

PALLIATIVE CARE UPDATE 2011
SGIM National Meetings, May 2011

Compilers: Robert Arnold, Ursula Braun, Erik Fromme, Rahwa Ghermay, Stephanie Harman, Patricia Harris, Robert Jayes, Anne Walling.

| | Role of Palliative Care & Health Services Research |
|---|--|
| 1 | <p>N Engl J Med. 2010 Aug 19;363(8):733-42.</p> <p>Early palliative care for patients with metastatic non-small-cell lung cancer.</p> <p>Temel JS, Greer JA, Muzikansky A, Gallagher ER, Admane S, Jackson VA, Dahlin CM, Blinderman CD, Jacobsen J, Pirl WF, Billings JA, Lynch TJ.</p> <p>BACKGROUND: Patients with metastatic non-small-cell lung cancer have a substantial symptom burden and may receive aggressive care at the end of life. We examined the effect of introducing palliative care early after diagnosis on patient-reported outcomes and end-of-life care among ambulatory patients with newly diagnosed disease.</p> <p>METHODS: We randomly assigned patients with newly diagnosed metastatic non-small-cell lung cancer to receive either early palliative care integrated with standard oncologic care or standard oncologic care alone. Quality of life and mood were assessed at baseline and at 12 weeks with the use of the Functional Assessment of Cancer Therapy-Lung (FACT-L) scale and the Hospital Anxiety and Depression Scale, respectively. The primary outcome was the change in the quality of life at 12 weeks. Data on end-of-life care were collected from electronic medical records.</p> <p>RESULTS: Of the 151 patients who underwent randomization, 27 died by 12 weeks and 107 (86% of the remaining patients) completed assessments. Patients assigned to early palliative care had a better quality of life than did patients assigned to standard care (mean score on the FACT-L scale [in which scores range from 0 to 136, with higher scores indicating better quality of life], 98.0 vs. 91.5; P=0.03). In addition, fewer patients in the palliative care group than in the standard care group had depressive symptoms (16% vs. 38%, P=0.01). Despite the fact that fewer patients in the early palliative care group than in the standard care group received aggressive end-of-life care (33% vs. 54%, P=0.05), median survival was longer among patients receiving early palliative care (11.6 months vs. 8.9 months, P=0.02).</p> <p>CONCLUSIONS: Among patients with metastatic non-small-cell lung cancer, early palliative care led to significant improvements in both quality of life and mood. As compared with patients receiving standard care, patients receiving early palliative care had less aggressive care at the end of life but longer survival. (Funded by an American Society of Clinical Oncology Career Development Award and philanthropic gifts; ClinicalTrials.gov number, NCT01038271.)</p> <p><i>Comment: This randomized controlled trial showed that early palliative care consultation in patients with metastatic non-small cell lung cancer resulted in better quality of life and even a prolonged survival by 3 months. Given the rigorous methods, this is arguably the palliative care article published in 2010 with the most influence from a clinical and research perspective.</i></p> |
| 2 | <p>JAMA. 2010 Oct 13;304(14):1584-91.</p> |

Cancer screening among patients with advanced cancer.

[Sima CS](#), [Panageas KS](#), [Schrag D](#).

CONTEXT: Cancer screening has been integrated into routine primary care but does not benefit patients with limited life expectancy.

OBJECTIVE: To evaluate the extent to which patients with advanced cancer continue to be screened for new cancers.

DESIGN, SETTING, AND PARTICIPANTS: Utilization of cancer screening procedures (mammography, Papanicolaou test, prostate-specific antigen [PSA], and lower gastrointestinal [GI] endoscopy) was assessed in 87,736 fee-for-service Medicare enrollees aged 65 years or older diagnosed with advanced lung, colorectal, pancreatic, gastroesophageal, or breast cancer between 1998 and 2005, and reported to one of the Surveillance, Epidemiology, and End Results (SEER) tumor registries. Participants were followed up until death or December 31, 2007, whichever came first. A group of 87,307 Medicare enrollees without cancer were individually matched by age, sex, race, and SEER registry to patients with cancer and observed over the same period to evaluate screening rates in context. Demographic and clinical characteristics associated with screening were also investigated.

MAIN OUTCOME MEASURE: For each cancer screening test, utilization rates were defined as the percentage of patients who were screened following the diagnosis of an incurable cancer.

