

## Review Article

# Palliative Care in Geriatric Emergency: Needs and Solutions

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## Abstract

An increasing proportion of people reporting to emergency departments (EDs) are elderly. Older patients are likely to receive more diagnostic tests, spend longer times in the ED and have higher charges for their ED services than younger patients. On the other hand, many older adults with serious illnesses or burdensome symptoms visit EDs. It is reported that the decedents visit EDs in their last few months of life very frequently and repeatedly. In such patients, the recognition of need for palliative care and appropriate interventions can improve patient and caregiver satisfaction, reduce the length of hospital stay, utilization of the intensive care and ED recidivism, and provide significant cost savings. In this review, we aimed to outline the need on palliative approach in geriatric emergency services and discuss some methods to identify and manage palliative needs for those patients in such need.

## Palliative Care in Geriatric Emergency: Needs and Solutions

### Geriatric Emergency

As the global geriatric population continues to grow, increasing proportions of elderly people admit to emergency departments (EDs) [1]. The ED is uniquely positioned in the care of geriatric population [2]. It sits at a crossroad between inpatient and outpatient care [3,4] and is an ever-increasing access point for medical care. However, rapid triage and diagnosis may be impossible in the older patient typically with multiple co morbidities, polypharmacy, functional-cognitive impairments and/or presenting with subtle clinical signs and symptoms [3]. Consequently, they usually undergo more diagnostic tests with longer time and higher charges than younger patients [5] and are more likely to have an emergent or urgent condition, be hospitalized, and admitted to a critical care unit [6]. Hence, multiple studies point out the need for optimal management strategies in such patients [7,8].

Geriatric ED Guidelines are developed to provide a standardized set of guidelines that can effectively improve the care of the geriatric population that is feasible to implement in the ED. A goal of the geriatric ED is to recognize those patients who will benefit from inpatient-care while implementing outpatient-care to those who do not require inpatient resources as adverse outcomes i.e. delirium, nosocomial infections, iatrogenic complications, and functional declines are related to acute hospitalization in the geriatric patient[10]. Previous studies on the use of prognostic screening tools in this heterogeneous patient population showed different findings [3, 11-13]. However, it looks like a team-driven, simple to use screening tool can be powerful in helping to prevent

poor outcomes and improve the ED and hospital experience for the geriatric patient [14,15]. Accordingly, geriatric emergency assessment tools are needed and developed to identify the patients who might need palliative care[16,17]. One of these tools is ISAR (Identification of Seniors at Risk) [16]: a 6-item “screening” tool for seniors in the ED (**Appendix 1**). This short screening tool is used to quickly identify seniors who require an evaluation. When used with a cutpoint of 2, the ISAR was found to identify about 72% of patients with functional decline during the 6 months after the index ED visit. It is composed of questions addressing the functional status of the patient before and after the illness, presence of former hospitalizations, vision problems, memory impairment and polypharmacy, Each question has “yes/no” response categories which can be self-reported by the patient or family member, or can be completed by an ED staff member at triage or other convenient time. It can predict those at increased risk of one or more of the following adverse health outcomes: death, admission to a nursing home or long-term hospitalization, or a clinically significant decrease in functional status. However, there will always be false positive results of screening tests, so, in case of positive “screening”, a step 2 process: “evaluation” should be conducted before discharge to identify true positives (Figure 1). Accordingly, “Seniors At Risk” detected with the ISAR or other step 1 screening tool are then evaluated using a step 2 evaluation tool before discharge. The ‘SEISAR: Systematic Evaluation and Intervention for seniors at Risk’ is an example of such a step 2 tool. It is a short, standardized, comprehensive tool for the evaluation of active geriatric problems in seniors in the emergency department (**Appendix 2**). Overall, it can be regarded as a brief standardized comprehensive geriatric assessment, adapted to ED practice and serves as an action-oriented checklist that incorporates recommendations for the most appropriate interventions at post-discharge setting. It includes the questions about current status of patient’s communication,

