Assessment of Implementation of an Order Protocol for End-of-Life Symptom Management

ANNE M. WALLING, M.D.,^{1,2} KATHERINE BROWN-SALTZMAN, R.N., M.A.,^{1,2}
TOD BARRY, M.B.A., C.P.H.Q.,³ RITA JUE QUAN, Pharm.D., B.C.P.S.,⁴
and NEIL S. WENGER, M.D., M.P.H.^{1,2}

ABSTRACT

Objectives: Designing comfort care plans to treat symptoms at the end-of-life in the hospital is challenging. We evaluated the implementation of an inpatient end-of-life symptom management order (ESMO) protocol that guides the use of opiate medications and other modalities to provide palliation.

Methods: Physicians and nurses caring for patients using the ESMO protocol were surveyed about care provided and their experiences.

Results: Over 342 days, 127 patients (2.6 per week) were treated using the ESMO protocol and we surveyed a nurse and/or physician for 105 (83%) patients. Most patients were comatose, obtunded/stuporous, or disoriented when the ESMO protocol was initiated and most had a life expectancy of less than 1 day. One fourth of physicians felt that the protocol was instituted too late, principally citing family unwillingness to reorient toward comfort care. Providers reported that opiates were titrated appropriately, although a minority revealed discomfort with end-of-life opiate use. Nearly all clinicians found the ESMO protocol to be valuable.

Conclusions: A standardized protocol is a useful, but not fully sufficient, step toward improving care for dying hospitalized patients.

INTRODUCTION

WHEN A PATIENT IS EXPECTED TO DIE, patients, families, and health care providers usually reorient the focus of care toward comfort in a complex set of interactions. This process is often difficult for the patient and family, and can be challenging for members of the health care team.^{1–3} In the acute care setting, such decisions often remain unaddressed until the patient is too sick to participate.⁴ Given that the default in the hospital is fully aggressive treatment including mechanical life-sustaining treatment and resuscitation and inadequate time is devoted to developing care plans, patients often receive aggressive care modalities

despite minimal chance of recovery.^{5–7} Unfortunately, this leads to inadequate symptom management at the end of life. One evaluation of patients dying in the hospital surveyed family members about the last few days of life: family reported that 63% of patients had difficulty with physical or emotional issues in the 3 days prior to death and that 4 in 10 had severe pain during that time period.⁶ In another study, semistructured interviews of nurse specialists showed that “end-of-life interventions in the acute setting were driven by a preoccupation with treatment, routine practice and negative perceptions of palliative care.”⁸

Even when clinicians and patients and their families recognize that a patient is nearing death and the

¹Department of General Internal Medicine and Health Services Research, ²UCLA Healthcare Ethics Center ³Quality Management Department, ⁴Pharmaceutical Services, University of California, Los Angeles, Los Angeles, California.

goals of care should be reoriented toward the end of life, the shift in care may not proceed.^{9,10} A medical record review of patients who died in the Study to Understand Prognosis and Preferences for Outcomes and Risks of Treatment (SUPPORT) found that approximately half had dyspnea and half had pain in the last 2 days, but patients with care aimed at comfort measures did not have statistically significantly better symptom management.⁹ Furthermore, a retrospective study by Parish et al.¹¹ found through case note auditing and key staff interviews that there was a lack of appropriate assessment and documentation of physical and psychosocial care in the inpatient setting toward the end of life. Physicians who deal with end-of-life issues infrequently may be less comfortable guiding care with an emphasis on comfort, especially if the institution does not have clear guidelines to direct such care.^{12–14} This is complicated by diverse views concerning end of life opiate use.^{15–18} Previous data from our institution showed deficits in knowledge and varying attitudes regarding use of opiates at the end of life.¹⁹ Despite these obstacles, health care providers have a responsibility to provide dignified comfort to patients nearing the end of life.²⁰ Bailey et al.²¹ have shown in the VA setting that palliative interventions on the clinician level including education and the use of a computerized order set can be successful in improving symptoms toward the end of life in the context of an electronic health record. The intervention presented here aimed to educate clinicians and change physician and nurse behavior by implementing elements of palliative care principles and practical palliative care plans via an institutional standard order set for end-of-life symptom management in a hospital without computerized orders. Standardized order sets have been shown to facilitate care for other clinical problems such as acute coronary syndrome.^{22,23} The end-of-life symptom management order (ESMO) protocol aimed to frame symptom management at end of life as a routine set of structured steps and to ease discomfort with providing palliation at the end of life by standardizing care.

