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## INTEGRATIVE REVIEW ARTICLE

### MANAGEMENT CARE ACTIONS IN HEMODIALYSIS SERVICE: INTEGRATIVE REVIEW

#### AS AÇÕES DE GERÊNCIA DO CUIDADO EM SERVIÇO DE HEMODIÁLISE: REVISÃO INTEGRATIVA

#### LAS ACCIONES DE GERENCIA DEL CUIDADO EN EL SERVICIO DE HOMODIÁLISIS: REVISIÓN INTEGRADORA

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#### ABSTRACT

**Objective:** to analyze studies about care management actions in hemodialysis services. **Method:** integrative review, in LILACS, IBECs, MEDLINE, CINAHL and BDNF databases with the question << Is there evidence in the scientific literature about the care management actions carried out by nurses in hemodialysis services? >> In the sample of nine articles, data analysis was descriptive, using the thematic content analysis technique, which allows to evaluate the quality and the level of evidence available in the literature, provide input for decision making and identify gaps for development research. **Results:** from the main findings of the studies, the themes emerged: Clinical Protocols; Assistance Cost Analysis; Management of Human Resources and Quality; Patient Safety; Management Models of Care; Systematization of Nursing Assistance (SAE). **Conclusion:** there are few international and national scientific productions. Thus, the relevance and the need for further research are highlighted. **Descriptors:** Nursing; Management; Renal Dialysis.

#### RESUMO

**Objetivo:** analisar estudos acerca das ações de gerência do cuidado em serviços de hemodiálise. **Método:** revisão integrativa, nas bases de dados LILACS, IBECs, MEDLINE, BDNF e CINAHL com a questão << Há evidências na literatura científica acerca das ações de gerência do cuidado realizadas pelo enfermeiro em serviços de hemodiálise? >> Na amostra de nove artigos, a análise dos dados foi descritiva, utilizando a técnica de análise de conteúdo temático, que permite avaliar a qualidade e o nível das evidências disponíveis na literatura, fornecer elementos para tomada de decisão e identificar as lacunas para o desenvolvimento pesquisas. **Resultados:** dos principais achados dos estudos, emergiram os temas: Protocolos Clínicos; Análise de Custos Assistenciais; Gestão de Recursos Humanos e Qualidade; Segurança do Paciente; Modelos de Gestão do Cuidado e Sistematização da Assistência de Enfermagem (SAE). **Conclusão:** poucas são as produções científicas internacionais e nacionais. Assim, destaca-se a relevância e a necessidade de novas pesquisas. **Descritores:** Enfermagem; Gerência; Diálise Renal.

#### RESUMEN

**Objetivo:** analizar estudios acerca de las acciones de gerencia del cuidado en servicios de hemodiálisis. **Método:** revisión integradora, en las bases de datos LILACS, IBECs, MEDLINE, BDNF y CINAHL con la pregunta << ¿Hay evidencias en la literatura científica acerca de las acciones de gerencia del cuidado realizadas por el enfermero en servicios de hemodiálisis? >> En la muestra de nueve artículos, el análisis de los datos fue descriptiva, utilizando la técnica de Análisis de contenido temático, que permite evaluar la calidad y el nivel de las evidencias disponibles en la literatura, fornecer elementos para tomada de decisiones e identificar las lagunas para el desarrollo de investigaciones. **Resultados:** de los principales hallados de los estudios, surgieron los temas: Protocolos Clínicos; Análisis de Costos Asistenciales; Gestión de Recursos Humanos y Calidad; Seguridad del paciente; Modelos de Gestión del Cuidado; Sistematización de la Asistencia de Enfermería (SAE). **Conclusión:** pocas son las producciones científicas internacionales y nacionales. Así surgiendo la relevancia y la necesidad de nuevas investigaciones. **Descritores:** Enfermería; Gerencia; Diálisis Renal.