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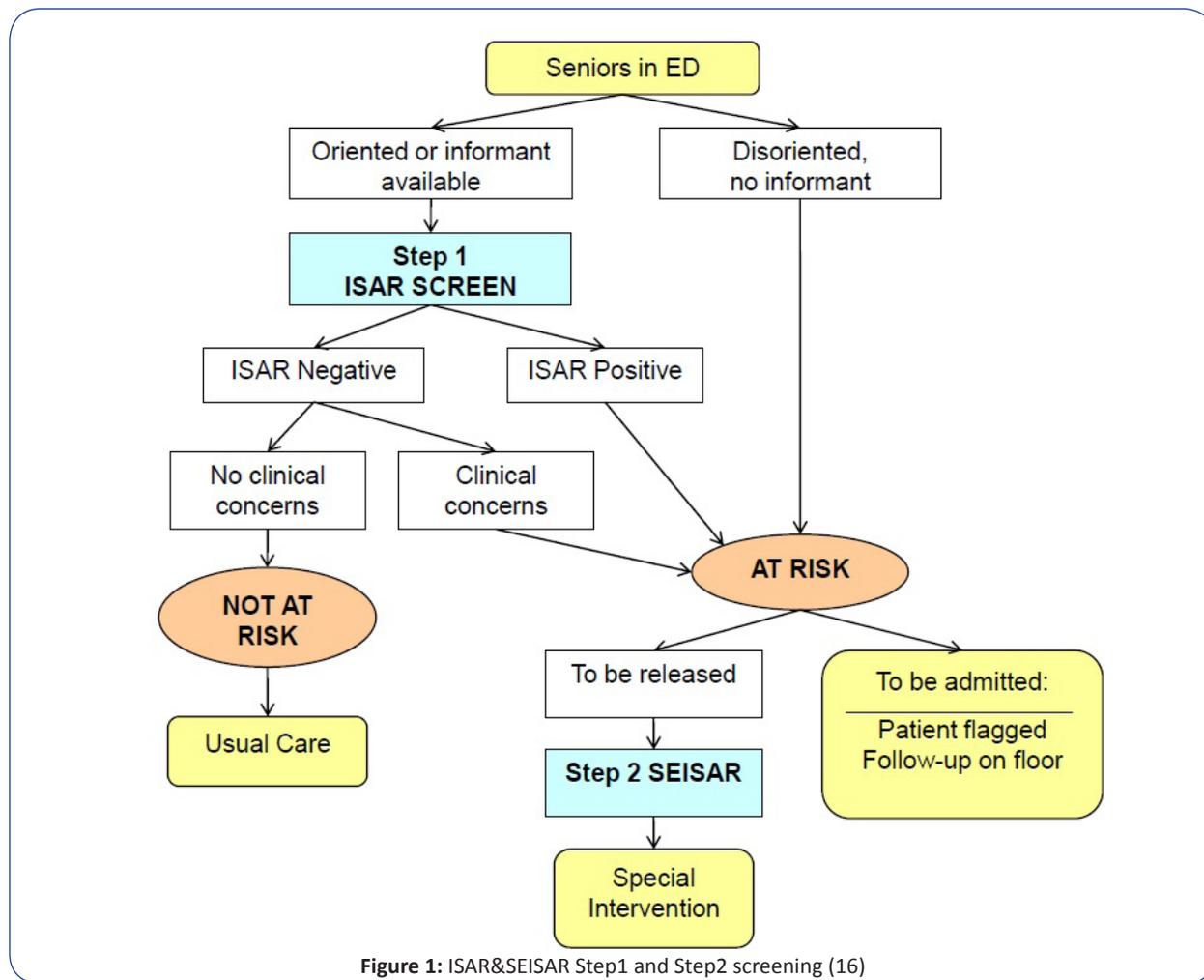


Figure 1: ISAR&SEISAR Step1 and Step2 screening (16)

cognition, nutrition, mobility, activities of daily living, medication, behavior/affect, active medical issues, pain management, and social issues. It lets the elder's problems to be designed by geriatric nurses. It should take between 10 and 45 minutes (30 minutes in average) and be used by a skilled ED staff member [18].

Another geriatric emergency assessment step 1 tool is the Triage Risk Screening Tool (TRST) (Appendix 3) [17]. If TRST signs 2 or more factors identified, patient is referred to geriatric emergency medicine nurse. It suggests an increased risk for functional decline, subsequent ED use, hospitalization, and nursing home admission 30 and 120 days after an ED visit [19].

