in improving the quality of life for patients with severe heart failure. *Palliat Med* [Internet]. 2005 Sep [cited 2013 Apr 23];19(6):505-6. Available: <http://pmj-sagepub-com.ez83.periodicos.capes.gov.br/content/19/6/505.full.pdf+html>
5. Pantilat SZ, Steimle AE. Palliative care for patients with heart failure. *JAMA* [Internet]. 2004 May 26 [cited 2013 Apr 23];291(20):2476-82. Available: http://ovidsp.tx.ovid.com/sp-3.10.0b/ovidweb.cgi?&S=CONLFPJFGHDDJKNCNCNKBBLBEEEEKAA00&Link+Set=S.sh.28056_1381410370_2.28056_1381410370_14.28056_1381410370_22.28056_1381410370_24.28056_1381410370_28.28056_1381410370_32%7c34%7csl_10
6. Brush S, Zambroski CH, Rasmussen K. Palliative care for the patient with end-stage heart failure. *Prog Cardiovas Nurs*. 2006;21(3):166-70.
7. Bonacina R, Minatel MA, Tedeschi V, Cullen C, Wenk R. Cuidado paliativo. Guías para tratamiento para enfermaria [Internet]. Buenos Aires: Programa Argentino de Medicina Paliativa - Fundación FEMEBA; 2004 [cited 2013 May 5]. Available from: <http://www.cuidadospaliativos.org/archives/manualenfermeria.pdf>
8. Andrade GG, Costa ICP, Costa SFG, Santos KFO, Lopes MEL, Figueiredo DM. Palliative

care in primary care: scientific production of nursing. J Nurs UFPE on line [Internet]. 2012 Jan [cited 2013 May 5];6(2):423-30. Available from:

http://www.revista.ufpe.br/revistaenfermage/index.php/revista/article/view/1975/pdf_820

9. Mendes KDS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para incorporação de evidências na saúde e na enfermagem. Texto contexto enferm. [Internet]. 2008 [cited 2013 May 13];17(4):758-64. Available from:

<http://www.scielo.br/pdf/tce/v17n4/18.pdf>

10. Phillips B, Ball C, Sackett D, Badenoch D, Straus S, Haynes B, Dawes M. Levels of evidence and grades and recommendation. Oxford: Oxford Centre for Evidence-based Medicine. 2009 Mar [cited 2013 May 5]. Available from:

<http://www.cebm.net/?o=1025>

11. O' Leawy N, Murphy N F, O, Longhlin C, Tiernan E, Mc Donald K. A comparative study of the palliative care needs of heart failure and cancer patients. Eur J Heart Fail [Internet]. 2009 Apr [cited 2013 Apr 23];11(4):406-12. Available from:

<http://eurjhf-oxfordjournals-org.ez83.periodicos.capes.gov.br/content/11/4/406.full>

12. Stranchan HR, Ross H, Rocker GM, Dodek PM, Heyland DK. Mind of gap: opportunities for improving end of life care for patients with advanced heart failure. Can J Cardiol [Internet]. 2009 Nov [cited 2013 Apr 23];25(11):635-40. Available from:

http://link.periodicos.capes.gov.br.ez83.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-2004&url_ctx_fmt=infofi/fmt:kev:mtx:ctx&ctx_enc=info:ofi/enc:UTF-8&ctx_ver=Z39.88-2004&rft_id=info:sid/sfxit.com:azlist&sfx.ignore_date_threshold=1&rft.object_id=954925546278&svc.fulltext=yes

13. Goebel JR, Doering LV, Evangelista LS, Nyamathi AM, Maliski SL, Asch SM, et al. A comparative study of pain in heart failure and non-heart failure veterans. J Card Fail [Internet]. 2009 Feb [cited 2013 Apr 23];15(1):24-30. Available from:

http://link.periodicos.capes.gov.br.ez83.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-2004&url_ctx_fmt=infofi/fmt:kev:mtx:ctx&ctx_enc=info:ofi/enc:UTF-8&ctx_ver=Z39.88-2004&rft_id=info:sid/sfxit.com:azlist&sfx.ignore_date_threshold=1&rft.object_id=954925603750&svc.fulltext=yes

14. Bekelman DB, Rumfeld JS, Haranek E, Yamashita TE, Hutt E, Gottlieb, et al. Symptom burden, depression and spiritual

well being: a comparison of heart failure and advanced cancer patients. J Gen Int Med [Internet]. 2009 May [cited 2013 Apr 23];24(5):592-8. Available from:

http://link.periodicos.capes.gov.br.ez83.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-2004&url_ctx_fmt=infofi/fmt:kev:mtx:ctx&ctx_enc=info:ofi/enc:UTF-8&ctx_ver=Z39.88-2004&rft_id=info:sid/sfxit.com:azlist&sfx.ignore_date_threshold=1&rft.object_id=954925550344&svc.fulltext=yes

