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Strategies for the prevention of pressure ulcers in oncological patients in home palliative care: a systematic review.

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Abstract

Introduction: Pressure ulcers (PUs) are common in patients with advanced cancer in home palliative care and are characterized by immobility, cachexia, and reduced tissue perfusion. They cause pain and infections, decrease quality of life, and increase mortality, which is an ethical challenge between prevention and comfort at the end of life. The objective of the present study was to synthesize recent evidence (2015–2025) on PUs prevention strategies in oncological patients in home palliative care and identify effective interventions, barriers, and knowledge gaps.

Materials and methods: This was a qualitative systematic review without meta-analysis, following the PRISMA guidelines. Biomedical databases were consulted, and 21 sources and 9 complementary references (quantitative, qualitative studies, reviews, and guides) were included.

Results: The most relevant strategies included the active participation of family caregivers through education programs, rigorous skin care and hygiene, the use of special surfaces and adapted postural changes, and the prevention of injuries associated with medical devices. Specific evidence in the palliative population remains limited, with a predominance of observational studies and expert consensus.

Conclusion: Preventing PUs in home palliative care requires a comprehensive approach that focuses on the patient and their caregiver. Evidence-based interventions, education, adapted mobilization, and technological support can reduce the incidence and mitigate suffering, always respecting the wishes and comfort of the terminally ill patient.

Keywords: Home palliative care; Pressure ulcers; Prevention; Advanced cancer; Caregivers.

Introduction

Pressure ulcers (PUs) are skin and tissue lesions caused by prolonged pressure and are frequent in oncological patients in home palliative care. Its prevalence in this environment is approximately 13% [1]. In hospital palliative care units, the prevalence is approximately 40%, which is associated with prolonged stays and a lower probability of home discharge [2]. European and Asian studies report a prevalence of up to 15% in home care, which is related to the dependence and frailty of the patient [3]. These lesions deteriorate the quality of life of terminal patients by causing pain, infections, and discomfort, which often reflects the severity of the underlying disease.

Although the main goal of palliative care is to improve quality of life rather than prolong it, several studies have shown that early integration can even increase survival and confer multiple clinical and emotional benefits [4].

The prevention of pressure ulcers in palliative care involves an ethical dilemma: avoiding damage and preserving the patient's dignity, while recognizing that, in the terminal phase, some injuries are inevitable due to cutaneous failure associated with extreme fragility [5]. The SCALE concept (skin changes at life's end) describes the inevitable skin changes at the end of life, when multiorgan failure prevents complete healing; therefore, palliative guidelines prioritize preventing new injuries, stabilizing existing ones, and relieving symptoms to preserve comfort [6]. Palliative care seeks to "prevent the preventable and alleviate the inevitable", balancing preventive measures with tolerance and patient comfort.

In oncological patients, pressure ulcers present clinical and ethical challenges, since cachexia, fragility, and functional limitations make them especially vulnerable; even with strict preventive measures, some injuries are inevitable, so care should focus on relieving pain and maintaining dignity at the end of life [2].

Preventing pressure ulcers (PUs) is a clinical priority and a quality requirement in oncological care. The ASCO guidelines require early integration of palliative care, with emphasis on symptom management and support for family caregivers [7].

In the home environment, the prevention of pressure ulcers primarily falls to family caregivers, with periodic professional support [8]. Training improves their skills and reduces the incidence of UP, although barriers such as overload and ignorance of early signs persist [9]. A trained primary caregiver decreases the risk of ulcers, whereas the lack of training or rotation of caregivers increases it [10]. It is essential to offer continuing education and to adapt recommendations to each family, since gaps persist in knowledge of mobilization, skin care, and device use; for example, home caregivers in India have shown little preventive knowledge [11].

Evidence on the prevention of pressure ulcers in home palliative care is scarce and is based on consensus; thus, an updated synthesis is necessary to guide clinical practice.

