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Protocol of assistance to persons with venous ulcer in primary care: integrative literature review

Protocolo de assistência a pessoas com úlcera venosa na atenção primária: revisão integrativa da literatura

Protocolo de asistencia a personas con úlcera venosa en la atención primaria: revisión integradora de la literatura

Isabelle Katherinne Fernandes Costa1; Daniele Vieira Dantas2; Manuela Pinto Tibúrcio3; Lays Pinheiro de Medeiros4; Gilson de Vasconcelos Torres5; Gabriela de Sousa Martins Melo6

How to quote this article:

ABSTRACT

Objective: To perform an integrative literature review to give subsidies to elaborate attendance protocol for people with venous ulcers in primary health care. Method: An integrative review, carried out between August and September 2012, in the virtual health library, pages of Coordination of Improvement of Higher Education Personnel, of Municipal Health secretariat and international guidelines of associations. Results: 15 publications were included, in the period from 2004 to 2011, 9 focused specifically on venous ulcer, 8 did not specify the level of assistance, 9 are multiprofessionals and 2 emphasize quality of life. Based upon the studies it was verified that the categories about structuring the protocol are sociodemographics, anamnesis, risk factors, exams, verification, characteristics and injury care, medications, pain, general care and compression therapy, prevention and referral/counter-referral. Conclusion: The results may subsidize the construction of protocols for people with venous ulcers treated in primary health care supported in the aspects of literature.

Descriptors: Protocols; Varicose Ulcer; Health Care.
RESUMO
Objetivo: Realizar revisão integrativa da literatura para dar subsídios de elaboração de protocolos de assistência a pessoas com úlcera venosa na atenção primária Método: Revisão integrativa, realizada entre agosto e setembro de 2012, na biblioteca virtual de saúde, páginas da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, de Secretarias Municipais de Saúde e guidelines de associações internacionais. Resultados: Incluiu-se 15 publicações, no período de 2004 a 2011, 9 focavam especificamente à úlcera venosa, 8 não especificam o nível de assistência, 9 são multiprofissionais e 2 ressaltam qualidade de vida. Embasado nos estudos verificou-se que as categorias referentes à estruturação do protocolo são os dados sociodemográficos, anamnese, fatores de risco, exames, verificação, características e cuidados da lesão, medicamentos, dor, cuidados gerais e terapia compressiva, prevenção e referência/contrarreferência. Conclusão: Os resultados poderão subsidiar a construção de protocolo para pessoas com úlcera venosa, atendidas na atenção primária, respaldados nos aspectos da literatura.
Descritos: Protocolos; Úlcera Varicosa; Assistência à Saúde.

RESUMEN
Objetivo: Realizar una revisión integradora de la literatura para dar subsídios para la elaboración de protocolos de atención a las personas con úlceras venosas en atención primaria. Método: Revisión integradora, llevó a cabo entre agosto y septiembre de 2012 en la Biblioteca Virtual en Salud, páginas de la Coordinación de Perfeccionamiento de Personal Grado Superior de Salud, secretarías municipales y guidelines de asociaciones internacionales. Resultados: Se incluyeron 15 publicaciones en el período de 2004 a 2011, 9 se centró específicamente úlcera venosa, 8 no especifica el nivel de atención, 9 son multiprofesional y 2 destacan la calidad de vida. Con base en los estudios se ha encontrado que las categorías para estructurar el protocolo son sociodemográficos, antecedentes clínicos, factores de riesgo, pruebas, verificación, y las características de la atención de lesiones, medicamentos, dolor, cuidados generales y la terapia de compresión, la prevención y referencia/contrarreferencia. Conclusión: Los resultados pueden ayudar a construir protocolo para las personas con úlceras venosas en la atención primaria apoyado en los aspectos de la literatura.
Descritos: Protocolos; Úlceras Venosas; Cuidado de la Salud.

INTRODUCTION
The care of people with venous ulcers requires comprehensive and multidisciplinary care and easier access to health services, due to the negative impact of these injuries on the affected one's quality of life and his/her family and financial burden caused to the health system.1
In this perspective, it is expected that primary health care is the gateway to the care of health of this population, providing access to people with venous ulcers, as well as early diagnosis, ensuring monitoring and treatment.

