The Integration of Palliative Care into the Emergency Department

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SUMMARY
Palliative care (PC) is a new and developing area. It aims to provide the best possible quality of life for patients with life-limiting diseases. It does not primarily include life-extending therapies, but rather tries to help patients spend the rest of their lives in the best way. PC patients often are admitted to emergency departments during the course of a disease. The approach and management of PC include differences with emergency medicine. Thus, there are some problems while providing PC in the ED. With this article, the definition, main features, benefits, and problems of providing PC are presented, with the primary aim of emphasizing the importance of PC integration into the ED.

Key words: Emergency department; integration; palliative care; training.

Introduction
Palliative care (PC) is basically the complete active care of patients who have life-limiting diseases.\(^1\) It aims to provide relief from distressing symptoms and to achieve the best possible quality of life. It was defined by World Health Organization in 2006 as “(PC is) an approach that improves the quality of life of patients and their families facing the problem 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.\(^2\)”

Historically, PC was developed for terminal stage cancer patients. The spectrum of diseases has widened, and it now includes cardiac, respiratory, metabolic, renal, and neurological (i.e. dementia) diseases.\(^3\)–\(^5\)

Main Features of PC
There are some main features of PC. First, it has a patient-centered culture.\(^6\) This means that every patient is unique and, additionally, every situation about the patient is unique as well. The most important thing is to assess the whole patient and to include the patient and family while making decisions. It is designed to meet all the physical, psychological, spiritual, and social needs of the patient. PC has a multidisciplinary, collaborative, and team-based approach.\(^7,8\) It is important to have good communication skills that include breaking bad news.\(^9\) The aim of PC is not limited to the end of the disease, but rather it aims to support the patient in the early stages of the life-limiting disease. It begins in early stages of the disease but it doesn’t end with death; it includes supporting families in bereavement.

Misconceptions about PC
There are some misconceptions about PC. First, it is not same as end-of-life care, although end-of-life care is a part of PC.\(^3,10\) PC focuses on providing the best possible quality of life in patient’s remaining time. It does not aim to prolong the life span. However, PC does not mean that the patient has to give up curative treatments such as chemotherapy.
and their access to intensive care units or hospital beds. Recently, early identification of patients has gained importance. Thus, patients can be considered as a PC patient while curative treatment continues.[14, 19]

The Providers of PC

As PC is not an approach that one health care provider can ensure, it cannot be supplied by only one health care institution. To apply PC with its full meaning requires all the structures of the health care system of a country. All providers of PC should be determined, and the communication between providers should be maintained. There may be variations according to health care system of a country. They can be PC units, PC home care teams, and/or PC consultants in hospitals, hospices, primary health care providers, and emergency departments (ED).[7] Emergency physicians should know these providers of PC, especially to refer these patients from ED.

Hospice is planned for patients who can no longer be helped by curative treatment and are expected to live about 6 months or less, if the illness runs its usual course.[11] Hospice aims to celebrate, enable, and facilitate life and living by trained professional teams. It is designed to meet all physical, physiological, social, and spiritual needs.[12, 13] Death is a part of life and is acceptable in the hospice approach.[14] The words of Cicely Saunders, who is the founder of the modern hospice movement, may explain the aims of hospice clearly: “You matter because you are you. You matter to the last moment of your life, and we will do all we can, not only to help you die peacefully, but also to live until you die.”[15]

Referring the patients to hospice care is an important decision in ED. Four steps were suggested as assessing hospice benefits eligibility, discussing hospice as a disposition plan with the patient’s physician, assessing whether the patient’s goals are consistent with hospice care, and introducing hospice to the patient and family surrogates.[14]

PC in the ED

It is known that patients who need PC often visit EDs whether or not there are PC units, home care services and hospices, and ED visits will never lose importance due to the aging population and the increase in advanced diseases. It is obvious that adults with chronic illnesses often visit an ED several times in their last year of life. Unfortunately, high rates of ED visits in the last weeks of life are accepted indicators of poor-quality end-of-life care.[17]

