Do you know what to do when called to treat a terminally ill patient?

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You are working the overnight shift for All-City EMS when the call comes over the radio: "Medic 4, respond to 422 Mount Prospect Ave., single-family home, sick, semi-responsive male, time out 22:26 hours." You arrive to find a 55-year-old male in no apparent acute distress. He has stomach cancer. Over the last 12 hours, the patient has not been able to keep down food or water and has had several bouts of diarrhea. He is now listless, but is able to answer all your questions. The patient's wife states that she called hospice 30 minutes ago, but no one called back, so she dialed 9-1-1. She doesn't want the patient to be transported until hospice gets there to evaluate his condition. As your partner completes his patient assessment, you explain to the patient's wife that you are an emergency ambulance and would be more than happy to either transport to a stabilizing facility or have her sign an RMA, but you can't just stand there and wait. She's not sure what to do. You aren't sure what to do either--take the patient to the hospital, or call for a supervisor?

Chances are, with the increase in patients with serious chronic and terminal illnesses being managed at home, most EMS providers will experience situations similar to this over the course of their career. So what do you do? Should EMS respond to these calls? Should you take the patient to a hospital, or wait for hospice personnel? What exactly is the role of hospice, and how does it impact your care decisions? Beyond Refusals of Medical Assistance (RMAs) and Do Not Resuscitate (DNRs) orders, most EMT and paramedic programs don't discuss hospice and terminal illness/condition issues enough to help EMS providers become knowledgeable and act appropriately when faced with these patients.

Understanding Palliative Care

The Merck Manual of Diagnosis and Therapy identifies palliative care as "noncurative care and support services for patients with terminal illnesses (life expectancy less than six months) and their families." Palliative care customarily includes traditional and alternative-medicine approaches to pain management, relief of nausea and vomiting, maintaining nutritional intake, emotional support for radiation and chemical therapies, and the hospice concept. The optimal goal of palliative care is to provide comfort to the patient prior to death, whether or not the treatment actually prolongs life expectancy.

Perspectives

Medical associations have made limited attempts to address the uniqueness of the palliative care situation in the prehospital arena.

The American Medical Association's policy statement regarding the treatment of cancer patients, though not specific to prehospital interventions, expresses the belief that care does not end when cure is not possible: "[The Association] recognizes the need to ensure the highest standards of symptomatic, rehabilitative and supportive care for patients with both cured and advanced cancer; supports clinical research in evaluation of rehabilitative and palliative care procedures for the cancer patient; encourages the implementation of continuing education of the practicing American physician regarding the most effective methodology for meeting the symptomatic, rehabilitative, supportive, and other human needs."

The American College of Emergency Physicians, in a paper titled Do Not Attempt Resuscitation Orders in the Out-of-Hospital Setting, states, "In both out-of-hospital and hospital settings, current resuscitation techniques generally fail in patients with comorbid illness,
terminal cancer, and other irreversible disease states when they suffer a cardiopulmonary arrest."

A 1992 National Association of EMS Physicians paper titled *Ethical Challenges in Emergency Medical Services* includes a discussion of the ethics surrounding patient care decisions by EMS providers. It concludes with the statement: "Current training does not equip even the most advanced prehospital care provider to deal easily with every potential situation. Many learn by experience, some are guided by clear policy. Ideally, medical control personnel will be educated, interested and available to address dilemmas which arise. Where possible, policies and procedures should be developed to address ethical issues that are likely to be faced by EMS personnel."

In 2000, a paper was published examining the prevalence of palliative care protocols in EMS agencies in the top 200 most populous cities in the U.S. This paper confirmed that fewer than 6% of the cities queried had a clear, definitive palliative care protocol, and, even in those systems that had established directives, there was much confusion about their implementation among field staff.

**Understanding The Hospice Concept**

Hospice services include supportive medical, social, emotional and spiritual services to the terminally ill, as well as support for the patient's family. The care is primarily provided in the patient's home to allow peace, comfort and dignity. Prior to choosing hospice care, patients and their family members are advised that the hospice agency will take only limited action, if any, to prolong life. Hospice patients, in consultation with their families and the hospice team, decide what treatment they want to receive. Hospice workers regularly visit the patient, prescribe and administer medications as appropriate, and constantly monitor the patient's condition. Hospice care relies on the combined knowledge and skill of an interdisciplinary team of professionals--physicians, nurses, medical social workers, therapists, counselors and volunteers--who coordinate an individualized plan of care for each patient and family.