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INTRODUCTION

The hospital organizations became places where technologies are broadly present, which have increasingly complex devices for diagnosing diseases and cure of individuals. It is considered a system in which the structures and processes are interconnected so that the non-operation of a component interferes with the whole set and in the result<sup>1</sup>, in the management level. Managing a service of nephrology and kidney transplantation is a major challenge and requires comprehensive knowledge of managers/administrators regarding the existing processes in the institution, whether managerial, support or assistance.

Chronic Kidney Disease (CKD) is characterized by progressive and irreversible loss of kidney function. Its definition is given from two criteria which may appear together or separately. They are: structural and/or functional abnormalities of the kidney for a longer period not exceeding three months, renal structural injury and/or lower glomerular filtration rate 60ml/min/1.73m<sup>2</sup>; in this case, with or without injury to the renal parenchyma.<sup>2</sup>

In Europe and the United States (USA), diabetes mellitus is a disorder that appears as the main cause of chronic kidney disease and is associated with almost half of new cases of CKD. Hypertension, although not being the most important, is a frequent basis diagnostic in countries like USA, France and Italy.<sup>3</sup> According to the Brazilian Society of Nephrology in Brazil, the main underlying diseases of chronic renal failure (CRF) among patients on dialysis program are: hypertensive nephropathy (33.8%), diabetes mellitus (28.5%), glomerulonephritis (12.6%) and polycystic kidney (4.3%). Brazil has the third largest contingent of patients on hemodialysis (HD) in the world. In 2012, the estimated total number of dialysis patients in the country was 97,586, distributed in 651 units with chronic dialysis program.<sup>4</sup>

In the Unified Health System (SUS), about 30% of the entire budget is spent on highly complex procedures, assisting just 3% of patients.<sup>5</sup> It is clear, then, that patients could have been treated in the core network and of medium complexity thereby lowering costs and especially modifying the evolution of their disease.

Studies in the area are necessary because, according to the Ministry of Health, through the National Kidney Disease Policy, the lack of further study on the epidemiological situation of kidney disease in the country, as well as

managerial aspects, administrative and economic services involving the treatment of diseases led to low capacity management.<sup>5</sup>

In this context, care management actions carried out by the nurse manager are not operationalized in accordance with the concept built by Christovam,<sup>6</sup> as a systematization of his activities, involving different levels of complexity in strategic planning and organization: nursing care, work process of the nursing team, therapeutic environment, human capital, material resources and equipment necessary for the implementation of instrumental and expressive character of the care actions.

In practice, there is little time to frequently develop planning, coordination and evaluation action of nursing services, as well as evaluation of patient satisfaction, training and qualification of nursing professionals and training for use of new technologies without losing the focus of provision of quality nursing care and safe for patients, professionals and the environment.

It is necessary to clarify that the structure of hospital organization meets the physical, human, material and financial resources required to provide care. The processes cover all activities between health professionals and patients, the treatment itself. It is through these relationships the objectified results of assistance are reached. The result becomes the final product of the care provided, which can be defined as the satisfaction of standards and expectations of patients. To achieve excellence in the services provided by nurses, adequate management structure capable of ensuring the efficiency, efficiency and effectiveness are required, so there is optimization, acceptability, legitimacy and fairness of given actions.<sup>7</sup>

There is a big discussion on excellence in quality of care, always seeking to achieve it. It is believed that to achieve this excellence, it would be necessary to understand the dynamics of the nursing work, through the operation of dialysis services evidenced in scientific publications. Thus, the aim of this study is:

- To analyze studies about care management actions in hemodialysis services.

METHOD

Integrative review study aimed predominantly to seek a synthesis of evidence for interventions and/or improvements in the practice of care management as well as the identification of knowledge gaps that indicate need for further investigation and

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construction of an agenda of research priorities.

