



APPLICATION OF THE MCGILL SCALE FOR ASSESSMENT OF PAIN IN CANCER PATIENTS

APLICAÇÃO DA ESCALA DE MCGILL PARA AVALIAÇÃO DA DOR EM PACIENTES ONCOLÓGICOS

LA APLICACIÓN DE LA ESCALA DE MCGILL PARA LA EVALUACIÓN DEL DOLOR EN PACIENTES CON CÁNCER

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ABSTRACT

Objective: to assess pain in cancer patients. **Method:** a descriptive, prospective study of a quantitative approach, with application of McGill Questionnaire in 52 cancer patients. After collecting the data there was stored and tabulated in Microsoft Office Excel. In statistical analysis, simple measures such as frequency distribution, percentage, average and other appropriate to the studied variables. **Results:** prevalence of females (51.9%) of Cervical CA (44.2%) in less than one year of treatment (44.2%) and 51.9% were in clinical treatment. The most commonly used descriptors were: Pang (69.2%), Dizzy (65.4%), Unbearable (48.1%) and spreads (40.4%). The Estimated Total Pain Intensity (PRI-T) was 47-56 points in 13 individuals. Pain Intensity Present (PPI) in 19 subjects was uncomfortable. Regarding the time and location of the pain, 16 patients reported that the pain was constant and located. **Conclusion:** it was found that the qualitative assessment of the pain of cancer patients is constant, localized and uncomfortable. **Descriptors:** Pain; Neoplasms; Nursing.

RESUMO

Objetivo: avaliar a dor em pacientes oncológicos. **Método:** estudo descritivo, prospectivo, de abordagem quantitativa, com aplicação do Questionário de McGill em 52 pacientes oncológicos. Após a coleta os dados foram armazenados e tabulados no Microsoft Office Excel. Na análise estatística foram utilizadas medidas simples como: distribuição de frequências, percentuais, média e outras apropriadas às variáveis estudadas. **Resultados:** prevalência do sexo feminino (51,9%), CA do Colo do Útero (44,2%), em tratamento a menos de 1 ano (44,2%) e 51,9% estavam em tratamento clínico. Os descritores mais usados foram: Pontada (69,2%), Enjoada (65,4%), Insuportável (48,1%) e Esparrama (40,4%). A Estimativa da Intensidade de Dor Total (PRI-T) foi de 47 - 56 pontos em 13 indivíduos. A Intensidade de Dor Presente (PPI) em 19 indivíduos significa desconforto. Quanto ao tempo e localização da dor, 16 pacientes relataram que a dor era constante e localizada. **Conclusão:** Constatou-se que a avaliação qualitativa da dor dos pacientes oncológicos é constante, localizada e desconfortável. **Descritores:** Dor; Neoplasias; Enfermagem.

RESUMEN

Objetivo: evaluar el dolor en pacientes con cáncer. **Método:** un estudio descriptivo, prospectivo, de abordaje cuantitativo, con la aplicación del Cuestionario McGill en 52 pacientes con cáncer. Después de recoger los datos fueron almacenados y tabulados en Microsoft Office Excel. En el análisis estadístico, medidas sencillas como la distribución de frecuencias, porcentajes, media y de otra índole para las variables estudiadas. **Resultados:** la prevalencia de las mujeres (51,9%) de CA cervical (44,2%) en menos de un año de tratamiento (44,2%) y el 51,9% estaba en tratamiento clínico. Los descriptores utilizados con mayor frecuencia fueron: Pang (69,2%), mareado (65,4%), Insoportable (48,1%) y de que se extienda (40,4%). La intensidad total estimado Dolor (PRI-T) fue de 47-56 puntos en 13 individuos. Intensidad del Dolor Presente (PPI) en 19 sujetos era incómoda. En cuanto a la hora y el lugar del dolor, 16 pacientes informaron que el dolor era constante y situado. **Conclusión:** se encontró que la evaluación cualitativa del dolor de pacientes con cáncer es constante, localizada e incómoda. **Descriptores:** Dolor; Neoplasias; Enfermería.

