

## Understanding Reasons for Unplanned Hospitalization in Specialist Community Palliative Care: A Scoping Review

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### Abstract

A significant number of patients undergoing specialist community palliative care experience emergency department presentations or unplanned hospitalizations. Identifying the underlying drivers of these events is critical for designing person-centered solutions. To determine the underlying causes of unplanned hospitalizations for individuals enrolled in specialist community palliative care services. A scoping review registered with PROSPERO (CRD42024495016) was conducted and reported in accordance with the PRISMA extension for scoping reviews. Academic databases, including Scopus, Embase, PubMed, and CINAHL, were searched for literature published between 2014 and 2025. Screening of titles, abstracts, and full texts, along with data extraction, was conducted by two independent reviewers. Extracted drivers for hospitalization were inductively coded using content analysis to generate a descriptive overview of the data. 13 out of 2482 retrieved studies met the eligibility criteria. Six core categories regarding the reasons for hospitalization emerged: (1) unrelieved symptoms (comprising 16 subcategories), (2) acute events (comprising five subcategories), (3) indicators of clinical deterioration, (4) patient or caregiver distress/exhaustion, (5) misconceptions regarding goals of care, and (6) other/unknown causes. Among the subcategories, the most regularly documented drivers for admission were dyspnoea (n = 11 studies, 85%), pain (n = 9, 69%), gastrointestinal symptoms (n = 9, 69%), and infection (n = 7, 54%). Comparative studies (n = 5) evaluating specialist palliative care compared with standard or absent palliative care demonstrated inconsistent hospitalization outcomes and provided limited statistical detail. Despite differences in data-collection techniques, this scoping review offers valuable insights into hospitalization trends. These findings establish a baseline for developing precise service enhancements that help patients remain at home for longer periods during their final year of life.

**Keywords:** Palliative care, Community health services, Hospitalization, Health services accessibility, Specialist community palliative care, Scoping review

### Introduction

Within high-income nations, specialist community palliative care services are increasingly accessible to support individuals with palliative needs [1-4] in managing complex or treatment-resistant symptoms in domestic environments [5, 6]. At-home palliative care can be provided by primary healthcare professionals, such as general practitioners, staff in residential aged care facilities, and community nursing networks. Conversely, specialist community palliative care entails comprehensive evaluation and proactive management of physical and psychological symptoms, alongside social and spiritual needs, ensuring timely interventions that respect patients' and their families' choices [7]. The global demand for palliative care is projected to grow as populations age [8]. Forecasts indicate a 25% increase in the number of individuals requiring palliative care in the United Kingdom

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(UK) by 2048 [9] and a 50% rise in Australia by 2035, which is expected to double again by 2050 [10]. This expansion requires health services to focus on accessibility, clinical outcomes, and patient/caregiver experiences to construct responsive, flexible systems that accommodate growing demands [9, 10]. Access is broadly conceptualized as the capacity of individuals to receive appropriate medical services that meet their needs [11]. Analyzing unplanned hospitalizations among individuals receiving specialist community palliative care provides a mechanism for assessing access to both specialist palliative care and acute hospital systems.

Recent literature has investigated hospital admission rates among individuals receiving specialist community palliative care, evaluating their consequences for healthcare expenditures and care outcomes [12-14]. Nonetheless, sparse evidence exists regarding the mechanisms underlying unplanned hospital admissions, which is vital for structuring person-centered, community-oriented care frameworks. A scoping review by Longhini *et al.* [15] explored the causes of emergency department (ED) visits among this demographic; however, the diverse nature of the reviewed literature limited the findings primarily to comparisons of service models. Although these insights are helpful, a deeper investigation into why patients under specialist community palliative care still utilize hospital facilities is warranted. Consequently, this scoping review intended to:

1. Identify and categorize the causes of emergency department visits and unplanned hospital admissions ('hospitalizations') among individuals under specialist community palliative care; and
2. Compare the causes of unplanned hospital admission between specialist and non-specialist palliative care groups to evaluate the specific influence of specialist community palliative care on hospital usage.

## Materials and Methods

This scoping review focusing on quantitative literature was structured according to the PRISMA extension for scoping reviews [16]. While initially registered as a mixed-methods systematic review (PROSPERO CRD42024495016), the diverse nature of the quantitative data indicated that a scoping review framework was more appropriate for identifying and mapping the current evidence base [17]. A systematic review covering the qualitative findings will be released independently (Elvidge *et al.*, 2025, under review).

### *Search strategy*

A set of core search terms encompassing home care, palliative care, emergency presentations, and hospital admissions was formulated and calibrated for relevant databases, specifically Scopus, PubMed (employing the CareSearch palliative care filter) [18], Embase, and CINAHL. The initial literature searches were performed on February 8, 2024, and subsequent updates were executed on May 20, 2025. Both forward and backward citation tracking were carried out across both search intervals.