The present systematic review (without quantitative meta-analysis) aimed to collect and analyze the available evidence (2015–2025) on PUs prevention strategies in oncological patients in home palliative care. We sought to identify effective interventions in this context, including the role of caregivers, management of medical devices, educational interventions, and risk prediction

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models, and to discuss the applicability of these strategies, their implementation barriers, and gaps in research. existing research. This review emphasizes a humanized and patient-centered approach, balancing injury prevention with the priority of comfort and dignity at the end of life.

Materials and methods

Study design

This study is a systematic review. In accordance with the PRISMA 2020 guide, the study was registered in PROSPERO (CRD420251103678). https://www.crd.York.ac.uk/PROSPERO/view/CRD420251103678

Scenario

The present study was carried out at the Faculty of Medical Sciences of the Universidad Iberoamericana del Ecuador. The study period was from August 1, 2025, to October 12, 2025.

Research question

What is the effectiveness of prevention strategies (mobilization, skin care, special surfaces, nutritional support, and education) compared with usual care to reduce the incidence of pressure ulcers and improve the quality of life in adults with advanced cancer who receive home palliative care?

The following research question was formulated under the PICO scheme:

- Population (P): adults (≥ 18 years) with advanced cancer in home palliative care.
- Intervention (I): prevention strategies for pressure ulcers (repositioning and mobilization, skin care, use of special surfaces, nutritional support, caregiver education, protection against medical devices, and application of risk scales).
- Comparator (C): usual care or other preventive interventions, when described.
- Outcomes (O): incidence of pressure ulcers, quality of life, skin integrity, caregiver skills, and adherence to preventive measures.

Eligibility criteria

Inclusion criteria:

- Type of studies: observational studies (cohort, case–control, cross-sectional studies), quasiexperimental studies and randomized clinical trials.
- Language: Spanish and English.

- Population: Adult patients who were diagnosed with advanced-stage cancer and who received palliative care at home.
- Interventions: UP prevention strategies applied at home, including educational measures, positioning techniques, the use of special surfaces, nutritional interventions and skin care.
- Dates: Articles published from January 2015 to August 2025.

Exclusion criteria:

- Duplicate articles or those without access to the full text.
- Studies focused exclusively on hospital settings or on nononcology populations.
- Narrative reviews, editorials, expert opinions, and letters to the editor.
- Studies with a pediatric population or without a focus on palliative care.

Search strategy

The search was carried out in PubMed/MEDLINE, Scopus, Web of Science, CINAHL, LILACS and SciELO, covering the period from January 10, 2015, to August 15, 2025 (last update: August 31, 2025).

MeSH and DeCS descriptors combined with Boolean operators were used, including the terms "pressure injuries", "palliative care", "home care", and "oncology". The results were limited to English or Spanish and studies with adult populations in home palliative care. In addition, references and secondary literature were reviewed through snowball sampling.

Selection of studies

Two independent reviewers screened the titles, abstracts, and full texts; discrepancies were resolved by consensus or by a third reviewer. Bibliographic management was carried out with Zotero, eliminating duplicates based on DOI, title, and author matches. The discrimination process was documented using a PRISMA 2020 flowchart.

Data collection and extraction

A standardized form was designed to collect information from each study, including the author, year, country, design, population, characteristics of the preventive intervention, comparators (if applicable), main results, limitations, and the authors' conclusions.

Evaluation of methodological quality

The risk of bias was analyzed with specific tools: RoB 2 for clinical trials, ROBINS-I or JBI for observational studies, CASP for qualitative studies, and AMSTAR-2 for systematic reviews. The overall quality of the evidence was assessed using the GRADE system.

