

**REPORT TO
PHYSICIANS**

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CANCER CENTER**

Making Cancer History

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MD Anderson Oncology

MEETING A SPECTRUM OF NEEDS

Palliative Care Outreach Extends To All Patients, Providing a Way Station for Cancer-Wearied Travelers

by Sunita Patterson and Beth W. Allen

P sychological support, symptom control, and attention to spiritual life—all elements of a palliative care program—are part of every patient's care at The University of Texas M. D. Anderson Cancer Center.

“This is not something we reserve only for those who are very close to death,” said Sharon Weinstein, M.D., associate professor, Department of Anesthesiology and Department of Neuro-Oncology. (Continued on next page)

[Image Redacted]

Palliative Care

(Continued from page 1)

"The philosophy of integrated palliative care is part of cancer treatment overall."

This is demonstrated by her work incorporating palliative care within the collaborative care paths as they are drawn up by the M. D. Anderson Practice Outcome Programs.

But when disease advances to an incurable stage, Weinstein says the emphasis shifts and the array of services widens. Consultative special services include help with symptom control, psychosocial and spiritual support for patient and family, and consideration of advance directives. "We help patients look ahead—to get the most out of the time they have left," Weinstein said.

When the prospect of living narrows to six months or less and treatment with curative intent stops, patients can make a transition to hospice care, if they choose.

"Hospice is a philosophy of care, not a set of interventions or a place,"

Weinstein explained. She said it was the recognition that a specialized type of care was demanded at the end of life that created hospice care. "The word *hospice*," she said, "means 'way station for travelers.'"

Dr. Weinstein and her colleagues work with terminally ill patients who are not eligible or not interested in participating in a research protocol to identify the best care plan at this point. More than half return home, and the others continue receiving care at M. D. Anderson or choose to enter a dedicated hospice facility, such as the Hospice at the Texas Medical Center, which Weinstein called "exemplary."

Weinstein states it is essential to help patients and their families evaluate the issues at this traumatic period, including care setting, continuity of care, and proximity to family and friends. She said transitions require special attention to feelings of disruption, of being

abandoned by physicians, and of being in an unfamiliar setting.

"Nurses and physicians work hand-in-hand around the patient's and family's needs," said John D. Crossley, R.N., Ph.D., associate vice president for patient care operations and head of the Division of Nursing. Dr. Crossley describes palliative care's "special nursing dimension" as providing comfort and acceptance.

He said there was a strong emotional aspect to choosing hospice care. "For some patients, hospice represents giving up. Others reach a stage of acceptance and understand hospice care to be the best treatment available to them. We work closely with the TMC hospice for patients who live in Houston. We work with other hospices in Houston and out of state as well—whatever suits the needs of the patient and family," he said.

For those who choose home care, M. D. Anderson can provide referrals to

Hospice Eases Pain, Fear at the End of Life

Porter Storey, M.D., remembers a patient in his 40s who had bilateral lung cancer when he was referred to the Hospice at the Texas Medical Center. The man was so short of breath and miserable when he came to the hospice that he just wanted his life to be over: "Kill me, doctor," he told Dr. Storey.

Some days later, the day before he died, the patient was outside on a blanket in the garden enjoying a picnic with his family. The nurses had run a line out the window that delivered oxygen through a mask. The patient lifted his glass and said, "Doc, this is really living."

"When we help patients get



Dr. Porter Storey stands near the lily pond on the grounds of the Hospice at the Texas Medical Center.

comfortable and gain peace of mind, they are able to find meaning and hope in the context of their lives," explained Dr. Storey. "They are able to see dying as part of a full life, let

go of lots of the fear, and finish their lives with a sense of comfort, control, and completion."

Dr. Storey, vice president for medical and academic affairs at

home health care providers with whom it contracts both inside and outside Houston. For those who choose a facility dedicated to hospice care, M. D. Anderson can make referrals. Many factors govern options, including insurance plans' designations of preferred providers and a Medicare reimbursement structure that strictly controls the intersection of acute care and hospice care. Other significant considerations are geographic location, patient and family preferences, and the match between a patient's needs and the capabilities of the facility.

Achieving the tranquility provided by a center dedicated to hospice care is the aim of a special unit for which Dr. Weinstein and Crossley are preparing a proposal for M. D. Anderson. ●

FOR MORE INFORMATION, call Dr. Weinstein at (713) 792-2824 or call the M. D. Anderson Information Line at (800) 392-1611 or (713) 792-6161.