### Palliative Care and the Geriatric Emergency

Palliative and hospice medicine in the geriatric EDs is a newly designated and extensive subspecialty of Emergency Medicine. A broad extended previous study signed that 51% of the 4,518 decedents aged  $\geq 65$  years visited the emergency department in the last month of life, and 75% in the last six months of life (20). On the other hand, a growing number of patients die each year in hospital emergency departments (EDs) [21]. Accordingly, many older adults

near to death with serious illness or burdensome symptoms visit EDs inevitably.

Palliative care is an advance that aims to optimize the quality of life including the dignity of dying patients [22]. The World Health Organization defines palliative care as 'an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual' [23]. Palliative care, as distinct from hospice, is not limited to end-of-life care and is offered simultaneously with life-prolonging therapies to persons living with serious, chronic illness and frailty [22, 24]. Chronic diseases are now the leading causes of death, and there are high prevalence's of physical, psychosocial, spiritual, and financial suffering associated with serious and complex illness across many systems of care, including EDs [25]. The assessment and treatment of pain and other burdensome symptoms, aid with complex medical decision-making, mobilization of practical, spiritual, and psychosocial support, care coordination (especially during transitions of care),

and bereavement services are main parts of palliative care [26,27]. The emergency department is often the only place that can provide needed interventions (e.g., intravenous fluids or pain medications) as well as immediate access to advanced diagnostic tests (e.g., computed tomography or magnetic resonance imaging) all the time. After an ED visit, older adults are at greater risk for medical complications, functional decline, and poorer health-related quality of life than they were before [28,29]. Cognitive assessment, pain management, and transitional care are signed as conditions where there are quality gaps in the care of older patients by Force emphasizing the importance of palliation in geriatric EDs [30]. Studies suggest that providing multidisciplinary teams for palliative care interventions will improve patient and family member quality of life [9,31], reduce hospital length of stay [32,35], ED recidivism [36], improve patient and caregiver satisfaction [37,38], result in less utilization of intensive care [39], and provide significant cost savings [5,33,35,40]. Hence, both emergency providers and the palliative care community have increasingly acknowledged the need to deliver palliative care services in the emergency department [41].

An emergency physician may not need to know all the predictive tools but must be able to identify those patients who can benefit by a transition of care to a palliative service or hospice [42] and also needs to consider an alternate approach to treatment rather than the typical life-prolonging interventions [43]. An important initial step is to recruit members who are interested in and committed to the integration of palliative care in the ED by identifying those individuals who have previously expressed concern, frustration, or awareness of family and patient palliative needs in the ED. Because palliative care is based on a multidisciplinary collaboration, one should consider approaching providers from the varied professional disciplines based in the ED, as well as other throughout the institution who interact with the ED [44] (Table 1).

Barriers to discern and implement palliative care in EDs are EDs' complex environment, lack of privacy [43], time-constraints, curative disease-focused approach to patient care, patient self-report limited by cognitive disabilities, lack of access to family or primary providers, staff resistance [24,41,42,45,46], limited availability. Also, because of Hospice and Palliative Medicine is a newly designated subspecialty of Emergency Medicine, as yet, no well defined palliative care (PC) models for education or training exist [47].

### How to Identify and Manage Palliative Care Needs in the Geriatrics Eds

The unmet palliative needs in EDs should be outlined in order to apply the needed palliation [8, 46, 48]. ED checklists, and standardized assessment tools may assist hospital staff engaged in day-to-day patient care in identifying the majority of patients with such needs and addressing concerns. Clinical practice guidelines for qualified palliative care in EDs highlight that "The ED use

explicit criteria to identify patients with unmet needs for palliative care" [44]. Hence, many palliative prognostic scores, scales and programs that identify patients with life-limiting prognoses exist [49, 51].

Table 2 roughs out one of the suggested clinical screening criteria to be applied at the time of admission that can rapidly characterize patient needs which could benefit from involvement of a palliativecare expert [51].

'Life Sustaining Management and Alternatives (LSMA)' [24] is another such tool officially started in 2010 and open to all ages (Table 3). The program includes a core team of one emergency physician and one master's prepared nurse coordinator for the initial consult. Additional member involvement from the interdisciplinary team is determined by the plan of care and it starts after the patient's arriving at the ED immediately.