The integrative review includes a relevant research analysis that support for decision making and improvement of clinical practice,<sup>8</sup> enabling the synthesis of knowledge of a subject, while identifying gaps in knowledge that need to be filled with new studies.<sup>9</sup> Therefore, the six steps have been taken to the creation of integrative literature review: selection of the research question; selection of articles in major databases; criteria for inclusion and exclusion from the sample; choice of relevant articles to selected studies in tables, considering all things in common; critical analysis of the findings, identifying differences and conflicts; interpretation and display of results and; to refer clearly the evidence found.<sup>10</sup>

The question that guided this review was << ***Is there evidence in the scientific literature about the care management actions carried out by nurses in hemodialysis services?*** >>

The search for scientific productions in the databases occurred on the first day of April 2014, on the following basis of national and international circulation data: Spanish Bibliographic Index of Health Science (IBECS), Medical Literature Analysis and Retrieval Online System (MEDLINE), Latin American and Caribbean Health Sciences (LILACS), Nursing Databases (BDENF) via portal of the Virtual Health Library (VHL) and Cumulative Index to

Nursing and Allied Health Literature (CINAHL). For the search, the following keywords in Health were used (DECs): nursing and management and hemodialysis.

Studies that presented as main subject hospitals hemodialysis, that addressed the care management actions carried out by nurses, with respect to the tools and strategies he used in these units were included, such as: systematization of nursing care; management of people, materials, costs and processes over the past five years from 2009 to 2013, in English, Spanish and Portuguese. The productions that addressed the care management issue in continuous ambulatory peritoneal dialysis (CAPD) and pediatric hemodialysis were excluded.

Thus, there were 1588 articles and 178 articles in CINAHL found in the databases belonging to the BVS, which after selected and applied the criteria for inclusion and exclusion previously established, remaining nine articles related to management of nursing care in hemodialysis. In the MEDLINE database there were two articles, four articles in IBECS and three articles in CINAHL. In LILACS any articles was found and in BDENF the only article found had no relevance to the study. Figure 1 shows the flowchart with the search strategy and selection of productions in the sample.