Breaking Bad News: How to Talk—and Listen—to Patients Who Are Dying

Dying is part of the continuum of life, yet even physicians who often must confront death with their patients may find it very difficult to talk about.

"Doctor-patient communication can make a big difference in the patient's quality of life," said Walter F. Baile, M.D., chief of the psychiatry service in the Department of Neuro-Oncology at The University of Texas M. D. Anderson Cancer Center. Patients want physicians to be open and honest about diagnosis and prognosis, but several factors make it difficult for physicians to have these conversations:

- No one in any circumstance wants to be the bearer of bad news.

- The physician in particular may feel a sense of failure for not having been able to cure the disease. This feeling is increased if an overly optimistic picture of outcome has been painted for the patient.
- He or she may feel uncomfortable with the patient's likely emotional response or may fear being blamed.
- Few physicians have received any training in handling these difficult encounters. Only 5% of medical schools include a course on death and dying.

Collaborating with Dr. Baile is Robert Buckman, M.D., associate professor in the Department of Medicine/Oncology at Toronto-Sunnybrook Regional Cancer Centre

(Continued on next page)

the not-for-profit Hospice at the Texas Medical Center and an adjunct assistant professor of medicine at The University of Texas M. D. Anderson Cancer Center, believes the words "There's nothing more we can do" should never be said to a terminally ill patient. More can be done—palliative care that focuses not only on the patient's body but also on the mind and spirit. Referral to hospice is appropriate as soon as it's clear that the goal of treatment is comfort rather than cure.

Hospice care strives to help patients strike the best balance between comfort and mental clarity. When pain, nausea, and shortness of breath are controlled, patients can be more active and perhaps feel well enough to stay in their own homes, a major aim of the program. Families, too, cope better when their loved ones are comfortable.

At the hospice's inpatient unit, quality of life is also the aim. "As a rule, we try not to have anyone poking patients with needles or

machines beeping in the middle of the night," said Dr. Storey, "but if the patient needs help during the night—if his or her symptoms suddenly worsen, for example, or if they just need someone to talk to—the staff is available."

The three full-time physicians at the Hospice at the Texas Medical Center are all certified specialists in hospice and palliative care medicine. They work closely with hospice nurses, social workers, chaplains, and volunteers to meet the needs of more than 1,000 patients annually. These physicians care for patients at the hospice, at home, in nursing homes, and in hospitals. Home visits are made around the clock.

About two-thirds of patients at the hospice have end-stage cancer. "M. D. Anderson has a very good pain and symptom management service," Dr. Storey said. "Hospice can complement the cancer center when the goal of care changes."

Sometimes the referring oncologist directs the patient's hospice care;

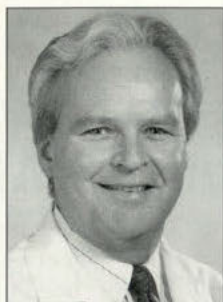
other times physicians turn care over to the hospice doctors. Dr. Storey said patients make the transition better when referring physicians remain in contact with the patient.

"People who are dying can develop a renewed sense of personhood and meaning," Dr. Storey said. When they feel comfortable and safe and have choices about where they are, he said, they can think and talk about what their lives have been like. They can bring closure to their worldly affairs and their relationships, he stressed.

"Hospice and hopelessness are not the same thing," Dr. Storey said. "Hospice can help to add life to days even when it's not possible to add days to life."

—Sunita Patterson

FOR MORE INFORMATION, contact the Hospice at the Texas Medical Center at (713) 467-7423. Dr. Storey can be reached at the same number.



*"Doctor-patient communication
can make a big difference
in the patient's quality of life."*

— **Walter F. Baile, M.D.**
Chief, Psychiatry Service
Department of Neuro-Oncology

Breaking Bad News

(Continued from page 3)

in Ontario, Canada, and adjunct associate professor in M. D. Anderson's Department of Clinical Investigation. They have devised a protocol for breaking bad news or imparting important medical information, which they shared in May at M. D. Anderson's Third Annual Human Dimensions in Cancer Care Conference.

"There is no particular thing you need to say in these situations," Dr. Buckman said. "It's the act of listening and showing empathy that is important." Basic communication skills form the basis for the protocol's six steps, which are denoted by the acronym **SPIKES**—setting, perception, invitation, knowledge, emotions and empathy, and strategy and summary.