RESULTS: Among women following advanced cancer diagnosis compared with controls, at least 1 screening mammogram was received by 8.9% (95% confidence interval [CI], 8.6%-9.1%) vs 22.0% (95% CI, 21.7%-22.5%); Papanicolaou test screening was received by 5.8% (95% CI, 5.6%-6.1%) vs 12.5% (95% CI, 12.2%-12.8%). Among men following advanced cancer diagnosis compared with controls, PSA test was received by 15.0% (95% CI, 14.7%-15.3%) vs 27.2% (95% CI, 26.8%-27.6%). For all patients following advanced diagnosis compared with controls, lower GI endoscopy was received by 1.7% (95% CI, 1.6%-1.8%) vs 4.7% (95% CI, 4.6%-4.9%). Screening was more frequent among patients with a recent history of screening (16.2% [95% CI, 15.4%-16.9%] of these patients had mammography, 14.7% [95% CI, 13.7%-15.6%] had a Papanicolaou test, 23.3% [95% CI, 22.6%-24.0%] had a PSA test, and 6.1% [95% CI, 5.2%-7.0%] had lower GI endoscopy).

CONCLUSION: A sizeable proportion of patients with advanced cancer continue to undergo cancer screening tests that do not have a meaningful likelihood of providing benefit.

Comment: This study looked at Medicare and SEER cancer registry data to study the rates of screening tests among patients with advanced cancer. The large sample size and rigorous methods expose a problem of overutilization in primary care.

3

[JAMA](#). 2010 Mar 17;303(11):1054-61.

Availability and integration of palliative care at US cancer centers.

[Hui D](#), [Elsayem A](#), [De la Cruz M](#), [Berger A](#), [Zhukovsky DS](#), [Palla S](#), [Evans A](#), [Fadul N](#), [Palmer JL](#), [Bruera E](#).

CONTEXT: The current state of palliative care in cancer centers is not known.

OBJECTIVES: To determine the availability and degree of integration of palliative care services and to compare between National Cancer Institute (NCI) and non-NCI cancer

centers in the United States.

DESIGN, SETTING, AND PARTICIPANTS: A survey of 71 NCI-designated cancer centers and a random sample of 71 non-NCI cancer centers of both executives and palliative care clinical program leaders, where applicable, regarding their palliative care services between June and October 2009. Survey questions were generated after a comprehensive literature search, review of guidelines from the National Quality Forum, and discussions among 7 physicians with research interest in palliative oncology. Executives were also asked about their attitudes toward palliative care.

MAIN OUTCOME MEASURE: Availability of palliative care services in the cancer center, defined as the presence of at least 1 palliative care physician.

RESULTS: A total of 142 and 120 surveys were sent to executives and program leaders, with response rates of 71% and 82%, respectively. National Cancer Institute cancer centers were significantly more likely to have a palliative care program (50/51 [98%] vs 39/50 [78%]; $P = .002$), at least 1 palliative care physician (46/50 [92%] vs 28/38 [74%]; $P = .04$), an inpatient palliative care consultation team (47/51 [92%] vs 28/50 [56%]; $P < .001$), and an outpatient palliative care clinic (30/51 [59%] vs 11/50 [22%]; $P < .001$). Few centers had dedicated palliative care beds (23/101 [23%]) or an institution-operated hospice (37/101 [37%]). The median (interquartile range) reported durations from referral to death were 7 (4-16), 7 (5-10), and 90 (30-120) days for inpatient consultation teams, inpatient units, and outpatient clinics, respectively. Research programs, palliative care fellowships, and mandatory rotations for oncology fellows were uncommon. Executives were supportive of stronger integration and increasing palliative care resources.

CONCLUSION: Most cancer centers reported a palliative care program, although the scope of services and the degree of integration varied widely.

Comment: This national survey showed how having palliative care services at a cancer center is becoming the rule rather than the exception, however training opportunities for oncologists in training in these same centers are rare.