The ESMO protocol was designed and implemented in a quaternary care medical center by the ethics committee in response to concerns that end-of-life symptoms were not being appropriately addressed due to knowledge deficits and concerns among clinicians regarding opiate use. The protocol was developed by a group of clinical experts and the educational intervention consisted of general palliative care principles, models of palliative care, pharmacologic treatments, and ancillary interventions. The protocol was placed on the hospital information system for institution-wide

use for adult patients. The order protocol could be printed and placed on the written medical record. We assessed implementation of the ESMO protocol by surveying clinicians regarding their use of the order set to ascertain whether the protocol was beneficial and to identify the limitations and barriers to its use in order to inform interventions for improvement.

METHODS

We assessed the use of the ESMO protocol by evaluating the frequency of use and by conducting interviews with physicians and nurses providing care for patients after implementation of the ESMO protocol. The ESMO protocol contains hospital orders to guide care aimed at comfort and instructions on how to implement such care (see order form in Appendix A). The order protocol aims to overcome many of the barriers to implementation of comfort care including lack of knowledge, inexperience, and discomfort with end-of-life opiate administration.^{6,7,9–13,24,25} The ESMO protocol delineates the patient criteria for use of the protocol, which include: (1) a plan not to resuscitate the patient, (2) the patient has a terminal illness, (3) the patient is experiencing symptoms such as uncontrolled pain or dyspnea for which opiate medications are an accepted treatment, and (4) the goals of treatment have been discussed with patient and/or surrogate. A section of the order protocol guides ordering an opiate continuous infusion aimed at symptom control, including suggested dosing parameters and guidelines for documenting titration for unrelieved symptoms. Checkboxes prompt reconsideration of the goals of ongoing treatments. For example, the clinician might consider discontinuation of telemetry, vital signs, suctioning, and laboratory testing. Other palliative modalities can be selected including turning, oral care, specialty mattress, and medications for constipation, nausea/vomiting, anxiety, delirium, dry eyes, and terminal congestion. Last, referrals to social work, pain management, spiritual care, child life, and palliative care are options on the protocol that might be considered.

Patients and clinician survey sample

When an ESMO protocol was written for a patient, these were faxed to the hospital pharmacy. During the study period between April 2005 and April 2006, the pharmacist paged one of the investigators, who then identified a physician and nurse caring for the patient. These clinicians were asked to complete a brief self-administered instrument asking about implementation

of the ESMO protocol. Most questions addressed the use of the ESMO protocol as a whole, with specific questions asking about opiate use. If preferred by the clinician, this information was collected by interview.

Survey instrument

The survey asked the following issues concerning use of the ESMO protocol:

- Who participated in the decision to institute the ESMO protocol?
- What symptoms were being treated?
- What was the patient's mental status upon initiation of the ESMO protocol?
- What was the expected survival of the patient at the time of ESMO protocol application?
- Who mainly determined opiate dosing while on the ESMO protocol?
- Whether the respondent at any time felt uncomfortable that the opiate dose the patient was receiving was too low or too high?
- Whether the respondent was concerned about adequately controlling the patient's pain, about hastening the patient's death, or whether the respondent was concerned the protocol was used to comfort the family rather than the patient?
- Amount of time spent discussing end-of-life issues and care with the patient and/or family?
- Whether timing of the ESMO protocol was appropriate?
- How valuable was the ESMO protocol was on a four-point Likert scale (4 = high)?

The survey also allowed for open-ended responses about care under the ESMO protocol including explanations if clinicians felt the protocol was instituted too late or too early. During development of the survey instrument, questions were piloted on resident physicians to ensure that questions elicited precise answers and that the survey could be completed in 10 minutes.

