Original Article

Description of feeding pathways in palliative care: an integrative literature review

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Abstract

Introduction: The increase in chronic diseases is considered one of the consequences of increased life expectancy. Regarding this, not only neurocognitive diseases, as well as all the consequences of pathologies that generate life-limiting disabilities, require a palliative approach.

Objective: To describe the main feeding routes used in patients undergoing palliative care during the course of the disease, such as in the terminal phase of life.

Methods: This is an integrative literature review, in the databases of the VHL (Virtual Health Library), which is a tertiary source database, containing other databases such as MEDLINE, LILACS, IBECs, etc. Two search strategies were used using selected descriptors in DECS – Descriptors in Health Sciences, namely: (1) “Palliative care” OR “Palliative care at the end of life” AND “Feeding methods”; (2) “Palliative care” OR “Palliative care at the end of life” AND “Nutrition”.

Results: Although the articles show that the choice of feeding route is something that should provide comfort to the patient, many articles discuss the choice of not feeding, that is, when the patient is terminally ill, choose not to use invasive routes.

Conclusion: It was observed that the division between the parenteral/enteral and oral routes was shown to be equal among the articles, that is, the choice of the best way of feeding patients in palliative care will depend on their pathology, on the degree of the disease, the palliative care phase, the choice of the patient and family members, and especially the prognosis.

Keywords: Palliative Care. Palliative Care at the End of Life. Nutrition. Feeding methods.
**INTRODUCTION**

Palliative care (PC) is an approach that aims to treat the patient in a humanized way and with attention centered on the subject, not just the pathology. As the disease progresses, the proportion of palliative care approaches increases while curative methods decrease, demonstrating the role in alleviating symptoms and providing quality of life for the patient and family (1,2).

Life expectancy following the diagnosis of threatening diseases presents considerable variation between individuals, making it difficult to measure time. The terminality process is commonly cited as corresponding to the period of less than six months of life. As the disease progresses, invasive treatments are avoided through proportional care, aiming to reduce the suffering experienced by the patient in a palliative approach (3,4).

Seeking to avoid the suffering caused by invasive feeding measures in these patients, the choice of feeding route must align treatment with the goals of the patient and their family, thus aiming to control symptoms, comfort and guarantee quality of life. Therefore, the oral route will always be preferable as it is physiological and meets the patient’s subjective needs in relation to food. However, if it is impossible to maintain it, the healthcare team may choose to adopt non-physiological routes, the enteral or parenteral route (5,6).

Such routes make it possible to offer food in an alternative way. Enteral nutrition is administered through devices with probes positioned in the digestive tract. When the gastrointestinal tract does not function properly, parenteral nutrition becomes an option, which consists of replacing nutrients intravenously (7).

It is known that nutrition is fundamental for maintaining life, preventing and treating diseases, however, the act of eating is not limited to these factors alone, it is also involved in the construction of affective memories, social interactions, religious and cultural habits, and an important social role for patients and their families. Thus, it is hypothesized that there is a greater prevalence of articles that address the oral route as a choice in patients undergoing palliative approaches.

Thus, this research is justified by the importance of dissecting the main feeding routes described in the literature for patients undergoing a palliative approach, helping professionals choose nutritional therapy that respects dignity and the principles of beneficence and non-maleficence.

The study aims to describe the main feeding routes used in patients receiving palliative care during the course of the disease, such as at the end of life.

**METHODS**

This is an integrative literature review, through the following steps: elaboration of the guiding question; application of inclusion and exclusion criteria, evaluation of data found, discussion, critical analysis and results. The first stage was the elaboration of the guiding question: What is the most appropriate feeding route in palliative care?

In the second phase, a search was carried out in the literature, in the VHL (Virtual Health Library) databases, which is a tertiary source database, containing other databases such as MEDLINE, LILACS, IBECS, etc. Two search strategies using descriptors selected in DECS – Health Sciences Descriptors, namely: (1) “Palliative Care” OR “Palliative Care at the End of Life” AND “Feeding Methods”; (2) “Palliative Care” OR “Palliative Care at the End of Life” AND “Nutrition”.

The inclusion criteria were: articles in Portuguese/English and online access to the full abstract. Theses, dissertations, course conclusion works and letters to the editor were excluded.