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INTRODUCTION

Cancer is not a single disease with a single cause, but a group of different diseases with causes, manifestations, treatments and different prognoses. This disease is also associated with pain and death for many people, and it is up to the nursing professional to identify the reactions resulting from cancer and set realistic goals to meet the challenges surrounding patients in treatment.¹

The pain resulting from cancer affects approximately 20 million people around the world, and 9 million are significant cancer pain, which causes various biopsychosocial consequences.²

In the biennium 2014/2015, the National Cancer Institute (INCA) revealed the presence of approximately 576,000 new cases of cancer. Of these, 5,560 cases and 1,560 were in Piauí, in Teresina. For the year 2030 the global burden will be 21.4 million new cancer cases and 13.2 million cancer deaths as a result of aging.³

The painful experience should be assessed in all the treatments for cancer patients, regardless of the stage and the stage in which the cancer is located,⁴ for, cancer pain may be related to the underlying cancerous process treatment, acute may be a surgical trauma, use of chemotherapy and radiation due to local inflammation.¹

Gaps in knowledge and technology hinder comprehensive care to Oncology patients.⁵ Order to have an effective care to the subject with cancer we must recognize the need for pain assessment as mandatory health care activities in their performance.⁶ However, difficulties such as lack protocol, leave the assessment of pain the poor patient, and when the evaluation is applied, is performed quite unsystematic way.⁷

In this perspective, to the growing number of cases of cancer and the negative impacts of pain, this study is justified by the need to assess pain intensity and quality in cancer patients in order to contribute to the construction of protocols and systematization of nursing care in order to allow appropriate intervention to the needs of each patient.

Accordingly, the aim of this study is to assess pain in cancer patients.

METHOD

This is a descriptive, prospective study of a quantitative approach, performed in a referral hospital in cancer treatment,

located in the city of Teresina, state of Piauí.

The study population consisted of patients treated in the Hospital inpatient sectors. The sample size (52 patients) was quantified at the end of two months of data collection, taking into account the turnover of patients who are treated in these services during this time interval.

The inclusion of the participants followed the following criteria: to present some type of cancer; refer painful symptoms, individuals of both sexes, older than or equal to 18 years old; have physical, mental and psychological conditions and agree in the study. Those who agreed to participate filling out the form, there was made an explanation of the methodology and objectives of the study to prior knowledge of the participants and the subsequent signing of the Informed Consent - IC. Exclusion criteria were individuals who did not meet the inclusion criteria and did not attend the hospital's cancer services.

Data were collected through the form filling containing two parts, the first characterization of individuals and of pathology and the second will be made up of the translated version of the McGill scale.

McGill scale is the multidimensional type, characterized by a review not only in intensity as other one-dimensional scales. She ponders the pain in three dimensions: sensory, affective and evaluative, in addition to the intensity and location. The pain sensory dimension describes the quality of temporal, spatial terms of pressure, temperature, among others. The affective dimension assesses the quality of the experience of pain in terms of tension, fear, retreat and autonomic properties. And evaluative describes an overall assessment of pain.

After collecting the data there was stored and tabulated in Microsoft Office Excel. In statistical analysis, simple measures such as frequency distribution, percentage, average and other appropriate to the studied variables. The most significant data were presented in tables. The discussion of the findings was based on the literature produced on the subject.

The research project was submitted to Brazil Platform for ethical assessment in search of UFPI and co-participant hospital so that the data collection could be performed. In research we were guaranteed confidentiality and privacy, image protection, non-stigmatization and non-use of information to the detriment of the people, as the guiding principles contained in

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Resolution No. 466/2012 of the National Health Council.⁸ The same was proved by the Research Ethics Committee (CEP) under Presentation Certification for Ethics Assessment (CAAE) 46283215.2.3001.5584.

collection period, making sample of 52 patients who complied with the criteria for inclusion and exclusion of research.

The study population was made up mostly of females (51.9%), especially in the age group of 22 to 39 years old (26.9%) and 55 to 63 years old (26.9%); mostly married or had stable union (65.4%) and self-reported as brown (59.6%) (Table 1).

RESULTS

As evidenced in the methodology, the sample was constituted by patients seen in the hospital sector during the data

Table 1. Profile of patients according to the sociodemographic variables. Teresina (PI), 2015.