Summary of results

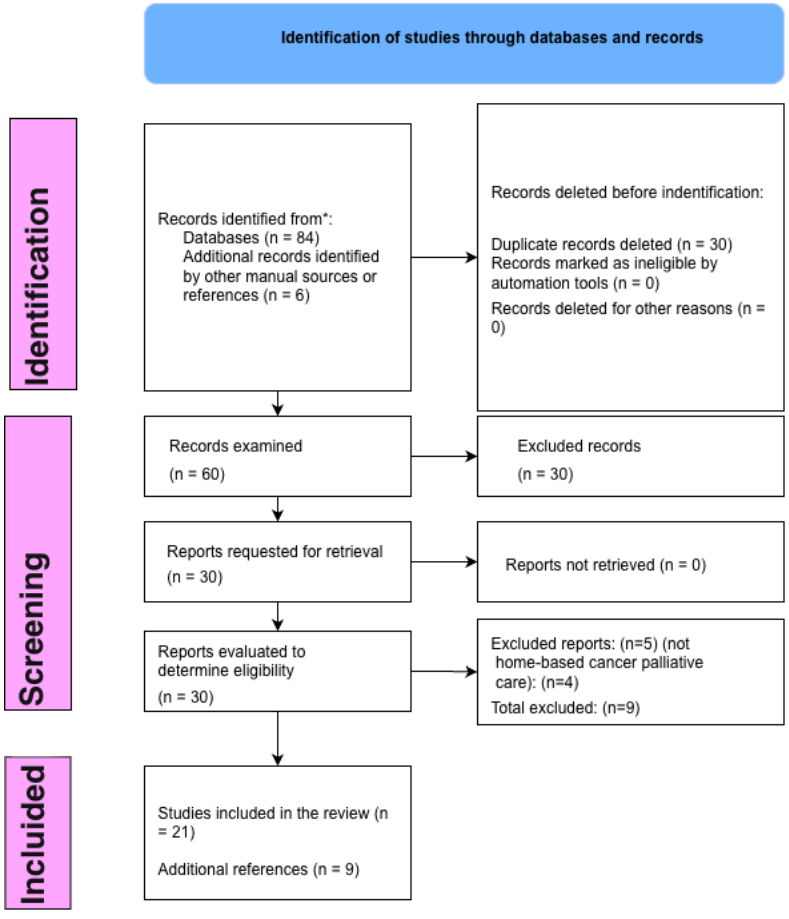
Owing to the heterogeneity of the studies, a narrative synthesis (SWiM) was conducted that grouped the evidence by intervention type (caregiver education, skin care, mobilization, nutrition, and technological support), describing the direction of the effect and the level of certainty. of the evidence.

Results

Participating studies

We included 21 studies and 9 complementary references published between 2015 and 2025, all of which were related to the prevention of pressure ulcers in palliative patients. The designs included prospective cohorts, retrospective studies, clinical trials, case reports, reviews, and clinical practice guidelines on end-of-life care (Figure 1).

Figure 1. PRISMA flowchart of the study identification and selection process.



Characteristics of the studies

The characteristics of the studies are presented in table 1 .

Main results

In a retrospective study by Artico et al. [12], in a home palliative care program for four years, 18.5% of the 669 patients with advanced cancer developed at least one pressure ulcer; only 24% healed completely, while the rest remained stable or worsened. Favorable evolution was observed in patients younger than 70 years with good nutritional status and an adequate body mass index (BMI), whereas the use of continuous deep sedation was associated with rapid deterioration of the lesions.

A study by Kanwal [2] implemented a prevention package for discharged oncological patients to continue palliative care at home. The strategy included the following:

1. Systematic education for family members and caregivers through sessions and brochures.
2. Liaison nurses for continuity and monitoring.
3. Standardized skin care package, with emphasis on hygiene and skin protection.

After its implementation, the monthly incidence of pressure ulcers decreased from 7 to 2 cases on average.

In a cluster-randomized trial conducted across 10 residences, Kwong et al. [13] evaluated a structured prevention program and reported a lower incidence of new pressure ulcers in the intervention group (7.8%) than in the control group (14%) at 16 weeks ($P < 0.01$). On the other hand, Huang et al. [8] found that home-based caregiver training interventions improved knowledge and care practices, thereby reducing lesion progression. In an additional qualitative study, Chen et al. [14] identified training and standardized protocols as facilitators, and limited time and resource scarcity as barriers.