In a study which was called ‘the health and retirement study’, number of emergency admissions were evaluated according to age variable in the last months of life for fourteen years. It was found that 75% of patients older than age 65 years visited an ED in the last six months of life, and 51% of patients visited an ED in the last month of life. They also found that repeated visits were common in these patients.[18]

McNamara et al. evaluated ED admissions in the 90 days before death. They reported that 65.8% of patients with malignancies were admitted to ED in the last year of life, and 47% of patients in the 90 days before death visited ED many times.[17] In a study, patients with advanced malignancy were evaluated according to ED admissions, and it was reported that 26% of patients with advanced malignancy were admitted to ED more than five times in a two-year period.[19]

There can be a lot of reasons for admission to ED. First, PC patients may have serious and variety of symptoms in a disease trajectory. Pain is the most common problem. In addition to pain, dyspnea, nausea, vomiting, nutritional deficiencies, fatigue, bleeding problems, and anemia may occur.[20-23] Moreover, acute function loss, acute anxiety, epileptic seizures, and delirium were reported symptoms of PC patients.[24] Shin et al. reported that pain, fatigue, nausea, and insomnia were the most common symptoms when referring acute PC patients from ED.[21] Also, they suggested that the patients who were referred from ED had more severe symptoms than other PC patients. In a study by Ahn et al., the reasons for ED admission for cancer patients were divided into four groups: disease progression (55.5%), infection (22.8%), treatment-related complications (14.7%), and non-cancer related problems (7%).[25]

The ED may be an option for PC patients for hydration or intravenous medication, as well as a quick reach for acute imaging. The symptoms that the patient suffers are often bothersome and distressing, and it may cause anxiety in patients and families. It is known that psychological distress includes symptoms such as depression and anxiety. It was suggested that the prevalence of psychological distress in cancer survivors ranged from 0% to 44%.[26]

It was found that many patients with advanced malignancy needed only simple procedures such as hydration, bladder catheterization, and oxygen therapy in ED in a study by Hjermstad et al.[27] They found the most common reasons for ED admissions were gastrointestinal problems (nausea, vomiting, diarrhea, etc.), lung problems (dyspnea, pleural effusion, pneumonia, etc.) and pain. It was suggested that somatic indications such as reduced performance status, frailty, loneliness, and psychological distress might be a reason for admissions to ED. Additionally, family distress and feeling safer in the hospital than at home were indicated as the causes of ED admission.[27] Next to those, the most common reason was the availability of EDs 24 hours a day and 7 days a week. The patients have access to physicians for all their needs.

EDs will always be essential for PC patients with or without
PC units, hospices, and PC consultants. The first important point for providing best care is to be aware of PC in ED. PC patients are on a long and distressed road. They are more vulnerable than other patients. Hence, symptom-oriented assessments cannot be enough for them.

Problems

There are some problems while providing PC in ED. Several studies from different countries report similar problems about these difficulties. According to a study by Grudzen et al., the limited knowledge and understanding about the main role of ED physicians in providing PC, problems in decision-making, a more defensive approach, and logistical challenges of ED were reported as difficulties while providing PC to patients in terms of the perspectives of ED physicians.\(^\text{[28]}\) The thoughts of Australian ED clinicians were evaluated concerning problems while providing PC in ED. The free text responses were commented along three main headings: The first one was about differences in expectations, and the most common response was ‘family or patient do not understand or agree with prognosis’; the second was about challenges for staff, and the most common response was ‘not enough experience to avoid the default treatment pathway’; and the last was about the challenges related to systemic issues, and the most common problem was ‘limited information was available about the patients’\(^\text{[29]}\). Additionally, the barriers on PC initiation in ED were defined as communication problems, ethical and legal issues, aggressive symptom management, and lack of clear guidelines.\(^\text{[28]}\)

Logistical Problems

The logistical problems of ED were reported by Bradley et al. and included lack of time and space; overcrowding and workload; alarms, buzzers, and the yelling of agitated patients; and poorly designed departments.\(^\text{[30]}\) It was shown in the literature that patients spent considerable time in ED before being transferred to an inpatient unit or a PC bed, services that may not be immediately available.\(^\text{[5,29]}\) Time itself can be a problem for providing PC in ED.