The care and treatment of people with venous ulcer is considered difficult from a technical point of view. For this reason, countries like Canada, United States of America (USA), and England are developing protocols in order to standardize the behaviors, improve the quality of care and reduce treatment costs.2 Textual protocols are based on clinical guidelines using scientific evidence for its preparation.2,3

Evidence-based practice (EBP) provides the professional scientific recommendations, called guidelines, that helps him provide the best possible care. The use of a systematic method enables us to gather, classify and analyze search results and conclude by evidence or not, to decision-making, as well as the need to develop new primary studies.4

It stands out then the importance of scientific evidence, as support for the care of people with venous ulcers, as the practice of actions should be informed by them in order to promote patient safety.5

In this sense, the proposal is to improve the care of persons with VU, reduce the treatment time, reduce relapses and avoid the complications of these injuries. Therefore, it is necessary to adopt protocols for professionals who are dedicated to the handling of people with venous ulcers.3,6

Given the above, it is proposed in this study conduct integrative literature review that can give subsidies for the development of a protocol of care to people with venous ulcers in primary care.

METHODS
This is an integrative review of literature study, which ran through the steps: preparation of the research question, the establishment of the review objectives and inclusion criteria of publications; definition of information to be extracted; selection of publications in the literature; analyzing the results; discussion of findings and presentation of the review.7

In order to conduct this review, we formulated the following research questions: What aspects of VU people approach are addressed in the studies? To what scenario are these studies targeted? Are these studies uni or multiprofessional? Do they evaluate the quality of life?

Literature research was carried out in August and September 2012 in the electronic databases of the Virtual Health Library (VHL), Bank of Dissertations and Theses of the Journal of Higher Education Personnel Improvement Coordination (CAPES). In addition, we searched international guidelines through the website “guidelines.com”, the site of the “National Group for the Study and Consultancy Pressure Ulcers and Wounds Chronicles” (GNEAUPTP) and health departments which provided the protocols electronically - the Municipal Health Secretariat of Florianópolis/SC, the Municipal Belo Horizonte/MG, the City Department of Ribeirão Preto/SP.

For proper refinement of publications a sample was defined according to the following inclusion criteria: materials that make available protocols and/or instruments on assistance to people with wounds, specifically venous ulcer; in Portuguese, English and Spanish; freely available in full text in the above databases; in the period January 2004 to September 2012. We excluded the publications in editorial format, letter to the editor, protocols found online that did
not have year/form, cataloging/reference and guidelines developed by pharmaceutical companies.

We used a structured form, covering issues related to the research proposal, namely: year of publication, database, publication type, product type/proposed study focus, nationality, setting (primary care and/or hospital), if it has been validated, professional guidance, flowcharts and presentation tools, aspects of a person's approach to VU and work quality of life.

For the survey of publications in the VHL, the controlled descriptors elected from the Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH) were: protocols and varicose ulcer. The intersection of these descriptors in the said base occurred through the AND Boolean operator. In CAPES journals and “guidelines.com” we used the descriptor venous ulcers. The search on the site GNEAUPP occurred by reading the protocols/tools available that addressed assistance to people with wounds, especially venous ulcers, as well as on the websites of health departments cited.

After the procedure of electronic search in the mentioned databases, publications were pre-selected based on reading the title and abstract or presentation (in case of protocols and guidelines). After fully reading the previously selected publications, publications that comprised the final sample of this integrative review were identified (as Figure 1).

Figure 1 - Process of selecting the summary of studies for integrative review

The critical process of evaluating the obtained studies consisted of reading in full, evaluation and completion of the data collection instruments. All selected studies were reviewed by two reviewers and any disagreement were resolved by discussion. Then the data were entered in Microsoft Excel 2010 spreadsheet and analyzed using descriptive statistics and presented in the form of tables.

RESULTS AND DISCUSSION

Based on a review of scientific literature on the theme of assistance to people with venous ulcers, three tables summaries of the studies analysed were drew up.
Table 1 - Distribution of the studies found regarding the year, base, type of publication, type of product / proposal and focus of the study. Natal/RN, Brazil, 2013