**DNR Orders**

Do Not Resuscitate (DNR) orders are often instituted when, in the event of cardiopulmonary arrest, resuscitation efforts are unlikely to be beneficial. It is fairly common to see DNR orders for patients who have terminal illnesses or are in hospice programs. But often, the distinction between an order preventing initiation of CPR and an order preventing initiation of other necessary medical treatment can become blurred. As a result, there is the possibility that EMS providers may erroneously assume a DNR status to imply that a patient is dying and therefore should not undergo other lifesaving/life-extending interventions, such as clearing a blocked airway or providing fluids for a trauma injury, which may have nothing to do with the patient's main illness etiology. Despite the confusion between DNR orders and palliative care, there is a clear distinction. A DNR order only indicates that CPR should be withheld in the event of cardiac or respiratory arrest. EMS providers must ensure that all patients receive thorough and proper assessments and that, short of CPR, those treatment modalities which correlate with the findings of those assessments and accepted standards of care are instituted.

If hospice workers or the patient's primary physician arrive on the scene while you are evaluating the patient, it's prudent to defer to your local, regional or state protocols on how to handle this situation. Remember that the hospice workers and/or physician almost certainly have significant knowledge about the patient's pre-existing medical condition, as well as his decisions regarding invasive treatments. It is always good practice to contact online medical control to advise of this situation, for both clinical and legal reasons. Communications with medical control may be required to alter care plans based upon this information, turn patient care over to the private physician or allow for release of personnel from the scene.

**Integrating Restorative And Palliative Care**

EMS providers should be knowledgeable about their individual state regulations regarding hospice, palliative care and the various programs encompassed by both. Some states have set up protocols that delve into the various issues these patients encounter, as well as treatment options specific to those receiving hospice care at home. One example of this approach is found in the protocols developed and promulgated by the Maryland Institute for Emergency Medical Services Systems. The palliative care facets are embedded into the DNR protocol and offer the provider two options when treating patients in advanced stages of a terminal illness: maximal (restorative) and limited (palliative) levels of care. Another model is Hawaii's "Comfort Care Only--DNR" information packet, which gives EMS providers clear direction and delineates the roles of the base station physician and the patient's physician. The document even includes a few common EMS-specific questions regarding palliative care and DNR orders. These two states are among the few that have been proactive in arming EMS with the tools necessary to deal with circumstances that run counter to the normal prehospital paradigm.
Clinical Considerations

Pain management is a paramount consideration with most hospice patients. Typically, EMS systems use a combination of narcotic analgesics (such as morphine sulfate) and benzodiazepine sedatives (diazepam or midazolam) to manage pain in the field. However, most protocols call for the establishment of intravenous access prior to the utilization of such medications, or to administer them intramuscularly, and there may be some situations where the patient does not wish to allow such invasive care. Furthermore, many hospice patients undergoing aggressive treatments like chemotherapy may already have a vascular access device, such as a Port-A-Cath, arteriovenous (AV) graft or AV fistula, that they would prefer be used as a primary medication administration route. In this case, it is dependent on whether the EMS service carries proper equipment to access such devices and whether personnel are properly trained to do so. In some instances, these vascular access devices may have been recently installed and may not be accessed until after a certain date. It is imperative that prehospital caregivers contact medical control in such instances and not attempt procedures outside their scope of practice or training.

Other creative solutions, such as transdermal, buccal (cheek), intranasal, inhalative and rectal administration of these medications, may need to be employed in these circumstances. Administering narcotics for pain control through an intranasal (IN) delivery system has shown efficacy in limited studies. This can include fentanyl citrate and perhaps more potent opiates such as sufentanil. Likewise, fentanyl "lollipops" have been used for years in hospitals as a safe method of providing relief for children. Nitrous oxide, a CNS depressant, is also available in many EMS systems for analgesia. When exploring options for noninvasive pain control, remember to check local laws pertaining to the possession and use of controlled substances by EMS, as they can differ greatly from state to state. Always be familiar with your local protocols, and communicate with medical control in regard to the use of such medications.

