



EM CASES SUMMARY

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Discussing End of Life Care in Emergency Medicine

Find a quiet room to have end of life discussions. In an unresponsive patient, find a room where the patient cannot hear the discussion. It is prudent to assume the unconscious patient hears everything (1).

Allow patients and/or their families the time to tell their story so you can understand it. *Avoid power struggles* with families. It is appropriate to provide your clear medical opinion, and when appropriate, make clear recommendations rather than giving options only and leaving end of life decisions to family alone. This may help reduce the burden of this difficult decision on the family.

See [Episodes 49 and 51](#) on effective patient communication and managing difficult patients.

Palliative Care Myth #1: Code status discussion should focus on descriptions of CPR

In discussions regarding goals of care and code status, don't talking about broken ribs! Rather, discussions around goals of care should

include information regarding overall prognosis, patient goals, and explanations of different levels of care.

An informed decision involves sharing realistic expectations, and the common and uncommon material risks of CPR and treatment (2) may include:

- Incomplete recovery
- Prolonged death
- Uncomfortable investigations and treatments
- Ventilator dependence

Do Not Resuscitate (DNR) Orders in End of Life Care in Emergency Medicine

Palliative Care Myth #2: DNR means do not treat

DNR means no resuscitation in the setting of a full cardiopulmonary arrest. This is often misinterpreted, and sometimes associated with lower quality or less care. Patients can and should still receive full and aggressive medical management even if they are rendered DNR.

There is a movement, as stated in the [AHA Cardiopulmonary Resuscitation Guidelines in 2010](#), towards changing the DNR order to 'Allow Natural Death' (AND). AND uses positive language, stating what we **will** do, as opposed to what we **will not** do. Patients and their families may feel less guilt and may be more likely to be agreeable to an AND order than a DNR order.

Discussing Prognosis in End of Life Care in Emergency Medicine

There are multiple *barriers to communicating prognosis* which include:

- Physicians in general are poor prognosticators: ED physicians in particular do not have experience taking care of patients over time in their trajectory towards death
- There is uncertainty in medicine: uncertainty should be communicated with patients, this also leads to the patient's increase in sense of trust with the health care team.
- ED physicians often feel a lack of ownership/responsibility regarding end of life discussions, as it is thought to be the responsibility of the primary care physician
- Lack of skill in communication of prognosis
- We assume patients do not want to know their prognosis; however, it has been shown that the majority of patients *do* want to know their prognosis.

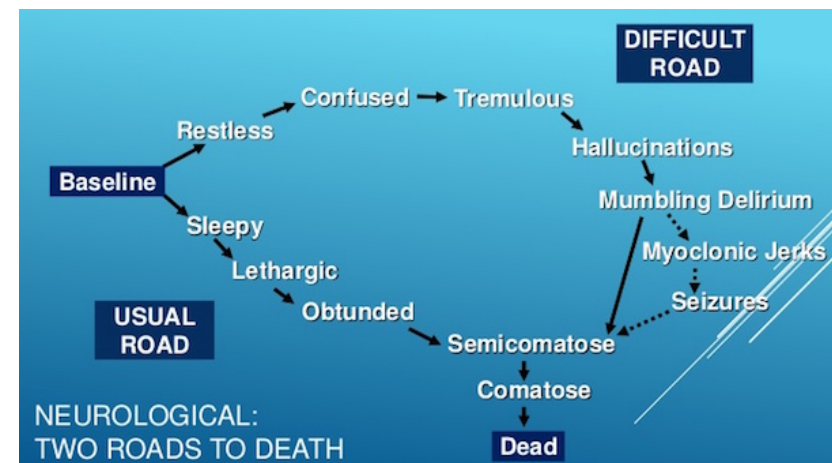
Palliative Care Myth #3: It is the primary care physician's role to discuss end of life issues

End of life discussions and issues around prognosis and palliative care are possible in the ED, and often lead to more appropriate care pathways from the ED.

Models for Prognostication in End of Life Care

There are two models of death, which can help ED physicians prognosticate for patients. The first one describes the final hours-days and the second one describes the final months-years.