<table>
<thead>
<tr>
<th>Identification</th>
<th>Study focus</th>
<th>Study Identification</th>
<th>Year</th>
<th>Publication type</th>
<th>Product/proposal type</th>
<th>Study focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Venous ulcer</td>
<td>Brem;kisner; falanga</td>
<td>2004</td>
<td>Article</td>
<td>Protocol</td>
<td>Venous ulcer</td>
</tr>
<tr>
<td>9</td>
<td>Venous ulcer</td>
<td>Rnao</td>
<td>2004</td>
<td>Guideline</td>
<td>Guideline</td>
<td>Venous ulcer</td>
</tr>
<tr>
<td>10</td>
<td>Vascular ulcers</td>
<td>Capilla; castillo; morros; portas; vedia</td>
<td>2004</td>
<td>Guideline</td>
<td>Guideline</td>
<td>Vascular ulcers</td>
</tr>
<tr>
<td>11</td>
<td>Venous ulcer</td>
<td>Borges</td>
<td>2005</td>
<td>thesis</td>
<td>Guideline</td>
<td>Venous ulcer</td>
</tr>
<tr>
<td>12</td>
<td>Wounds</td>
<td>Wuwhs</td>
<td>2008</td>
<td>Guideline</td>
<td>Guideline</td>
<td>Wounds</td>
</tr>
<tr>
<td>13</td>
<td>Wounds</td>
<td>Florianó-polis</td>
<td>2008</td>
<td>Protocol</td>
<td>Protocol</td>
<td>Wounds</td>
</tr>
<tr>
<td>14</td>
<td>Ulcers of the lower limbs</td>
<td>Conuei</td>
<td>2009</td>
<td>Guideline</td>
<td>Guideline</td>
<td>Ulcers of the lower limbs</td>
</tr>
<tr>
<td>15</td>
<td>Venous ulcer</td>
<td>Selmmer</td>
<td>2009</td>
<td>Dissertations</td>
<td>Computerized protocol</td>
<td>Venous ulcer</td>
</tr>
<tr>
<td>16</td>
<td>Venous ulcer</td>
<td>Rcn</td>
<td>2010</td>
<td>Guideline</td>
<td>Guideline</td>
<td>Venous ulcer</td>
</tr>
<tr>
<td>17</td>
<td>Ulcers of the lower limbs</td>
<td>Sign</td>
<td>2010</td>
<td>Guideline</td>
<td>Guideline</td>
<td>Ulcers of the lower limbs</td>
</tr>
<tr>
<td>18</td>
<td>Venous ulcer</td>
<td>Aawc</td>
<td>2010</td>
<td>guidelines.com</td>
<td>Guideline</td>
<td>Venous ulcer</td>
</tr>
<tr>
<td>19</td>
<td>Wounds</td>
<td>Bello horizonte</td>
<td>2010</td>
<td>Protocol</td>
<td>Protocol</td>
<td>Wounds</td>
</tr>
<tr>
<td>20</td>
<td>Wounds</td>
<td>Dantas</td>
<td>2010</td>
<td>Dissertation</td>
<td>Protocol</td>
<td>Wounds</td>
</tr>
<tr>
<td>21</td>
<td>Wounds</td>
<td>Wocn</td>
<td>2011</td>
<td>Protocol</td>
<td>Protocol</td>
<td>Wounds</td>
</tr>
</tbody>
</table>

From the 15 studies selected, three are 2004 publications, one 2005, two in 2008, two in 2009, five in 2010 and two in 2011. Of these, five are updated guidelines or pre-existing protocols.16-17,19,21-22 Regarding the type of study there were: an article, a thesis, two dissertations, three protocols and eight guidelines. Regarding the type of product/proposal brought by these studies they met six protocols, one being the proposal for a computerized protocol and nine guidelines.

Regarding the focus of studies, it was found that six treating wounds of various etiologies, five4,6-7,13,16 of them with focused approach of venous ulcers with respect to the differential diagnosis of the disease not meeting the specific lesion that requires. Knowledge of the etiology, treatment and proper management of venous ulcers is critical to the practice of assistance to these people.23

Table 2 refers to the nationality of the studies, the scene, how was the validation of studies, if they are directed to a professional or if it is multidisciplinary and presented to flow charts and instruments.

Table 2 - Distribution of studies regarding nationality, scenery, validation, study guidance and presence of flow charts or instruments. Natal/RN, Brazil, 2013

<table>
<thead>
<tr>
<th>Identification</th>
<th>Country</th>
<th>Scenario</th>
<th>Verified</th>
<th>UNI or Multiprofissional</th>
<th>Flow charts show or instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>United States</td>
<td>Hospital</td>
<td>No</td>
<td>Doctors</td>
<td>Flowchart care</td>
</tr>
<tr>
<td>9</td>
<td>Canada</td>
<td>Not specified</td>
<td>PBE</td>
<td>Nurses</td>
<td>Monitoring tool</td>
</tr>
<tr>
<td>10</td>
<td>Spain</td>
<td>APS</td>
<td>PBE</td>
<td>Doctors</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>Brazil</td>
<td>Not specified</td>
<td>PBE</td>
<td>Multiprofissional</td>
<td>Não</td>
</tr>
<tr>
<td>12</td>
<td>England</td>
<td>Not specified</td>
<td>Expert consensus</td>
<td>Doctors</td>
<td>Flowchart of care in general wounds</td>
</tr>
<tr>
<td>13</td>
<td>Brazil</td>
<td>APS</td>
<td>No</td>
<td>Multiprofissional</td>
<td>Flowcharts only for pressure ulcers, burns, and treatment of wounds generally</td>
</tr>
</tbody>
</table>

(To be continued)
Regarding nationality, six are studies developed in Brazil, three in the United States, two in Spain, two in England, one in Canada and one Scotland.