4

Hospital-Based Palliative Care Consultation: Effects on Hospital Cost

Joan D. Penrod, Partha Deb, Cornelia Dellenbaugh, James F. Burgess Jr., Carolyn W. Zhu, Cindy L. Christiansen, Carol A. Luhrs, Therese Cortez, Elayne Livote, Veleka Allen, R. Sean Morrison

Journal of Palliative Medicine. August 2010: 973-979

Abstract

CONTEXT: Palliative care consultation teams in hospitals are becoming increasingly more common. Palliative care improves the quality of hospital care for patients with advanced disease. Less is known about its effects on hospital costs.

OBJECTIVE: To evaluate the relationship between palliative care consultation and hospital costs in patients with advanced disease.

DESIGN, SETTING, AND PATIENTS: An observational study of 3321 veterans hospitalized with advanced disease between October 1, 2004 and September 30, 2006. The sample includes 606 (18%) veterans who received palliative care and 2715 (82%) who received usual hospital care. October 1, 2004 and September 30, 2006.

MAIN OUTCOME MEASURES: We studied the costs and intensive care unit (ICU) use of palliative versus usual care for patients in five Veterans Affairs hospitals over a 2-year period. We used an instrumental variable approach to control for unmeasured characteristics that affect both treatment and outcome.

RESULTS: The average daily total direct hospital costs were \$464 a day lower for the 606 patients receiving palliative compared to the 2715 receiving usual care ($p < 0.001$). Palliative care patients were 43.7 percentage points less likely to be admitted to ICU during the hospitalization than usual care patients ($p < 0.001$).

COMMENTS: Palliative care for patients hospitalized with advanced disease results in lower costs of care and less utilization of intensive care compared to similar patients receiving usual care. Selection on unobserved characteristics plays an important role in the determination of costs of care.

Comment: This article showing that palliative care results in lower costs and less ICU utilization for hospitalized patients with advanced disease. The use of instrumental variables is what makes this an interesting addition to the literature that adds to the argument that palliative care can add quality to patient care while reducing costs.

5

Unroe, M., Kahn, J.M., Carson, S.S., Govert, J.A., Martinu, T., Sathy, S.J., Clay, A.S., Chia, J., Gray, A., Tulskey, J.A., and Cox, C.E., *One-year trajectories of care and resource utilization for recipients of prolonged mechanical ventilation: a cohort study.* Ann Intern Med, 2010. **153**(3): p. 167-75.

BACKGROUND: Growing numbers of critically ill patients receive prolonged mechanical ventilation. Little is known about the patterns of care as patients transition from acute care hospitals to postacute care facilities or about the associated resource utilization. **OBJECTIVE:** To describe 1-year trajectories of care and resource utilization for patients receiving prolonged mechanical ventilation. **DESIGN:** 1-year prospective cohort study. **SETTING:** 5 intensive care units at Duke University Medical Center, Durham, North Carolina. **PARTICIPANTS:** 126 patients receiving prolonged mechanical ventilation (defined as ventilation for ≥ 4 days with tracheostomy placement or ventilation for ≥ 21 days without tracheostomy), as well as their 126 surrogates and 54 intensive care unit physicians, enrolled consecutively over 1 year. **MEASUREMENTS:** Patients and surrogates were interviewed in the hospital, as well as 3 and 12 months after discharge, to determine patient survival, functional status, and facility type and duration of postdischarge care. Physicians were interviewed in the hospital to elicit prognoses. Institutional billing records were used to assign costs for acute care, outpatient care, and interfacility transportation. Medicare claims data were used to assign costs for postacute care. **RESULTS:** 103 (82%) hospital survivors had 457 separate transitions in postdischarge care location (median, 4 transitions [interquartile range, 3 to 5 transitions]), including 68 patients (67%) who were readmitted at least once. Patients spent an average of 74% (95% CI, 68% to 80%) of all days alive in a hospital or postacute care facility or receiving home health