A national cross-sectional study reported a 4.6% prevalence of pressure ulcers, with a higher risk in patients with diabetes, obesity, or reduced mobility [15].

In Japan, Nagano et al. [3] identified three profiles of patients with community-acquired pressure ulcers: (1) functional with partial self-care, (2) with low functionality and limited self-care, and (3) with almost total dependence and a high burden for caregivers.

The majority were conducted in home care or hospice settings, with sample sizes ranging from tens to hundreds of patients. Below, the findings are grouped into four main thematic areas:

Table 1. Studies included in the systematic review.

Author (year)	Design	Population	Intervention/main focus	Main findings (descriptive)
Artico M, et al. (2018), Italia	Retrospective review of records (4 years)	669 patients in home palliative care (advanced cancer)	Evolution of UP at home.	18.5% had UP; 24% healed; worse evolution associated with deep sedation; better in <70 years and with good nutritional status.
Kanwal A, et al. (2022), Pakistán	Quality improvement project (interrupted time series)	Palliative oncological patients with home discharge	Family/staff education, brochure, liaison nurse, skin care	Reduction of the monthly incidence of home LU from ~7 to ~2 cases/month after the intervention.
Huang Y, et al. (2023), China	Quasiexperimental test	Patients with chronic wounds and home caregivers	In-home training program for caregivers	Significant improvement in knowledge and care practices; reduction in lesion progression.
Chen Y, et al. (2025), China	Qualitative study with interviews and observation	17 older patients with initial LU at home and caregivers	Perceptions and practices of home care	They identified hygiene routines, repositioning, feeding, topical medication; difficulties in identifying early damage and lack of professional support.
Raeder K, et al. (2019), Alemania	National cross-sectional study	880 patients treated by 100 home care services	Survey of prevalence of chronic wounds in home care	Prevalence of chronic wounds 11.1%; active LU 4.6%; greater risk in diabetics, obese, patients <65 years and with reduced mobility.
Nagano M, et al. (2025), Japón	Retrospective study with cluster analysis	272 patients hospitalized with community-acquired LU	Classification of risk profiles	Three groups: (1) functional with partial self-care, (2) low/insufficient, (3) total dependence and high burden.
Kwong EWY, et al. (2020), Hong Kong	Cluster randomized clinical trial	1,013 residents ≥ 60 years in 10 geriatric residences	Structured prevention program for UP vs. usual care	New LU: 7.8% in the intervention group vs. 14% in control; significant difference ($p<0.01$).
Trueland J. (2015), Reino Unido	Community initiative report	14 nursing homes in London	Training of personnel, simple measures of early detection	9 nursing homes reached 1 year without PU; 3 exceeded 600 days without cases.
Lavallée JF, et al. (2019), United Kingdom	Qualitative study	Nursing home and home care professionals	Perception of barriers and facilitators in UP prevention	Barriers: lack of time and resources; facilitators: training and protocols.
IJERPH (2019), España	Qualitative study	Home care professionals	Conceptualization of the risk of UP in home care	Perceived risk factors and variability in their recognition were identified.
Corbett Q, et al. (2017), United Kingdom	Qualitative study	Community care professionals	Skin care practices at home	Variability in the application of preventive measures and lack of coherence in protocols.
Dijkstra A, et al. (2015, Netherlands	Cross-sectional study	Patients in home care	UP risk factors at home	Immobility, incontinence and nutritional deficiency identified as main risks.
Joyce L, et al. (2018), Reuno Unido	Cochrane systematic review	Community and home interventions to prevent UP	Comparison of different prevention strategies	Limited evidence; greater support for postural changes and special surfaces.
Gabison S, et al. (2022), Canadá	Technological pilot study	9 patients bedridden at home	Noninvasive sensors under the bed to monitor repositioning	Identification of posture with high precision (F1=0.982); feasible in a real environment.
Irgens I, et al. (2019), Noruega	Mixed study protocol	Patients with spinal cord injury and PU	Telemedicine vs. conventional follow-up	Still without results; evaluates feasibility and will compare evolution of UP.
Kanwal (2022) , Pakistán	Time series in the same study	Palliative patients	Analysis of the monthly incidence of home LU	Abrupt reduction after implementation of the preventive package (graph cited).
Otros (jan.12974, 10-1477402505.pdf)	Contextual reviews/studies	General population/caregivers	General strategies for prevention and home care	They reinforce the role of the caregiver, hygiene, education and use of special surfaces.