For more in-depth analysis and synthesis of the material, exploratory reading (reading of the material), selective reading (focused on the description to select the material) and critical and reflective reading (searching for the main scales used in the prevention, evaluation and treatment of pressure injuries) were carried out, where 10 articles were found that met the research objective.

**RESULTS**

Initially, 78 studies were found in the VHL, with articles from MEDLINE, LILACS and IBECS. In the title selection process, 45 studies were selected, where, later, when reading abstracts, only 13 were selected for full reading. After applying the criteria and carefully evaluating the manuscripts, 10 articles were selected for final analysis and 07 remained in the study analysis, as shown in the figure below (Figure 1).

It is observed that 43% of the studies were published between 2004 and 2009 and 57% between 2018 and 2020. 43% of the articles were found in the MEDLINE database, 29% in LILACS and 29% in IBECS (table 1).

Table 2 shows that the routes cited were 71% between enteral and parenteral and 29% oral. However, although the articles show that the choice of feeding route is something that should provide comfort to the patient, many articles discuss the choice of not feeding, that is, when the patient is terminally ill, choosing not to use invasive routes (table two).

**Table 1:** Characterization of articles regarding year, type of study and database.

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Kind of study</th>
<th>Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbarro et al (8)</td>
<td>2004</td>
<td>Cross-sectional study</td>
<td>IBECS</td>
</tr>
<tr>
<td>Reiriz et al (9)</td>
<td>2008</td>
<td>Revision</td>
<td>LILACS</td>
</tr>
<tr>
<td>Shahmoradi et al (10)</td>
<td>2009</td>
<td>Cross-sectional study</td>
<td>MEDLINE</td>
</tr>
<tr>
<td>Palhares et al (11)</td>
<td>2018</td>
<td>Revision</td>
<td>LILACS</td>
</tr>
<tr>
<td>Pey-rong et al (12)</td>
<td>2019</td>
<td>Cross-sectional study</td>
<td>MEDLINE</td>
</tr>
<tr>
<td>Fletcher et al (13)</td>
<td>2019</td>
<td>Cohort study</td>
<td>MEDLINE</td>
</tr>
<tr>
<td>Piperbeg (14)</td>
<td>2020</td>
<td>Case study</td>
<td>IBECS</td>
</tr>
</tbody>
</table>
Figure 1: Study selection flowchart for analysis of the integrative review.

Table 2: Characterization of articles regarding research objective, main results and reported feeding route.

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>goal</th>
<th>Main results</th>
<th>Reported route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbarro et al</td>
<td>2004</td>
<td>Describe the evaluation of a home parenteral nutrition program in terminal cancer patients</td>
<td>Malnutrition in terminally ill patients will certainly contribute to their death. However, one cannot expect too much from parenteral diets as, for some patients, it may be a worse solution. Consequently, it is essential to refine the indications as much as possible. One of the fundamental steps is to involve the patient in decision-making.</td>
<td>Parenteral</td>
</tr>
<tr>
<td>Reiriz et al</td>
<td>2008</td>
<td>Reflect on the existence of benefits in nutrition for terminally ill patients</td>
<td>Because there is no scientific evidence for the decision whether or not to feed the patient and because there is important cultural influence regarding food, the decision to nourish the patient until death must be multidisciplinary and have the written consent of the family if the patient does not able to decide. If the patient chooses not to receive nutrition, their decision must be respected and accepted by health professionals and their family members, as above all scientific evidence is the patient's autonomy as well as the principles of non-maleficence and beneficence.</td>
<td>Orally</td>
</tr>
</tbody>
</table>
Continuation - Table 2: Characterization of articles regarding research objective, main results and reported feeding route.