### Which Conditions need to be Taken Care as 'Palliation' in Eds and how they are managed?

In addition to well-known conditions those are cord compression, hypercalcemia, superior vena cava syndrome, bowel obstruction, respiratory failure, for all ages in EDs there are also some frequent and bothersome conditions for geriatric patients like pain, delirium, anxiety, constipation, terminal oral secretions, diarrhea, dyspnea, nausea and vomiting, pruritus. Whether a patient is hospitalized or released to home should not interfere with this management initiative [42] since DNR order does not mean 'do not treat' [52].

All elders would be tested for delirium during their assessment in EDs. Family members would be allowed to accompany patients to provide physical and psychological assistance. Protocols, trained staff, and physical modifications targeted at the geriatric patient in inpatient settings have already been shown to successfully reduce the risk of delirium along with iatrogenic complications, cost, hospital length of stay, and transfer to long-term care facilities and increase the patient-provider satisfaction and preserve patient function [3, 53, 54]. Structural modifications have a place in palliative care of the geriatric EDs in this context. Sky or ceiling windows would be installed to provide access to natural lighting, and hospital recess lamps would be dimmed during the evening to follow diurnal patterns [55] Other recommendations are hearing assistance or amplifying devices, removal of noise distracters, large-faced clocks, calendars, boards with names of hospital and clinical staff. Physical restraints would not be used and any devices or equipment that serve to reduce mobility or tether patients to beds (e.g., bladder catheters, telemetry leads, pulse oximeters) would be minimized and used only if medically indicated [56]. On the other hand, pain management (Table 4) should have a significant place for older patients, especially with hip fracture, pressure ulcers, urinary retention, abdominal pain and syncope, to prevent or treat delirium and also constitutes another very significant symptom to be palliated itself [3]. EOL patients should be kept as pain-free as possible so that they may die comfortably and with dignity [42, 57].

**Table 1.** Potential “Champion” Members of ED Palliative Care Planning/Implementation Workgroup (44; 51)

ED medical director and emergency physician(s)
ED nurse manager and ED nurse(s)
Director or designee of palliative care program
Nursing educator
Social workers
Chaplain
Representatives of key admitting services (e.g., Medicine[hospitalist], ICU, Surgery, Oncology) that are most likely to be affected by improving palliative care services in the ED
Hospital leadership: administration and finance
Case manager
Other individual(s) believed to be important to the success of a specific initiative (e.g., ethics consultant, mental health professional, Emergency Medical Services-EMS director, pharmacist)

ED = emergency department; ICU = intensive care unit.

**Table 2.** Screening Criteria for a Palliative Care Assessment at the Time of Admission (51)

A Potentially Life-limiting or Life-threatening Condition\*AND

Primary criteria:	Secondary criteria:
<p><b>Global indicators that represent the minimum that hospitals should use to screen patients at risk for unmet palliative needs</b></p> <ul style="list-style-type: none"> <li>• The “surprise question”: Would you be surprised if the patient died within 12 months?</li> <li>• Frequent admissions (e.g., more than one admission for same condition within several months)</li> <li>• Admission prompted by difficult-to-control (moderate-severe) physical or psychological symptoms</li> <li>• Complex care requirements (e.g., functional dependency; complex home support for ventilator/feedings)</li> <li>• Decline in function, feeding intolerance, or failure to thrive</li> </ul>	<p><b>Specific indicators of a high likelihood of unmet palliative care needs</b></p> <ul style="list-style-type: none"> <li>• Admission from long-term care facility</li> <li>• Elderly patient, cognitively impaired, with acute hip fracture</li> <li>• Metastatic or locally advanced incurable cancer</li> <li>• Chronic home oxygen use</li> <li>• Chronic home oxygen use</li> <li>• Out-of-hospital cardiac arrest</li> <li>• Current or past hospice program enrollee</li> <li>• Limited social support (e.g., family stress, chronic mental illness)</li> <li>• No history of completing an advance care planning discussion/document</li> </ul>

\* Life-limiting or life-threatening condition is defined as any disease/disorder known to be life limiting (e.g., dementia, chronic obstructive pulmonary disease, metastatic cancer) or that has a high chance of leading to death (e.g., multi-organ failure, sepsis). Serious medical conditions for which recovery to baseline function is routine (e.g., community-acquired pneumonia in a healthy adult) are not included in the definition.