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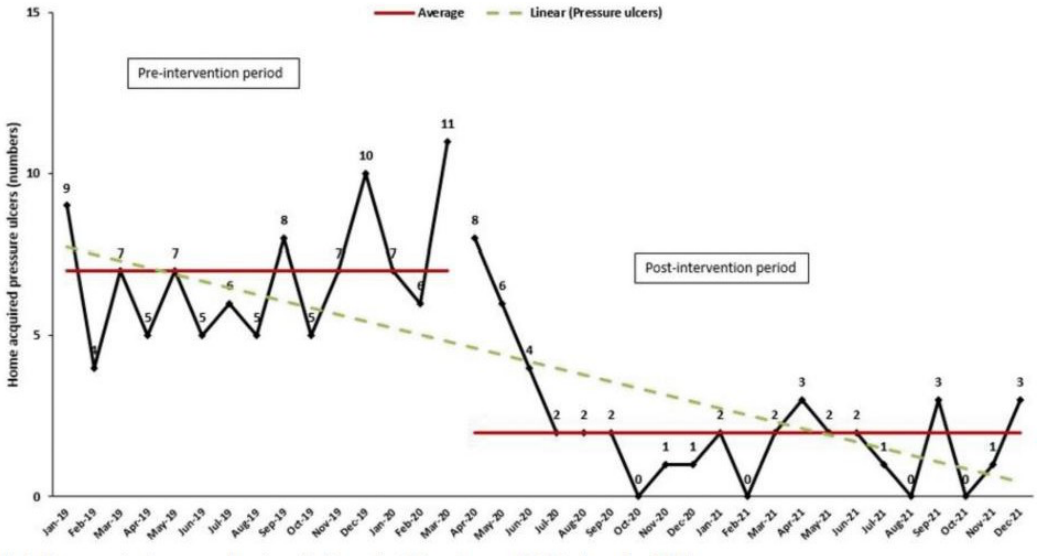
1. **Role of caregivers and educational strategies:** Primary family caregivers play an essential role in the prevention of pressure ulcers in the home environment. [8] Clinical guidelines recommend establishing individualized care plans, developed together with the patient and their caregiver, with realistic goals of prevention and management of injuries [16]. However, several studies have shown that caregivers lack training in mobilization, hygiene, nutrition, and device use, which limits their effectiveness in practice [11].

Nurses play a key role in reducing patients' and families' suffering, yet they face professional and structural barriers that limit their participation in early palliative care [17]. Educational interventions for caregivers have shown positive results: reinforcing family caregiver training, especially when the caregiver is the main spouse, is associated with a lower incidence of pressure ulcers [12]. In contrast, the rotation of multiple caregivers increases the risk because of a lack of coordination [12].

Recent guidelines recommend strengthening caregivers' skills through evidence-based, practical programs, such as the one developed in India in 2023, which included training in skin evaluation, postural changes, hygiene, nutrition, and hydration [11]. These programs, implemented by nurses or through workshops, are low-cost, highly effective, and can improve the quality of home care.

A recent systematic review confirmed that education in wound care for patients and caregivers improves outcomes and reinforces the value of continuing education [8]. In addition, it is recommended to periodically monitor the caregiver's performance and provide educational reinforcement, face-to-face or virtual, to maintain adherence. Finally, education should include clear information about the possibility of unavoidable injuries at the end of life, to avoid feelings of guilt and promote shared decisions aimed at patient comfort [5].

Figure 2. Palliative patients were diagnosed with pressure ulcers at home (January 2019–December 2021).