| | |
|---|--|
| | <p>care. At 1 year, 11 patients (9%) had a good outcome (alive with no functional dependency), 33 (26%) had a fair outcome (alive with moderate dependency), and 82 (65%) had a poor outcome (either alive with complete functional dependency [4 patients; 21%] or dead [56 patients; 44%]). Patients with poor outcomes were older, had more comorbid conditions, and were more frequently discharged to a postacute care facility than patients with either fair or good outcomes ($P < 0.05$ for all). The mean cost per patient was \$306,135 (SD, \$285,467), and total cohort cost was \$38.1 million, for an estimated \$3.5 million per independently functioning survivor at 1 year. LIMITATION: The results of this single-center study may not be applicable to other centers. CONCLUSION: Patients receiving prolonged mechanical ventilation have multiple transitions of care, resulting in substantial health care costs and persistent, profound disability. The optimism of surrogate decision makers should be balanced by discussions of these outcomes when considering a course of prolonged life support. PRIMARY FUNDING SOURCE: None.</p> |
| 6 | <p>Balboni, T.A., Paulk, M.E., Balboni, M.J., Phelps, A.C., Loggers, E.T., Wright, A.A., Block, S.D., Lewis, E.F., Peteet, J.R., and Prigerson, H.G., <i>Provision of spiritual care to patients with advanced cancer: associations with medical care and quality of life near death</i>. J Clin Oncol, 2010. 28(3): p. 445-52.</p> <p>PURPOSE: To determine whether spiritual care from the medical team impacts medical care received and quality of life (QoL) at the end of life (EoL) and to examine these relationships according to patient religious coping. PATIENTS AND METHODS: Prospective, multisite study of patients with advanced cancer from September 2002 through August 2008. We interviewed 343 patients at baseline and observed them (median, 116 days) until death. Spiritual care was defined by patient-rated support of spiritual needs by the medical team and receipt of pastoral care services. The Brief Religious Coping Scale (RCOPE) assessed positive religious coping. EoL outcomes included patient QoL and receipt of hospice and any aggressive care (eg, resuscitation). Analyses were adjusted for potential confounders and repeated according to median-split religious coping. RESULTS: Patients whose spiritual needs were largely or completely supported by the medical team received more hospice care in comparison with those not supported (adjusted odds ratio [AOR] = 3.53; 95% CI, 1.53 to 8.12, $P = .003$). High religious coping patients whose spiritual needs were largely or completely supported were more likely to receive hospice (AOR = 4.93; 95% CI, 1.64 to 14.80; $P = .004$) and less likely to receive aggressive care (AOR = 0.18; 95% CI, 0.04 to 0.79; $P = .02$) in comparison with those not supported. Spiritual support from the medical team and pastoral care visits were associated with higher QoL scores near death (20.0 [95% CI, 18.9 to 21.1] v 17.3 [95% CI, 15.9 to 18.8], $P = .007$; and 20.4 [95% CI, 19.2 to 21.1] v 17.7 [95% CI, 16.5 to 18.9], $P = .003$, respectively). CONCLUSION: Support of terminally ill patients' spiritual needs by the medical team is associated with greater hospice utilization and, among high religious copers, less aggressive care at EoL. Spiritual care is associated with better patient QoL near death.</p> |
| 7 | <p>Why Don't Patients Enroll in Hospice? Can We Do Anything About It? Elizabeth K. Vig, Helene Starks, Janelle S. Taylor, Elizabeth K. Hopley and Kelly Fryer-Edwards</p> <p>BACKGROUND United States hospice organizations aim to provide quality, patient-centered end-of-life care to patients in the last 6 months of life, yet some of these organizations observe that some hospice-eligible patients who are referred to hospice do not initially enroll.</p> <p>OBJECTIVE Primary objective: To identify reasons that eligible patients do not enroll in hospice (phase 1). Secondary objective: To identify strategies used by hospice providers to address these reasons (phase 2).</p> <p>DESIGN Semi-structured interviews analyzed using content analysis.</p> <p>PARTICIPANTS In phase 1, we interviewed 30 patients and/or family members of patients</p> |