### *Inclusion criteria*

This review considered English-language publications from 2014 onward to capture contemporary evidence, mirroring the substantial expansion of home-based specialist palliative care over the preceding ten years. Eligible papers were peer-reviewed journal articles originating from high-income economies, as designated by the World Bank [19], to ensure comparability of healthcare systems. Selected studies used quantitative data collection involving individuals of any age group with life-limiting illnesses who were enrolled in home-based (including nursing home) specialist community palliative care services, provided that at least 10% of the sample had a documented hospitalization cause.

### *Data extraction and analysis*

Identified studies from the literature search were imported into the Covidence™ reference management platform. Title and abstract screenings were completed by the authors (NE, MR, JLP, KS) to assess initial eligibility. Full-text assessments were performed independently by two reviewers (NE and MR), with any discrepancies settled through collaborative discussion. A third reviewer (JLP) intervened to resolve outstanding disagreements. Data extraction was conducted independently by two reviewers (NE and MR), who resolved variations through dialogue. A standardized data collection form was created to capture study demographics and details corresponding to the research objectives.

The documented reasons for hospitalization in each paper were independently assessed by two experienced specialist palliative care nurses (NE and JLP). An inductive strategy was used, starting with open coding of data within the extraction sheet. Through continuous comparison and collaborative refinement, the preliminary codes were organized into categories and subcategories, in accordance with qualitative content analysis methodologies [20]. To facilitate uniform comparisons across datasets, all documented reasons for hospitalization were standardized as percentages. While certain studies already structured their data in this manner, others required mathematical conversion from raw hospitalization counts. These proportions were then logged into the extraction form and classified under the newly established categories and subcategories. This method permitted the identification of consistently reported reasons, facilitated the ranking of the top three causes within each study,

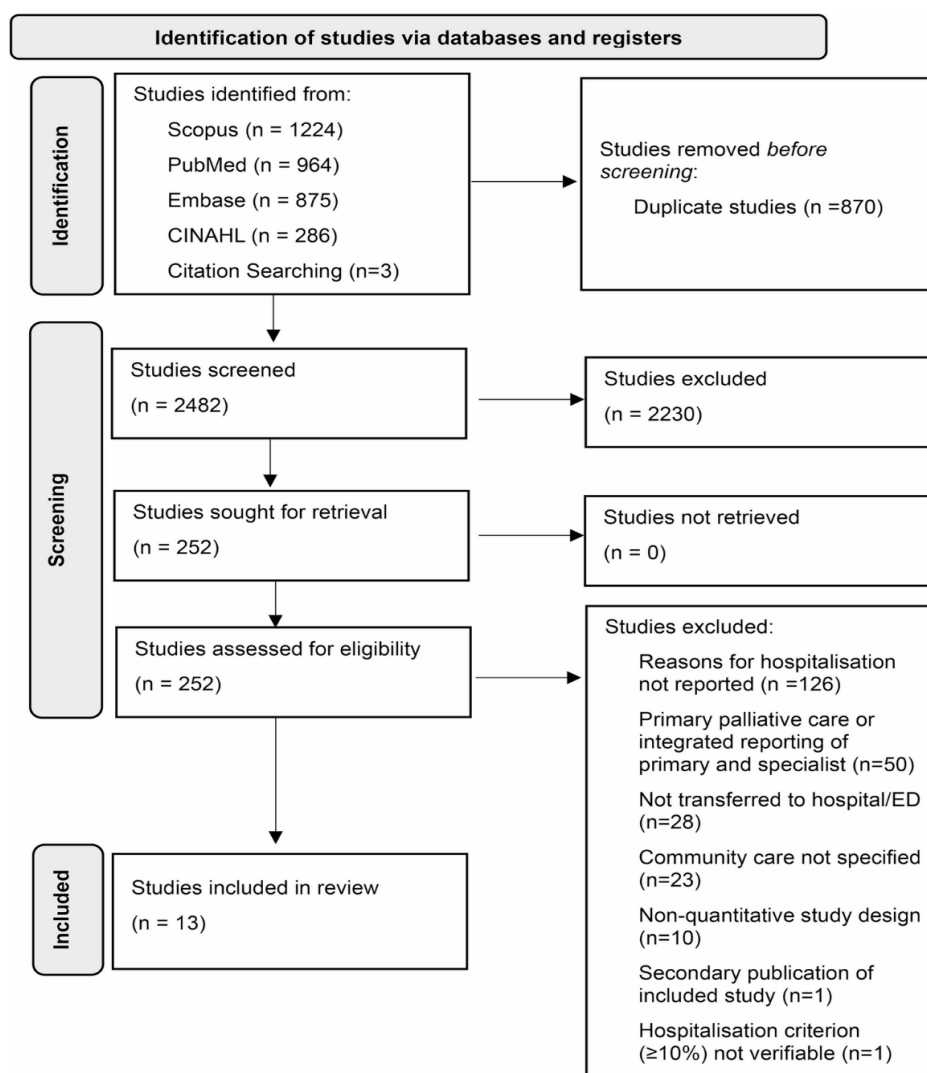
and supported a descriptive synthesis of findings across the literature. The ‘other/unknown’ classification was omitted from the top three internal rankings because its undefined elements do not provide constructive insights for developing targeted care protocols or clinical interventions.