Statistical methods

We report frequencies and means of responses. Physician and nurse responses were compared using χ^2 tests. In order to evaluate whether differences between physician and nurse response were related to a different set of covered patients, we compared responses for the 74 patients who had matched physician and nurse responses. The differences noted were not significantly different than that found in the full respondent set, so we report the latter. Due to multiple tests, the level of statistical significance was set at

0.01. We also evaluated the number of patients who had ESMO protocols among all adult deaths in the hospital during the study period. Open-ended responses were evaluated using a content analysis approach in order to provide greater depth to the survey responses. This project was performed as a quality improvement project. After completion, the dataset was deidentified and an exemption received for analysis from the UCLA Institutional Review Board.

RESULTS

During the 342-day study period, approximately 2.6 adult patients per week had care guided by the ESMO protocol, for a total of 127 patients, of whom clinicians were surveyed for 105 (83%). We received surveys from 89 physicians and 91 nurses (70% overall response rate). Of 127 patients treated with the ESMO protocol, 120 died in the hospital and 7 were discharged from the hospital to hospice care. ESMO protocol-treated patients accounted for 18% of adult inpatient deaths at the medical center during this time period.

Implementation of the ESMO protocol

At the time the ESMO protocol was written, the majority of patients were described by clinicians as comatose, obtunded/stuporous, or disoriented. Life expectancy at the time was estimated to be less than 1 day for the majority of patients and clinicians predicted that more than 1 in 10 patients would survive only minutes after protocol initiation. The most common symptoms treated with the end-of-life symptom management order form were pain and dyspnea. Suffering (defined in the questionnaire as spiritual distress, anger, unresolved issues, etc.) was a reason for ESMO protocol use for nearly half of the patients. There was general agreement in the estimates of physicians and nurses concerning mental status, expected survival and symptoms treated. However, nurses were more likely to respond "don't know" in regards to survival estimates (Table 1).

Clinicians reported that end-of-life discussions involved many providers and patient representatives, including attending physicians, residents, medical students, nursing staff, family members, social workers, pastoral care, and the patients themselves. Surveyed physicians felt that physicians played a larger role in these discussions than did nurses with less involvement of others. Nurses identified nurses, social workers, and pastoral staff as participating more often.

TABLE 1. INITIATION OF THE END-OF-LIFE SYMPTOM MANAGEMENT ORDER PROTOCOL: PHYSICIAN AND NURSE RESPONSES REGARDING MENTAL STATUS, EXPECTED SURVIVAL, AND SYMPTOMS TREATED WITH THE ESMO PROTOCOL UPON INITIATION OF THE ESMO PROTOCOL

	<i>Physician</i>	<i>Nurse</i>
Mental status at initiation of ESMO protocol		
Coma	27%	35%
Obtunded/stuporous	39%	25%
Alert, but not oriented	24%	18%
Alert and oriented	6%	10%
Don't know	4%	12%
Expected survival at initiation of ESMO protocol		
Minutes	12%	12%
Hours	33%	27%
Less than 1 day	12%	14%
Days	40%	24%
Weeks or longer	1%	2%
Don't know	1% ^a	20% ^a
Symptoms treated with ESMO protocol		
Pain	74%	73%
Dyspnea	54%	42%
Suffering ^b	51%	40%
Anxiety	27%	33%
Nausea/vomiting	8%	10%

^a $p < 0.01$ for difference between physician and nurse responses.

^bSuffering was defined as spiritual distress, anger, unresolved issues, etc. ESMO, end-of-life symptom management order.

According to physicians, the time spent on these discussions varied from less than 10 minutes (1%) to greater than 3 hours (29%; Table 2).

Physician and nurse responses were in agreement that the nursing staff mainly adjusted opiate doses.

Attending physicians were involved only about one fourth of the time and residents about half of the time. Family members were recognized to contribute to dosing titration decisions about half of the time (Table 3).

TABLE 2. NEGOTIATION OF INITIATION OF ESMO PROTOCOL: PHYSICIAN AND NURSE RESPONSES REGARDING DECISION TO INSTITUTE THE ESMO PROTOCOL AND TIME SPENT ON SUCH DISCUSSIONS

	<i>Physician</i>	<i>Nurse</i>
Who participated in end of life discussions?		
Attending physician	83% ^a	66% ^a
Family member	82%	75%
Resident/medical student	75% ^a	52% ^a
Nurse	29% ^a	63% ^a
Patient	16%	10%
Social worker	8% ^a	22% ^a
Pastoral care	4% ^a	17% ^a
Other	20%	23%
Time spent on discussion of end-of-life issues		
<10 minutes	1%	2%
10 minutes–1 hour	15%	17%
1–3 hours	45% ^a	17% ^a
>3 hours	29%	21%
Don't know	10% ^a	43% ^a

^a $p < 0.01$ for difference between physician and nurse responses.