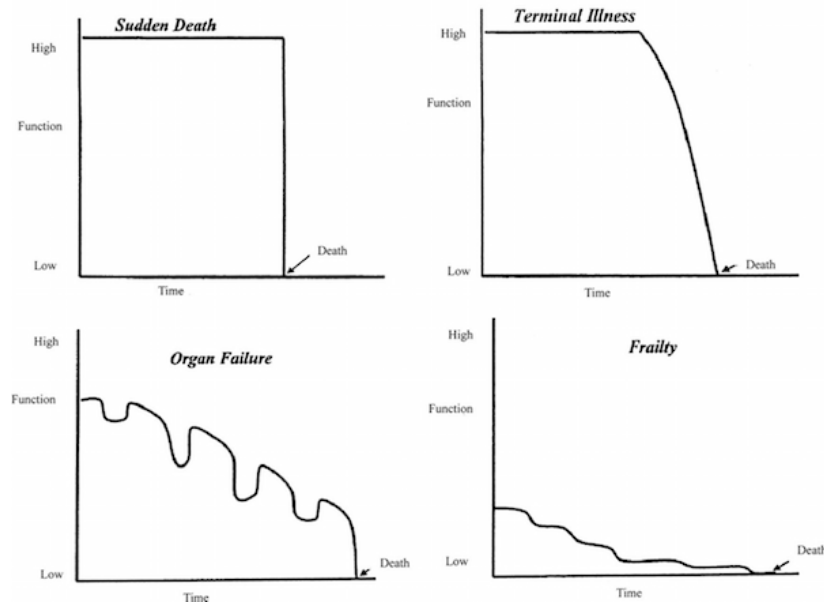
The 'Two Roads to Death' Model (Fig 1):



1. Usual Road: In this pathway, patients are sleepy, lethargic, obtunded and then progress towards death. Death typically occurs quickly.
2. Difficult Road: In this pathway, patients are restless, confused, develop hallucinations, delirium, may develop seizures, and ultimately progress towards death. In this pathway, death is typically prolonged and more difficult.

Trajectory of Illness Model (Fig 2): This model allows one to prognosticate death based on illness diagnosis, and over a longer period of time. There are four different categories of death.

Proposed Trajectories of Dying



1. **Sudden Death**: In this trajectory, patients have not been ill, and there is nothing to predict anything bad will happen. Patients suddenly become critically ill or injured and die. (i.e. sudden massive MI, traumatic injury, etc.)
2. **Frailty**: In this trajectory, patients die of 'old age', and have a slow and gradual decline. These patients may or may not develop a severe illness, but slowly decline in mobility,

function and/or cognition, and ultimately die from a complication of their progressive disability.

3. **Terminal Illness**: In this trajectory, it is expected that patients will have a prolonged illness where they can generally maintain their function, until the end of life, when function sharply drops off. (i.e. cancer)
4. **Organ Failure**: In this trajectory, there is a relatively steep decline in function with intermittent exacerbations. Patients ultimately die during one of these exacerbations, and if they survive, they never reach their prior level of function. (i.e. heart failure, COPD)

Prognostic Signs at the End of Life

Besides the obviously crashing patient, there are multiple signs on physical exam that can give us clues that a patient is near death. Some of these signs include:

- Delirium with hypotension and tachycardia: median survival 10 days
- Death rattle: median survival 1 day
- Respirations with mandibular movement: median survival 2.5 hours
- Cyanosis to extremities: median survival 1 hour

Palliative Care Myth #4: Making a patient palliative leads to a shortened survival

Early palliative care in multiple studies has been shown to *increase* survival.

Approach to End of Life Communication

Do's:

- Introduce yourself, give information that you have reviewed
- Ask 'what is your understanding of your loved one's illness, their quality of life?'
- Ask 'what were you hoping we can do for your loved one?'
- Ask what patients/families are most afraid of
- Ask 'if your loved one were to die tomorrow, what would they want us to accomplish before that?'

Don'ts:

- Get into arguments
- Power struggle

A useful mnemonic for end of life communication is the **SILVER mnemonic**:

Seeks Information:

- Elicits information regarding baseline level of function, behaviours, and symptoms that suggest progressive decline
- Elicits information regarding current diagnosis, prognosis, and treatment plan
- Elicits information regarding key players in decision making, including family and health care workers

- Elicits information regarding previous end of life discussions, including advance directives

Life Values

- Elicits information regarding the patient's personality and approach to life
- Elicits information regarding how the patient views death and dying

Educates/Extends Care

- Provides information regarding the patient's disease process, current condition, and treatment options
- Explains how end of life decisions will impact further treatment

Responds

- Solicits questions from family and offers continued support and availability for further information.