### Quality appraisal

The methodological quality of the selected research was evaluated using the JBI critical appraisal instruments [21, 22]. Two investigators independently assessed each publication, evaluating core attributes and potential sources of bias against the checklist criteria. Discrepancies between the reviewers were resolved through consensus. Rather than assigning a definitive score for inclusion or exclusion, these instruments function to guide investigators during their evaluation process [22, 23].

## Results and Discussion

Out of 3,352 initially imported citations, 870 duplicate records were excluded. Following title and abstract screening, 252 papers underwent full-text assessment, resulting in 13 studies that satisfied all inclusion criteria (**Figure 1**). Each selected study was judged to possess a satisfactory level of quality for inclusion in this review.



**Figure 1.** PRISMA flowchart

The 13 analyzed papers summarized in **Table 1** consisted primarily of observational designs, including cross-sectional [24-30], cohort [31-33], and case-control [34] designs, as well as two randomized controlled trials (RCTs) [35, 36]. The geographic distribution spanned nine high-income countries, with the greatest representation from the United States (US) (n = 3) [25, 30, 32], Australia (n = 2) [27, 33], and Taiwan (n = 2) [31, 34]. The remaining six investigations were conducted across six separate European nations [24, 26, 28, 29, 35, 36]. All projects evaluated adult cohorts; no investigations focused on pediatric populations were found. Malignancy was

the sole diagnosis in six studies [26, 28, 29, 31, 34, 36], whereas one study focused solely on individuals diagnosed with chronic obstructive pulmonary disease (COPD) [35]. The other publications evaluated cohorts presenting with heterogeneous advanced progressive conditions [24, 25, 27, 30, 32, 33].

**Table 1.** Included study characteristics. From: Reasons for unplanned hospitalization in specialist community palliative care: a scoping review

Author, Year/Country/Study design	Sample size and hospital utilization	Participant characteristics	Primary diagnosis	Service model	Operating hours	Service components	Data source	Comparator available
<b>Martins and Pinto (2023), Portugal, Cross-sectional Study</b>	n = 187 (intervention and control group sizes not specified); 11% of the intervention group attended the ED	Adult population; age range from <50 to >80 years; 55% female	Cancer (82%, n = 154); neurological disorders (13%, n = 24); organ-related diseases (5%, n = 9)	Home-linked outpatient specialist palliative care	24/7 availability	Telephone support line	Not explicitly reported; likely based on hospital or service chart review	Yes
<b>DeAngelis and Lowry (2021), United States, Cross-sectional Study</b>	N = 75; 100% experienced hospital admission	Adults; mean age (69.2 years); 61% female	Cancer (46%, n = 35); dementia (15%, n = 11); heart failure (11%, n = 8); respiratory disease (11%, n = 8); other conditions (17%, n = 13)	Specialist home hospice service	Not reported	Not reported	Hospital admission diagnoses	No
<b>Gamblin and Prod'homme (2021), France, Cross-sectional Study</b>	n = 82 admitted patients from a total cohort of N = 142; 58% hospitalized	Adults; age range 26–89 years; median age 62 years; 62% female	Cancer (100%)	Specialist palliative home hospitalization service (French HAD model)	24/7 availability	Planned home visits	Palliative care service records	No
<b>Hsu and Wu (2021), Taiwan, Cohort Study</b>	Control: n = 374; Intervention: n = 388; 440 ED visits among 762 participants	Adults; mean age 69.3 years (control) vs. 72.6 years (intervention); females: 52.5% vs. 46.9%	Lung cancer (n = 48); other cancers (n = 41)	Specialist community-based palliative care	Comparison of 5-day and 7-day services, both with 24/7 support options	Scheduled home visits, telephone support, and caregiver education	Emergency department presenting complaints	Yes
<b>Cao and Johnson (2020), United States, Cohort Study</b>	N = 74 readmissions within a total sample of n = 705; readmission rate 10.5%	Adults; mean age 65.7 years; 61% female	Cancer (49%, n = 36); respiratory disease (5%, n = 12); heart disease (34%, n = 25); kidney disease (3%, n = 2); liver disease (8%, n = 6);	Specialist home hospice care	Not reported	Not reported	Hospital record review	No