ED visits can distress and exhaust vulnerable patients at the end of life and their families, while being clinically challenging and time consuming for staff.\(^\text{[29]}\) A study by Lamba et al., which evaluated differences between ED-initiated, intensive care-initiated, and floor-initiated PC consults, found that emotional and bereavement support was more required and communication with family was one of the major needs in ED.\(^\text{[31]}\) Logistical problems, such as interruption to workflow, unclear whether ED can support this type of care, lack of patient follow-up, and lack of trust due to the lack of a long-term relationship were presented according to responses of ED physicians in Stone et al.’s study.\(^\text{[32]}\)

Cultural Problems

The main problem is differences between the cultures of two medical approaches. Emergency medicine aims to provide stabilization of acute medical urgencies as quickly as possible, whereas it is not necessary to draw immediate medical actions in PC\(^\text{[33]}\) and it is less invasive in critical situations. Nauck et al. suggested that aggressive resuscitation might be inappropriate for every critical situation in ED, such as PC patients\(^\text{[20]}\) because death is an expected outcome for most PC patients. The cultural problems suggested by Stone et al. were language barriers, differing religious and spiritual beliefs about illness, death, and dying, patient education, family needs at odds with patient needs, and patient informed decision-making.\(^\text{[32]}\) Grudzen et al. claimed that it was not easy to match two different cultures and approaches between EM and PC. Thus, they suggested that PC consultation in ED might solve the problems while providing PC.\(^\text{[34]}\) Inversely, it was reported that EM culture should change to patient-centered culture as in PC. However, it is obvious that patient goal-centered care matches the wishes of patients and families.\(^\text{[9]}\)

Training Problems

Training about PC core competencies is very important. It is specified in the literature that there is a lack of training about PC in ED residency programs. In a survey study about PC in ED, most of the ED physicians (72%) stated only a working knowledge about PC, and they indicated a need for education about end-of-life communication and ethical issues particularly.\(^\text{[3]}\) One hundred fifty-nine emergency residents from USA participated in the survey study by Meo et al., and it was reported that residents recognized the importance of PC competence. Most of the responders had indicated an interest in greater formal training in PC topics, and they reported a lack in their training program about PC.\(^\text{[33]}\) Similarly, training problems such as PC being at odds with medical training and lack of communication skills training in EM were reported in a survey study that 42 emergency physicians participated in. It was indicated that residents were aware of the importance of PC, and they would like to have more training about PC skills.\(^\text{[33]}\)

Benefits of PC Integration into the ED

The creation of a PC pathway in ED provides a better match for patient wishes with the care received, and it may provide an improvement in patient-centered care and a decrease in the intensity and invasiveness of care when appropriate. It was suggested that initiating PC in the ED had a unique opportunity to support PC interventions early in a patient’s disease trajectory, promoting quality of life as well as reducing costs associated with treatments.\(^\text{[5]}\) Similarly, Wang et al. sug-
gested that PC intervention in the ED provided numerous benefits in terms of timely provision of care, improved outcomes, direct referrals to hospice, reduced hospital length of stay (LOS), improved patient and family satisfaction, less utilization of intensive care, and cost savings. The evaluation of emergency physicians’ perspectives on PC through a survey study presented the benefits of PC to patient and family as better pain management, better quality of life, and the preparation of family for death, and the benefits to ED physicians were broadened perspective in training and increased job satisfaction.

The health care system should aim to reduce unnecessary ED admissions for PC patients. Wang et al. revealed that health services utilization was an important measure of palliative care effectiveness. Easier access to medical doctors outside the hospital and better lines of cooperation between hospitals and the primary healthcare services might reduce the need for ED admissions. Similarly, Seow et al. reported that patients who spent more time with home care teams had reduced ED admissions. It was suggested that patients who wished to die at home and patients who had advance directives with DNR orders had reduced ED admissions. It was suggested that special PC programs in health care systems can reduce the psychosocial stress in families as well as the number of emergency calls, and it was reported that these programs make PC patients more likely to die at home.