ESMO, end of life symptom management order.

TABLE 3. WHO MAINLY DETERMINES WHEN OPIATES SHOULD BE ADJUSTED?: PHYSICIAN AND NURSE RESPONSES REGARDING WHO DETERMINES THAT THE PATIENT WAS HAVING SYMPTOMS THAT SHOULD CAUSE A CHANGE IN OPIATE DOSING WHILE ON THE ESMO PROTOCOL

	<i>Physician</i>	<i>Nurse</i>
Attending physician	25%	25%
Resident/medical student	51%	47%
Nurse	76%	89%
Patient	4%	6%
Family member	45%	53%
Social worker/Pastoral care/Other	2%	10%

ESMO, end of life symptom management order.

Problems with implementation of the ESMO protocol

Nearly all clinicians (87%) reported that they found the ESMO protocol to be valuable. However, clinicians reported a variety of problems with opiate administration at the end of life. A number of clinicians were concerned about underdosing of opiates. Five percent of doctors and 15% of nurse were concerned that the opiate dose used was too low to provide adequate comfort. One nurse noted that the patient for whom the ESMO protocol was initiated was “still yelling out for help with his pain.” Clinicians reported a variety of reasons why symptom control was inadequate at the end of life. Uncertainty concerning whether the patient had symptoms was reported by some clinicians. One nurse stated, “It is sometimes hard to know when to increase drug based on pain/symptom control or family anxiety about patients’ pain/symptom control.” Discomfort with opiate dosing at the end of life also played a prominent role. One nurse said: “Even though I believe that end-of-life symptoms have to be managed with opiates, I feel uncomfortable being the one to administer them.” On the contrary, most clinicians did not indicate discomfort with providing comfort care.

A more common problem with the ESMO protocol reported by clinicians was that it was initiated too late. One quarter of physicians (and 9% of nurses) felt that the ESMO protocol was tardy in its implementation. One nurse noted “by the time pharmacy was going to prepare the medication, [the] patient [had] already expired.” Another nurse remarked, “Patient passed before morphine was started and she had been dyspneic all morning,” and a physician wrote “patient required heroic measures to stay alive while family decided.” Most often, physicians attributed late implementation to family unwillingness to “give up” or “come to

terms.” Physicians described many aspects of family unwillingness to reorient care toward comfort:

- “Family not ready for end of life protocol despite patient’s severely poor prognosis.”
- “Pain started to get out of control; family understandably did not want to start protocol until absolutely necessary.”
- “Family was hesitant and felt guilty.”
- “Family kept holding onto hope.”

Some lateness in arriving at a comfort-oriented decision was due to physician behavior. One physician noted, “no one addressed goals or questions on a consistent, realistic basis with family over three weeks.” Practical issues also contributed as noted by another physician: “patient did not have adequate IV access so protocol wasn’t initiated immediately.”

A small percentage of clinician respondents felt at one point or another that the infused opiate dose was too high. Nearly one in five respondents were concerned about hastening death and several worried that the end of life symptom management protocol may be used to comfort the family and not the patient. Some clinicians were uncomfortable with the opiate doses used to control symptoms (Table 4). One nurse indicated, “I’m always very uncomfortable with the end-of-life medications, so to me, I always wonder if doses I give precipitated death.” Another nurse noted, “It was my first time dealing with a patient who was ‘end of life palliative care’ and it was somewhat difficult for me to accept that.”

