



Hospice of the Twin Cities

# Hospice Insights

Volume 101

March 2006

---

*“The positive thinker  
sees the invisible,  
feels the intangible,  
and achieves the  
impossible.”*  
-Anonymous

---

#### Board of Directors

**Diane Bartels, RN, MA, Ph.D.,**  
Associate Director; U of MN  
Center for Bioethics

**Michael B. Belzer, M.D.,**  
Medical Director;  
Hennepin County Medical Center

**Mary Ann Blade, CEO;**  
Minnesota Visiting Nurse  
Agency

**Jack G. Davis, Executive  
Director;** Hennepin Medical  
Society

**John Ertel, RPh, District  
Manager;** SuperValu Pharmacies,  
Inc.

**Sally E. Howard**

**Dennis Kamstra, CEO;**  
Creative Living, Inc.

**Mary Kurvers, R.N.;**  
Hennepin County Medical Center

## Defining End-of-Life

*An Article Review:*  
*“A Demographic and  
Prognostic Approach to  
Defining the End of Life”*,  
*Elizabeth B. Lamont, MD,  
MS. Journal of Palliative  
Medicine: Volume 8, sup-  
plement 1, 2005; pp. S-  
12—S-21.*

When individuals are asked about care at the end of life most agree that care should be different from care received at other times of our lives. Specifically, patients, families, and professional care givers believe that medical care at the end-of-life should be “home based” and should address alleviating the patient’s symptoms by the least invasive means, the opposite of acute care focused on cure or rehabilitation. Sadly, research shows most people receive care far different than the preferred care. Most patients are dying in acute care settings having invasive procedures and treatments. The issue really is that without the recognition of end-of-life it will be difficult to change the medical care delivered at this time. Currently, there are few tools

available to help professionals make accurate prognostications regarding impending death. What are needed are tools that are reliable indicators of when end-of-life begins. Research also shows communication regarding prognosis must improve dramatically between health care providers and their patients. Currently, most patients think they have much longer to live than their health care providers believe they have.

“In clinical medicine, *end-of-life* is the period preceding an individual’s natural death from a process that is unlikely to be reversed by medical care.” (p.S-13) Over 94% of the 2.5 million deaths annually, in the United States, are natural. “75% of those deaths occur in the elderly as a result of at least one major health issue (i.e. heart disease, lung disease, cancer, kidney failure, cerebral vascular disease, dementia, or chronic liver disease).” (p.S-13) “There are several other demographic factors associated with survival, such as, gender (men are at higher risks of

death at any age compared to women), and race (African American race have higher mortality rates than Caucasian or other ethnic minorities).” (p.S-13)

As previously stated most believe that end-of-life care should be provided in the home, with a focus on symptoms, not cure. In other words, treat the patient, not the disease. Physicians believe that in order for patients to get the greatest benefit from *end-of-life* care they should receive it for at least three (3) months. However, Medicare statistics state that half of Medicare deaths occur in acute care hospitals and that fewer than 20% of Medicare deaths occur while the patient is receiving Hospice care and those who receive Hospice care receive it for less than one month, well below the desired three months. The same research states that less than 15% of Medicare Hospice patients live longer than six (6) months, the length of

time Medicare prescribes for Hospice care.

Where do we go from here? It is important to develop tools which aid in the definition of when *end-of-life* begins. Current guidelines do not do a very good job of showing when an individual has less than six (6) months to live. Within palliative cancer research there are guidelines that have been used in the past, and there are those being developed. “There are three classes of survival predictors: 1 ~ The patient’s performance or functional status; 2 ~ The patient’s clinical signs and symptoms; and 3 ~ The physician’s clinical predictions.” (p.S-15)

The first, the patient’s performance status is an excellent predictor of impending mortality for cancer patients. One of the most widely used tools to determine functional status is the Karnofsky Scale. Basically, the lower the patient’s Karnofsky score, the greater their risk for dying. A score of equal to or less than 50% indicates a life expectancy of less than eight (8) weeks.

The second is the importance of the patient’s symptoms in determining life expectancy. It has been determined that there are specific symptoms that are the best predictors of a patient’s survival. The symptoms that have the greatest impact on survival are dyspnea, dysphagia, weight loss, xerostomia, anorexia, and cognitive impairment.

Many researchers have evaluated the associations between biological markers and survival, as well. In a group of 530 patients in Italian palliative care centers the following was found: The biological markers that seem to be the best indicators to predict survival are *high total white blood cell count, low lymphocyte percentage, and low pseudocholinesterase.*

“The third class of predictors of survival in this terminal cancer research is the physician’s clinical predictions. In some cases it was found that the previous classes of predictors may actually influence the physician’s clinical predictions.” (p.S-15) It has been found, however, that physician’s prognostications are very inaccurate and optimistic. But, when you add the patient’s performance status, symptoms, biological markers, and the physician’s prognostic predictions it may be an accurate picture of the patient’s survival time. As a result of these findings researchers have sought to model patient survival with combinations of the identified clinical predictors.

Besides the problem of not being accurate with prognostications, it was found that physicians also have problems communicating prognoses to their patients. Part of that problem may be due to the Physicians’ concern regarding the patients’ reactions to a poor prognosis. In one study physicians were asked how long they thought their patients would live (terminally ill patients). They also

asked the doctors what prognosis they would tell their patients. “The median survival the physicians would communicate to their patients was 90 days; their median formulated survival was 75 days; and the median observed survival was 24 days.” (p.S-17 - S-18) The physician’s prognostication was almost 4 times the length of time the patient actually survived, and the formulated survival was 3 times the length of time the patient actually survived, not much of an improvement over the doctor’s prognostication.

In summary, most agree that individuals should receive different care at the end of their life than they receive the rest of their life and that it should be delivered at home, focusing on comfort and supportive services, not aggressive treatment. Part of the reason so few people are actually receiving this kind of care is the inability of medical professionals to determine when an individual is at the *end of life*, with six (6) months to live. Not only does the inability to predict when a person is end-stage affect the care they receive, but the physician’s inability to communicate an accurate prognosis also affects the type of care a person receives at the end of their life. There is much research yet to be done in order to overcome these barriers to appropriate care at the end of life.



Hospice of the Twin Cities  
10405 6th Avenue North  
Suite 250  
Plymouth, MN 55441

(763) 531-2424

**We're on the Web!**  
**[www.hospiceofthetwincities.com](http://www.hospiceofthetwincities.com)**

#### *Mission Statement*

*Hospice of the Twin Cities' mission is to enhance the quality of the lives of our patients and their families by providing respectful care based on maintaining dignity, alleviating physical, psychosocial, and spiritual suffering, advocating for fundamental rights, and affirming the sacred value of life.*