Studies have suggested that palliative care might lead to cost savings through reduced use of avoidable health care services. As an example, a hospital-based palliative care program helped reduce the utilization of intensive care, laboratory services, and pharmacy. Devader et al. suggested that reducing the use of avoidable health care services, unnecessary tests and treatments, and decreasing LOS provides cost savings. Patients in-home palliative care were found to be less likely to visit emergency departments (EDs) or to be admitted to hospitals, and more likely to die at home, than those with usual care.

There are some studies that indicate the benefits of PC initiation in the literature. It has been found that early initiation of PC consultation in the ED was associated with a significantly shorter LOS for patients admitted to the hospital, and they indicated that the patient- and family-centered benefits of PC were complemented by reduced inpatient utilization. Kandarian et al. suggested that early PC consultation in the ED impacted quality of life, health care utilization and survival, but not whether this was due to the supportive care aspect of PC teams alone.

Identification of PC Patients in the ED

Early identification of PC patients is very important in ED. In the literature, there are some criteria in terms of defining PC patients on ED admission. The primary and secondary cri-
teria that were suggested by Lamba et al. are presented in Table 1.\(^{[44]}\)

A basic model was suggested for identification of PC patients in ED. First, the patient should have a serious and life-threatening disease and additionally should have one or more of the following criteria: ED physician would not be surprised if the patient died in the next 12 months, or if a pediatric patient, will not survive to adulthood; more than one ED visit or hospital admission for the same condition within several months; ED visit prompted by difficult-to-control physical or psychological symptoms, decline in function, feeding intolerance, unintentional weight loss or caregiver distress; and lastly, complex long-term care needs requiring more support.\(^{[43]}\)

**PC integration models in the ED**

The integration of PC into ED is a new area of expertise. Thus, the ways of integration are not completely identified. In a study by Lamba et al., four clinical integrations are suggested. The first is a traditional consultation model.\(^{[44]}\) When a PC patient comes to ED, the emergency physician calls a PM expert consultant in hospital. The second is called basic integration. The ED and PC work together on some goals/objectives. The third, which is called advanced integration, requires that ED and PM work together on processes and protocols but ED locates in the forefront. The applicability of these models may be limited due to the availability of PM expert consultants in hospitals. In Turkey, PC is not a specialty and only a few physicians are interested in PC. The final model is an ED-focused advanced integration program. It needs a dual EM-palliative care board-certified physician. PC is a subspecialty of ED since 2008 in the USA, but in many countries including Turkey, PC is not a subspecialty, so the feasibility of this model is not possible for every country.\(^{[46]}\)

The study by Wu et al. that evaluated the effects of PC integration may be an example for the third explained model. The benefits of this model were presented as decreased LOS, greater patient satisfaction, reduced costs, and less invasiveness.\(^{[5]}\)

Some basic integration steps when getting started are presented by IPAL-EM. According to one, four steps are suggested. The first step is to convene an interdisciplinary workgroup to plan and lead the effort; the second step is to assess the needs and resources for improving PC in the ED; the third one is to develop an action plan to map out work responsibilities and a time line; and last step is to engage the entire ED team to create a supportive culture for palliative care improvement.\(^{[47]}\) Additionally, a list that briefly includes what could be done in a week for initiation of PC into ED is reported. It includes identify your ED “champions,” review the existing literature, identify local hospice and palliative care resources, and develop a plan to complete a needs assessment.\(^{[48]}\)

In a study by Rosenberg, an integration model that is called ‘LSMA (Life Sustaining Management and Alternatives)” is presented.\(^{[4]}\) It is an emergency-based PC program that includes a core team of one ED physician and one nurse coordinator for the initial consult. Nutritionists, chaplains, psychologists, social workers, physical therapists, occupational therapists, and other disciplines as required to meet the needs of each patient and family are the other members of the team. They reported increased patient and family satisfaction, reduction of costs, decreased length of stay (LOS), and reduction of the intensity of care and resuscitation rates with the LSMA program.\(^{[4]}\)

Every emergency department should find their own way on this issue. It should be organized according to the health care resources in the country, sources of hospitals with or without palliative consultants or units, and the circumstances of each individual ED. Thus, the methods might be different but the aim should be presenting high quality of care for PC patients.