From 6 studies conducted in Brazil, 3 are SMS protocols that address the wounds in general, and the other 3 are VU specifically - it is a thesis that focuses on guidelines on the topical therapies, a dissertation proposes a protocol computerized focusing on topical therapies and other dissertation that while addressing the care to people with venous ulcers, directs the protocol for a university hospital in the Northeast.

With regard to scenario (primary and/or hospital care), five are for the primary and two are for hospital sector and eight studies do not specify the level of assistance. Primary care was established as the first level of the SUS attention. APS proposes to break with the hospital centered model, characterized as main SUS gateway, articulated with other levels of care by reference and counter. In addition, the primary level draws the attention of the staff to the citizen through the bond and co-responsibility of the health-disease process with the community, and the construction of socially valued place for professionals.24

With regard to the professional direction, directing three studies to nurses, other three to doctors and nine have a multiprofessional approach.

Although the care of wounds is mainly performed by nurses, it is not unique to this professional area. Given the importance of proper care for people with venous ulcers, there is a need for the work of a multiprofessional team, which stands out for providing assistance in the extended evaluation to the people, assessment of injuries, conducting healing and necessary referrals, and educational actions for favorable evolution of the healing process and preventing the emergence of ulcers and recurrences.28

Regarding the presentation and flowchart tool, seven bring in addition to the textual part, flowcharts of service and choice of topical conduct and monitoring tool.

A formulated protocol and flowchart are important to meet people’s needs assistance with venous ulcers, because they facilitate the care and treatment and understanding by patients. Thus, they become indispensable for directing actions.29
Table 3 - Distribution of studies regarding the aspects of a person’s approach with venous ulcer and quality of life. Natal/RN, Brazil, 2013

<table>
<thead>
<tr>
<th>Identification</th>
<th>Aspects of the person approach with uv</th>
<th>VQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Dressings, topical antibiotics, debridement, compression therapy, cell therapy, surgery infection treatment, early recognition and regular monitoring with photography and planimetry.</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>65 recommendations involving: patient assessment, diagnostic evaluation, pain, venous ulcers care, infection, compression therapy and care compression therapy, complementary therapies (hyperbaric oxygen therapy, ultrasound), reevaluation, relapse prevention, educational recommendations for patients, families and professionals.</td>
<td>Yes, bringing the SF-36 or 12 to evaluate it</td>
</tr>
<tr>
<td>10</td>
<td>Definition, diagnosis and evaluation of patient injury, systemic and topical treatment, relapse prevention, referral criteria.</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>Preparation of a guideline on topical therapy. However, its policy consisted of wound and surrounding skin care, covering indication, antibiotic use, improve venous return and prevention of relapse forwarding and professional training.</td>
<td>No</td>
</tr>
<tr>
<td>12</td>
<td>Focus in the diagnosis of wounds generally.</td>
<td>No</td>
</tr>
<tr>
<td>13</td>
<td>It addresses the very general way of wound covering UV only with regard to the types of ulcers.</td>
<td>No</td>
</tr>
<tr>
<td>14</td>
<td>Epidemiology, pathophysiology, clinical CEP classification, differential diagnosis, drug therapy, compression therapy, sclerotherapy, surgery, prevention.</td>
<td>No</td>
</tr>
<tr>
<td>15</td>
<td>Addresses the patient record, the assessment of injury and topical conduct suggestions.</td>
<td>No</td>
</tr>
<tr>
<td>16</td>
<td>Patient assessment and injury, compression therapy, pain, care with venous ulcer (debridement, cleaning and coverage) skin sensitivity, drug treatment, ultrasound use, clinical and educational strategies to prevent recurrence, professional training, no conclusive evidence regarding the use of negative pressure, grafts, low intensity laser, electromagnetic therapy.</td>
<td>No</td>
</tr>
<tr>
<td>17</td>
<td>Patient assessment and injury, re-evaluation, referral, exercises, relapse prevention (surgery and compression), treatment (coverage, compression, pain).</td>
<td>No</td>
</tr>
<tr>
<td>18</td>
<td>Patient assessment and injury, physical examination, differential diagnosis, monitoring of the lesion recurrence prevention, compression therapy, site care of the wound (cleaning, debridement, covers), other therapies (electrical stimulation, ultrasound, radiofrequency), drug treatment, surgery, pain management and patient education (compression, elevation and ambulation to prevent recurrence).</td>
<td>It is concerned with the VQ. Does not present assessment tool.</td>
</tr>
<tr>
<td>19</td>
<td>It discusses the differential diagnosis of venous and arterial ulcers. Mentions the treatment of UV regarding the daily rest lifting members, compression therapy and avoid orthostatic position. Provides general guidelines for wound care with a focus on cleaning technique and coverage.</td>
<td>No</td>
</tr>
<tr>
<td>20</td>
<td>Patient assessment and injury, registration and documentation, care of the wound and surrounding skin, covering indication, antibiotic use and treatment of pain, surgical treatment of CVI, drug treatment, improving venous return and prevention of recurrence, routing patient, professional and reference and counter.</td>
<td>No</td>
</tr>
<tr>
<td>21</td>
<td>Patient assessment and injury prevention of ulcer and recurrence monitoring of injury, debridement, pain management, coverage, drug treatment, compression therapy, surgery, exercise, limb elevation, patient education.</td>
<td>No</td>
</tr>
<tr>
<td>22</td>
<td>It discusses the differential diagnosis of venous and arterial ulcers and use of compression stockings. Discusses general guidelines for cleaning wounds as technique and dressing.</td>
<td>No</td>
</tr>
</tbody>
</table>