			other (1%, n = 1)						
<b>Scheerens and Pype (2020), Belgium, Phase II Randomized Controlled Trial</b>	Control: n = 19; Intervention: n = 20; 46% had hospital admission at baseline, with rates ranging from 10–26% during follow-up assessments	Adults; median age 67 years (control) vs. 67.5 years (intervention); females: 42% vs. 45%	Chronic Obstructive Pulmonary Disease (COPD) (100%)	Specialist community palliative care	Not reported	Scheduled home visits	Hospital admission diagnoses		Yes
<b>Jessop and Fischer (2018), Australia, Cross-sectional Study</b>	N = 88; total of 97 hospital admissions recorded	Adults; mean age 69 years; 41% female	Cancer-related admissions (82%, n = 85); non-malignant conditions (15%, n = 16)	Specialist community palliative care	24/7 availability	Scheduled home visits, telephone support, and emergency home visits	Hospital chart review, multidisciplinary team discussions, and specialist nurse consultation		No
<b>Kao and Liu (2018), Taiwan, Case-Control Study</b>	N = 65; 100% presented to the emergency department	Adults; mean age 73 years; 46% female	Cancer (100%)	Hospice shared-care model delivered in patients' homes	Monday–Friday, 8:00 am–12:00 midnight	Scheduled home visits and telephone support	Hospital chart review		No
<b>Skov Benthien and Nordly (2018), Denmark, Randomized Controlled Trial</b>	Control: n = 160; Intervention: n = 162; 78% of the intervention group experienced hospital admission (n = 127)	Adults; mean age 65 years (control) vs. 66 years (intervention); females: 82% vs. 83%	Cancer (100%)	A combination of specialist community palliative care and specialist home hospice care	Not reported	Home visits and psychological support for both patients and caregivers	Hospital admission diagnoses		Yes
<b>Kaiser and Rudloff (2017), Germany, Cross-sectional Study</b>	N = 24 hospital admissions from a total sample of N = 73; hospitalization rate 33%	Adults; 87.6% aged over 65 years; 44% female	Hematological malignancies (100%)	Specialist community palliative care	Not reported	Scheduled home visits and telephone support	Hospital admission diagnoses		No
<b>Spilsbury and Rosenwax (2017), Australia, Cohort Study</b>	Control: n = 8,050; Intervention: n = 3,825; within the intervention group, 24.9% had 1 admission,	Adults aged > 20 years; predominantly male; female sex associated with HR = 0.96 (95%	Cancer (62%, n = 7,411); heart failure (17%, n = 2,019); renal failure (10%, n = 1,145); COPD (9%, n = 1,094); liver	Specialist community palliative care	24/7 availability	Home visits, telephone support, emergency home visits, respite care, counseling, linkage	Emergency department presenting complaints		Yes

	17.8% had 2 admissions, and 30.2% had $\geq 3$ admissions	CI: 0.93–0.99)	failure (2%, n = 206)				with additional services, and palliative care nurse consultation in nursing homes	
<b>Mercadante and Masedu (2016), Italy, Cross-sectional Study</b>	N = 138 hospital admissions among a total sample of n = 550; admission rate 25%	Adults; mean age 69 years; 40.6% female	Cancer (100%)	Specialist community palliative care	24/7 availability	Scheduled home visits, telephone support, and emergency home visits	Palliative care service chart review	No
<b>Batchelor (2015), United States, Cross-sectional Study</b>	N = 111; 100% presented to the emergency department	Adults; mean age 77 years	Cancer; dementia/frailty; respiratory disease; cardiovascular disease; adult failure to thrive (sample numbers not reported)	Specialist community palliative care	24/7 availability	Scheduled home visits and telephone support	Palliative care service records	No

<sup>a</sup>: Despite a total study population of n = 762, demographic and primary diagnosis data were only available for the n = 89 patients hospitalized for dyspnoea.

<sup>b</sup>: While the percentage of the cohort with a hospitalization was not reported, the total number of admissions was provided. Based on this number, it is assumed that admissions involved > 10% of the cohort

The delivery frameworks were predominantly characterized as specialist community palliative care programs (n = 8) [27-36]. One investigation detailed an outpatient specialist palliative care configuration for home-dwelling individuals [24]. Five publications detailed home hospice (n = 4) [25, 32, 34, 36] or hospital-at-home frameworks (n = 1) [26] equivalent to specialist community palliative care, with variations in naming reflecting distinct regional practices. Continuous 24/7 service availability was reported by seven studies [24, 26, 27, 29-33], restricted operational hours were noted in one project [34], and the remaining papers (n = 5) omitted detailed information regarding operational schedules. Among the papers providing operational descriptions, the majority (n = 11) incorporated routine home visits (n = 10) [26-36] and/or telephone counseling (n = 8) [24, 27-34]. Three investigations noted the availability of emergency home visits [27, 29, 33]. Supplementary interventions noted by a minority of papers included psychological counseling [36], temporary respite care [33], family caregiver training [31], and external service coordination [33]. Only the research by Spilsbury *et al.* [33] explicitly incorporated individuals residing in nursing homes within its defined target sample.