**The Management of PC Patients in the ED**

The most important thing is to identify PC patients in ED and then to identify resources of possible health care facilities in terms of referral from ED. A PC team can be formed in ED that includes physicians and nurses.\(^{[49,50]}\) It is not to be forgotten that to provide PC is only possible with a multi-disciplinary approach. This team can include social workers and chaplains in the hospital. If a team cannot be formed, the com-

|   | **Table 2. The first steps of assessment of PC patients in ED** |
|---|---|
| A | Does the patient have any advance directives in place regarding life-sustaining measures? If so, what are they? |
| B | How can you make the patient feel better? This is the symptom-management phase of the acute resuscitation while the ED physician tries to ascertain what level of resuscitation he or she should perform. |
| C | Are there caregivers at the bedside or who can be reached by phone? If so, take their needs and desires into consideration. |
| D | Does the patient have decision-making capacity? |
Communication between ED physician and the rest of the team should be enabled. Also, the psychologist or psychiatrist can be ensured to contact or consult for PC patients and families. Devader et al. present the ABCD for rapid assessment of PC patients in ED.[11] It is shown in Table 2.

When a PC patient comes to ED, the question should be “what is the appropriate treatment for this patient in this particular situation?” It is not forgotten that every patient and every situation is unique, and rapid assessment and meeting the needs of patients should be done in the ED. After assessment and treatment, ED physician, patient, family, and the patient’s primary physician should decide the best option among hospice, PC unit, hospital bed, or home care for the patient.

The Proposed Solutions
When it is considered globally, EM residency programs should be organized according to PC knowledge and skills, with or without the health care structure of PC. Emergency physicians should know core competencies concerning PC.[51] The core competencies are indicated in a study by Meo et al.[33] According to that study, they are: assessing illness trajectory, formulating prognosis, difficult communication with patients and families, pain and symptom management, withdrawing or withholding non-beneficial treatments, planning advanced care, PC systems referrals, and an understanding of ethical and legal issues. Additionally, Quest et al. added family presence during resuscitation, management of the imminently dying, spiritual/cultural competency, and management of the dying child to the core competencies.[14] These core competencies can be added to ED residency programs.

Additionally, some proposed solutions that are intended to solve the problems that occur while providing PC in ED are presented in Table 3.

Furthermore, the main point for initiating PC in the ED is suggested that clinical awareness, a multi-professional team approach, communication skills, ethics expertise, close contact with the patient and families, information and informed consent, and correct documentation can help manage crises in PC such that unforeseen and distressing acute emergencies should be rare.[24]

Finally, PC is a new and rapidly evolving area and is a good approach that every patient with life-limiting disease deserves. Although there are some developments in the existing health care system that are supported by Ministry of Health in Turkey, there is not enough clinical awareness and embodiment in EDs. It is known that there are not enough PC units, hospices, or consultants in hospitals in Turkey. As a result, there will be inadequacy while providing PC to its whole meaning. However, giving best care and meeting the needs of patients are the responsibility of emergency physicians. In the beginning, the deficiencies in the training aspects of PC may be remedied due to good management of PC patients. Next, changing the overall approach to PC patients may be chosen. An increase in patient-centered care and a decrease in invasive approaches may be tried for these patients by emergency physicians. Communication with the patient as well as families is more important. Thus, ED physicians can try to give more time to these patients. If EDs begin to solve their problems and create a system for providing PC in the course of time, Turkey can be a country that presents good PC to patients completely by opening new units and hospices.

