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ORIGINAL ARTICLE

PROFILE OF PATIENTS IN RENAL REPLACEMENT THERAPY IN NEPHROLOGY UNIT

PERFIL DOS PACIENTES EM TERAPIA RENAL SUBSTITUTIVA EM UNIDADE DE NEFROLOGIA PERFIL DE LOS PACIENTES EN TERAPIA DE REEMPLAZO RENAL EN UNIDAD DE NEFROLOGÍA

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ABSTRACT

Objective: characterizing the profile of hemodialysis patients in the Nephrology Unit of Rio Branco/AC; as well as the main causes of kidney disease and the complications arising from therapy. **Method:** a cross-sectional study with 142 patients by means of semi-structured instrument. The analysis was descriptive, using SPSS software, version 9.0 for Windows. The project was approved by the Research Ethics Committee, Protocol 23107.014246/2011-37. **Results:** being male (64,1%), married (45%), naturalness from Acre (73,2%) and uneducated - only knows sign (18,3%). The main causes of failure were: hypertension (33,8%), diabetes mellitus (27,5%); cramps, headache, and anemia. **Conclusion:** the profile of the investigated patients was characterized by a mean age of 5173 years, male, completed elementary school or high monthly income of a minimum wage and married/living together civil state. **Descriptors:** Chronic Renal Failure; Hemodialysis; Patient Profile.

RESUMO

Objetivo: caracterizar o perfil dos pacientes em hemodiálise na Unidade de Nefrologia de Rio Branco/AC; assim como as principais causas da doença renal e as intercorrências decorrentes da terapia. **Método:** estudo transversal com 142 pacientes, por meio de instrumento semiestruturado. A análise foi descritiva, utilizando o software SPSS, versão 9.0 for Windows. O projeto foi aprovado pelo Comitê de Ética em Pesquisa, Protocolo nº 23107.014246/2011-37. **Resultados:** predominou o sexo masculino (64,1%), estado civil casado (45%), naturalidade acriana (73,2%) e sem escolaridade - só sabe assinar (18,3%). As principais causas da insuficiência foram: hipertensão arterial (33,8%), diabetes mellitus (27,5%); câimbras, anemia e cefaléias. **Conclusão:** o perfil dos pacientes investigados foi caracterizado pela idade média de 51,73 anos, sexo masculino, com ensino fundamental ou médio completo, renda mensal de um salário mínimo e estado civil casado/amasiado. **Descritores:** Insuficiência Renal Crônica; Hemodiálise; Perfil do Paciente.

RESUMEN

Objetivo: caracterizar el perfil de los pacientes de hemodiálisis en la Unidad de Nefrología de Rio Branco/AC; así como las principales causas de enfermedad renal y las complicaciones derivadas de la terapia. **Método:** Estudio transversal de 142 pacientes por medio del instrumento semi-estructurado. El análisis fue descriptivo, utilizando el software SPSS, versión 9.0 para Windows. El proyecto fue aprobado por el Comité de Ética de la Investigación, Protocolo 23107.014246/2011-37. **Resultados:** fueron hombres (64,1%), estar casado (45%), acriana naturalidad (73,2%) y sin educación - sólo sabe firmar (18,3%). Las principales causas de fracaso fueron: hipertensión arterial (33,8%), diabetes mellitus (27,5%); calambres, dolor de cabeza y anemia. **Conclusión:** el perfil de los pacientes investigados se caracteriza por una edad media de 51,73 años, de sexo masculino, completó la escuela primaria o secundaria ingreso mensual de un salario mínimo y casados/viviendo juntos estado civil. **Descriptores:** Insuficiencia Renal Crónica; Hemodiálisis; Perfil del Paciente.

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INTRODUCTION

Chronic Renal Failure (CRF) is associated with high morbidity and mortality. When it is in its final stage requires the beginning of a renal replacement therapy (RRT) in general hemodialysis. In Brazil, there are about 70.000 patients in RRT, a third of the observed prevalence in the United States, suggesting that CRF is being underdiagnosed in our midst.¹

A Brazilian study shows that between the years 2004 and 2007, there was an increase in the order of 8,1% per year in the records of Renal Insufficiency (RI) in Brazil. The data also revealed that 87,044 patients underwent dialysis, and more than half (57,4%) was in the southeast of the country, and the vast majority of which (89,47%) underwent hemodialysis as TRS.²