Source: Kanwal A, Butt AJ, Hafeez H, Nasir KS, Batool S, Munawar M, et al. Reduction of home-acquired pressure ulcers among palliative patients using quality tools and techniques. Lancet Hematol. 2022; 9 (11): e867–e876.

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2. **Skin care and management of medical devices:** A significant proportion of pressure ulcers in palliative patients are related to cutaneous factors and the use of medical devices. Preventive strategies emphasize rigorous skin care, keeping it clean, dry, and hydrated, and paying early attention to any sign of irritation. It is essential to reduce exposure to moisture by using skin protectors, frequently changing absorbent clothing, and properly positioning. Daily inspection of pressure areas by caregivers or nursing staff allows the detection of incipient lesions [8].

In a randomized clinical trial, Kang et al. [18] evaluated the early integration of palliative care and reported improvements in coping skills and self-management, as well as greater survival at 2 years, in those who completed ≥ 10 interventions, which underscores the need for standardized protocols and flexible modalities, such as telemedicine.

Among medical devices, the prevention of pressure injuries associated with appliances (MDRPU) stands out. Cannulas, probes, and masks can exert constant pressure on vulnerable points; thus, the guidelines recommend padding and protecting the contact areas with foam dressings or other soft materials [16]. This aspect is critical in fragile or cachectic oncological patients, in whom skin integrity is compromised. It is advisable to select low-profile devices and soft materials, rotate the support points, and check their placement frequently to relieve pressure [19]. In cases of extreme fragility, the use of less harmful alternative devices or controlled pauses can be considered, while always prioritizing the patient's comfort and safety [5].

3. **Mobilization, postural changes, and pressure relief:** Immobility is a major risk factor for pressure ulcers. In terminal palliative patients, several authors suggest making the traditional repositioning schedule every two hours more flexible and adjusting it to the patient's comfort and clinical condition [20]. The goal is not to stop mobilization but to customize its application, focusing on pain relief and comfort. Palliative ethics highlights avoiding unnecessary suffering, even if that means accepting the possibility of "inevitable" ulcers at the end of life [6]. Communicating with the family about these decisions is vital to maintain trust and understanding.

In a comparative study, a 12-day physiotherapy program significantly reduced fatigue and improved quality of life, as evidenced by the Brief Fatigue Inventory (BFI) [21]. These findings support the use of adapted mobility as a useful therapeutic tool.

Even with the limitations of the terminal state, it is recommended to favor possible mobility through postural microchanges, elevation of the extremities, or careful transfers from the bed to the chair. Protecting bony prominences with soft pads or cushions helps relieve pressure.

The use of special pressure-relief surfaces has broad scientific support [16, 22, 23]. Anti-decubitus mattresses with alternating air, viscoelastic or gel foams, as well as specialized cushions, significantly reduce the incidence of ulcers. The American College of Physicians guidelines recommend offering a specialized dynamic or static mattress to all bedridden patients at risk of ulcers [22]. A Cochrane review confirmed that these supports decrease the incidence compared with standard mattresses [23].

The evidence suggests that effective prevention requires a multifactorial approach: adequate surfaces, caregiver education, and continuous monitoring, which are strategies that have been shown to substantially reduce the incidence of pressure ulcers [24].

4. **Risk assessment and predictive tools:** The early identification of patients at high risk of developing pressure ulcers allows the efficient targeting of preventive resources. In palliative care, scales such as those of Braden or Norton are often used, although their predictive validity is limited in terminal stages, when factors such as cachexia or cutaneous hypoperfusion make some lesions inevitable [5,14].

In patients with advanced cancer, maintaining an adequate nutritional status is essential for preserving function, quality of life, and tolerance to treatment [24]. Precachexia implies weight loss ≤ 5%, cachexia >5%, or a BMI <20, and refractory cachexia is associated with procatabolic disease and a survival of less than three months [25].

To overcome the limitations of traditional scales, some authors have proposed combined models, such as those that combine Braden ≤ 9 with Palliative Performance Scale ≤ 20% to identify extreme risk at home [12]. Others suggest simplified assessments focused on consciousness, mobility, continence, and nutrition, prioritizing dynamic clinical judgment over fixed scores [12,20].