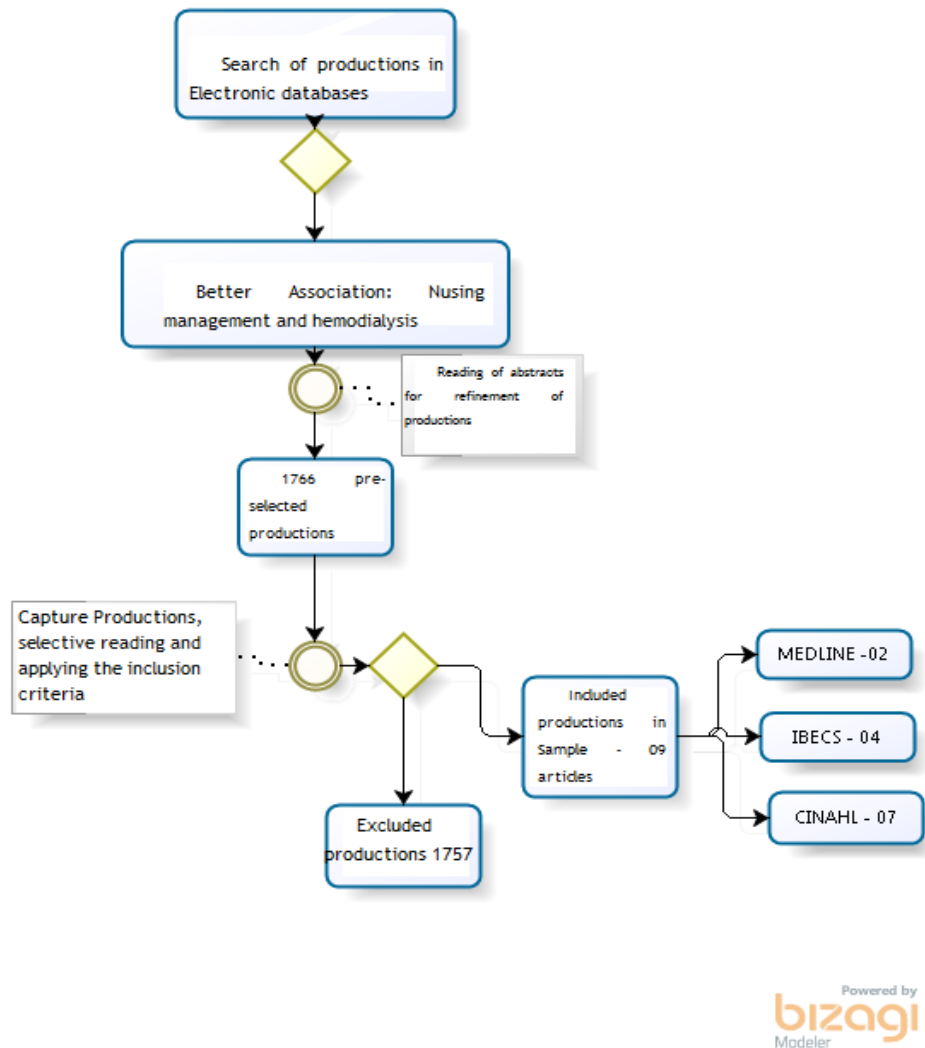


Figure 1. Flowchart of selected articles

For the extraction and synthesis of data productions, a form containing the following information was used: title/authors, the main objective, methodology, main results and conclusions.

Analysis of data extracted was conducted descriptively, using the thematic content analysis technique, allowing the nurse to assess the quality of evidence, the level of evidence available in the literature on the subject researched, provide input for daily nursing decision-making and identifying

knowledge gaps for future research.

Out of the nine productions that constituted the study sample (Figure 2), approximately 78% are written by nurses, and 22% could not identify the degree of all authors. Regarding the location, studies were developed as follows: Teaching Center and Medical Care, University Nephrology Centers, Dialysis Centers of Hospital Institutions. Studies have occurred both in public and private hospitals, located in Spain (45%), United States (45%) and Sri Lanka (10%).

Study/Title	Country	Data source	Tye of study	Year
S1 - The costs in provision of hemodialysis in a developing country: a multi-centered study. <sup>11</sup>	Sri Lanka	BMC Nephrology	Quantitative, economic analysis, prospective and retrospective	2011
S2 - Nursing issues in renal replacement therapy: organization, manpower assessment, competency evaluation and quality improvement process. <sup>12</sup>	USA	Seminar on Dialysis	Qualitative, methodological and exploratory study	2011
S3 - Revisión de La via clínica inicio programado en hemodiálisis. <sup>13</sup>	Spain	Journal of the Spanish Society of Nephrology Nursing	Qualitative, methodological	2012
S4 - ¿Qué indicadores son considerados por enfermería para conseguir una diálisis perfecta en el paciente en hemodiafiltración en línea? <sup>14</sup>	Spain	Journal of the Spanish Society of Nephrology Nursing	Quantitative, survey	2012
S5 - Desarrollo e implementación de una via clínica a los pacientes que	Spain	Journal of the Spanish Society of	Qualitative, Study of evaluation	2011

inician la hemodiálisis de forma programada. <sup>15</sup>		Nephrology Nursing	processes and results, exploratory	
S6 - Guia de valoración del paciente crônico en hemodiálisis por indicadores. <sup>16</sup>	Spain	Journal of the Spanish Society of Nephrology Nursing	Quantitative and qualitative, descriptive, outcome assessment	2009
S7 - A new nursing model for the care of patients with chronic kidney disease: the UNC Kidney Center Nephrology Nursing Initiative. <sup>17</sup>	USA	Journal of Nursing in Nephrology	Qualitative, descriptive, methodological study	2010
S8 - Management of patients on hemodialysis before, during, and after hospitalization: challenges and suggestions for improvements. <sup>18</sup>	USA	Journal of Nursing in Nephrology	Qualitative, descriptive, outcome assessment	2011
S9 - Striving to be heard and recognized: nurse solutions for improvement in the outpatient hemodialysis work environment. <sup>19</sup>	USA	Journal of Nursing in Nephrology	Qualitative, descriptive-exploratory	2011

Figure 2. Studies included in the integrative review according to type of study, data source, country and year of publication. Rio de Janeiro, in 2014.