■ **Setting:** Arrange the physical setting of the interview and use good listening skills. Dr. Buckman suggests sitting so that physician and patient are at the same eye level, about two feet apart, and with no physical barriers between. He suggests ensuring privacy and having a box of tissues available. Body language is important. The physician should relax, move ahead without hurrying, and maintain eye contact, except when the patient is very upset.

Good listening skills include asking open-ended questions ("How have things been for you since your last visit?") and encouraging the patient to talk. Ways to do this include remaining silent, not interrupting, and using responses like "Mmm-hmm" and "Tell me more about that."

■ **Perception:** Ascertain what the patient's understanding and expectations are ("When you found that lump in your breast, what did you think was going on?").

■ **Invitation:** Seeking an invitation from the patient for the medical information. For example, the physician might ask, "How would you like me to handle the information?" or "Are you the sort of person who would like the full details?" "This step takes about 15 seconds, and the answer is almost always yes," Dr. Buckman said, "But the patient will never forget that you had the kindness to ask."

■ **Knowledge:** Educate the patient about the medical facts (if the patient has invited the information). Dr. Buckman suggests starting at the level of understanding at which the patient left off in step 2 (*Perception*). To make sure the patient understands the information, physicians should give the information in small chunks, with pauses and questions between ("Does this make sense so far?"). They should also avoid technical jargon since many patients do not understand medical terminology but may be embarrassed to ask for clarification.

■ **Emotions and empathy:** Explore the patient's emotion and acknowledge its cause or source (for example, "This must be devastating" or "I can see that this wasn't something you expected to hear").

■ **Strategy and summary:** Propose a management strategy, assess the patient's response, come to an agreement on how to proceed, and close the interview. The physician closes by summarizing

the main topics that were discussed, asking if the patient has any important questions or issues to discuss, and making a clear contract for the next contact ("Why don't you come back in on Monday and we'll discuss the test results?").

The outcome of good communications with patients is a stronger physician-patient relationship, Dr. Buckman said. Such a relationship is a source of comfort to the patient, as well as one of the important rewards of clinical practice. The protocol has been used by Drs. Baile and Buckman in workshops on the doctor-patient relationship for M. D. Anderson faculty and fellows.

Drs. Buckman and Baile have, with Barbara Korsch, M.D., professor of pediatrics at the University of Southern California School of Medicine, put these ideas and others about patient-physician communication on a four CD-ROM set called *A Practical Guide to Communication Skills in Clinical Practice*, which was produced by Medical Audio Visual Communications, which may be reached by dialing (800) 757-4868. This teaching tool uses videos of doctor-patient encounters to portray this important communication.

The program was funded by grants from M. D. Anderson Cancer Center, the College of Physicians and Surgeons of Ontario, the U.S. Department of Veterans Affairs, Bayer Incorporated Healthcare Division (Canada), and Bayer Corporation Pharmaceutical Division (U.S.).

—**Sunita Patterson**

FOR MORE INFORMATION about the CD-ROM, the workshops, or the SPIKES protocol, contact Dr. Baile at (713) 792-7546.



Mammography: An Opportunity to Detect Breast Cancer Early

The American Cancer Society, the National Cancer Institute, and The University of Texas M. D. Anderson Cancer Center encourage all women, 40 years and older, to undergo mammography regularly to detect breast cancer early.

Know What a Mammogram Can Do

A mammogram is a series of special X-ray studies taken of the breast. The test helps physicians identify breast tumors, including those that are too small to be felt in a physical examination. Detecting breast cancer early is important because the earlier it is detected, the easier it is to control. Women whose breast cancer is detected early and who receive prompt appropriate treatment have the best chance of surviving the disease. Earlier detection can also mean better treatment options. Sometimes mastectomy or chemotherapy can be avoided.

Mammography that meets certification standards of the Food and Drug Administration is available at hospitals, radiologists' offices, doctors' offices, mammography units in buses and vans, and breast clinics. If radiologists (physicians skilled in using X-ray records to detect disease) have a previous mammogram to which to compare the current one, they are better able to detect tumors. Such comparisons also help prevent unnecessary additional testing. Therefore, they recommend having the mammograms performed at the same place as consistently as possible or requesting the old records so that that they can be compared with the new ones.

Know Your Risk

Not all women are at equal risk of having breast cancer. Certain factors have been associated with higher

risk. These include advanced age, a personal or family history of breast cancer, or a personal history of other breast diseases. Because the risk of breast cancer increases with age, women should follow the guidelines or their physician's recommendation about undergoing mammography as they grow older. Eighty percent of breast cancer occurs in women

older than 50. Another age factor associated with higher risk is having a first child after age 30.