In addition, technological tools, such as mobile applications and noninvasive sensors, that allow monitoring of mobility, ingestion, and skin condition at home and generate alerts for deterioration, are explored. Although its effectiveness in palliative care remains unproven, telemedicine represents a promising alternative for strengthening prevention and remote monitoring [26].

Discussion

This systematic review confirms that pressure ulcers (PUs) are a frequent problem in patients with advanced cancer treated at home, with an incidence that varies between 4.6% and 18.5% depending on the context and characteristics of the patient [12,15]. These findings reinforce that, in the palliative environment, many PUs are clinically unavoidable; thus, the goal of care should focus on comfort and dignity rather than a complete cure.

Shared decision-making in oncological palliative care is complex, but the early, structured integration of this care improves quality of life and effectively addresses patients' existential and functional needs [27,28]. In this context, the implementation of structured preventive programs has yielded positive results. In Pakistan, a multifactorial program combining family education, standardized protocols, and nurse follow-up has reduced the monthly incidence of home LU from 7 to 2 cases [2]. Similarly, a trial in geriatric residences found that a prevention program significantly reduced the incidence of new lesions [13].

Table 1. Main preventive strategies for pressure ulcers identified in oncological patients under home palliative care.

Area or factor	Key preventive interventions
Caregiver education and role	Training of the family caregiver in techniques of mobilization, hygiene and inspection of the skin. Active involvement of the primary caregiver in the daily preventive plan. Communication and continuous support to the caregiver (resolution of doubts, reinforcement of good practices).
Skin care and incontinence	Gentle and frequent skin hygiene, with complete drying. Use of barrier creams in areas exposed to moisture (due to incontinence). Daily hydration of dry skin. Daily visual inspection of bony prominences (sacrum, heels, hips, etc.) to detect incipient redness.
Medical devices	Padding of probes, tubes and masks with soft dressings at contact points (ears, nose, thighs, etc.). Frequent review of the position of catheters, cannulas and tubes to relieve pressure. Alternate the support site of the device when possible. Use advanced design devices (e.g., soft silicone cannulas) that reduce pressure.
Mobilization and postural changes	Reposition the bedridden patient on a regular basis, adapting the frequency to their tolerance and comfort. Incorporate frequent postural microchanges (elevate heels with pillows, change the inclination of the backrest, etc.). Encourage active or assisted movements of the patient whenever possible (moving from bed to chair, short walks with help if their condition permits).
Support surfaces	Systematic use of alternating pressure anti-decubitus mattresses or high-density foam for bedridden patients. Specialized cushions for wheelchairs or seats that distribute the weight and reduce pressure on the sacrum and hips. Ensure availability of these resources (via loan or insurance systems) as soon as the patient is at risk.
Risk assessment	Apply validated scales (Braden, Norton) at admission, complemented with frequent clinical evaluation. Monitor14 changes in the patient's condition (nutrition, mobility, awareness) that increase risk and adjust preventive measures accordingly. Education of family and caregiver on observable risk factors (weight loss, edema, etc.) to reinforce measures in a timely manner.

Family caregivers play an essential role in prevention, although they face limitations in early detection and lack professional support. [9] Strengthening their skills through training and continuous support is essential for improving clinical outcomes [8]. In parallel, the use of emerging technologies, such as pressure sensors and telemedicine platforms, could optimize home monitoring and adherence to preventive measures, although their effectiveness in palliative oncology remains unclear [26,29].

Nonpharmacological interventions, such as graded exercise therapy (GET) and cognitive behavioral therapy (CBT), contribute to both functional and emotional well-being, promoting mobility and reducing fatigue, which are key components of a comprehensive preventive approach [30]. However, the current evidence has methodological limitations: observational or qualitative studies dominate, with small samples and varied designs [2,9,12,13]. Multicenter and controlled research is needed to evaluate outcomes not only related to the incidence or healing of the LU but also concerning the comfort, dignity, and burden of the caregiver.