The main causes involved in raising the number of individuals with chronic kidney disease (CKD) are increasing expectation associated with a high prevalence of diabetes mellitus and hypertension life. With regard to diabetes is considered the main cause of Chronic Kidney Disease (CKD) in developed countries, and the number of diabetic patients annually have been included in substitution therapy of renal function has increased in recent years in most countries, which is represented mainly by type 2 diabetics.³⁻⁴

Diabetes accounts for 45% of new cases of ESRD in the United States, 36% in Germany, 32% in Japan and 15% to 25% in other European countries and Australia. On average, 25% of patients with CKD requiring dialysis or transplantation each year in the United States were diabetic. In Brazil and in Latin America, currently, 15% of dialysis patients are diabetics. However, Brazilian studies do not report on trends in the incidence of diabetes as a cause of dialysis IRC.^{5, 6, 7, 4}

The age of the dialysis population has very high, both in Brazil and in Europe and the United States. The survival rate is between 1 and 5 years, respectively, 77% and 58% for patients with an average age of 43 years old, and 10% for those with diabetes, similar to European and American higher than the result.⁶

The need to have data on patients in RRT is of great importance, as are fundamental to the understanding of the reality of dialysis, in identifying problems in the provision of therapy that needs to be addressed in improving survival, morbidity and quality of life of patients and to ultimately allow the rational use of economic resources.⁸

In Acre/AC, there is a nephrology unit that caters to the population coming from the capital Rio Branco and other municipalities as well as other neighboring states like Rondônia and Amazonas, and frontier countries such as Peru and Bolivia. However, there were no reports on the current status of registered patients in the unit for performing renal therapy. Given the above, propose to:

- Characterizing the profile of hemodialysis patients in the Nephrology Unit of Rio Branco/AC, as well as the main causes of kidney disease and the complications arising from therapy.

METHOD

This is a sectional study of a convenience sample, performed in the Nephrology Unit Hospital of Rio Branco - Acre, involving patients who underwent renal replacement therapy during the December/January 2011/2012.

Data were collected through interviews with registered patients and with regular attendance at the Unit, before, during or at the end of renal therapy, using a semi-structured instrument with open and closed questions.

Variables related to research were related to socioeconomic and demographic characteristics, in addition to pre-existing diseases and complications during/due to therapy.

As inclusion criteria, the Term of Consent signed by the patient, agreeing to participate in the study was used. Those younger than 18 years old and those with mental, visual or hearing impairment age was requested authorization signed by their parents or guardians.

The project was approved by the Ethics Committee of the Federal University of Acre (No. 23107.014246 / 2011-37), following the criteria of research involving human subjects contained in Resolution No. 196 of 1996 of the National Committee of Ethics in Research.

Data were entered and organized with the help of a database and use the SPSS software version 9.0 for Windows. The analysis of the variables was descriptive, through distribution of absolute and relative frequency.

RESULTS

The sample consisted of 142 patients, aged at least 15 full years old, maximum 89 years old, average age 51,73 years old (SD $\pm$ 17,33). In general, the age more often carrying therapy was 64 years 7 (4,9%). The predominant age group was 56 to 65 years 43

(30,3%), the marital status married/cohabitating 64 (45%) males and 91 (64,1%) (Table 1).

The Brazilian nationality was present in 137 (96.5%) patients. It is noteworthy that 5 (3,5%) were of Bolivian nationality, which is explained by the fact of Acre bordering Bolivia and the cities in which they reside does not exist this kind of treatment. Most investigated people from Acre was 104 (73,2%), residing in 123 urban areas (73,2%) of the city of Rio Branco 112 (78,9%), particularly those who only know how to sign 26 (18,3%), followed by those who have completed high school 23 (16,2%) and eventually renal therapy from zero to ≥ 1 year (table 1).

Most patients are retired 86 (60,6%), others receive sickness 14 (9,9%) are removed or 9 (6,3%) and 10 (7,0%) are students. Some

patients are still in work activity. Those who reported not owning any profession 8 (5,6%) were minors or dependent on other family members.

Among respondents, the majority 127 (89,4%), despite having defined profession, does not work. This is because the treatment is a little aggressive, which was reported by themselves; and also because of the morbidities associated with kidney failure. However, this does not remove the responsibility for the maintenance of the home, where, in most, the patient is responsible for 60 (42,3%) with a monthly income of a minimum wage (R\$ 622,00).