COMMENT

This implementation assessment of an ESMO protocol at one medical center shows that it is judged

TABLE 4. PROBLEMS WITH OPIATE ADMINISTRATION AT THE END OF LIFE: PHYSICIAN AND NURSE RESPONSES REGARDING VARIOUS CONCERNS RELATED TO OPIATE ADMINISTRATION AT END OF LIFE UPON INITIATION OF THE ESMO PROTOCOL

	Physician	Nurse
Opiate dose too low	5%	15%
Opiate dose too high	6%	7%
Concerned about inadequate symptom control	18%	23%
Concerned about hastening death	14%	22%
ESMO protocol instituted too late	27% ^a	9% ^a
ESMO protocol instituted too early	1%	3%
ESMO protocol used to comfort family, not patient	6%	9%

^a $p < 0.01$ for difference between physician and nurse responses.
ESMO, end-of-life symptom management order.

favorably by clinicians and used in about 1 out of 5 adult inpatient deaths. These findings suggest that an order protocol for end-of-life symptom management that includes a protocol for unrestricted opiate use guided by hospital policy¹⁹ is feasible. It is not surprising that the protocol is applied to incapacitated patients with short life-expectancies as it is targeted to patients at end of life. However, based on clinician reports, the ESMO protocol often was used too late. Physicians felt that late use was related to family preparedness to transition toward comfort-oriented care. Yet, a variety of other factors also impeded timely implementation. Several of those identified by clinicians should be amenable to intervention. These include earlier, more realistic prognostic discussions and advance care planning and efforts to increase clinician experience and comfort in treating patients symptomatic toward the end of life. Increasing physician recognition of the value of multidisciplinary teamwork with dying patients may also improve care. Nurses were more likely than physicians to acknowledge involvement of nurses, social workers, and pastoral care in end of life discussions. This suggests that physicians were less aware of the critical role that these members of the team play in end-of-life care. In addition, given that "suffering" was a common symptom treated with the ESMO protocol and that discussion regarding the protocol were rarely recognized to include social workers or pastoral staff, increased involvement of social work and pastoral care may be particularly valuable for patients and families.

Even with the standardized ESMO protocol, a substantial minority of clinicians reported feeling uncomfortable with the administration of opiates toward the end of life, suggesting that additional education is needed. Although the ESMO protocol

was introduced with an educational component, this evaluation underscores the importance of continuous and repeated education for challenging areas of care, especially in a busy academic center where turnover of personnel can be frequent. Also, nurses make most titration decisions, with contributions from families and residents, suggesting that interventions to improve the quality of end of life symptom management must involve these groups. Guidance is needed concerning how to respond to disagreements between clinicians and family about appropriate dosing and the appropriate response to suffering that is not explicitly symptom-based. The perceived prevalence of psychological/spiritual suffering among patients placed on the ESMO protocol also highlights the importance of psycho-social and spiritual care of patients along a continuum of their disease to minimize such distress at end of life.

This study is limited by the fact that it only represents the experience at one medical center and data are subjective clinician reports. Frequency of ESMO protocol use could have been under-reported if some ESMO protocols were missed by the pharmacy or if the order protocol was implemented without pharmacologic component.

A standardized ESMO protocol is a useful, but not fully sufficient, step toward improving care for dying hospitalized patients. End-of-life care must be integrated into an overall advance care plan so that it is not considered an isolated decision delayed to the last moments of survival. Training is needed to facilitate physician and nurse comfort with the use of unrestricted opiate administration at the end of life. Most importantly, this was only an implementation feasibility assessment; evaluation of whether the ESMO protocol improved end-of-life care outcomes is needed.

ACKNOWLEDGEMENT

The authors thank Angela Robles and Victor Gonzalez for technical assistance. Anne Walling was supported by National Research Service Award Training Grant T32 PE19001. This project received support from the UCLA Medical Center and the UniHealth foundation (#557).

Abstract with preliminary data was presented at the Society of General Internal Medicine Annual Conference, 2006.