Overall, the results and evidence reviewed emphasize that preventing pressure ulcers in home palliative care requires a comprehensive approach that centers on the person, caregiver, and environment, combining education, technology, and interdisciplinary support.

Strengths and limitations of the studies reviewed.

The evidence on the prevention of pressure ulcers (PUs) in patients with advanced cancer in home palliative care has several strengths, including its recent publication (2015–2025), the geographical and methodological diversity of the studies, and the inclusion of mixed-method designs. that combines clinical data with patients' and caregivers' perceptions, offering a comprehensive view of the problem.

However, observational and retrospective studies with small sample sizes predominate, which limits the robustness and generalizability of the findings. The few existing clinical trials focus on nononcological populations, and the heterogeneity between designs and interventions prevents comparisons or meta-analyses. In addition, few studies have incorporated patient-centered outcomes, such as comfort or caregiver burden, and evidence on innovative technologies in home oncology remains limited.

Overall, although the studies reviewed provide valuable information, more robust, context-specific research is needed, especially in Ecuador, to design and evaluate educational, technological, and community interventions that strengthen home palliative care.

Recommendations for home palliative care services include the following: • Integrate standardized educational programs for caregivers and health personnel, adapted to the local context and available resources.

- Promotion interventions focused on the patient and the family, prioritizing comfort, dignity, and the reduction of suffering over curative objectives in advanced stages.
- Incorporate support technologies, such as telemedicine and repositioning monitoring systems, which have demonstrated feasibility in other settings but require validation in the oncological population.
- Promote multicentric and controlled research that evaluates not only the incidence of ulcers but also outcomes focused on quality of life, caregiver burden, and patient satisfaction.

Conclusion

This systematic review revealed that pressure ulcers are a frequent problem in patients with advanced cancer in home palliative care, with a prevalence close to 20%. Most lesions do not heal and tend to progress because of clinical fragility and the terminal course of the disease; thus, care should focus on alleviating suffering and preserving dignity rather than achieving complete healing. Structured prevention programs that combine caregiver education, standardized skin care protocols, and continuous professional follow-up have been shown to reduce the incidence of new lesions and improve the quality of home care. The role of the family caregiver is fundamental but requires training, accompaniment, and professional support to overcome the limitations in early detection and daily management. Taken together, the findings highlight the need for a comprehensive, interdisciplinary approach that focuses on the person and their family environment as essential pillars for preventing pressure ulcers in the home palliative context.

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Abbreviations
PICO: population, intervention, comparator, results.
PU: pressure ulcer.

Supplementary information
The supplementary materials have not been provided.

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Authors' contributions
Miguel Molina Idrovo: Conceptualization, data curation, research, methodology, visualization, original drafting.
Marlin Cepeda Pañora: Conceptualization, data curation, research, project management, and drafting of the original draft.
Juan Ernesto Pérez Reyes: Conceptualization, formal analysis, software, validation, visualization, writing - review and editing.
All the authors read and approved the final version of the manuscript.

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Availability of data or materials
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Statements
Approval of the ethics committee and consent to participate
The study was approved by the Bioethics Committee of the Faculty of Medical Sciences of the Universidad Iberoamericana del Ecuador.

Consent for publication
Does not apply when specific images, radiographs or photographs of patients are not published.

Conflicts of interest
The authors declare that they have no conflicts of interest.

Use of generative AI
"The authors declare having used generative AI responsibly in the "Discussion" section, without replacing the critical thinking, experience, and judgment of the authors." AI was used under supervision and control to develop the discussion section. The use of the AI tool maintains the privacy and confidentiality of the data and contributions, including published and unpublished manuscripts, as well as any personally identifiable information. The journal's policies, which allow the use of generative AI only in the introduction and discussion sections, have been complied with.
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The accuracy, integrity and impartiality of all the results generated by AI were carefully reviewed and verified to ensure that the manuscript reflects an authentic and original contribution.

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