Symptom Management in the Palliative Patient

Pain

Obtain an analgesia history and convert narcotics into morphine daily dose (MDD). Use a calculator for the conversion (there are multiple online calculators available). When switching from oral to IV,

reduce the IV dose by 25% as a starting point. Titrate medications frequently: consider a 50% increase every 15-30 minutes.

- Consider NSAIDs
- Consider corticosteroids
- SQ route and butterfly needles are reasonable options
- Ketamine is not routinely recommended at this time by our experts in the palliative patient for pain control as it may cause emergence reactions

Dyspnea

Opioids decrease the sensation of being shortness of breath. They are used for dyspnea at much smaller doses than they are for pain control (e.g. 0.5 – 2mg morphine IV).

Palliative Care Myth #5: Opioids hasten death

Studies have shown that O₂ and CO₂ levels stay the same despite decreased respiratory rate with opioids. Opioids in the palliative patient are appropriate and ethically permissible as long as the intent is symptoms relief.

Consider adjuvant therapies for dyspnea:

- Oxygen – although studies have failed to show comfort-oriented benefit of supplemental oxygen in the dying patient, our experts recommend it as it often makes families more comfortable
- NIPPV
- A fan blowing air in the patient's face has been shown to improve the dying patient's comfort

Secretions

1. Reposition
2. Suction
3. Medications:
 - Glycopyrrolate 0.2mg
 - Scopolamine patch (delayed onset)
 - 1-2 drops of 1% atropine eye drops under the tongue

Terminal Delirium

Terminal delirium at the end of life is fairly common and may include moaning, restlessness, and agitation. Terminal delirium is difficult for families to watch. It should be treated aggressively and early. Treatment options include:

- Benzodiazepines: In adults, start with midazolam 1-4 mg IV, with frequent reassessments
- Haloperidol: 0.5-2 mg IV, with frequent reassessments

Symptom Management at End-of-Life

Pain

Minimal/Mild pain

- Acetaminophen 15 mg/kg po/pr q6h prn-ATC
- Ibuprofen 10 mg/kg po q6h prn-ATC
- Ketorolac 0.1-1 mg/kg/dose IV q6h

Moderate pain

- Oxycodone 0.2 mg/kg po q4h, >6yo
- Morphine 0.15-0.3 mg/kg po q3-4h; 0.05-0.1 mg/kg IV q3-4h
- Hydromorphone 0.05-0.1 mg/kg po q3-6h prn (<50 kg)
- Intranasal fentanyl (1-2 mcg/dose neonate, 1 mcg/kg older children)

Severe pain

- Recommend continuous infusion or PCA if IV pain requirements
- Recommend Palliative Care or Acute Pain Service Consultation

Secretions

- Gentle oral suctioning as needed
- Glycopyrrolate 0.01-0.02 mg/kg IV q4-6 hours (0.04-0.1 mg/kg po q3-4h)
- Atropine 0.01-0.02 mg/kg po (max dose 0.4 mg)
- Scopolamine patch (1/2 patch q3days for 6-12 yo, 1 patch q3days for >12 yo)

Dyspnea

- Oxygen as needed
- Gentle oral suctioning as needed
- Morphine 0.15 mg/kg po q2 hours prn
- Assess for anxiety, may add lorazepam 0.05 mg/kg po q6 hours prn

Agitation

- Evaluate for pain versus anxiety, hypoxia, poor sleep, depression
- Lorazepam 0.05 mg/kg/dose po/IV q1-2 hours prn
- If ineffective, consider therapy with diazepam, haloperidol

Key References

1. You JJ, Fowler RA, Heyland DK . 2013. Just ask: Discussing goals of care with patients in hospital with serious illness. CMAJ; 186(6): 425-32. [Full pdf](#)
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3. Lunney JR, Lynn J, Foley DJ, et al. 2003. Patterns of functional decline at the end of life. JAMA; 289: 2387-2392. [Full pdf](#)
4. Howey, L, Peppercorn, J. 2013. Early palliative care in cancer treatment: rationale, evidence and clinical implications. Ther Adv Med Oncol. 2013 Nov; 5(6): 318–323. [Abstract](#)