Variables	N = 52	%
Gender		
Female	27	51,9
Male	25	48,1
Age (years)		
22 - 39	14	26,9
40 - 54	12	23,1
55 - 63	14	26,9
64 - 84	12	23,1
Marital status		
Single	10	19,2
Married / Stable Union	34	65,4
Involved	4	7,7
Separated	3	5,8
Widow/Widower	1	1,9
Color/Race (self-referred)		
White	10	19,2
Black	7	13,5
Brown	31	59,6
Yellow	3	5,8
Indigenous	1	1,9

Regarding the clinical profile of patients, 25.0% were diagnosed with AC Cervix Uterus, 44.2% were being treated for less than 1 year

and 51.9% were under clinical treatment (Table 2).

Table 2. Clinical profile of patients according to diagnosis, time and type of treatment. Teresina (PI), 2015.

Variables	N = 52	%
Type of Neoplasm		
Cervical CA	13	25,0
Breast CA	5	9,6
Prostate CA	4	7,7
Half of myeloma	3	5,8
Ovarian CA	2	3,8
Esophagus CA	2	3,8
Outros*	23	44,2
Length (years)		
< 1	23	44,2
1 - 4	19	36,5
5 - 9	4	7,7
Non informed	6	11,5
Type of Treatment		
Clinical	27	51,9
Clinical-Chemotherapy	8	15,4
Surgical	5	9,6
Surgical + Chemotherapy	2	3,8
Clinical + Surgical	3	5,8
Palliative + Chemotherapy	2	3,8
Outros	5	9,6

* Each individual in this category has differential diagnosis.

Concerning the McGill Questionnaire, each descriptor is a subgroup thus sensory descriptors belonging to 10 subgroups, and the word that stood out was Pang (69.2%), followed by nauseated (65.4%) belonging to affective descriptors unbearable (48.1%) of

patients defined cancer pain with this evaluative descriptor and spreads (40.4%) of miscellany descriptors (Table 3).

Table 3. Characterization of pain, according to McGill Questionnaire. Teresina (PI), 2015.

Descriptors MPQ	n	%
Sensorial		
Burning	31	59,6
Pang	36	69,2
Pinch	13	25,0
Sharp	20	38,5
Hooked	15	28,8
Pull	20	38,5
Burn	18	34,6
Sting	16	30,8
Painful	23	44,2
Romped	26	50,0
Affective		
Tiredness	32	61,5
Sick	34	65,4
Frightened	27	51,9
Cruel	12	23,1
Miserable	24	46,2
Evaluative		
Unbearable	25	48,1
Miscellanea		
Splashes	21	40,4
Rips	13	25,0
Cold	8	15,4
Agonizing / Torture	12	23,1

When analyzing the crossing data it estimates of Total Pain Intensity (PRI-T) that addresses the sum of the descriptors, along with the Present Pain Intensity (PPI) measured in six words, which were compared, it was found that PPI that most defined the pain at the time was

uncomfortable (19 patients), and of these eight patients amounted to 31-39 points at the end sum of the descriptors. Second, the mild intensity (16 patients) with emphasis on six patients with minimum estimate 13-29 points and maximum 47-56 points in four patients surveyed (Table 4).

Table 4. Cross of Pain Intensity Estimate Total (PRI-T) and Intensity of Present Pain (PPI). Teresina (PI), 2015.

Intensity of Present Pain (PPI)	Estimate of Total Pain Intensity (PRI-T)				Total
	13 - 29	31 - 39	40 - 46	47 - 56	
No pain	0	0	1	1	2
Soft	6	2	4	4	16
Uncomfortable	4	8	6	1	19
The disturbing	0	1	1	3	5
Horrible	3	1	0	3	7
Excruciating	0	1	1	1	3
Total	13	13	13	13	52

Concerning the temporal properties of pain related to its location, 16 patients reported that the pain was constant and located, six others pointed out that it occurred in various parts of the body, totalizing 22 patients.

Second, the persistent time property was reported by 15 patients in total, being nine for localized and six to diffuse pain. The localized pain appeared in most patients (37 patients) (Table 5).

Table 5. Cross-temporal properties data and location of pain in patients interviewed. Teresina (PI), 2015.