The drivers prompting hospital admission were mostly extracted via medical or palliative service record audits (n = 7) [24, 26, 27, 29, 30, 32, 34], while a smaller subset utilized initial admission diagnoses (n = 4) [25, 28, 35, 36] or emergency department intake records (n = 2) [31, 33]. Five investigations incorporated relevant comparative datasets [24, 31, 33, 35, 36] where the control condition comprised 'standard' or non-specialist palliative management, and the experimental arms involved the implementation or optimization of community-based palliative care models.

#### Reasons for hospitalization

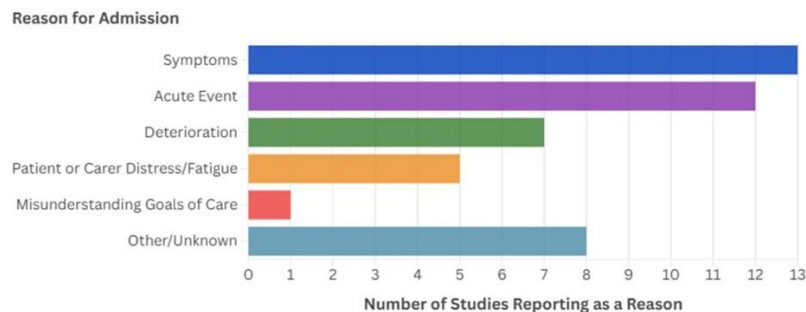
The factors underlying hospital admission were grouped into six primary domains: (1) unrelieved symptoms ('symptoms') (16 subcategories), (2) acute events (five subcategories), (3) indicators of clinical decline ('deterioration'), (4) patient or caregiver distress/exhaustion, (5) misconceptions regarding goals of care, and (6) other/unknown drivers. **Table 2** details the distribution of these categorized drivers across individual publications, and a prioritized overview of these domains and sub-domains is illustrated in **Figure 2**.

**Table 2.** Reasons for hospitalization among specialist community palliative care populations. From: Reasons for unplanned hospitalization in specialist community palliative care: a scoping review.

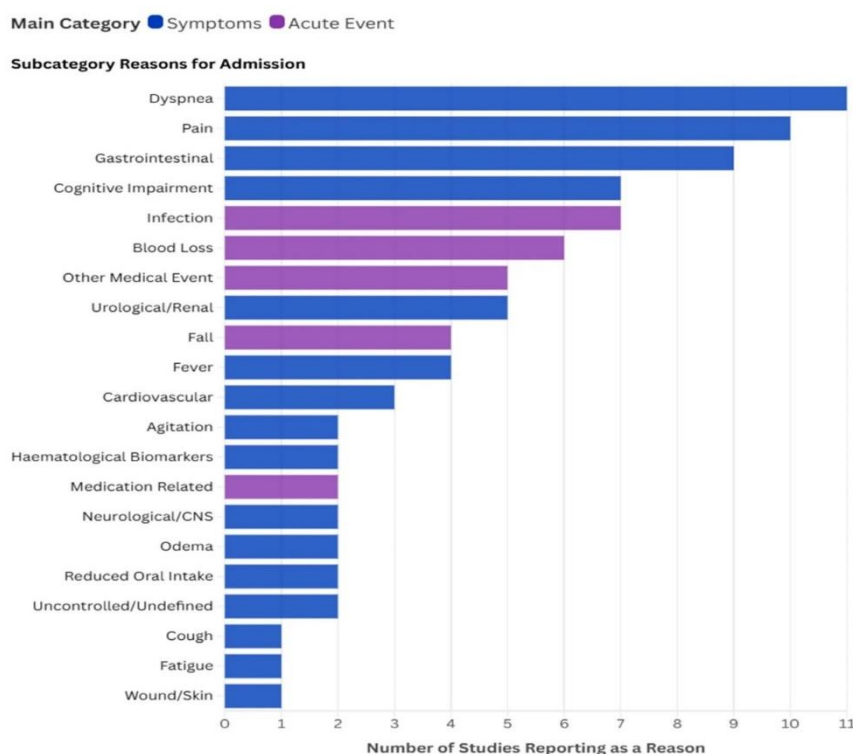
Category	Subcategory	Martins and Pinto [24]	Hsu & Wu (2021) [31]	Scheerens and Pype [35]	Skov Bentzen and Nordly [36]	Spilsbury and Rosenwax [58]	DeAngelis and Lowry [25]	Gambin and Prod'homme [26]	Cao and Johnson [32]	Jessop and Fischer [27]	Kao and Liu [34]	Kaiser and Rudloff [28]	Mercadante and Masedu [29]	Batchelor [30]
<b>Symptoms</b>	Dyspnoea	✓ *	✓ *	✓ *	✓ *	✓ *		✓ *		✓ *	✓ *	✓	✓ *	✓
	Pain	✓	✓ *		✓ *	✓ *		✓		✓ *	✓ *	✓	✓	
	Gastrointestinal symptoms	✓	✓ *		✓	✓		✓		✓	✓	✓		
	Cognitive impairment		✓		✓		✓		✓		✓ *	✓	✓	
	Urological/Renal problems	✓			✓							✓	✓	✓ *
	Fever	✓ *	✓		✓								✓	
	Cardiovascular symptoms					✓ *		✓			✓			
	Uncontrolled/undefined symptoms							✓ *	✓ *		✓			
	Neurological/CNS symptoms				✓								✓ *	
	Oedema	✓											✓	
	Agitation	✓											✓	
	Hematological abnormalities/biomarkers		✓		✓									
	Reduced oral intake	✓			✓									
	Cough	✓												
	Fatigue	✓ *												
	Wound and skin conditions												✓	
	<b>Acute Events</b>	Infection			✓ *	✓		✓ *		✓	✓ *	✓		✓
Hemorrhage/Blood loss		✓	✓				✓		✓	✓	✓	✓		
Other medical complications			✓			✓ *	✓	✓ *					✓ *	
Falls			✓		✓				✓				✓ *	
Medication-related issues							✓ *						✓	
<b>Clinical Deterioration</b>	General deterioration	✓	✓ *	✓ *			✓ *		✓	✓	✓ *			
<b>Patient/Carer Factors</b>	Distress and fatigue				✓		✓	✓	✓ *			✓ *		

