END-OF-LIFE IN PATIENTS ON PROLONGED MECHANICAL VENTILATION: A NEEDS ASSESSMENT FOR PALLIATIVE CARE AT A LONG TERM ACUTE CARE HOSPITAL

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INTRODUCTION

The target populations for studies and established programs in palliative care are overwhelmingly oncology patients, and more recently those in acute care intensive care units. The programs have been shown to improve quality of life for patients and their families. However, none of these programs are readily adaptable to the long term acute care (LTAC) level of care, where patients are admitted receiving life support. This engenders the need for a new approach to a needs assessment for palliative and end-of-life (EOL) care interventions.

Barlow Respiratory Hospital (BRH) is a LTAC facility that specializes in weaning ventilator-dependent patients from prolonged mechanical ventilation (PMV). Over 200 patients yearly are admitted to BRH receiving life support, usually per-tracheostomy. While nearly half of ventilator-dependent patients admitted to BRH are successfully weaned from mechanical ventilation, approximately 30% of the patients die there. For those patients who die, most will have spent a total of nearly three months on mechanical ventilation between the ICU and at BRH.

This study was performed to describe the practice patterns for timing of end-of-life decision-making and provision of treatments and procedures for patients transferred from the ICU to a LTAC hospital for continued weaning from PMV.

METHODS

Records of patients admitted from 3/1/02 - 2/28/03 who died were reviewed using a comprehensive chart abstraction instrument adapted from Fins et al (J Pain Symptom Manage 1999; 17(1):6-15). The main outcome measures were identification of the patient as dying, communication of prognosis to patient and/or family members, do-not-resuscitate (DNR) orders, and comfort care plans.

RESULTS

Of 186 patients enrolled during the study period, 54 patients died at BRH.

Table 1 Characteristics in 54 PMV Patients Who Died at the LTAC

Characteristic	*Value*
Age, years	77.8 [50 – 94]
Female vs. Male Gender	48% vs. 52%
Race:	
White	63.0%
African-American	14.8%
Hispanic	11.1%
Asian	11.1%
Marital Status:	
Married	42.6%
Single	33.3%
Widowed	20.4%
Religion:	
Protestant	37.0%
Catholic	29.6%
Jewish	9.3%
Other	3.8%
Unknown	20.4%
Transferring hospital length of stay (days)	37 [4 – 172]
Prior time ventilated (days)	37 [3 – 155]

SUMMARY AND COMMENTS

- PMV patients who died at the LTAC hospital were elderly, and had spent an average of five weeks on life support prior to LTAC hospital admission.
- Few patients had decision-making capacity, DPOAHC, or individual health care instruction (e.g. Advance Directive, Living Will, etc.) on admission to the LTAC.
- Patient surrogates were, to a large extent, burdened with making decisions regarding treatment and procedures, DNR, and withholding and/or withdrawing of support during the course of the LTAC hospitalization.
- The shift from a disease-directed, curative focus of care to EOL occurred in the last few days of life.
- Less than half of patients identified as dying had documented comfort care plans.
- Patients spent over two months on mechanical ventilation between the ICU and at Barlow. There is clearly a unique opportunity to provide patients and their families with appropriate palliative and EOL care interventions.
- Goals of care should be established early in the LTAC admission among the care team, patient (if able), and family.
- Early introduction of palliative care services for symptom management (pain, dyspnea, fatigue, anxiety) in PMV patients may facilitate transition to EOL care in patients recognized as dying.

Table 2 Practice Patterns and Other Characteristics of End-of-Life Decision Making

Characteristic	*Value*
DNR on admission	13%
DNR at death	81%
Medical consults ordered	3.09 ± 1.26
Decision making capacity on admission	25.9% Yes 74.1% No
DPOAHC in medical record	13% Yes 87% No
Individual health care instruction present	20.4% Yes 79.6% No
Health care surrogate recognized by staff	100% Yes
Identified as dying	83%
Dying prognosis conveyed to family	91%
Individual health care instruction or health care surrogate invoked during hospital course?	81.5% Yes 18.5% No
Comfort care plan in dying patients	47%
Site of death	57.4% ICU 42.6% General ward
Ventilator support withdrawn	21%

Table 3 Timing of End-of-Life Decisions

	Days
BRH length of stay	24.5 [2 – 166]
Admission to identified as dying	21.0 [0 – 158]
Admission to DNR	20.0 [3 – 123]
Admission to comfort care plan	21.0 [2 – 126]
Identified as dying to comfort care plan	4.5 [0 – 31]
Identified as dying to death	6.0 [0 – 46]
DNR to death	1.0 [0 – 37] *
Comfort care plan to death	1.0 [0 – 15] **
Total length of stay (transferring hospital and BRH)	64.5 [23 – 338]

* Mode = 0, Mean = 6.2 ± 10.3 ** Mode = 0, Mean = 2.8 ± 4.4

REFERENCE

Fins JJ, Miller FG, Acres CA et al. End of life decision-making in the hospital: Current practice and future prospects. Pain Symptom Manage 1999; 17(1):6-15)

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