Conflict of Interest
The authors declare that there is no potential conflicts of interest.

References
1. Shreves A, Marcolini E. End of life/palliative care/ethics. Emerg Med Clin North Am 2014;32:955–74. CrossRef
2. National Institute for Clinical Excellence. Guidance on cancer services. Improving supportive and palliative care for adults with cancer. Support Palliat Care. London, United Kingdom: National Institute for Clinical Excellence; 2004. World Health

Table 3. The list of solution proposals for providing better PC in the ED

| Proposed Solutions                                                                 |
|-----------------------------------------------------------------------------------|
| Arrangements that include facilities to provide PC can be made in the existing health care system. |
| Training programs that include core competencies of PC can be added to ED residency programs. |
| Management guidelines that include PC emergencies can be prepared for ED staff. |
| Educational materials and courses from the ED perspective can be added ongoing medical education. |
| Arrangements intended to remove logistical barriers should be made in ED. |
| Special palliative care teams can be formed in the ED. |
| Arrangements that include providing legality of advance directives and DNR orders can be done in the existing health care system. |
Organization. Definition of palliative care. Available at: http://www.who.int/cancer/palliative/definition/en/

3. Shearer FM, Rogers JR, Monterosso L, Ross-Adjie G, Rogers JR. Understanding emergency department staff needs and perceptions in the provision of palliative care. Emerg Med Australas 2014;26:249–55. CrossRef

4. Rosenberg M, Rosenberg L. Integrated model of palliative care in the emergency department. West J Emerg Med 2013;14:633–6. CrossRef

5. Wu FM, Newman JM, Lasher A, Brody AA. Effects of initiating palliative care consultation in the emergency department on inpatient length of stay. J Palliat Med 2013;16:1362–7. CrossRef

6. Mierendorf SM, Gidvani V. Palliative care in the emergency department. Perm J 2014;18:77–85. CrossRef

7. Greer JA, Jackson VA, Meier DE, Temel JS. Early integration of palliative care services with standard oncology care for patients with advanced cancer. CA Cancer J Clin 2013;63:349–63.

8. Kandarian B, Morrison RS, Richardson LD, Ortiz J, Grudzen CR. Emergency department-initiated palliative care for advanced cancer patients: protocol for a pilot randomized controlled trial. Trials 2014;15:251. CrossRef

9. Kenen J. Palliative care in the emergency department: new specialty weaving into acute care fabric. Ann Emerg Med 2010;56:A17–9. CrossRef

10. Turgay G, Kav S. Turkish healthcare professionals’ views on palliative care. J Palliat Care 2012;28:267–73.

11. DeVader TE, Albrecht R, Reiter M. Initiating palliative care in the emergency department. J Emerg Med 2012;43:803–10.

12. Barbera L, Taylor C, Dudgeon D. Why do patients with cancer visit the emergency department near the end of life? CMAJ 2010;182:563–8. CrossRef

13. Lim T, Nam SH, Kim MS, Yoon KS, Kim BS. Comparison of medical expenditure according to types of hospice care in patients with terminal cancer. Am J Hosp Palliat Care 2013;30:50–2.

14. Quest TE, Marco CA, Derse AR. Hospice and palliative medicine: new subspecialty, new opportunities. Ann Emerg Med 2009;54:94–102. CrossRef

15. Saunders C. Care of the dying-1. The problem of euthanasia. Nuns Times 1976;72:1003–5.

16. Lamba S, Quest TE, Weissman DE. Initiating a hospice referral from the emergency department #247. J Palliat Med 2011;14:1346–7. CrossRef

17. McNamara BA, Rosenwax LK, Murray K, Currow DC. Early admission to community-based palliative care reduces use of emergency departments in the ninety days before death. J Palliat Med 2013;16:774–9. CrossRef

18. Smith AK, McCarthy E, Weber E, Cenzer IS, Boscardin J, Fisher J, et al. Half of older Americans seen in emergency department in last month of life; most admitted to hospital, and many die there. Health Aff (Millwood) 2012;31:1277–85. CrossRef

19. Başol N, Celtek N, Alatlı T, Koc İ, Suren M. The Evaluation of Terminal Stage Cancer Patients Needing Palliative Care in Emergency Department. JAEM 2014.