Nausea treatment in elderly includes selective 5HT<sub>3</sub> receptor antagonists (Ondansetron, granisetron, tropisetron, dolasetron, and palonosetron), and corticosteroids. Due to their side effect profile, metoclopramide, dopamine receptor antagonists, antihistaminic agents, and hyoscine are not ideal agents to use in elderly [58]. Short-acting benzodiazepines used to administer to nauseated patients [59]. But they are generally to be avoided in elderly patients because of their high severity rating on the

Beers criteria [60]. If a benzodiazepine must be used, lorazepam is preferred because of its relatively short duration of action and inactive metabolites. It is most useful when nausea and vomiting is associated with anxiety [58].

Regardless of the underlying disease process, many dying patients experience dyspnea at the end of life (EOL). Unfortunately, many dying patients lose the ability to communicate, so physicians

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**Table 3.** 'Life Sustaining Management and Alternatives (LSMA)' (24)

From Long Term Care/Skilled Nursing Facility with 'Do Not Resuscitate' (DNR)
Actively dying in pain and discomfort
Currently enrolled in a hospice program
Previously discharged from this hospital inpatient palliative care program
Two or more hospital admission within three months with same symptoms consistent with a terminal or degenerative chronic medical condition
Advanced disease with frequent infections
Advanced disease with enteral feeding in place
Nutritional complications with albumin of less than 2.5 mg/dl
Primarily bed bound with advanced dementia process
Disease triggers: Aspiration pneumonia, chronic obstructive pulmonary disease, heart failure, hemorrhagic stroke, malignant neoplasm, renal failure, septicemia, trauma

**Table 4.** Guideline recommended analgesics in elderly (68)

PARACETAMOL
NSAIDs (withcaution)
OPIOIDS
Weakopioids: Tramadol,
Strongopioids: Morphine, Oxycodone, Fentanyl, Buprenorphine, Hydromorphone, Methadone

must rely on physical examination findings, like gasping or retractions, to infer that patients are experiencing discomfort. The treatment of dyspnea would not be oxygen alone but a combination of therapies that includes opioids and benzodiazepines (Figure 2). Opiates are there commended first-line agents. Multiple studies have demonstrated both their efficacy and safety [61,62]. Morphine works well in improving comfort, decreasing anxiety, and decreasing the feeling of breathlessness in the face of dyspnea [63]. A general rule to follow when using opiates for dyspnea is "start low and go slow". Initial doses of morphine 1 mg iv and hydromorphone 0.2 mg iv have been recommended. In those without an initial clinical response, a step wise algorithm should be followed in which the medication is administered every 10 to 15 minutes, with dosing increases of 50% to 100% with each injection [64]. In patients requiring large doses of opiates to maintain comfort, a continuous infusion may be preferable. If patients have needed a total of 12 mg of morphine over a 4-hour period, a morphine infusion would be ordered to run at a rate of 3 mg/h. Benzodiazepines may have a role in the management of dyspnea precipitated by anxiety, but the evidence to support their use is weak [65].

Resting on stretchers with pressure-reducing mattresses or, if able to sit, in reclining chairs [66], rubber-mat or nonskid floor surfaces, hand rails on walls and hallways, aisle lighting, visual aids are the

some other means of structural modifications for palliation [53,56] and would be helpful in multiple aspects of palliation.

Literature review identified five domains of end-of-life care: (1) seek information, (2) assess life values, (3) educate family, (4) extend care in a consistent manner, and (5) respond to family questions and concerns. As shown in a previous study, within each domain, the expert panel identified sub domains with related behavioral examples that were consistently rated as important to end-of-life care for emergency practitioners [67].

## 6. Conclusion

As our population ages and medical technology enables increased longevity, geriatric palliative medicine becomes having an important role in which EDs should more frequently be involved. There are some difficulties to give palliative care in EDs like order's cognitive impairment, EDs' cramped atmosphere, time-constraints, missing points in residents' hospice and palliative care knowledge. Physicians' perspective of palliative medicine and specific communication strategies help physicians and patients to understand the disease and symptoms better and better meet the appropriate goal of care. This would minimize the risk of frequent and futile admissions to ED and patients' receiving inconvenient and futile treatments.