Most studies9,11,15-20 converge with regard to the assessment of patient and lesion through a complete history and physical examination, whenever possible, preferably in the first consultation.

However, regarding the treatment, some differences are observed. In a study(8), among the 65 recommendations made, it reinforces the importance of the use of ultrasound in the care of venous ulcers, but other authors16 say there is no scientific benefit to prove the effectiveness of this therapy.

In addition, some items highlighted in studies8,16,18 as skin graft, hyperbaric oxygen therapy, electromagnetic therapy, pneumatic compression, laser therapy and infrared, negative pressure, ultrasound and nutritional intervention are not recommended by other guidelines17 because of lack of scientific evidence.

Another important item is the excessive focus on topical therapy, dressings use and costs, which some studies address,13,15,19,22 can divert in the main focus, which is the individual. In addition to the factors relating to injury and topical treatments,
the chronic wound healing process can be influenced by personal, health, psychological, emotional, economic, social and political aspects, including the individual as a holistic being with diverse needs.30-32

Regarding the importance of quality of life, only two studies9,18 have focused on this aspect in its guidelines, both in the USA. In protocols/guidelines of other countries were not identified aspects that addressed quality of life. The appreciation of the concept of quality of life reflects a growing concern with the patient, which is viewed holistically. The goal of treatment is no longer focus solely on healing and becomes the reintegration of patients with maximum conditions for a normal life, with quality and health.33-34

The development of protocols lacks clearly articulated objectives, coherent structures, reliable mechanisms for evaluation, implementation and development of such guidelines in order to meet the needs of good quality health care that is more cost-effective. In that, despite the importance of a protocol directed to assistance to people with venous ulcers in primary care is justified by the specific characteristics of this one injury.

In this sense, based on this integrative literature review, the following schematic model with the categories related to the structuring of care protocol to people with venous ulcers treated at primary care is proposed. (Figure 2):

**Figure 2** - Schematic model of protocol proposition categories for people with venous ulcers treated at primary care

**CONCLUSION**

Some aspects are widely discussed and converged recommendations. Other dimensions are addressed less frequently and should be taken into account if the professionals have presupposed the holistic approach to people with venous ulcers.

Thus, it should be emphasized that the categories of protocol composition for people with venous ulcer treated in primary care should involve sociodemographic data, anamnesis, risk factors, tests, vital signs/infection/lesion location/edema, characteristics and are of the lesion and perilesional area, medications, pain, general care and compressive therapy, prevention and referral/counter-referral.

It is also relevant to elucidate that the adoption of a care protocol for people with venous ulcers is a valuable resource for professionals who aim to provide users with standardized and systematized care. In this sense, the results found may support the construction of protocol for people with venous ulcer supported in the aspects of the literature.
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