It was identified a predominance of productions in 2011 (55.6%), followed by 2012 to (22.2%), and 2009 and 2010 (11.1%) respectively. Regarding the type of journals, all are of nephrology area, of which 78% are from the nursing field and 22% are medical journals. As regards the design of the studies showed a predominance of qualitative approach studies (66.7%), followed by quantitative studies (22.2%), and quantitative and qualitative (11.1%). As for the type of qualitative studies (n=6), there is a predominance of methodological and descriptive studies (67%), followed by assessment studies (33%). It is worth noting the difficulty in identifying the methodological design and type in the productions selected for the sample. Regarding the strength of evidence found, there are four articles with evidence level 4, and 5 articles with evidence level 5.

After reading, analysis and synthesis of the main findings of the studies, the following themes emerged: Clinical Protocols; Assistance Cost Analysis; Management of Human Resources and Quality; Patient safety; Management Models of Care; Systematization of Nursing Assistance (SAE).  
Based on the operational definition of Management of Nursing Care Hospital scenarios, built by Christovam,<sup>6</sup> synthesis of knowledge, on the themes highlighted in the nine articles in the sample of this integrative review was organized in the so called analysis category “the Nursing care management actions in Hemodialysis services”, according to the dimensions that guide the care management actions carried out by nurses in practice these services: Instrumental Dimension and Expressive Dimension (Figure 3).

Management Actions of Nursing Care Hemodialysis Services			
Theme	Dimension	Main findings	Study
Clinical Protocols	Instrumental	Development, implementation and review of management tool, institutionalized, guiding the daily activities of the team working in the service; standardizing the activities and conducive to identifying the main changes during hemodialysis (HD) and implementation of relevant interventions, focused on implementation and introduction of higher quality care practices.	S3; S5 and E6
Assistance Cost Analysis	Instrumental	High costs of care in health are related to medicine, consumables and spending on nursing staff salary. Pointing as a strategy to lower costs, reuse of dialyzers.	S1
Management of Human Resources	Instrumental	Nurses heard are extremely dissatisfied with their working conditions, with few flexible working hours, low wages and few benefits, nursing scaling x unequal patients, inefficient operating systems that are lost in the bureaucracy and overhead generating negative perception of the work environment. Studies show that dissatisfaction in the workplace statistically increases the number of patient complications and	S2; S9



		increase the morbidity and mortality of hospitalized patients with renal disease. Implement educational programs to train the nursing staff working in nephrology services.	
Care Quality and Security	Instrumental	It is observed that factors such as poor communication between the hospital and the nephrology care unit, poorly structured and inefficient hospital administration/coordination, generating misinformation about the medication used routinely before admission and at discharge, effect on treatment during hospitalization, relate directly to the comorbidity in the transition from hospital to the dialysis center. Need to organize proactive interventions before, during and after hospitalization of these patients in order to reduce the chances of complications previously mentioned. Nursing appears as an essential element in the implementation of measures such as adjusting the prescription in the patient's hospitalization, considering the routine use of medications to avoid forgetting or the prescription of unnecessary or repeated medicine; monitor key clinical issues that affect chronic kidney as anemia, malnutrition, bone demineralization, blood volume management, infection of access; discharge records organized and clear in order to facilitate communication between the hospital and the dialysis center; enabling caregivers and patients, increasing their level of knowledge about the disease; optimizing communication between various healthcare professionals within the hospital.	S2; S8 and S9
Care Management Models	Expressive	Need to create care models, which allow nurses of nephrology and other hospital departments assess the behaviors together, following previously established protocols to prevent different behaviors. It proposes structuring educational programs to enable the implementation of these models for patient safety since it standardizes the behaviors.	S2 and S7
Systematization of Nursing Assistance (SAE)	Expressive	Creation of a standardized assessment tool where they can play and allowing a grouping of consensus data that helps in identifying problems; increased interest and motivated nursing staff in relation to nursing diagnoses and registration through diagnostic taxonomies. Showing what are the key indicators of an ideal dialysis defined by the nursing team (vascular access blood flow, asymptomatic dialysis, state dialyzer and lines, compliance with the hemodialysis session time, great Kt, volume online reinfusion, hemostasis in less than 15 minutes; good patient status post-dialysis and the scope of dry weight) and objectively evaluated each hemodialysis session on the knowledge of successes and mistakes of each session and there were advance conditions as early as possible than the commonly used indicators.	S4; S5 and S6