<b>Communication and Decision-Making</b>	Misunderstanding goals of care					✓	*
<b>Other Causes</b>	Other/unknown reasons	✓	✓	✓	✓	✓	✓

NB: A tick (✓) indicates the reason was reported in the study; ✓\* denotes this was one of the top three reasons within that study.



a)



b)

**Figure 2.** Categories of reported reasons: (a) Ranked distribution of categories across 13 studies, and (b) Ranked distribution of subcategories across 13 studies

*Distribution of hospitalization reasons*

Among the six core domains, physical symptoms represented the most widely documented drivers, precipitating unscheduled hospitalizations across all analyzed publications. This domain was followed by acute events (n = 12, 92%) [24-36], clinical decline (n = 7, 54%) [24, 26-28, 34, 36], and patient or family caregiver experiences of distress and/or exhaustion (n = 5, 38%) [26, 27, 29, 32, 36]. Within the caregiver domain, four out of the five papers explicitly highlighted caregiver-specific strain or fatigue [26, 27, 29, 32]. Misconceptions regarding goals of care were explicitly cited in a single investigation (8%) [32]. Nonetheless, even when not classified as a leading cause of admission, DeAngelis and Lowry [25] noted that patients or family members demonstrated deficient comprehension of palliative care objectives in 16% of unscheduled admissions.

*Subcategory results and internal ranking*

Looking at the individual symptom subcategories, dyspnoea emerged as the most widely cited driver for hospital admission, identified in 11 (85%) papers [24, 26-36]. This was followed by uncontrolled pain [24, 26-36] and gastrointestinal complications [24, 26-36], which were each detailed in nine (69%) investigations. Infectious processes ( $n = 7$ , 54%) [26-36], haemorrhage secondary to oncological complications, gastrointestinal tract bleeding, or unspecified bleeding ( $n = 6$ , 46%) [24, 26, 28, 29, 31, 34], and miscellaneous acute medical conditions ( $n = 5$ , 38%) [25, 26, 30-32] constituted the most frequently detailed subcategories within the acute events domain. The top three causes for hospitalization inside each paper, determined by proportional internal ranking (**Table 2**), were dyspnoea ( $n = 8$ , 62%) [24, 26, 27, 29, 31, 33, 34, 36], pain ( $n = 6$ , 46%) [27, 28, 31, 33, 34, 36], and general decline ( $n = 4$ , 31%) [26, 28, 35, 36].