20. Nauck F, Alt-Epping B. Crises in palliative care-a comprehensive approach. Lancet Oncol 2008;9:1086–91. CrossRef

21. Shin SH, Hui D, Chisholm GB, Kwon JH, San-Miguel MT, Allo JA, et al. Characteristics and outcomes of patients admitted to the acute palliative care unit from the emergency center. J Pain Symptom Manage 2014;47:1028–34. CrossRef

22. Raddbruch L, Nauck F, Ostgathe C, Elsner F, Bausewein C, Fuchs M, et al. What are the problems in palliative care? Results from a representative survey. Support Care Cancer 2003;11:442–51.

23. Teunissen SC, de Graeff A, de Haes HC, Voest EE. Prognostic significance of symptoms of hospitalised advanced cancer patients. Eur J Cancer 2006;42:2510–6. CrossRef

24. Schrijvers D, van Fraeyenhove F. Emergencies in palliative care. Cancer J 2010;16:514–20. CrossRef

25. Ahn S, Lee YS, Lim KS, Lee JL. Emergency department cancer unit and management of oncologic emergencies: experience in Asan Medical Center. Support Care Cancer 2012;20:2205–10.

26. Economou D. Palliative care needs of cancer survivors. Semin Oncol Nurs 2014;30:262–7. CrossRef

27. Hjermstad MJ, Kolflaath J, Lokken AO, Hanssen SB, Normann AF, Aass N. Are emergency admissions in palliative care always necessary? Results from a descriptive study. BMJ Open 2013;3. CrossRef

28. Grudzen CR, Richardson LD, Major-Monfried H, Kandarian B, Ortiz JM, Morrison RS. Hospital administrators’ views on barriers and opportunities to delivering palliative care in the emergency department. Ann Emerg Med 2013;61:654–60.

29. Marck CH, Weil J, Lane H, Weiland TJ, Philip J, Boughey M, et al. Care of the dying cancer patient in the emergency department: findings from a National survey of Australian emergency department clinicians. Intern Med J 2014;44:362–8. CrossRef

30. Bradley V, Burney C, Hughes G. Do patients die well in your emergency department? Emergency Australas 2013;25:334–9.

31. Lamba S, Nagurka R, Walther S, Murphy P. Emergency-department-initiated palliative care consultations: a descriptive analysis. J Palliat Med 2012;15:633–6. CrossRef

32. Stone SC, Mohanty S, Grudzen CR, Shoenberger J, Asch S, Kubricek K, et al. Emergency medicine physicians’ perspectives of providing palliative care in an emergency department. J Palliat Med 2011;14:1333–8. CrossRef

33. Meo N, Hwang U, Morrison RS. Resident perceptions of palliative care training in the emergency department. J Palliat Med 2011;14:548–55. CrossRef

34. Grudzen CR, Richardson LD, Hopper SS, Ortiz JM, Whang C, Morrison RS. Does palliative care have a future in the emergency department? Discussions with attending emergency physicians. J Pain Symptom Manage 2012;43:1–9. CrossRef

35. Lamba S, Pound A, Rella JG, Compton S. Emergency medicine resident education in palliative care: a needs assessment. J Palliat Med 2012;15:516–20. CrossRef

36. Wang L, Piet L, Kenworthy CM, Dy SM. Association between palliative care management and utilization of inpatient, intensive care unit, emergency department, and hospice in medicaid beneficiaries. Am J Hosp Palliat Care 2015;32:216–20. CrossRef

37. Seow H, Barbera L, Howell D, Dy SM. Using more end-of-life homecare services is associated with using fewer acute care services: a population-based cohort study. Med Care 2010;48:118–24. CrossRef

38. Salam-White L, Hirdes JP, Poss JW, Blums J. Predictors of emer-
ergency room visits or acute hospital admissions prior to death among hospice palliative care clients in Ontario: a retrospective cohort study. BMC Palliat Care 2014;13:35. 