REFERENCES

- Pattison N: Integration of critical care and palliative care at end of life. *Br J Nurs* 2004;13:132–136, 138–139.
- DelVecchio Good MJ, Gadmer NM, Ruopp P: Narrative nuances on good and bad deaths: internists' tales from high-technology work places. *Soc Sci Med* 2004;58:939–953.
- Towers A, MacDonald N, Wallace E: Ethical issues in palliative care: Views of patients, families, and non-physician staff. *Can Fam Physician* 2003;49:1626–1631.
- Teno JM, Stevens M, Spornak S, Lynn J: Role of written advance directives in decision-making: Insights from qualitative and quantitative data. *J Gen Intern Med* 1998;7:436–446.
- Rady MY, Johnson DJ: Admission to intensive care unit at the end-of-life: Is it an informed decision? *Palliat Med* 2004;18:705–711.
- Lynn J, Teno JM, Phillips RS, Wu AW, Desbiens N, Harold J, Claessens MT, Wenger N, Kreling B, Connors AF Jr: Perceptions by family members of the dying experience of older and seriously ill patients. *Ann Intern Med* 1997;126:97–106.
- Tulsky JA, Fischer GS, Rose MR, Arnold RM: Opening the black box: How do physicians communicate about advance directives? *Ann Intern Med* 1998;129:441–449.
- Willard C: Challenges to end of life care in the acute hospital setting. *Palliat Med* 2006;20:611–615.
- Goodlin SJ, Winzelberg GS, Teno JM, Whedon M, Lynn J: Death in the Hospital. *Arch Intern Med* 1998;158:1570–1572.
- Becker G, Sarhatlic R, Olschewski M, Xander C, Momm F, Blum HE: End of life care in hospital: Current practice and potentials for improvement. *J Pain Symptom Manage* 2007;33:711–719.
- Parish K, Glaetzer K, Grbich C, Hammond L, Hegarty M, Annie M: Dying for attention: Palliative care in the acute setting. *Aust J Adv Nurs* 2006;24:21–25.
- Abbott KH, Sago JG, Breen CM, Abernathy AP, Tulsky JA: Families looking back: One year after of withdrawal or withholding of life-sustaining support. *Crit Care Med* 2001;29:197–201.
- Palda VA, Bowman KW, McLean RF, Chapman MG: "Futile" care: Do we provide it? Why? A semistructured, Canada-wide survey of intensive care unit doctors and nurses. *J Crit Care* 2005;20:207–213.
- Fisher M: ICU cornerstone: A lecture that changed my practice. *Crit Care* 2002;6:403–404.
- Boyle J: Medical ethics and double effect: The case of terminal sedation. *Theoret Med* 2004;25:51–60.
- Thompson BT, Cox PN, Antonelli M, Carlet JM, Cassell J, Hill NS, Hinds CJ, Pimentel JM, Reinhart K, Thijs LG; American Thoracic Society; European Respiratory Society; European Society of Intensive Care Medicine; Society of Critical Care Medicine; Société de Réanimation de Langue Française: Challenges in end-of-life care in the ICU: Statement of the 5th International Consensus Conference in Critical Care: Brussels, Belgium, April 2003: Executive summary. *Crit Care Med* 2004;32:1781–1784.
- Chan JD, Treece PD, Engelberg RA: Narcotic and benzodiazepine use after withdrawal of life support. *Chest* 2004;126:286–293.
- Thorns A, Sykes N: Opioid use in last week of life and implications for end-of-life decision-making. *Lancet* 2000;356:398–399.
- Fineberg C, Wenger N, Brown-Saltzman K: Unrestricted opiate administration for pain and suffering at the end of life: Knowledge and attitudes as barriers to care. *J Palliat Med* 2006;9:871–881.
- Moynihan TJ: Use of opioids in the treatment of severe pain in terminally ill patients—Dying should not be painful. *Mayo Clin Proc* 2003;78:1579.
- Bailey FA, Burgio KL, Woodby LL, Williams BR, Redden DT, Kovac SH, Durham RM, Goode PS: Improving processes of hospital care during the last hours of life. *Arch Intern Med* 2005;165:1722–1727.
- Cannon CP: Treatment algorithms and critical pathways for acute coronary syndromes. *Semin Vasc Med* 2003;3:425–432.
- Ellerbeck EF, Bhimaraj A, Hall S: Impact of organizational infrastructure on B-Blocker and aspirin therapy for acute myocardial infarction. *Am Heart J* 2006;152:579–584.
- Burns CM, Broom DH, Smith WT, Dear K, Craft PS: Fluctuating awareness of treatment goals among patients and their caregivers: A longitudinal study of a dynamic process. *Support Care Cancer* 2007;15:187–196.
- Gruenigen V, Daly B: Futility: Clinical decisions at the end-of-life in women with ovarian cancer. *Gynecol Oncol* 2005;97:638–6644.

Address reprint requests to:

Anne M. Walling, M.D.