Temporal Properties	Local of the pain					
	Localized	%	Diffuse	%	Total	%
Brief	1	1,9	0	0	1	1,9
Constant	16	30,8	6	11,6	22	42,3
Continuous	4	7,7	2	3,8	6	11,5
Intermittent	1	1,9	0	0	1	1,9
Temporary	5	9,6	1	1,9	6	11,5
Periodical	1	1,9	0	0	1	1,9
Persistent	9	17,3	6	11,5	15	28,8

DISCUSSION

The results of this study demonstrated the characteristics of individuals and the pain intensity and quality of patients suffering from cancer pain in a reference hospital for

cancer treatment in Teresina-PI. The study had some limitations in data collection, example, the words of the McGill Questionnaire that caused doubts in patients, the subjectivity of pain, intensity and often difficult to specify the location of pain.

The predominant population in this study was of females (51.9%), especially the age group 55 to 63 years old (26.9%). Study with similar aim conducted in the Northeast, also found these parameters.⁹ Of the 19 types of cancer more incidents, 14 occur in the male population and 17 in women.³

Concerning age, the prevalence of cancer in older people is due to population aging, a demographic shift, and is associated with the transformation in the relationship between people and their environment. This perspective has brought a change in the morbidity and mortality profile, reducing the occurrence of infectious diseases and putting chronic diseases focus of health problems and death of the population.³

The most common diagnosis among patients was cervical cancer (25.0%). This is considered the third largest tumor incidence and mortality among women worldwide, behind the Breast Cancer and Colorectal.¹⁰ In addition, 44.2% of patients were younger than 1 year of treatment.

The treatment of cancer generally generates various side effects, leaves the immune system susceptible to opportunistic diseases. It is important to note that most of the effects are transient and vary among patients, and depends on the combination of chemotherapy used. In this study we demonstrated the presence of these effects, as 51.9% of patients were hospitalized for medical treatment.

The sensory dimension consists of 10 subgroups in which the most reported by patients were arranged in a table. The stab descriptor was reported by 36 (69.2%) patients, throbbing 31 (59.6%) patients. In a similar study, throbbing descriptor was reported by 12 (46.15%) patients and stab by 17 (65.38%) patients.¹²

The affective dimension consists of 5 sub descriptors. The most reported descriptors were nauseated 34 (65.4%) patients and tiring 32 (61.5%) patients. In a smaller proportion, but the relevant nauseated descriptor was present in 20 (76.92%) patients while tiring 19 (73.07%) patients.¹¹

The evaluative part of the questionnaire is made only for a subgroup and this study, 25 (48.1%) patients rated their pain as unbearable. A study in the municipality of Minas Gerais in 2008, 18 (5.38%) patients qualified their pain as unbearable. The miscellany dimension is composed of four subgroups, and spreads the descriptor referenced by 21 (40.4%) patients and tear of 13 (25.0%) patients.⁴

Cancer patients refer to as dominant symptom pain. During the course of the disease 50% of patients have pain symptoms and in more advanced stages of cancer 90% feel pain. The difficult understanding, interpretation or description, the subjectivity that pain has, makes this is underdiagnosed and therefore undertreated among cancer patients, contributing to the decrease in quality of life.¹²

Concerning the control of cancer pain, the use of drugs such as anti-inflammatory drugs, opioids, antidepressants, anticonvulsants, benzodiazepines, corticosteroids, beta-blockers, vasoconstrictors, among others, are allies of patients to cope with the disease. But supplementation not always with this therapy, favors the elimination of pain, because this process involves the emotional aspect, spiritual, cognitive and sensory. The pain of cancer is peculiar, may have acute and chronic characteristics, when it persists may serve as a sign of progression of the disease, and discourage the patient who comes to think it not worth continuing or even the loss of the meaning of life. Therefore, the pain requires a detailed assessment of its identification and treatment.¹²

The patient may refer to pain in one area or several areas. In this study, the localized pain symptoms were reported by 37 patients overlaying those who reported diffuse pain, 15 patients. The temporal properties of the pain, 22 patients expressed their pain as constant; it was not always possible to ease during the day. The prevalence of pain increases progressively with the disease.

After the choice of descriptors, and the sum of pain dimensions results in Total Pain Intensity Estimates (PRI-T). The scoring maximum that the questionnaire allows is of 78 points. Of the patients interviewed 13 present score of 47-56 points. As for Pain Intensity Present (PPI) that can be measured in six words, 19 patients reported as uncomfortable.