15. Formiga F, Soto AL, Navarro M, Mestre AR, Bosh X, Pujol P. Hospital deaths of people aged 90 and over: end-of-life palliative care management. Gerontology [Internet]. 2008 Jun [cited 2013 Apr 23];54(5):148-52. Available from:

http://link.periodicos.capes.gov.br.ez83.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-2004&url_ctx_fmt=infofi/fmt:kev:mtx:ctx&ctx_enc=info:ofi/enc:UTF-8&ctx_ver=Z39.88-2004&rft_id=info:sid/sfxit.com:azlist&sfx.ignore_date_threshold=1&rft.object_id=954925511437&svc.fulltext=yes

http://link.periodicos.capes.gov.br.ez83.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-2004&url_ctx_fmt=infofi/fmt:kev:mtx:ctx&ctx_enc=info:ofi/enc:UTF-8&ctx_ver=Z39.88-2004&rft_id=info:sid/sfxit.com:azlist&sfx.ignore_date_threshold=1&rft.object_id=954925511437&svc.fulltext=yes

16. Huynh BC, Rovner A, Rich MW. Identification of older patients with heart failure who may be candidates for hospice care: development of a simple four item risk score. J Am Geriatr Soc [Internet]. 2008 Jun [cited 2013 Apr 23];56(6):1111-5. Available from:

http://link.periodicos.capes.gov.br.ez83.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-2004&url_ctx_fmt=infofi/fmt:kev:mtx:ctx&ctx_enc=info:ofi/enc:UTF-8&ctx_ver=Z39.88-2004&rft_id=info:sid/sfxit.com:azlist&sfx.ignore_date_threshold=1&rft.object_id=954925376878&svc.fulltext=yes

17. Evangelista LS, Lombardo D, Malik S, Ballard-Hernandez J, Motie M, Liao S. Examining the effects of an outpatient palliative care consultation on symptom burden, depression, and quality of life in patients with symptomatic heart failure. J Card Fail [Internet]. 2012 Dec [cited 2013 Apr 23];18(12):894-9. Available from:

http://link.periodicos.capes.gov.br.ez83.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-2004&url_ctx_fmt=infofi/fmt:kev:mtx:ctx&ctx_enc=info:ofi/enc:UTF-8&ctx_ver=Z39.88-2004&rft_id=info:sid/sfxit.com:azlist&sfx.ignore_date_threshold=1&rft.object_id=954925603750&svc.fulltext=yes

18. Evangelista L S, Sackett E, Draarp K. Pain and heart failure: unrecognized and untreated. Eur J Cardiovasc Nurs [Internet]. 2009 Sept [cited 2013 Apr 23];8(3):169-73. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2882288/>
19. Goebel J R, et al. Heart Failure: The hidden problem of pain. J Pain Symptom Manage [internet]. 2009 Nov [cited 2013 Apr 23];38(5):698-707. Available from: http://link.periodicos.capes.gov.br/ez83.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-2004&url_ctx_fmt=infofi/fmt:kev:mtx:ctx&ctx_enc=info:ofi/enc:UTF-8&ctx_ver=Z39.88-2004&rft_id=info:sid/sfxit.com:azlist&sfx.ignore_date_threshold=1&rft.object_id=954925551354&svc.fulltext=yes
20. Givens JL, Tjia J, Zhou C, Emanuel E, Ash AS. Racial and ethnic differences in hospice use among patients with heart failure. Arch Intern Med [Internet]. 2010 Mar [cited 2013 Apr 23];170(5):427-30. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2897072/>
21. Taitel M, Meaux N, Pegus C, et al. Place of Death Among Patients With Terminal Heart Failure in a Continuous Inotropic Infusion Program. Am J Hosp Palliat Care [Internet]. 2012 Jun [cited 2013 Apr 23];29(4):249-53. Available from: <http://ajh-sagepub-com.ez83.periodicos.capes.gov.br/content/29/4/249.full.pdf+html>
22. [Oxberry SG](#), [Torgerson DJ](#), [Bland JM](#), [Clark AL](#), [Cleland JG](#), [Johnson MJ](#). Short-term opioids for breathlessness in stable chronic heart failure: a randomized controlled trial. Eur J Heart Fail [Internet]. 2011 Sept [cited 2013 Apr 23];13(9):1006-12. Available from: <http://eurjhf-oxfordjournals-org.ez83.periodicos.capes.gov.br/content/13/9/1006.full>

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