39. Schonwetter RS, Clark LD, Leedy SA, Quinn MJ, Azer M, Kim S. Predicting emergency room visits and hospitalizations among hospice patients with cardiac disease. J Palliat Med 2008;11:1142–50. 

40. Wiese CH, Vossen-Wellmann A, Morgenthal HC, Popov AF, Graf BM, Hanekop GG. Emergency calls and need for emergency care in patients looked after by a palliative care team: Retrospective interview study with bereaved relatives. BMC Palliat Care 2008;7:11. 

41. Morrison RS, Penrod JD, Cassel JB, Caust-Ellenbogen M, Litke A, Spragens L, et al. Cost savings associated with US hospital palliative care consultation programs. Arch Intern Med 2008;168:1783–90. 

42. Brumley R, Enguidanos S, Jamison P, Seitz R, Morgenstern N, Saito S, et al. Increased satisfaction with care and lower costs: results of a randomized trial of in-home palliative care. J Am Geriatr Soc 2007;55:993–1000. 

43. Wye L, Lasseter G, Percival J, Duncan L, Simmonds B, Purdy S. What works in ‘real life’ to facilitate home deaths and fewer hospital admissions for those at end of life?: results from a realist evaluation of new palliative care services in two English counties. BMC Palliat Care 2014;13:37. 

44. Lamba S, DeSandre PL, Todd KH, Bryant EN, Chan GK, Grudzen CR, et al. Integration of palliative care into emergency medicine: the Improving Palliative Care in Emergency Medicine (IPAL-EM) collaboration. J Emerg Med 2014;46:264–70. 

45. Todd KH. Practically speaking: emergency medicine and the palliative care movement. Emerg Med Australas 2012;24:4–6. 

46. Quest TE, Bryant EN, Waugh D, Grudzen C, Weissman DE for the IPAL-EM (Improving Palliative Care in Emergency Medicine) Project. Palliative Care ED Screening Tool: A Technical Assistance Resource from the IPAL-EM Project. Available at: http://ipal.capc.org/downloads/ipal-em-palliative-care-ed-screening-tool.pdf. 

47. Eric N. Bryant, MD,1 Tammie E. Quest, MD,2 Paul L. DeSandre, DO,3 David E. Weissman, MD, FACP, for the IPAL-EM (Improving Palliative Care in Emergency Medicine) Project. Getting Started: Organizing an ED Palliative Care Initiative A Technical Assistance Monograph from the IPAL-EM Project. Available at: http://ipal.capc.org/downloads/ipal-em-getting-started.pdf. 

48. DeSandre PL, Stone S, Quest TE, Weissman DE, for the IPAL-EM (Improving Palliative Care in Emergency Medicine) Project. Four Things to Do in a Week: Integrating Palliative Care Services into the Emergency Department A Technical Assistance Monograph from the IPAL-EM Project. Available at: http://ipal.capc.org/downloads/ipal-em-four-things-to-do-in-a-week.pdf. 

49. Grudzen CR, Quest TE, Spragens LH, Weissman DE, for the IPAL-EM (Improving Palliative Care in Emergency Medicine) Project. Evaluation of ED–Palliative Care Metrics & Quality A Technical Assistance Monograph from the IPAL-EM Project. Available at: http://ipal.capc.org/downloads/ipal-em-evaluation-of-ed-palliative-care-metrics-quality.pdf. 

50. Lamba S, Schmidt TA, Chan GK, Todd KH, Grudzen CR, Weissman DE, et al. Integrating palliative care in the out-of-hospital setting: four things to jump-start an EMS-palliative care initiative. Prehosp Emerg Care 2013;17:511–20. 

51. Schears RM. Emergency physicians’ role in end-of-life care. Emerg Med Clin North Am 1999;17:539–59.