| | |
|---|--|
| | <p>who had a hospice admissions visit, but who did not enroll. In phase 2, we interviewed 19 hospice staff and national experts.</p> <p>APPROACH In phase 1, we asked participants to describe the patient's illness, the hospice referral, and why they had not enrolled. We performed a content analysis to characterize their reasons for not enrolling in hospice. In phase 2, we enrolled hospice admissions staff and hospice experts. We asked them to describe how they would respond to each reason (from phase 1) during an admissions visit with a potential new hospice patient. We identified key phrases, and summarized their recommendations.</p> <p>RESULTS Reasons that patients hadn't enrolled fell into three broad categories: patient/family perceptions (e.g., "not ready"), hospice specific issues (e.g., variable definitions of hospice-eligible patients), and systems issues (e.g., concerns about continuity of care). Hospice staff/experts had encountered each reason, and offered strategies at the individual and organizational level for responding.</p> <p>CONCLUSIONS In hopes of increasing hospice enrollment among hospice-eligible patients, non-hospice and hospice clinicians may want to adopt some of the strategies used by hospice staff/experts for talking about hospice with patients/families and may want to familiarize themselves with the differences between hospice organizations in their area. Hospices may want to reconsider their admission policies and procedures in light of patients' and families' perceptions and concerns.</p> <p>KEY WORDS hospice - decision making - terminally ill - terminal care</p> <p>This work was supported by the National Institute on Aging (K23 AG19635). This material was presented in part at the Annual Assembly of the American Academy of Hospice and Palliative Medicine in New Orleans, LA in January 2005, and at the Annual Meeting of the Society of General Internal Medicine in Toronto, Ontario, Canada in April 2007.</p> |
| 8 | <p>The Lancet, <u>Volume 376, Issue 9737</u>, Page 206, 24 July 2010</p> <p>Editorial:</p> <p>Painfully slow progress on palliative care</p> <p>To meet death without a surfeit of pain and discomfort is a fundamental right. Yet, according to <i>The Quality of Death</i>, a report published by the <u>Economist Intelligence Unit</u>, it is a right denied to all but 8% of patients who need palliative care worldwide every year. The authors used a range of indicators to rank 40 countries by the quality and availability of their end-of-life care. The UK holds the top spot overall, bearing testament to the strides made since the foundation of St Christopher's Hospice—the first dedicated palliative care hospice in the world—in 1967. Globally, however, the picture is one of low standards and slow progress.</p> <p>Brazil, Russia, India, and China—which account for 40% of the world's population—occupy four of the bottom six places in the list, along with Mexico and Uganda. But even patients in developed nations such as South Korea (32nd), Japan (23rd), and Denmark (22nd) are being denied access to good end-of-life care through a combination of inadequate policy, poor training, poor access to painkillers, and cultural barriers.</p> <p>In a world where death and taxes are the only certainties, taxes are considered the more palatable topic for discussion. Death and dying remain taboo subjects in many cultures, which presents a major barrier to improving end-of-life care. Deeply embedded attitudes will not change overnight, but campaigns such as <u>Dying Matters</u>, which launched in the UK earlier this year, show that it is possible to engage with the public and foster an acceptance of death as a natural process.</p> |

| | |
|----|---|
| | <p>A more pressing practical concern is that about 5 billion people worldwide lack access to opioid pain relief, mainly because of fears the drugs will reach the black market. Even where opioids are available, inadequate training often means doctors are unable to safely administer them. What is clear is that none of the impediments to improving end-of-life care will be overcome without strong leadership and detailed support from policy makers. With people older than 65 years soon to outnumber children younger than 5 years for the first time in recorded history, time is very much of the essence.</p> <p><i>Comment: Survey commissioned by a foundation for the Economist describing the quality of palliative care across the globe. Not surprisingly, US does not come in first. Methods are basic survey of experts. Unique in its global perspective. Hyperlink connects to 39 page report.</i></p> |
| 9 | <p>J Clin Oncol. 2010 Oct 10;28(29):4457-64. Epub 2010 Sep 13.</p> <p>Place of death: correlations with quality of life of patients with cancer and predictors of bereaved caregivers' mental health.</p> <p>Wright AA, Keating NL, Balboni TA, Matulonis UA, Block SD, Prigerson HG.</p> <p>PURPOSE: To determine whether the place of death for patients with cancer is associated with patients' quality of life (QoL) at the end of life (EOL) and psychiatric disorders in bereaved caregivers.</p> <p>PATIENTS AND METHODS: Prospective, longitudinal, multisite study of patients with advanced cancer and their caregivers (n = 342 dyads). Patients were followed from enrollment to death, a median of 4.5 months later. Patients' QoL at the EOL was assessed by caregiver report within 2 weeks of death. Bereaved caregivers' mental health was assessed at baseline and 6 months after loss with the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, and the Prolonged Grief Disorder interview.</p> <p>RESULTS: In adjusted analyses, patients with cancer who died in an intensive care unit (ICU) or hospital experienced more physical and emotional distress and worse QoL at the EOL (all P ≤ .03), compared with patients who died at home with hospice. ICU deaths were associated with a heightened risk for posttraumatic stress disorder, compared with home hospice deaths (21.1% [four of 19] v 4.4% [six of 137]; adjusted odds ratio [AOR], 5.00; 95% CI, 1.26 to 19.91; P = .02), after adjustment for caregivers' preexisting psychiatric illnesses. Similarly, hospital deaths were associated with a heightened risk for prolonged grief disorder (21.6% [eight of 37] v 5.2% [four of 77], AOR, 8.83; 95% CI, 1.51 to 51.77; P = .02), compared with home hospice deaths.</p> <p>CONCLUSION: Patients with cancer who die in a hospital or ICU have worse QoL compared with those who die at home, and their bereaved caregivers are at increased risk for developing psychiatric illness. Interventions aimed at decreasing terminal hospitalizations or increasing hospice utilization may enhance patients' QoL at the EOL and minimize bereavement-related distress.</p> |
| 10 | Johnson, R. W., L. K. Newby, et al. (2010). "Differences in level of care at the end of life |