Understanding the clinical aspects of palliative care also involves providers becoming familiar with the supportive medications prescribed to a majority of these patients. This can be especially important if you will be administering medication to the patient in the field. Obviously, with the administration of analgesics or sedatives such as morphine or Valium, the provider must always watch for potentially harmful side effects like respiratory depression and hypotension. However, when dealing with a hospice patient who may be on a multitude of other medications, there is also the potential for adverse and idiosyncratic reactions when introducing more drugs. Some medications could have a synergistic effect, causing a more pronounced action than seen in the general population. On the other hand, there could be an antagonistic effect, leading to a less-than-expected therapeutic result. Additionally, the pharmacokinetics and pharmacodynamics of the drug may be different due to a hospice patient's condition. Hospice patients may be immunosuppressed, anorexic, or have decreased liver and renal function due to chemotherapy, radiation therapy or the progression of their disease. Drug metabolism can be slowed, and adverse side effects can become more severe in these patients. It is important to adjust doses appropriately and monitor these patients closely if drugs must be administered in the field.

Aside from common pain medications mentioned above, you will often find other therapeutics--standard beta-blockers, anti-arrhythmics, anti-hypertensives, diuretics and supportive prescriptions like stool softeners and anti-emetics--prescribed. There is also the possibility of finding patients who have been prescribed trial or experimental medications that have limited application or FDA approval. Patients and homecare providers will probably have some general information regarding the medication, as well as its purported side effects and other interactions. If you are not familiar with a medication and there are questions about potential harmful effects if combined with other medications, it is best to contact your medical control, and perhaps a poison control center, both of which may be more familiar with the unknown medication and the potential for drug interactions.

If it is decided that patient transport is necessary, every effort should be made to ensure the destination facility is familiar with the patient's condition and advance directives. Also, keep in mind some of the simple, noninvasive clinical measures that can be employed, such as oxygen administration and cold or heat packs. In this same vein, a climate-controlled ambulance, extra padding when necessary, and overall care and compassion are necessary comfort measures. In addition, the prehospital care provider must be prepared to transport any home medical equipment that the hospice patient may need, such as a ventilator, respirator or medication infusion pump. If you are unable to transport the patient with the device, or are unsure whether the device should be transported, contact medical control. If operation or monitoring of the equipment is outside the provider's scope of practice and/or training, arrangements may need to be made for a specialty care transport unit to transfer the patient to a care facility. When at all possible, the crew should attempt to comply with the patient's and his family's wishes as much as is prudent.
Conclusion

EMS systems need protocols that offer paramedics and EMTs direction when presented with a patient who is under the care of a hospice unit, or has any ambiguity in regard to level of treatment desired due to the presence of a terminal illness. At a minimum, these protocols must take into account patient preferences regarding potentially life-sustaining treatment at the end of life and DNR orders in the prehospital setting. Likewise, medical control physicians should have the ability to afford EMS providers the capacity to make resuscitation decisions for a terminally ill patient based upon documented wishes established with hospice. Perhaps a future protocol will enable paramedics and EMTs to treat and release hospice program patients who are in need of palliative care, allowing for the non-parenteral administration of medications and other noninvasive procedures. As long as certain pre-established clinical and operational criteria are met--such as stable vital signs, a patient cognitively able to refuse medical transport and the dispatch of hospice personnel to the residence--then the patient may be treated appropriately and left at home.

Hand in hand with the development of these types of protocols is the need for proper education regarding the role of EMS--when dealing with patients and their family members enrolled in hospice programs. Opportunities to partner with these programs should be sought in order to distribute information about area prehospital medical practices to their patients. This includes not only informing them about appropriate use of the EMS system, but also, and more important, explaining that EMS may not be the best option if all they seek is palliative care and a peaceful death.

References


Suggested Reading


The authors dedicate this article to Jack Haller, MD, a dedicated healthcare provider.

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