The qualitative assessment of pain in cancer patients is important because it focuses on the descriptive aspects of pain and its impact on the functions and activities of daily living.¹³ It should be characterized pain, addressing aspects such as location, intensity, temporal variations and factors contributing to its improvement or worsening.¹⁴ The scale of deployment for evaluation of cancer pain has suitability in the treatment of pain.¹³

The nurse is an important mediator between the McGill Questionnaire and the patient and before the pain. It is necessary to

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build a systematic assessment of pain; it is a need in the nursing routine. Guaranteeing this, it is allowed: to have evaluative parameters, reinforce the importance of pain control (even to improve coping with the disease), organize the assessment of pain, increase reliability at work, recording information secure and promote continuing education.⁷

CONCLUSION

The present study found that the qualitative assessment of the pain of cancer patients is necessary and presented a constant, localized, uncomfortable, using almost all McGill Questionnaire descriptors to describe their pain. The pain should be evaluated by multi-dimensional scales, in order to qualify for the choice of appropriate conduct.

The use of pain assessment scales aims evaluating it and qualifying it, in addition to supporting nursing care planning for patients with cancer pain.

It is important for the nurse to have different view of the cancer patient, valuing their pain and understanding through multi-dimensional scales to measure pain. The evaluation of this vital sign remains subjective, complex, but with the appropriate scales, treatment is assertive and facilitates the implementation of conduct that aim to end or minimize momentary or definitive suffering of these patients.

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REFERENCES

1. Smeltzer SC, Bare BG, Hinkle JL, Cheever KH. Tratado de Enfermagem Médico-Cirúrgica. 12th ed [Reprinted] - Rio de Janeiro: Guanabara Koogan; 2014.
2. Pena R, Barbosa LA, Ishikawa NM. Estimulação Elétrica Transcutânea do Nervo (TENS) na Dor Oncológica - uma revisão da literatura. Rev Bras de Cancerologia [Internet]. 2008 [cited 2015 Aug 27];54(2):193-199. Available from: http://www.inca.gov.br/rbc/n_54/v02/pdf/revisao_7_pag_193a199.pdf
3. Ministério da Saúde (BR), Instituto Nacional do Câncer. Estimativa 2014: incidência de câncer no Brasil. Rio de Janeiro: Inca; 2013. Available from: <http://www.inca.gov.br/estimativa/2014/>
4. Silva TOS, Silva VR, Martinez MR, Gradim

Application of the McGill scale for assessment...

- CVC. Avaliação da dor em pacientes oncológicos. Rev Enferm UERJ [Internet]. 2011 [cited 2015 Aug 27];19(3):359-63. Available from: <http://www.facenf.uerj.br/v19n3/v19n3a03.pdf>
5. Alves VS, Santos TS, Trezza MCSF, Santos RM, Monteiro FS. Conhecimentos de profissionais da Enfermagem sobre fatores que agravam e aliviam a dor oncológica. Rev bras cancerol [Internet] 2011 [cited 2015 oct 14];57(2):199-206. Available from: http://www1.inca.gov.br/rbc/n_57/v02/pdf/07_artigo_conhecimento_profissionais_enfermagem_fatores_agravam_aliviam_dor_oncol%C3%B3gica.pdf
 6. Monteiro ACM, Rodrigues BMRD, Pacheco STA. O enfermeiro e o cuidar da criança com câncer sem possibilidade de cura atual. Esc Anna Nery [Internet]. 2012 [cited 2015 Aug 27];16(4):741-746. Available from: <http://www.scielo.br/pdf/ean/v16n4/14.pdf>
 7. Waterkemperi R, Reibnitz KS, Monticelli M. Dialogando com enfermeiras sobre a avaliação da dor oncológica do paciente sob cuidados paliativos. Rev Bras Enferm [Internet]. 2010 [cited 2015 Nov 10];63(2):334-9. Available from: <http://www.scielo.br/pdf/reben/v63n2/26.pdf>
 8. Ministério da Saúde (Brasil). Resolução 466/12. Diretrizes e normas regulamentadoras de pesquisa envolvendo seres humanos. Brasília: Conselho Nacional de Saúde; 2012.
 9. Lima AD, Maia IO, Junior IC, Lima JTO, Lima LC. Avaliação da dor em pacientes oncológicos internados em um hospital escola do nordeste do Brasil. Rev Dor [Internet]. 2013 [cited 2015 Sept 30];14(4):267-71. Available from: <http://www.scielo.br/pdf/rdor/v14n4/v14n4a07.pdf>
 10. Ferlay J, Soerjomataram I, Ervik M, Forman D, Bray F, Dikshit R, et al. GLOBOCAN 2012 v1.0, Estimated Cancer Incidence, Mortality and Prevalence Worldwide. Lyon, France: International Agency for Research on Cancer [Internet]. 2013 [cited 2015 Dec 17]. Available from: http://globocan.iarc.fr/Pages/fact_sheets_population.aspx
 11. Costa AIS, Chaves MD. Dor em pacientes oncológicos sob tratamento quimioterápico. Rev Dor [Internet]. 2012 [cited 2015 Aug 27];13(1):45-9. Available from: <http://www.scielo.br/pdf/rdor/v13n1/a08v13n1.pdf>
 12. Frigato S, Hoga LAK. Assistência à mulher com câncer de colo uterino: o papel