| | |
|----------|--|
| | <p>according to race." <u>Am J Crit Care</u> 19(4): 335-343; quiz 344.</p> <p>BACKGROUND: Tailoring care for patients and their families at the end of life is important. PURPOSE: To examine factors associated with patients' choices for level of care at the end of life. METHODS: Data on demographics and level of care (full code, do not resuscitate, or withdrawal of life support) were collected on 1072 patients who died between January 1998 and June 2006 on a cardiac care unit. Logistic regression was used to identify factors associated with level of care. RESULTS: Median (interquartile range) age of blacks was 64 (50-74) years and of whites was 70 (62-78) years. At the time of death, the level of care differed significantly between blacks and whites: 41.8% (n = 112) of blacks versus 26.7% (n = 194) of whites chose full code (P <.001), 37.3% (n = 96) of blacks versus 43.9% (n = 317) of whites chose do not resuscitate (P = .03), and 20.9% (n = 54) of blacks versus 29.3% (n = 210) of whites chose withdrawal of life support (P = .005). After age, sex, diagnosis, and lengths of stay in intensive care unit and hospital were controlled for, blacks were more likely than whites to choose full code status at the time of death (odds ratio 1.91 [95% confidence interval, 2.63-1.39], P < .001). CONCLUSIONS: Blacks are 1.9 times as likely as others to choose full code at time of death. Cultural differences should be acknowledged when providing end-of-life care.</p> |
| | <p>Pain and other symptoms</p> |
| <p>1</p> | <p>The epidemiology of pain during the last 2 years of life.</p> <p>Smith AK, Cenzer IS, Knight SJ, Puntillo KA, Widera E, Williams BA, Boscardin WJ, Covinsky KE. Ann Intern Med. 2010 Nov 2;153(9):563-9.PMID: 21041575</p> <p>Background: The epidemiology of pain during the last years of life has not been well described.</p> <p>Objective: To describe the prevalence and correlates of pain during the last 2 years of life.</p> <p>Design: Observational study. Data from participants who died while enrolled in the Health and Retirement Study were analyzed. The survey interview closest to death was used. Each participant or proxy was interviewed once in the last 24 months of life and was classified into 1 of 24 cohorts on the basis of the number of months between the interview and death. The relationship between time before death and pain was modeled and was adjusted for age, sex, race or ethnicity, education level, net worth, income, terminal diagnosis category, presence of arthritis, and proxy status.</p> <p>Setting: The Health and Retirement Study, a nationally representative survey of community-living older adults (1994 to 2006).</p> <p>Participants: Older adult decedents.</p> <p>MEASUREMENTS: Clinically significant pain, as indicated by a report that the participant was "often troubled" by pain of at least moderate severity.</p> <p>RESULTS: The sample included 4703 decedents. Mean age (SD) of participants was 75.7 years (SD, 10.8); 83.1% were white, 10.7% were black, 4.7% were Hispanic; and 52.3% were men. The adjusted prevalence of pain 24 months before death was 26% (95% CI, 23% to 30%). The prevalence remained flat until 4 months before death (28% [CI, 25% to 32%]), then it increased, reaching 46% (CI, 38% to 55%) in the last month of life. The prevalence of pain in the last month of life was 60% among patients with arthritis versus 26% among patients without arthritis (P < 0.001) and did not differ by terminal diagnosis category (cancer [45%], heart disease [48%], frailty [50%], sudden death [42%], or other causes [47%]; P = 0.195).</p> |