Table 1. Demographic and clinical features of patients undergoing renal substitutive therapy, according to gender in Nephrology unit of Rio Branco - Acre, 2011-2012. (N = 142)

Variables	Gender		Total
	Male n	Female n	
Age (in years)			
0 - 15	2	2	4
16 - 25	4	6	10
26 - 35	9	6	15
36 - 45	9	8	17
46 - 55	15	9	24
56 - 65	30	13	43
66 - 79	18	6	24
≥ 80	4	1	5
Marital Status			
Married/Cohabiting	45	19	64
Single	25	12	37
Widower	8	17	25
Divorced	13	3	16
Schooling			
Illiterate/Knows only how to sign	18	8	26
1 st to 4 th year	24	15	39
5 th to 8 th	19	12	31
High School	20	13	33
Higher Education	10	3	13
Renal Therapy time (in years)			
< 1	21	18	39
≥ 1	19	12	31
2 to 3	17	5	22
4 to 5	11	7	18
6 to 7	15	3	18
8 to 9	5	5	10
≥ 10	3	1	4

The causes responsible for renal failure that led the 142 patients investigated to perform renal therapy were diverse; however, deserve attention as those more frequent hypertension 48 (33,8%) and diabetes mellitus 39 (27,5%). Some 8 patients (5,6%) could not inform the cause of kidney failure, according to (Table 2).

It is noteworthy that the variable 'Several Morbidity' causes are included such as: dengue

fever, kidney stones, surgical complications (especially cardiac), chemotherapy, recurrent urinary tract infections, accidents, malaria, cardiac hypertrophy, leptospirosis, abuse of drugs (anti-inflammatory), trauma, alcoholism, abortion, snakebite, high uric acid and hypertensive crisis.

Table 2. Frequency of the base cause for kidney disease, by gender of the patients who perform kidney Nephrology unit therapy of Rio Branco - Acre, 2011-2012. (N= 142)

Morbidity	Gender		Total
	Male n (%)	Female n (%)	
Arterial Hypertension	29 (60,4)	19 (39,6)	48
Diabetes Mellitus	27 (69,2)	12 (30,8)	39
Cardiovascular Disease	2 (66,7)	1 (33,3)	3
IRA	-	2 (100,0)	2
Lupus Nephritis	-	2 (100,0)	2
Don't know inform	5 (62,5)	3 (37,5)	8
Various Morbidities	28 (70,0)	12 (30,0)	40
Total	91	51	142

The main complications reported by respondents were cramps 105 (73,9), anemia 105 (73,9) and headache 104 (73,2) (Table 3).

One issue that deserves attention is related to the monitoring of family during the patient's treatment. The majority 74 (52,1%) arrives and remains unattended in the sector by the end of therapy. The rationale was that

these patients have felt safe to go alone or because their family worked and the patient did not like to bother him; however, some reported that they were abandoned by their families (children or companions) due to the disease and treatment, and face alone, all difficulties related to treatment.

Table 3. Frequency of main complications reported by patients who perform kidney Nephrology unit therapy of Rio Branco - Acre, 2011-2012. (N= 142)

Intercurrence	n	%
Cramps	105	73,9
Anemia	105	73,9
Headache	104	73,2
Weakness	99	69,7
Hypotension	95	66,9
Weight loss	95	66,9
Hypertension	68	47,8
Pruritus	64	45,0
Pain	44	30,9
Weight gain	41	28,8
Cardiac	40	28,1
Arrhythmia		
Constipation	26	18,3
Infertility	06	4,2
Cardiorespiratory stop	03	2,1
Other	30	21,1
There Was No	03	2,1

DISCUSSION

The study had an average age of 51 years old and age range of greatest frequency between 56-65 years old. These data were similar in other studies in Brazil, such as São José do Rio Preto/SP, Sergipe, Natal/RN, Goiás and Rio Grande do Sul; except the values found in Fortaleza/CE, in which the average age was 34,1 years old and the age group 61-80 years old. However, with regard to the average age at which therapy is started, it is observed that in the nephrology unit of Rio Branco, age is lower than the other centers. The results show that the average age of patients undergoing renal therapy in Brazil varies from 49,3 to 53,9 years old.^{6,9-14}