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Goal</th>
<th>Main results</th>
<th>Reported route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shahmoradi et al (10)</td>
<td>2009</td>
<td>To evaluate the association between global quality of life and its various subscales with nutritional status in patients with advanced cancer treated at selected hospitals in Peninsular Malaysia.</td>
<td>Advanced cancer patients with poor nutritional status have a diminished quality of life. These findings suggest that there is a need for a comprehensive nutritional intervention to improve nutritional status and quality of life in terminally ill cancer patients receiving palliative care.</td>
<td>Assess the need for enteral or parenteral</td>
</tr>
<tr>
<td>Palhares et al (11)</td>
<td>2018</td>
<td>Conceptualize whether the suspension of enteral nutritional support in patients in a persistent comatose state is a practice of therapeutic limitation or a method of euthanasia.</td>
<td>The programmed and intentional suspension of artificial nutrition for patients in a persistent comatose state is a form of euthanasia and should not be considered a therapeutic limitation.</td>
<td>Enteral</td>
</tr>
<tr>
<td>ey-rong et al (12)</td>
<td>2019</td>
<td>To assess hospital staff's perceptions regarding reducing tube feeding for patients with advanced dementia.</td>
<td>More than half of respondents (57%) agreed that tube feeding is the best choice for advanced dementia with dysphagia. Only 35.1% of respondents believe they are capable of implementing comfort eating.</td>
<td>Enteral</td>
</tr>
<tr>
<td>Fletcher et al (13)</td>
<td>2019</td>
<td>Evaluate the use of home parenteral nutrition during palliative care.</td>
<td>Overall, palliative parenteral nutrition offered little benefit, with only two patients surviving 2 months. Evaluations of similar services have demonstrated longer survival, particularly in gynecological cancers.</td>
<td>Parenteral</td>
</tr>
<tr>
<td>Piperbeg (14)</td>
<td>2020</td>
<td>To analyze the case of a patient in a vegetative state who, following his family's request to withdraw artificial nutrition, presented himself to the Health Ethics Committee of the Vall d'Hebron University Hospital, Barcelona.</td>
<td>A deliberative and collaborative model between those involved, on the one hand, promotes continuous monitoring and dialogue with health professionals; on the other hand, it allows responsibility for the decision to be shared, respecting the patient's previous wishes and the family's wishes (their reasons, beliefs and possibilities), as well as the opinions of health professionals; and, finally, it allows including both aspects, interpersonal relationships and a given situation, as essential for decision making.</td>
<td>Orally</td>
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DISCUSSION

The main premise of palliative care is promoting the patient’s quality of life and this leads to an ethical dilemma surrounding the concepts of euthanasia, orthothanasia and dysthanasia, especially with regard to the appropriate choice of feeding route.

Some articles mention the choice of not feeding when the patient is at the end of his life, a controversial process, which can shorten the patient’s life and which, in these conditions, is considered euthanasia (15).

It is also proven that in countries where this practice is permitted, patients and family members who chose to voluntarily stop eating and drinking early had results associated with an increase in health problems, lower quality of life and shortening the patient’s death (16).

These facts show that the feeding route must be promoted, however, the choice of this, as well as the best indication for the patient’s condition in palliative care, must be observed in their individuality and observation of each person’s processes (14).

In 2010, it was defined by the American Society for Parenteral & Enteral Nutrition (ASPEN), through the ASPEN Ethics Position Paper Task Force, that the artificial feeding route in patients who are at the end of their lives, as well as any other type of therapy, must be constantly reevaluated with a focus on quality of life, comfort, symptom management and mainly avoiding dysthanasia and promoting orthothanasia. In that same document, it was also specified about the enteral diet and its benefits, where, in many cases, it may not bring improvements to the condition, which in turn, invalidates its use, requiring specificity in the work of professional nutritionists, nutritionists and speech therapists (17).

Studies demonstrate that the use of artificial feeding in patients at the end of the disease does not prolong life expectancy, does not generate considerable impacts on nutritional aspects and may even increase cases of bronchoaspiration, mainly due to the patient’s physiology, not allowing the reception of large diet volumes (18,19).

Another factor to be considered is the physiological process of dying, as, at this point in life, food intake is generally reduced, resulting in a reduction deficit in body fluids, in addition to fragility in their metabolism, which consequently reduces awareness of patients and also generates a reduction in states of thirst and hunger, and therefore, in this sense, artificial nutrition may not have positive impacts, but rather negative ones (20).

Therefore, one of the studies selected in this review stands out, which talks about a patient in a vegetative state, who, after his family’s decision, had artificial nutrition withdrawn, which is the target of further research. The study highlights the importance of choosing the oral route at this time and the benefits and comforts that were brought to the patient and family, who report that they had a comfortable death process, highlighting the importance of a deliberative model where the decision is shared between family and professionals, considering not only the current wishes of the family, but also of the patient himself prior to the terminal state of life (14).