Family medical history also affects risk. If a family member (mother, sister, daughter) has had breast cancer, risk increases. Genetic alterations can also increase risk. These include having mutated genes *BRCA1* and *BRCA2*. Risk is also higher than average in women who have had breast cancer previously or have had certain breast conditions diagnosed before.

Overcome Obstacles To Early Detection

Sometimes problems arise that keep women from obtaining the mammograms they need. Let the benefits of early detection motivate you to overcome these problems.

■ If you are afraid that cancer will be found, remember to take one thing at a time. Many women undergo mammography and no evidence of cancer is found. In others, abnormal cells that are detected prove to be benign—not life threatening. And if a cancer is detected, you will have done the best you could do to detect disease when it is most easily cured.

■ If you do not know where to obtain a mammogram, call the National Cancer Institute's Cancer Information Service (CIS) at 1-800-4-CANCER.

Have Regular Mammograms

Beginning at age 40, women should have a mammogram annually. Studies have not shown at what age women can safely discontinue screening. According to the National Cancer Institute, "No woman should consider herself too old to need

regular screening mammograms."

Annual screening should begin earlier for women whose mother or sister has been diagnosed with breast cancer. These women should begin annual screening 10 years before the age at which the relative was diag-

nosed but not before age 30 and no later than age 40. Under this guideline, a woman whose mother was diagnosed with breast cancer at age 38 should begin annual mammograms at 30. Women who are at increased risk for other reasons should consult their physicians about scheduling screening examinations.

Extend Prevention Efforts

As part of overall screening for breast cancer, physicians also recommend that women undergo a clinical breast examination by a health professional annually. In addition, monthly self-examination of the breasts by the patient herself, though not proven to reduce the number of deaths from breast cancer, is recommended by most doctors.

Detecting breast cancer early is important because the earlier it is detected, the easier it is to control.

For more information, contact your physician or contact the M. D. Anderson Information Line:

☎ (800) 392-1611 within the United States, or

☎ (713) 792-6161 outside the United States.

July 1998

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Understanding the Lure and Promise of Angiogenesis Inhibition

by Sunni Hosemann

When the public earlier this year construed control of angiogenesis as the stone in David's sling capable of slaying the Goliath of cancer, the ride lasted only as long as it took to consult a few scientists and get the bad news that this "cure" was not a "cure-all." Is this discouraging? "Only if you want it to be simple," says Isaiah J. Fidler, D.V.M., Ph.D.

"All complex problems have simple solutions that are invariably wrong," says Dr. Fidler, quoting author and editor H. L. Mencken. In this context, the complex problem is cancer and the simple solution is angiogenesis inhibition, halting the initiation and proliferation of vascular networks that in neoplastic processes support tumor growth.

"The challenge," said Dr. Fidler, chairman of the Department of Cell Biology at The University of Texas M. D. Anderson Cancer Center, "has been and will continue to be how to treat metastasis. Radiotherapy and surgery have proven capable of handling primary tumors, but it is metastasis—relentless and resistant

to conventional therapies—that kills."

Dr. Fidler explained that the heterogeneity of primary and metastatic tumors, characteristics of their host environment, and the reality that most tumors have already initiated angiogenesis by the time they are detected are factors making the single-solution theory implausible. His tumor angiogenesis studies, which have appeared in *Cell*, *Lancet*, the *American Journal of Pathology* and other journals, encompass correlating metastasis-related gene expression with metastatic potential, generating angiogenesis inhibition, and modulating tumor environment. These studies have included cancers of the breast, colon, stomach, prostate, lung, liver, and kidney.

Inside the laboratory, researchers yield to the complexity: "You have to be willing to understand it," he wrote in *BioEssays*, "because if you don't understand how it works, you can't fix it." Outside the laboratory, patients must also be encouraged to understand, he said, that the search for a "magic bullet" extends beyond simply finding a chemical that kills a tumor.

Primary neoplasms and metastases, Fidler explained, are biologically heterogeneous, consisting of subpopulations of cells with different capacities for angiogenesis, invasion, and metastasis. Because the cells within a tumor are not the same, they are not likely to respond to a single therapy in a uniform way. This also explains why two individuals with the same kind of cancer may respond differently to the same treatment.

Furthermore, the interaction of the tumor with its environment must be considered. "The organ microenvironment influences the ability of the cancer to grow, invade, and metastasize," Dr. Fidler said, "and it therefore also affects response to therapy." Several mechanisms have been studied and documented, including the production of organ-specific

Hype and Hope in the Quest for a Cure

A selection of headlines and quotes from recent newspaper reports tells the story of antiangiogenesis mania.