Figure 3. Synthesis of knowledge of the studies included in the integrative review. Rio de Janeiro, 2014.

RESULTS AND DISCUSSION

The care management actions involve direct care of coordinated activities (process of care) and indirect care (process of managing) in the practice of the nurse manager of nursing care, and comprise the expressive and instrumental dimensions.<sup>6</sup> It is highlighted that for the implementation of care management actions in health care, the nurses use tools and management instruments.

It could be noted that the care management actions carried out by nurses in

hemodialysis services are characterized predominantly by indirect care activities and instrumental character aimed at materials management, human capital and control equipment necessary to carry out actions nursing care. For that, nurses use management instruments such as the preparation of management and clinical protocols to guide the activities carried out by the nursing staff, monitoring and evaluation of operations and cost of care and continuing education.

Another aspect to be highlighted concerns the set of care management actions that

nurses perform in production areas of nursing care, or in hemodialysis services, which are guided by professionals or institutional rules. In this sense, it was evidenced in articles in the sample, the non-compliance and the professional or institutional rules generate instrumental character problems that affect the quality of nursing care provided in hemodialysis services, such as lack of standardization activities through implementation of protocols; high costs of materials and medicines; inadequate working conditions; Insufficient nursing dimension; poorly structured and inefficient hospital administration/coordination.

The expressive dimension permeates all instrumental character of actions performed by nurses in the practice of management of nursing care, in health services. With regard to the actions of expressive character of a nurse in the practice of care management, there is the realization of reports, intervention and monitoring of activities of the team and the performance of the role of leader and negotiator. It also highlighted the need to adopt care models to guide the systematization of care actions and the creation of evaluation of these actions instrument.

Another aspect to be addressed there are the skills required for nurses to carry out the actions of management of nursing care in practice. We cannot speak without speaking about knowledge and attitudes, as these elements always go together and form professional skills, either managerial and/or assistance.<sup>20-21</sup> In this sense, it is emphasized that the main purpose of the nurse, when performing their functions focused on care management, it is to plan and organize nursing care at all levels of complexity.

The organization of care actions should be directed at health care model established by the service. To this end, the nurse used the Systematization of Nursing Assistance (SAE) as a management tool of nursing care, establishing the model for the care to be implemented, following the service standards set by these models assistance predefined by the institution.<sup>22</sup>

## CONCLUSION

As can be observed, the productions included in the review are mostly written by nurses working in hemodialysis hospitals. When the articles analyzed are compared to the concept of management of care, it shows the need to work in a systematic way, protocolled with the use of SAE, as a tool used by the nurse that should include the steps of

planning, implementation, continuous evaluation and control to develop the quality of care provided in the hemodialysis service. It is highlighted the predominance of instrumental character actions at the expense of expressive character actions. On the subject of nursing care management in hemodialysis, it is clear that there are few international and national scientific productions on the subject, which leads to the conclusion of the importance and the need for further research.