The frequency of males in renal therapy was similar to those found in other studies, as well as the marital status of married respondents was similar to the others. We stress that the Rio Branco number of patients

in the situation of divorce was higher than other studies. This indicates that the majority of patients with chronic renal failure in Brazil are married/cohabiting, followed by singles.^{4,15-9}

It is known that renal failure has important limitations to patients and this often leads to absenteeism and early retirements resulting from therapy. This feature was also found in this study, with most retirees, removed or had any limitations to those patients; however, these numbers are lower than other studies. Divergent data found in Rio de Janeiro (Brazil). Among retirees patients, most receive up to minimum wage, similar data have also been found in other studies. Most of the data found indicated a monthly income of two minimum wages; this shows that Brazilian patients undergoing renal replacement therapy, in most cases, has low purchasing power, which should affect their quality of

life, regarding the purchase of medicines and food .^{11-2,16,19-20-1}

The education of patients was similar to other studies in Natal/RN, and divergent to that found in São Paulo. Thus, it is observed that most patients who have the IRC has low education and that possibly can interfere with adherence to treatment since there may be some difficulty in understanding them about the disease and its complications.^{10,18,22}

Most patients in renal therapy in the Nephrology Unit of Rio Branco has lower average time a year; indicating that most of them are recent in therapy. Some studies show there longer than therapy.^{9,16}

There was a high prevalence of hypertension and diabetes mellitus as causes leading up to the start of renal replacement therapy in patients investigated. These data corroborate other studies mentioning these morbidities as determining factors for the IRC. These data are in agreement with the report of the Brazilian Census Dialysis, where the most frequent primary diagnosis of kidney disease is hypertension with 35,2%, followed by 27,5% with diabetes mellitus.^{9,14,23-4}

Thus, we can observe that the main causes of IRC in Brazil are hypertension and diabetes. These chronic diseases are risk factors for the development of renal disease, with significant representation among public health threats; besides being responsible for about half of the patients who are on dialysis. By being silent diseases, are often discovered late; can thus already be installed impaired renal function, leading to various complications that can affect other systems.^{14,24}

It is known that complications may occur during therapy, both before and after the procedure, such as: muscle cramps, hypotension, weakness, pain and nausea. The study of Rio Grande do Sul, Brazil, also showed a similar result.¹²

Most patients in renal therapy reside and have the family support during the sessions of renal therapy; similar results were found in studies in Ceara and Rio Grande do Sul. Such data show that most kidney patients has the accompaniment of some family during illness, either accompanying the hemodialysis sessions, either at the end of the procedure back to the home; thus contributing to the emotional, psychological and attendance to therapy.¹²⁻³

CONCLUSION

The knowledge of patients' profile in certain therapies, it is necessary to improving the interaction between professionals and

patients, seeking a greater adherence and quality of life, and can trace policy aimed at prevention of the diseases that cause kidney failure in certain socioeconomic classes.

The socio-demographic and economic profile of patients in renal therapy in nephrology unit of Rio Branco - Acre was characterized by an average age of 51.73 years old, male, completed elementary school or high monthly income of a minimum wage and most individuals with marital status of married/living together.

Patients reported as complications, during or after the therapy sessions of kidney cramps, anemia, headache, asthenia and hypotension and the most frequent cause, responsible for renal failure were arterial hypertension and diabetes mellitus.

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REFERENCES

1. Pfuetzenreiter F, Hammes JA, Braatz V, Gonçalves ARR. Morbidade e mortalidade em hemodiálise: importância do segmento pré-dialítico e da fonte de financiamento. J Bras Nefrol [Internet]. 2007 Oct [cited 2012 Nov 16];29(1):19-24. Available from: http://www.jbn.org.br/audiencia_pdf.asp?aid2=192&nomeArquivo=29-01-05.pdf.

2. Cherchiglia ML, Gomes IC, Alvares J, Júnior AG, Acúrcio FA, Andrade EIG, et al. Determinantes dos gastos com diálise no Sistema Único de Saúde, Brasil, 2000 a 2004. Cad Saúde Pública [Internet]. 2010 Aug [cited 2012 Nov 16];26(8):1627-41. Available from: <http://www.scielo.br/pdf/csp/v26n8/16.pdf>.