#### *Comparison of specialist and non-specialist/no palliative care*

Comparative insights were provided across five publications, comprising two RCTs [35, 36] and three observational studies [24, 31, 33]. In instances where statistically significant differences were identified, the RCTs indicated that specialized palliative care interventions were associated with elevated hospital admission rates, either for specific reasons or overall [35, 36]. Skov Benthien *et al.* [36] highlighted two specific significant drivers: deteriorated general physical state ( $p = 0.04$ ) and unmanageable home care circumstances ( $P = 0.01$ ), which were classified under clinical decline and patient/caregiver distress or fatigue, respectively. Other causes of hospital admission within that project did not show statistically significant differences between the allocation arms [36]. Scheerens *et al.* [35] demonstrated a statistically significant variance in total hospital admissions between allocation arms ( $P = 0.03$ ); however, statistical tests evaluating specific reasons for intake were not provided. Conversely, observational studies generally indicated that specialized community-based palliative care was associated with reduced overall acute hospital readmissions, though its effect on individual admission drivers was inconsistent. Hsu *et al.* [31] observed that a specialized community palliative program for oncological cohorts, tailored to mitigate breathlessness, resulted in a 30.7% ( $P < 0.05$ ) reduction in dyspnoea-related hospital admissions compared with standard palliative services. Spilsbury *et al.* [33] observed that individuals enrolled in specialized community palliative services experienced a 50% lower rate of total emergency department presentations (95% CI: 47%–53%); these individuals were less likely to present to acute care with dyspnoea, but demonstrated a greater likelihood of presenting with pain and nausea, though corresponding inferential statistics were omitted. Finally, while Martins and Pinto [24] observed that introducing a specialized continuous 24/7 teleconsultation service reduced overall hospital admissions and shifted the leading admission drivers from pain, dyspnoea, and nausea/vomiting to dyspnoea, pyrexia, and asthenia after implementation, no inferential statistics were reported.

This scoping review demonstrated that the primary catalysts for unplanned hospital admissions among individuals under specialist community palliative care are centered around uncontrolled symptoms, acute clinical events, and functional decline. Additionally, a minority of reviewed papers documented psychosocial triggers, including patient or family caregiver strain, exhaustion, and a deficient comprehension of palliative benchmarks. Methodologies for categorizing hospital use drivers varied widely across the literature and were often dependent on diagnostic coding systems. Furthermore, sparse data are available to evaluate distinct outcomes against parallel groups receiving either general palliative management or no palliative interventions.

#### *Symptom-related findings*

Inadequate symptom control—most notably dyspnoea, pain, gastrointestinal issues, and cognitive impairment—constituted the most prevalent drivers of unscheduled, symptom-driven hospital use. These observations align with the established literature on the overall symptom burden in specialist palliative care cohorts [37-40]. Dyspnoea is highly prevalent across both chronic pulmonary conditions (such as COPD or interstitial lung disease) and non-pulmonary diagnoses (including congestive heart failure, pulmonary metastases, and cancer-related cachexia), typically intensifying as patients approach the end of life [38, 41, 42]. For more than ten years, palliative care data have persistently illustrated a high frequency of moderate-to-severe breathlessness alongside a scarcity of successful therapeutic options [41, 43]. This underscores the ongoing difficulties faced when addressing refractory dyspnoea in patients receiving palliative care near the end of life.

Certain symptom classifications that showed a high overall prevalence across the data, such as cognitive dysfunction and gastrointestinal distress, appeared only once as a top-three driver in the internal study rankings [28, 31]. The descriptive insights gathered in this scoping review offer little clarification for this phenomenon. Nevertheless, current literature indicates that gastrointestinal manifestations like nausea, emesis, constipation, diarrhea, and ascites regularly manifest alongside concurrent symptoms or during periods of clinical instability [44, 45]. Consequently, this clustering may lead to underreporting of digestive issues in acute care databases, where more prominent clinical crises are given structural priority [44].

#### *Psychosocial factors*

Within this scoping review, the domain of ‘patient or carer distress/fatigue’ integrated both patient- and family-focused elements, though the vast majority of extracted codes pointed directly to caregiver strain. Prior research has linked family caregiver well-being to highly integrated, continuous specialist community palliative care networks [46]. Conversely, caregiver distress is tied to several compounding factors observed in this review, such as uncontrolled symptoms, sudden acute events, and general functional decline, particularly when families feel unequipped for these shifts [38, 47]. The perceived boundaries of a medical ‘emergency’ often shift as a patient nears death, meaning that clinical events and symptoms are frequently managed through conservative pathways outside acute hospital walls [38]. However, this shift relies heavily on family caregivers possessing the physical, emotional, spiritual, and financial reserves required to coordinate care confidently at home, reinforced by structured advance care planning and hands-on support [38, 48, 49].

Recent data indicate that physical symptom management can be optimized by simultaneously identifying and addressing unfulfilled social or spiritual requirements [37, 50]. Even so, the findings of this scoping review indicate that psychosocial variables were substantially underreported, suggesting that these non-physical needs might not be accurately reflected within quantitative databases. For example, an isolated physical symptom might be officially logged as the primary cause for hospital admission. At the same time, the true catalyst may have been caregiver burnout or the community services’ inability to manage that specific symptom in a domestic environment. This presents a contradiction to qualitative observational investigations, which regularly highlight psychosocial dimensions for both patients and families—such as an inability to cope at home, structural service gaps like limited operating hours, disjointed hospital discharge transitions, and cultural attitudes toward end-of-life care—as primary drivers of unscheduled hospital use [51-53].