## REFERENCES

1. Brasil. Ministério da Saúde. Secretaria de Assistência à Saúde. Manual brasileiro de acreditação hospitalar. 3rd ed. rev. e atual. Brasília: Ministério da Saúde; 2002.
2. Riella MC. Princípios de nefrologia e distúrbios hidroeletrólitos. 5th ed. Rio de Janeiro: Guanabara Koogan; 2010.
3. Siviero P, Machado CJ, Rodrigues RN. Doença renal crônica: um agravamento de proporções crescentes na população brasileira. Belo Horizonte: UFMG/CEDEPLAR; 2013.
4. Sociedade Brasileira de Nefrologia. Censo da sociedade brasileira de nefrologia 2013 [Internet]. [cited 2013 July 27]. Available from: [http://www.sbn.org.br/pdf/censo\\_2013-14-05.pdf](http://www.sbn.org.br/pdf/censo_2013-14-05.pdf).
5. Brasil. Ministério da Saúde. Portaria nº 1.168/GM, de 15 de junho de 2004 [Internet]. Institui a política nacional da atenção ao portador de doença renal [cited 2014 Jan 03]. Available from: [http://bvsms.saude.gov.br/bvs/publicacoes/portaria\\_1168\\_ac.htm](http://bvsms.saude.gov.br/bvs/publicacoes/portaria_1168_ac.htm).
6. Christovam BP, Porto IS, Oliveira DC. Gerência do cuidado de enfermagem em cenários hospitalares: a construção de um conceito. Rev Esc Enferm USP [Internet]. 2012 June [cited 2014 Aug 18];46(3):734-41. Available from: <http://dx.doi.org/10.1590/S0080-62342012000300028>.
7. Donabedian A. Evaluating the quality of medical care. Milbank Q [Internet]. 2005 Dec [cited 2014 Feb 22];83(4):691-729. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0009.2005.00397>.
8. Brook RH, McGlynn EA, Shekelle PG. Defining and measuring quality of care: a perspective from US researchers. Int J Qual Health Care [Internet]. 2000 [cited 2014 Feb 25];12(4):281-95. Available from: <http://intqhc.oxfordjournals.org/content/intqhc/12/4/281.full.pdf>.