3. Castro MCM, Silveira ACB, Silva MV, Couto JL, Xagoraris M, Centeno JR, et al. Inter-relações entre variáveis demográficas, perfil econômico, depressão, desnutrição e diabetes mellitus em pacientes em programa de hemodiálise. J Bras Nefrol [Internet]. 2007 Sept [cited 2012 Nov 16]; 29(3):143-51. Available from: http://www.jbn.org.br/audiencia_pdf.asp?aid2=169&nomeArquivo=29-03-06.pdf.

4. Peres LAB, Matsuo T, Delfino VDA, Peres CPA, Netto JHA, Ann HK, et al. Aumento na prevalência de diabete melito como causa de insuficiência renal crônica dialítica - análise de 20 anos na Região Oeste do Paraná. Arq Bras Endocrinol Metab [Internet]. 2005 [cited

- 2012 Nov 16];51(1):111-5. Available from: http://www.scielo.br/scielo.php?pid=S0004-27302007000100018&script=sci_arttext.5.
5. Locatelli F, Pozzoni P, Vecchio LD. Renal replacement therapy in patients with diabetes and end-stage renal disease. J Am Soc Nephrol [Internet]. 2004 [cited 2012 Nov 16];15(S):25-9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/14684667>
6. Marques AB, Pereira DC, Ribeiro RCHM. Motivos e Frequência de internação dos pacientes de IRC em tratamento dialítico. Arq Cienc Saúde [Internet]. 2005 Apr/June [cited 2012 Nov 16]; 12(2):67-72.. Available from: http://www.cienciasdasaude.famerp.br/racs_ol/Vol-12-2/2.pdf.
7. Oliveira MB, Romão JE, Zatz R. End-stage renal disease in Brazil: epidemiology, prevention and treatment. Kidney International [Internet]. 2005 [cited 2012 Nov 16];68(S):82-6. Available from: <http://www.kidneyfund.org/kidney-health/kidney-failure/end-stage-renal-disease.html>
8. Sesso R, Lopes AA, Thomé FS, Bevilacqua JL, Júnior JER, Lugon J. Relatório de Censo Brasileiro de Diálise, 2007. Soc Bras Nefrol [Internet]. 2007 Oct [cited 2012 Nov 16];29(4):197-02. Available from: <http://www.scielo.br/pdf/jbn/v33n4/09.pdf>.
9. Barbosa LMM, Júnior MPA, Bastos KA. Preditores de qualidade de vida em pacientes com doença renal crônica em hemodiálise. J Bras Nefrol [Internet]. 2007 Dec [cited 2012 Nov 16]; 29(4):222-29. Available from: http://jbn.org.br/audiencia_pdf.asp?aid2=132&nomeArquivo=29-04-07.pdf.
10. Souza AB, Mendonça AEO, Santos MGPS, Costa IKF, Torres GV. Hiperparatireoidismo secundário em pacientes com insuficiência renal crônica em uma instituição privada de Natal, Brasil. J Nurs UFPE on line [Internet]. 2010 Nov/Dec [cited 2012 Nov 16]; 4(S):1876-84. Available from: <http://www.sigaa.ufrn.br/sigaa/verProducao?idProducao=1429912&key=dcc7704209dfa8f43112927d4d3c2292>.
11. Sá D, Cavalcante AMRZ, Stival MM, Lima LR. Julgamento clínico de enfermagem em pacientes em hemodiálise. J Nurs UFPE on line [Internet]. 2011 Mar/Apr [cited 2012 Nov 16];5(2):165-73. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/download/1047/1612>.
12. Kirchner RM, Löbler LL, Machado RF, Stumm EMF. Caracterização de pacientes com insuficiência renal crônica em hemodiálise. J Nurs UFPE on line [Internet]. 2011 Mar/Apr