Department of General Internal Medicine

and Health Services Research

University of California, Los Angeles

911 Broxton, #3D

Los Angeles, CA 90095

E-mail: awalling@mednet.ucla.edu

DOCTOR'S ORDERS – END OF LIFE SYMPTOM MANAGEMENT (Adult)

1. CHECK ALL APPROPRIATE ORDERS
2. INDICATE DATE AND TIME

Each of the Following is Required

- ☐ Current DNR Order
Chart Note Must Reflect that:
- ☐ Patient is terminally ill and experiencing symptoms such as uncontrolled pain, discomfort, dyspnea or agitation for which opiate medications are an accepted treatment.
- ☐ Goals of treatment have been discussed with patient and family/surrogate. If patient is unable to participate in decision making, appropriate surrogate must participate, if available.

Opiate Orders

1. Opiate and Concentration
 - ☐ Morphine 100 mg in 100ml D5W
 - ☐ Hydromorphone 50 mg in 50ml D5W
 - ☐ Other: _____
 - ☐ Bolus: _____ mg IV x 1
 - ☐ Start drip @ _____ mg/hour.
 - ☐ Bolus: _____ mg q _____ minutes until pain is controlled.
 - ☐ Then titrate: May increase drip by _____ mg/hr q _____ minutes, as needed for pain/symptom control.
- Must document reason for **each** bolus and titration.
- Notify MD for unrelieved pain or symptoms.
- No maximum opiate dose required.
- Opiate order must be renewed q 7 days.
- Telephone orders are accepted for changes, but **not** for initiating drip.

Other Palliative Orders (as appropriate):

1. ☐ Turn patient q 2 hours.
2. ☐ Oral care q 2 hours.
3. ☐ Discontinue vital signs.
4. ☐ Discontinue cardiac/oximetry monitoring.
5. ☐ Discontinue labs, radiological studies.
6. ☐ Assess for urinary retention, Foley Catheter as needed for retention.
7. ☐ Discontinue suctioning.
8. ☐ **Specialty Mattress***: _____

*See Nursing Guidelines

IV Fluids

Consider titrating down or off IV fluids to prevent edema and congestion.
Assess for IV access.

9. IV Fluids: _____

Medications

- Assess present medications, consider discontinuing meds that are burdensome to the patient.
10. Bowel Regimen
 - ☐ Docusate sodium 100mg PO/NG BID
 - ☐ Senna 8.6 mg PO/NG BID
 11. Constipation
 - ☐ Bisacodyl 10mg PR every other day if no BM for 72h
 - ☐ Other: _____
 12. Nausea/Vomiting
 - ☐ Prochlorperazine 10mg PO q6h prn N/V
 - ☐ Prochlorperazine 25mg PR q12h prn N/V
 - ☐ Droperidol _____ mg q6h IV prn N/V (0.625 – 5mg)
 - ☐ Lorazepam _____ mg q _____ h IV prn N/V (0.5 – 2mg)
 - ☐ Other: _____
 13. Anxiety/Terminal Agitation
 - ☐ Lorazepam _____ mg PO/NG q _____ h prn anxiety (0.5 – 1 mg recommended dose)
 - ☐ Lorazepam _____ mg IV q _____ h prn anxiety (0.5 – 1 mg recommended dose)
 - ☐ Other: _____
 14. Delirium
 - ☐ Haloperidol elixir _____ mg SL q _____ hrs prn delirium (0.5 - 1 mg recommended dose)
 - ☐ Haloperidol _____ mg IV q _____ hrs prn delirium (0.5 - 1 mg recommended dose)
 15. Terminal Congestion/Death Rattle
 - ☐ Scopolamine Patch 1.5mg q 72h PRN
 - ☐ Atropine 1% Ophth solution: 2 drops
SUBLINGUALLY q 6h PRN congestion
 16. Eye Drops
 - ☐ Artificial Tears* 2 drops OU q 2h

*Pharmacy may substitute formulary equivalent.

Referrals

☐ Social Work	☐ Pain Management
☐ Spiritual Care	☐ Child Life
☐ Palliative Care	☐ Ethics Consult

MD Signature: _____

Date: _____ Time: _____

Pager: _____

Attending Signature: _____

RN Signature: _____

Suggestions for End-of-Life Symptom Management (Adult)

Pain Management

The full effect of an increased continuous infusion will not be felt until steady state is reached, until then, bolus doses are most effective in managing pain.