Studies also corroborate this result (9,20), highlighting that there is no scientific evidence that patients with a terminal disease require artificial feeding and that its frequent prescription, especially in Brazilian hospitals, may be associated with a cultural factor which is linked to a hospital-centric and biomedical health model. Research also guarantees that the patient’s decision not to opt for an artificial route must be respected, mainly guaranteeing the principles of autonomy, non-maleficence and beneficence.

Another highlighted point concerns parenteral nutrition, which, despite having beneficial effects, in patients with terminal physiological conditions, injected solutions can aggravate the condition and further shorten their death (8). It is also possible that parenteral nutrition in the palliative approach offers little benefit, as identified in a study that sought to evaluate the use of this artificial route at home (13).

Finally, in a study carried out seeking to analyze the perception of hospital employees in relation to reducing tube feeding for patients with advanced dementia, it was noted that more than half agree that tube feeding is better in these cases and only 35, 1% believe that they should invest in oral feeding, as they feel empowered to make such a choice (12). This result shows that one of the main problems in choosing the route that will bring better comfort to the patient is linked to the lack of knowledge of these professionals, who do not have adequate training for the management that would enable them to evolve from a more invasive route to the oral route (9).

In this sense, it is evident that there is a need for better preparation of professionals to work in palliative care, especially with regard to the social, psychological and physiological individuality of each patient, considering the aspects that involve their decisions, respecting the principle of autonomy, together with the necessary scientific evidence and family support. Therefore, it is not always appropriate to promote nutrition, but rather how this nutrition will be promoted, because as noted, in many cases the infusion of large liquids can hinder and shorten the death process or promote dysthanasia, instead of helping.

Emphasis should be placed on promoting orthothanasia, generating comfort and providing quality of life for patients and their families.

CONCLUSION

It was observed that the division between the parenteral/enteral and oral routes proved to be equal between the articles, that is, the choice of the best way of feeding the patient in palliative care will depend on their pathology, the degree of the disease, the phase of palliative care, the choice of the patient and family and especially the prognosis.
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15. Quill TE. Voluntary stopping of eating and drinking (VSED), physician-assisted death (PAD), or neither in the last stage of life? Both should be available as a last resort. Ann Fam Med [Internet]. 2015;13(5):408–9. Available from: https://dx.doi.org/10.1370/afm.1850


18. Mitchell SL. Care of patients with advanced dementia. Up to date Alphen aan den Rijn, Netherlands Wolters Kluwer, Up to Date Inc. 2019;

Introdução: O aumento de doenças crônicas é considerado uma das consequências do aumento da expectativa de vida. Concernente a isso, não só as doenças neurocognitivas, como todas as consequências de patologias que geram incapacidades limitantes ao percurso da vida, requerem uma abordagem paliativa.

Objetivo: Descrever as principais vias de alimentação utilizadas em pacientes em cuidados paliativos no percurso da doença, como na fase de terminalidade da vida.

Método: Trata-se de uma revisão integrativa de literatura, nas bases de dados da BVS (Biblioteca Virtual em Saúde), que trata-se de uma base de fonte terciária, contendo outras bases como MEDLINE, LILACS, IBECS e etc. Foram utilizadas duas estratégias de busca através de descritores selecionados no DECS – Descritores em Ciências da Saúde, a saber: (1) “Cuidados Paliativos” OR “Cuidados Paliativos na Terminalidade de Vida” AND “Métodos de alimentação”; (2) “Cuidados Paliativos” OR “Cuidados Paliativos na Terminalidade de Vida” AND “Nutrição”.

Resultados: Embora os artigos mostrem que a escolha da via de alimentação seja algo que deva promover conforto ao paciente, muitos artigos discutem a escolha da não alimentação, ou seja, quando o paciente está em terminalidade, optar por não utilizar de vias invasivas.

Conclusão: Observou-se que a divisão entre as vias parenteral/enteral e via oral se demonstrou igualitária entre os artigos, ou seja, a escolha da melhor forma de alimentação ao paciente em cuidado paliativo irá depender da sua patologia, do grau da doença, da fase de cuidados paliativos, da escolha do paciente e dos familiares e principalmente do prognóstico.


20. Danis M. Stopping nutrition and hydration at the end of life. Waltham, MA UpToDate. 2013;