- [cited 2012 Nov 16]; 5(2):199-204. Available from: http://www.cesumar.br/prppge/pesquisa/mostras/quin_mostra/leonichely_rodrigues_macaraio_guimaraes.pdf.
13. Costa AGS, Santos RMB, Vitor AF, Araujo TL. Diagnósticos de enfermagem de pacientes em tratamento de hemodiálise em hospital-escola. J Nurs UFPE on line [Internet]. 2010 July/Sept [cited 2012 Nov 16];4(3):1477-83. Available from: http://www.inicepg.univap.br/cd/INIC_2010/anais/arquivos/RE_0277_0628_01.pdf.
14. Rolim LR, Frota NM, Almeida NG, Barbosa IV, Melo EM. Estudo clínico-epidemiológico dos pacientes com insuficiência renal aguda. J Nurs UFPE on line [Internet]. 2012 Feb [cited 2012 Nov 16]; 6(2):317-23. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewArticle/2161>.
15. Castro M, Caiuby AVS, Draibe SA, Canziani MEF. Qualidade de Vida de pacientes com insuficiência renal crônica em hemodiálise avaliada através do instrumento genérico SF-36. Rev Assoc Med Bras [Internet]. 2003 [cited 2012 Nov 16];49(3):245-49. Available from: <http://www.scielo.br/pdf/ramb/v49n3/a25v49n3>.
16. Morsch C, Thomé EGR, Farias D, Hirakata V, Thomé FS, Barros E. Avaliação dos indicadores assistenciais de pacientes em diálise no sul do Brasil. J Bras Nefrol [Internet]. 2008 [cited 2012 Nov 16]; 30(2):120-5. Available from: http://www.jbn.org.br/detalhe_artigo.asp?id=70.
17. Rocha ML, Vieira SS, Braga SO, Poveda VB, Sanchez EH. Início do Tratamento hemodialítico: qualidade de vida, sentimentos e dificuldades. J Nurs UFPE on line [Internet]. 2009 Apr/June [cited 2012 Nov 16];3(2):223-9. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewArticle/285>.
18. Torres GV, Santos SCLC, Leal LP, Mendonça AEO, Barreto AFG, Costa IKF, et al. Incidência de infecção em pacientes com cateter temporário para hemodiálise. J Nurs UFPE on line [Internet]. 2010 Jan/Mar [cited 2012 Nov 16];4(1):173-80. Available from: http://www.researchgate.net/profile/IsabelleCosta2/publication/41114762_Incidence_of_infection_in_patients_temporary_with_a_catheter_for_hemodialysis/links/0c960532c3f6866820000000.

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19. Carreira L e Marcon SS. Cotidiano e trabalho: concepções de indivíduos portadores de insuficiência renal crônica e seus familiares. Rev Latino-Am Enfermagem [Internet]. 2003 Nov/Dec [cited 2012 Nov 16];11(6):823-31. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-11692003000600018
20. Santos PR, Coelho MR, Gomes NP, Josué CEP. Associação de indicadores nutricionais com qualidade de vida em pacientes portadores de doença renal crônica em hemodiálise. J Bras Nefrol [Internet]. 2006 [cited 2012 Nov 16]; 28(2):57-64. Available from: http://www.jbn.org.br/audiencia_pdf.asp?aid2=239&nomeArquivo=28-02-01.pdf.
21. Pacheco GS, Santos I, Bragman R. Características de clientes com doença renal crônica: evidências para o ensino do autocuidado. Rev Enferm UERJ [Internet]. 2006 [cited 2012 Nov 16]; 14(3):434-39. Available from: <http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online/?IscScript=iah/iah.xis&src=google&base=BDENF&lang=p&nextAction=lnk&exprSearch=14493&indexSearch=ID>
22. Barbosa DA, Gunji CK, Bittencourt ARC, Belasco AGS, Diccini S, Vattimo F, et al. Comorbidade e morbidade de pacientes em início de diálise. Acta Paul Enferm [Internet]. 2006 [cited 2012 Nov 16]; 19(3):304-09. Available from: http://www.scielo.br/scielo.php?pid=S0103-21002006000300008&script=sci_arttext.
23. Ribeiro RCHM, Oliveira GASA, Ribeiro DF, Bertolin DC, Cesarino CB, Lima LCEQ, et al. Caracterização e etiologia da insuficiência renal crônica em unidade de nefrologia do interior de São Paulo. Acta Paul Enferm [Internet]. 2008 [cited 2012 Nov 16];21(S):207-11. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-21002008000500013.
24. Sesso R. Relatório do Censo Brasileiro de Diálise, 2010. J Bras Nefrol [Internet]. 2011 Oct/Nov [cited 2012 Nov 16];33(4):442-7. Available from: <http://www.scielo.br/pdf/jbn/v33n4/09.pdf>.
25. Vasquez I, Valderrabano F, Jofré R, Fort J, López-Gómez JM, Moreno F, Sanz-Guajardo D et al. Psychosocial factors and quality of life in young hemodialysis patients with low comorbidity. J Nephrol [Internet]. 2003 [cited 2012 Nov 16];16:886-94. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/14736017>



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