Managing refractory symptoms or sudden acute crises within community palliative frameworks requires comprehensive, sector-wide strategies that address the physical, social, and spiritual dimensions concurrently. Innovative service designs, such as the framework introduced by Chapman *et al.* [37], offer a holistic, interdisciplinary model for symptom control. This model underscores the need for active partnerships among healthcare networks, clinicians, patients, and families to achieve meaningful milestones. Integrating this framework into specialist palliative care models accounts for the intricate web of variables that shape healthcare utilization, ultimately fostering more responsive, person-centered care.

#### *Comparative findings*

The comparative observations in this scoping review closely align with the broader literature. Observational studies regularly document lower hospital utilization rates among patients enrolled in specialist community palliative care [54-60]. In contrast, experimental research remains highly inconsistent; some trials demonstrate clear reductions in utilization [61-63], while others show no statistically significant impact [36, 64-67]. The statistically significant outcomes from the two RCTs analyzed in this review indicated an increase in hospitalizations following the deployment of specialist community palliative care interventions [35, 36].

To date, a definitive reduction in hospital use has not been confirmed via meta-analyses. Much like the current scoping review, these larger syntheses have been constrained by substantial variation in both clinical interventions and data-tracking methods [12, 46]. Continued research in this domain is necessary to strengthen the empirical foundation for specialist community palliative care, facilitate statistical comparisons across diverse datasets, and lay the groundwork for future meta-analyses.

#### *Implications for future research and practice*

Determining the primary catalysts for hospital admission provides valuable guidance for subsequent investigations and establishes a baseline for measuring the efficacy of targeted service modifications. These observations can guide the allocation of healthcare resources toward the early detection and proactive management of these prevalent reasons for admission, while fostering enhanced integration between acute medical facilities and home-based palliative programs.

The evidence compiled in this scoping review predominantly captures hospital utilization patterns documented via formal diagnostic codes. To implement appropriate supportive measures to reduce unscheduled hospital use, greater attention must be dedicated to the intersection of clinical and psychosocial needs, alongside active partnerships among medical teams, patients, and families [37]. Furthermore, the scarcity of parallel comparative data constrains definitive conclusions regarding the specific ways specialist care shapes admission drivers. Consequently, more rigorous research employing experimental, comparative methodologies is essential to understand how to prevent preventable hospitalizations and better customize care to meet the intricate needs of individuals with life-limiting illnesses who remain at home.

#### *Strengths and limitations*

A major strength of this scoping review lies in its incorporation of diverse hospital data repositories—ranging from emergency department logs and inpatient admission registries to specialist community palliative care profiles—thereby providing a comprehensive overview. Notwithstanding this advantage, the review is subject to

several constraints. Confining eligibility to high-income nations enhanced systemic comparability but created geographical gaps and potentially reduced the total volume of eligible papers. Furthermore, extensive methodological diversity and varied reporting practices across the literature impeded data comparisons. For instance, some investigations allowed multiple contributing factors per hospital encounter, whereas others restricted documentation to a single primary cause. Consequently, the synthesis focused on the overall prevalence and hierarchical internal positioning of admission drivers rather than on raw utilization frequencies. This variance precluded the execution of a meta-analysis, a limitation that mirrors challenges identified in other contemporary systematic overviews regarding data comparability [12, 15].

Additionally, although continuous 24/7 coverage was detailed in 7 papers and operational hours were specified in 1 other study, service availability remained ambiguous across the remaining studies. Providing around-the-clock clinical access is increasingly recognized as a benchmark for high-quality specialist community palliative care, particularly in minimizing hospital admissions [50]. Descriptive details regarding the specific care components provided were also sparse. However, publications frequently noted telephone helplines and routine home appointments; few outlined an exhaustive directory of services, suggesting that vital data needed for robust comparative analyses may be missing. Future research in this domain should prioritize the inclusion of granular descriptions regarding care models to enable more substantive cross-study evaluations.

The vast majority of the analyzed data was extracted from standard, routinely gathered institutional admission files, which frequently mask underlying social or contextual influences. To investigate these dimensions more thoroughly, a parallel synthesis of qualitative research was conducted and documented independently (Elvidge *et al.*, 2025, under review). Finally, although the analytical categories and subcategories were formulated inductively by two specialist palliative care nurses, the coding process inherently involved some subjectivity.

## Conclusion

This scoping review synthesizes the most common reasons for hospital admission among individuals enrolled in specialist community palliative care, using clinical documentation such as institutional intake records and diagnostic codes. It likewise highlights contradictions in current evidence regarding whether these standard admission drivers are magnified or mitigated by specialist services when compared against generalist community palliative care frameworks. The findings indicate that minimizing unscheduled hospital use requires person-centered research that investigates the lived experiences of patients, family caregivers, and medical practitioners, alongside more rigorous comparative trials to inform service optimization and customize care for complex home-based needs.

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