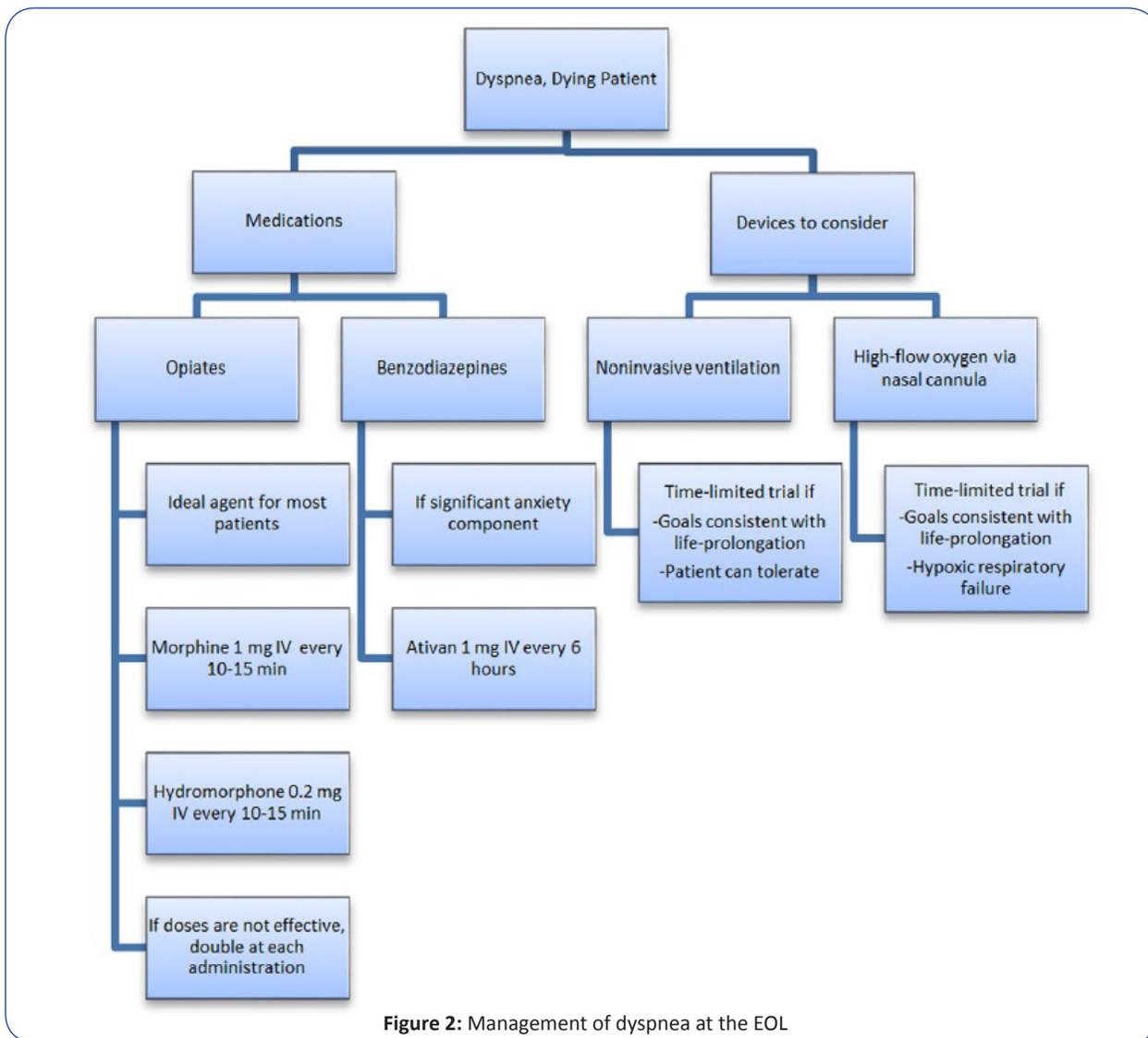


Figure 2: Management of dyspnea at the EOL

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