9. Mendes KDS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. *Texto & Contexto Enferm* [Internet]. 2008 Dec [cited 2014 June 22];17(4):758-64. Available from: [http://www.scielo.br/scielo.php?script=sci\\_ar ttext&pid=S0104-07072008000400018&lng=en](http://www.scielo.br/scielo.php?script=sci_ar ttext&pid=S0104-07072008000400018&lng=en).
10. Ganong LH. Integrative Reviews of Nursing. *Res Nurs Health* [Internet]. 1987;10(1):1-11. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/n ur.4770100103/abstract>.
11. Renasinghe P, Perera YS, Makarim MF, Wijesinghe A, Wanigasuriya K. The costs in provision of hemodialysis in a developing country: a multi-centered study. *BMC Nephrology* [Internet]. 2011 [cited 2014 Jan 02];12(1):42. Available from: <http://www.biomedcentral.com/content/pdf /1471-2369-12-42.pdf>.
12. Grahnan P, Lischer E. Nursing issues in renal replacement therapy: organization, manpower assessment, competency evaluation and quality improvement process. *Semin Dial* [Internet]. 2011 Mar/Apr [cited 2014 Feb 01];24(2):183-7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21517 985>.
13. Bermúdez MN. Revisión de La vía clínica “inicio programado en hemodiálisis”. *Enferm Nefrol* [Internet]. 2012 Sept [cited 2014 Oct 02];15(3):222-6. Available from: [http://scielo.isciii.es/scielo.php?script=sci\\_is oref&pid=S2254-28842012000300011&lng=es&tlng=es](http://scielo.isciii.es/scielo.php?script=sci_is oref&pid=S2254-28842012000300011&lng=es&tlng=es).
14. Martínez AVF, Martínez JP, Arias YA, García RP, Vallejo AM, Martínez FR, et al. ¿Qué indicadores son considerados por enfermería para conseguir una diálisis perfecta en el paciente en hemodiafiltración en línea? *Enferm Nefrol* [Internet]. 2012 June [cited 2014 Nov 10];15(2):115-20. Available from: [http://scielo.isciii.es/scielo.php?script=sci\\_ar ttext&pid=S2254-28842012000200006&lng=es](http://scielo.isciii.es/scielo.php?script=sci_ar ttext&pid=S2254-28842012000200006&lng=es).
15. Bermúdez MN. Desarrollo e implementación de una vía clínica a los pacientes que inician la hemodiálisis de forma programada. *Rev Soc Esp Enferm Nefrol* [Internet]. 2011 Mar [cited 2014 Nov 11];14(1):15-22. Available from: [http://scielo.isciii.es/scielo.php?script=sci\\_ar ttext&pid=S1139-13752011000100003&lng=es](http://scielo.isciii.es/scielo.php?script=sci_ar ttext&pid=S1139-13752011000100003&lng=es).
16. Ameneiro AM, Rodríguez LS, Pazos CV, Santiago SG, Carro MS. Guía de valoración del paciente crónico en hemodiálisis por indicadores. *Rev Soc Esp Nefrol* [Internet]. 2009 Oct [cited 2014 Sept 12];12(4):23-27. Available from:
17. Neyhart CD, McCoy L, Rodegast B, Gilet CA, Roberts C, Downes K. A new nursing model for the care of patients with chronic kidney disease: the UNC Kidney Center Nephrology Nursing Initiative. *Nephrol Nurs J* [Internet]. 2010 Mar/Apr [cited 2014 Feb 22];37(2):121-30. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/20462 072>.
18. Castner D. Management of patients on hemodialysis before, during, and after hospitalization: challenges and suggestions for improvements. *Nephrol Nurs J* [Internet]. 2011 July/Aug [cited 2014 Mar 03];38(4):319-30. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21928 608>.
19. Gardner J, Walton J. Striving to be heard and recognized: nurse solutions for improvement in the outpatient hemodialysis work environment. *Nephrol Nurs J* [Internet]. 2011 May/June [cited 2014 Mar 23];38(3):239-53. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21877 457>.
20. Duarte G. Competências. In: *Dicionário de administração e negócios* [Internet]. Kindlebook Br; 2011. p. 233. Available from: [http://minhateca.com.br/Nox.Conc/Livros/Le itura+obrigat\\*c3\\*b3ria/Dicionario+de+Administ racao+e+N++Geraldo+Duarte,90275667.pdf](http://minhateca.com.br/Nox.Conc/Livros/Le itura+obrigat*c3*b3ria/Dicionario+de+Administ racao+e+N++Geraldo+Duarte,90275667.pdf).
21. Cunha ICKO, Ximenes Neto FRG. Competências gerenciais de enfermeiras: um novo velho desafio? *Texto & Contexto Enferm* [Internet]. 2006 July/Sept [cited 2015 Feb 24];15(3):479-82. Available from: [http://www.scielo.br/scielo.php?script=sci\\_ar ttext&pid=S0104-07072006000300013&lng=en&nrm=iso](http://www.scielo.br/scielo.php?script=sci_ar ttext&pid=S0104-07072006000300013&lng=en&nrm=iso).
22. Figueiredo MED, Santos SR, Oliveira AMM, Leite KNS, Morais JMD, Duarte ACP. Sistematização da assistência de enfermagem: percepção de enfermeiros de um hospital escola. *J Nurs UFPE on line* [Internet]. 2013 Dec [cited 2015 Feb 24];7(12):6981-8. Available from: [http://www.revista.ufpe.br/revistaenfermage m/index.php/revista/article/view/4828/pdf\\_4217](http://www.revista.ufpe.br/revistaenfermage m/index.php/revista/article/view/4828/pdf_4217)



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