May 3

Hope in the lab: A special report—A cautious awe greets drugs that eradicate tumors in mice—*New York Times*
This story describes the work of Dr. M. Judah Folkman of Children's Hospital in Boston, a cancer researcher for 30 years, and his collaborator Dr. Michael O'Reilly. They permanently eradicated tumors in

mice with angiostatin and endostatin. Cautious, Dr. Folkman told the New York Times, "If you have cancer and you are a mouse, we can take good care of you."

May 5

EntreMed shares soar 330%—*USA Today*
Cancer report spurs stock despite caution—*USA Today*
EntreMed owns the worldwide product license for angiostatin and endostatin.

May 6

Cancer drugs face long road from mice to men—*Los Angeles Times*
Too-high hopes—*New York Times*

May 8

The cancer drug mania: Hopes plus hype leave patients, investors numb—*USA Today*

May 17

Ridiculed for years, doctor kept his vision—*Chicago Tribune*
Between mice and men, scientists say big differences exist—*Chicago Tribune*
"We've always had about 100 calls a day," Folkman told the Chicago Tribune, "but now it's up to 1,000."

May 31

Hype, hope and healing—*Chicago Tribune*

“If brain tumors grew in the skin, dermatologists would have already cured them.”

cytokines that modulate and regulate the expression of factors directly affecting responses or resistance to drugs.

Dr. Fidler credits the seminal work of Stephen Paget, who over 100 years ago observed that metastasis was a highly selective event that only occurred when the right cell found the right growth environment—the seed-and-soil hypothesis. Metastasis, in fact, is highly selective and regulated, not the “cell anarchy” that was widely assumed until recently.

“Cross-talk,” as Dr. Fidler characterized the interaction between the environment and the tumor, is extremely complex. “Tumor cells of any histologic origin implanted in an ectopic organ do not behave or respond the same way they would in the orthotopic site,” said Dr. Fidler. He cited the limitations of studying a tumor in tissue culture or in the skin of a rat: neither includes host contributions or the interaction between tumor and host.

“If brain tumors grew in the skin,” he said, “dermatologists would have already cured them.”

“If you are going to design a drug or therapy for cancer, you cannot ignore host factors and the organ environment,” emphasized Dr. Fidler. “Yet because of the heterogeneity of tumor cells, it makes sense to look for factors common to all tumors.”

Such a factor is angiogenesis-dependent tumor growth. Both primary and metastatic neoplasms depend on adequate blood supply. Thus it is easy to see why angiogenesis inhibition is so appealing. Furthermore, such treatment appeals because it is new, strategic, based on molecular knowledge, and meant to control a universal factor—the cascade of events known as metastasis.

Dr. Fidler said that while it is good biological logic to treat tumors

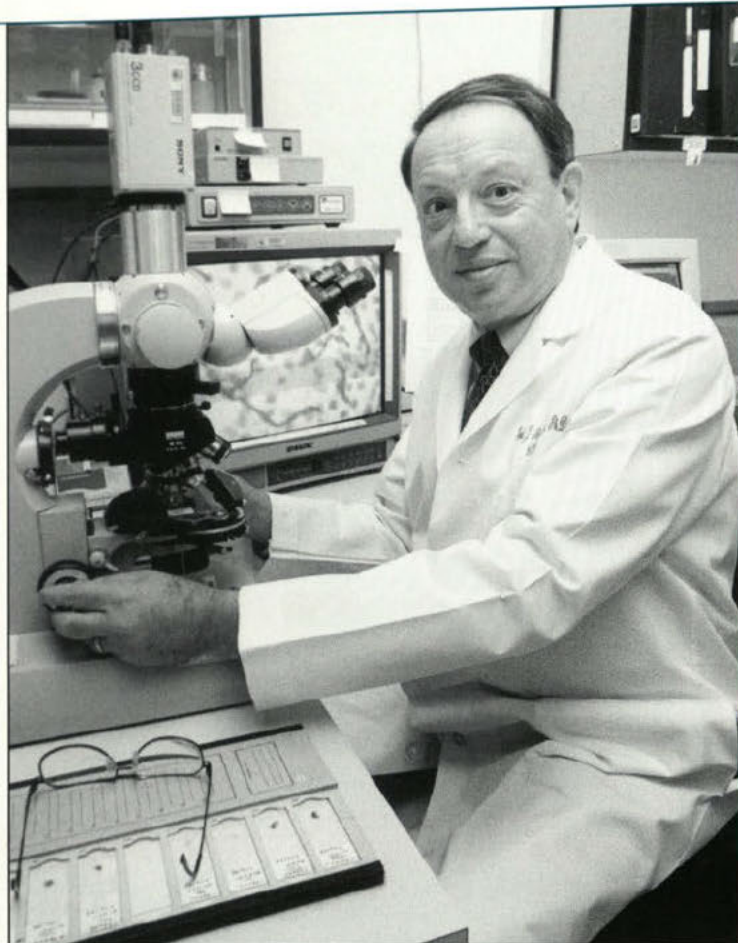
by impeding vascularization, the processes are complex:

■ Angiogenesis starts early. To grow larger than a cubic millimeter, a tumor must develop a new blood supply. This means that angiogenesis has already been initiated in most tumors by the time they are detected.

■ Vascularization is a global process. Essential to the life of the entire organism and not a cancer-specific process, angiogenesis is fundamental to such normal processes as wound healing, pregnancy, or any other new tissue growth. Therefore, chronic administration of antiangiogenic agents must be done with care, said Dr. Fidler.

■ New approaches demand new measures. Dr. Fidler said applying the traditional measure of tumor shrinkage over a few months could result in coming to an “erroneous conclusion” that antiangiogenesis was not working. According to Dr. Fidler, it is unlikely that immediate shrinkage of a neoplasm will be observed with antiangiogenesis methodology. Angiogenesis inhibition limits further growth, but may not necessarily result in an observable reduction in the short term. In trials with interferon, a potent antiangiogenic agent, measurable reductions in tumor size are observable only over 9 to 12 months.

■ Finally, complexity remains a constant. The biological concepts



Dr. Isaiah J. Fidler believes antiangiogenic agents integrated with multiple other therapies will become a significant therapeutic option in the near future. He holds the R. E. “Bob” Smith Distinguished Chair in Cell Biology.

of heterogeneity and specificity also apply to vascularization, so it is probable that a particular antiangiogenic agent may inhibit endothelial cells in some organs and not in others and that different agents will be needed for different metastatic sites.

Antiangiogenic agents will become a significant therapeutic option in the near future, Dr. Fidler believes, used alongside—not instead of—multiple other therapies in long-term treatment. The challenges, he said, will be to coordinate the use of chemotherapy agents already delivered through the vessels with antiangiogenic agents, to discover how to safely and selectively administer these agents, and to be discerning in the conclusions we draw from various experimental models. ●

FOR MORE INFORMATION, contact Dr. Fidler at (713) 792-8577.

DiaLog

When Treatments Fail: What Physicians Can Do, What Patients Can Teach

Porter Storey, M.D.
Adjunct Assistant Professor of Medicine

When all cancer treatments fail to control disease, it is an awkward time for oncologists and patients. We all feel uncomfortable when we can't offer patients the cure they are seeking, and it's difficult to handle upsetting emotions when they arise. As a medical student, I could not offer the ill patients I met any more than my presence, an attentive ear, and some explanation of what was happening. I found many terminally ill patients really appreciated this. When they understood more about their options, they were less afraid. The sorting out they did in telling me their story helped them find a context of meaning, a way to cope.

During my internal medicine residency, I went to Britain, where the first modern hospice was founded in 1967. There I studied geriatrics and palliative medicine. I learned how to control the distressing symptoms of a terminal illness and how to work with an interdisciplinary team to help maintain the patient's quality of life. I learned that there were many helpful interventions a hospice team can offer that can make



the end of life not just bearable but rich and full.

After my residency, I began making home visits with a hospice team to see dying patients. The patients taught me how important it is for the doctor to maintain personal contact and to control distressing symptoms aggressively. They taught me to listen carefully. Some were very upset and needed a doctor to listen to their story and express concern. Others were so brave and appreciative that they gave me strength to continue.

Now that I have practiced hospice and palliative medicine for 15 years, I am convinced that it is as rewarding as any area of medicine can be. I have seen hope restored and patients rehabilitated by good symptom management. A capable team of hospice professionals supported me when I couldn't figure out *what* to do. I have learned the value of opening to grief, fear, and the distressing emotions that inevitably arise in end-of-life care. When these patients are offered top-quality hospice care and experience the relief it can bring, they often express deep appreciation.

I am grateful for each day I get to work at the hospice. It's the kind of job one can look forward to every workday morning.

MD Anderson OncoLog

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