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Application of the McGill scale for assessment...

da enfermagem. Rev bras cancerol [Internet]. 2003 [cited 2015 Sept 30];49(4):209-214. Available from: http://www.inca.gov.br/rbc/n_49/v04/pdf/ARTIGO1.pdf

13. Morete MC, Minson FP. Instrumentos para a avaliação da dor em pacientes oncológicos. Rev Dor [Internet]. 2010 [cited 2015 Aug 27];11(1):74-80. Available from: <http://files.bvs.br/upload/S/1806-0013/2010/v11n1/a1503.pdf>

14. Santos AG, Costa JP, Barros IC, Almeida LHRB. Caracterização da dor oncológica em pacientes submetidos à radioterapia. J Nurs UFPE on line [Internet] 2012 Sept [cited 2016 June 15];6(9):2111-8. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/download/2959/4342>

15. Waterkemperi R, Reibnitz KS, Monticelli M. Dialogando com enfermeiras sobre a avaliação da dor oncológica do paciente sob cuidados paliativos. Rev Bras Enferm [Internet]. 2010 [cited 2015 Nov 10];63(2):334-9. Available from: <http://www.scielo.br/pdf/reben/v63n2/26.pdf>

16. Ministério da Saúde (Brasil). Resolução 466/12. Diretrizes e normas regulamentadoras de pesquisa envolvendo seres humanos. Brasília: Conselho Nacional de Saúde; 2012.

17. Lima AD, Maia IO, Junior IC, Lima JTO, Lima LC. Avaliação da dor em pacientes oncológicos internados em um hospital escola do nordeste do Brasil. Rev Dor [Internet]. 2013 [cited 2015 Sept 30];14(4):267-71. Available from: <http://www.scielo.br/pdf/rdor/v14n4/v14n4a07.pdf>

18. Ferlay J, Soerjomataram I, Ervik M, Forman D, Bray F, Dikshit R, et al. GLOBOCAN 2012 v1.0, Estimated Cancer Incidence, Mortality and Prevalence Worldwide. Lyon, France: International Agency for Research on Cancer [Internet]. 2013 [cited 2015 Dec 17]. Available from: http://globocan.iarc.fr/Pages/fact_sheets_population.aspx

19. Costa AIS, Chaves MD. Dor em pacientes oncológicos sob tratamento quimioterápico. Rev Dor [Internet]. 2012 [cited 2015 Aug 27];13(1):45-9. Available from: <http://www.scielo.br/pdf/rdor/v13n1/a08v13n1.pdf>

20. Frigato S, Hoga LAK. Assistência à mulher com câncer de colo uterino: o papel da enfermagem. Rev bras cancerol [Internet]. 2003 [cited 2015 Sept 30];49(4):209-214. Available from:

http://www.inca.gov.br/rbc/n_49/v04/pdf/ARTIGO1.pdf

21. Morete MC, Minson FP. Instrumentos para a avaliação da dor em pacientes oncológicos. Rev Dor [Internet]. 2010 [cited 2015 Aug 27];11(1):74-80. Available from: <http://files.bvs.br/upload/S/1806-0013/2010/v11n1/a1503.pdf>

22. Santos AG, Costa JP, Barros IC, Almeida LHRB. Caracterização da dor oncológica em pacientes submetidos à radioterapia. J Nurs UFPE on line [Internet] 2012 Sept [cited 2016 June 15];6(9):2111-8. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/download/2959/4342>

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