Opiate-Naïve Patient

1. To initiate analgesia promptly start with a bolus (e.g., 2-5mg Morphine IV x 1).
2. Start drip with Morphine:
Mild pain 0.5–1 mg /hr or Severe 1–2 mg /hr.
3. If pain is severe, use bolus doses of 25–50% of the hourly rate q 15–30 minutes until pain is controlled.
4. Then titrate up by 1mg q 15–30 minutes for unresolved pain up to 4x, and subsequently by 25–50% of the current dose.

Opiate Treated Patient

1. Calculate previous 24-hour dosage of opiate.
2. If dose was oral, convert to IV equianalgesic dose (see chart).
3. Increase dose by 25–50% and divide by 24 hours.
4. To initiate analgesia promptly, start with a bolus dose of 50% of the hourly rate, unless contraindicated.
5. If pain is severe, use bolus doses of 25–50% of the hourly rate q 15–30 minutes until pain is controlled.
6. Then titrate up by 25–50% of the basal dose q 5–30 minutes prn for unresolved pain.
7. If the patient is on a long acting opiate, remember that the last oral dose will be in effect for 10–12 hours; anticipate that the drip may need to be titrated up at that time.

Considerations

- Close collaboration of the healthcare team is required for a patient in severe pain, especially during the initial hours of treatment. Consider dosing more frequently than q 30 minutes as needed.
- Prepare families that sedation is anticipated. If pain is controlled and the drip rate is stable, the patient may develop tolerance to the sedation.

Pain Needs Careful Assessment

- **Differentiate** between anxiety, delirium and pain.
- **Neuropathic** pain will not respond well to narcotics alone. Consider using small doses of tricyclic antidepressants.
- **Bone** pain is difficult to manage with a single agent, consider using NSAID (Ibuprofen PO or Ketorolac IV).

Dyspnea

- Morphine is the preferred medication. It produces pulmonary vasodilatation, analgesia, euphoria and will help to decrease dyspnea in low dosages (1-5 mg IV or 5-10 mg PO q 4 hours). If the patient is already on an opiate drip, there is potential to develop respiratory tolerance that may require a 25-50% increase to manage dyspnea.
- Oxygen may or may not be helpful. For some patients a mask will increase a sense of claustrophobia and anxiety. Consider RT consult for choice of best delivery system. Patient wishes should be considered.
- Avoid suctioning when possible. May decrease secretions by limiting IV hydration and using Scopolamine Patch or Atropine.

Delirium/Terminal Agitation

- Initial dosage is often required q 30-60 minutes until the patient is calm. May require q 4-6 hours. Maximum Haldol dose should not exceed 3mg/24 hours.
- Severe agitation may require the additional use of benzodiazapines such as Ativan for sedation.
- **Consider dose alterations** for geriatric patients and those experiencing renal or hepatic failure.

Equianalgesic Opiate Conversion

Name	Oral	IV	Duration	½ life
Morphine	30 – 60 mg	10 mg	3-7 h	1.5-2 h
Hydromorphone (Dilaudid)	7.5 mg	1.5 mg	4-5 h	2-3 h
Oxycodone	20 mg	--	4-6 h	
Hydrocodone	30 mg	--	4-8 h	3.3-4.5
Methadone (Dolophine)	20 mg	--	4-6 h	15-30 h
Levorphanol (Levo-Dromoran)	4 mg	2 mg	6-8 h	12-16 h
Fentanyl* (Elderly 2x as sensitive to effects of fentanyl)	Consult Pharmacist or Specific Fentanyl Transdermal Conversion Chart			1.5-6 h
Codeine	200 mg	120mg IM	4-6 h	3 h

Switching from one opiate to another dose does not give cross-Tolerance: patient may require less of the new narcotic

Care of the Dying

- Exquisite clinical assessment skills on an ongoing basis are required for maximal symptom management.
- Patients and their families need to feel they will not be abandoned. Compassionate care requires listening and presence.
- Discuss goals with patients and families as they approach EOL. Support hopes, alleviate fears.
- Pay attention to subtle cues. Each patient and family will want to receive information in their own way, some directly and others not at all.
- Be mindful of cultural/spiritual traditions that may become more important at this time.