| | |
|---|--|
| | <p>LIMITATION: Data are cross-sectional; 19% of responses were from proxies; and information about cause, location, and treatment of pain was not available.</p> <p>CONCLUSION: Although the prevalence of pain increases in the last 4 months of life, pain is present in more than one quarter of elderly persons during the last 2 years of life. Arthritis is strongly associated with pain at the end of life.</p> <p>PRIMARY FUNDING SOURCE: National Institute on Aging, National Center for Research Resources, National Institute on Musculoskeletal and Skin Diseases, and National Palliative Care Research Center.</p> |
| 2 | <p>Opioid prescriptions for chronic pain and overdose: a cohort study.</p> <p>Dunn KM, Saunders KW, Rutter CM, Banta-Green CJ, Merrill JO, Sullivan MD, Weisner CM, Silverberg MJ, Campbell CI, Psaty BM, Von Korff M.</p> <p>Ann Intern Med. 2010 Jan 19;152(2):85-92.PMID: 20083827 [PubMed - indexed for MEDLINE]</p> <p>Background: Long-term opioid therapy for chronic noncancer pain is becoming increasingly common in community practice. Concomitant with this change in practice, rates of fatal opioid overdose have increased. The extent to which overdose risks are elevated among patients receiving medically prescribed long-term opioid therapy is unknown.</p> <p>Objective: To estimate rates of opioid overdose and their association with an average prescribed daily opioid dose among patients receiving medically prescribed, long-term opioid therapy.</p> <p>Design: Cox proportional hazards models were used to estimate overdose risk as a function of average daily opioid dose (morphine equivalents) received at the time of overdose.</p> <p>Setting: HMO.</p> <p>Patients: 9940 persons who received 3 or more opioid prescriptions within 90 days for chronic noncancer pain between 1997 and 2005.</p> <p>Measurements: Average daily opioid dose over the previous 90 days from automated pharmacy data. Primary outcomes—nonfatal and fatal overdoses—were identified through diagnostic codes from inpatient and outpatient care and death certificates and were confirmed by medical record review.</p> <p>Results: 51 opioid-related overdoses were identified, including 6 deaths. Compared with patients receiving 1 to 20 mg/d of opioids (0.2% annual overdose rate), patients receiving 50 to 99 mg/d had a 3.7-fold increase in overdose risk (95% CI, 1.5 to 9.5) and a 0.7% annual overdose rate. Patients receiving 100 mg/d or more had an 8.9-fold increase in overdose risk (CI, 4.0 to 19.7) and a 1.8% annual overdose rate.</p> <p>Limitations: Increased overdose risk among patients receiving higher dose regimens may be due to confounding by patient differences and by use of opioids in ways not intended by prescribing physicians. The small number of overdoses in the study cohort is also a limitation.</p> <p>Conclusion: Patients receiving higher doses of prescribed opioids are at increased risk for overdose, which underscores the need for close supervision of these patients.</p> |
| 3 | <p>Lee-Robichaud, H., Thomas, K., Morgan, J., and Nelson, R.L., <i>Lactulose versus Polyethylene Glycol for Chronic Constipation</i>. Cochrane Database Syst Rev, 2010(7): p. CD007570.</p> <p>BACKGROUND: Constipation is a common clinical problem. Lactulose and Polyethylene Glycol (PEG) are both commonly used osmotic laxatives that have been shown to be effective and safe treatments for chronic constipation. However, there is no definitive data as to which provides the best treatment. OBJECTIVES: To identify and review all relevant data in order to determine whether Lactulose or Polyethylene Glycol is more effective at treating chronic constipation and faecal impaction. SEARCH STRATEGY: We searched the MEDLINE, EMBASE and CINAHL databases, and the Cochrane Central Register of Controlled Trials for all randomised controlled trials (RCTs)</p> |

comparing the use of lactulose and polyethylene glycol in the management of faecal impaction and chronic constipation. **SELECTION CRITERIA:** Studies were included if they were randomised controlled trials which compared lactulose with polyethylene glycol in the management of chronic constipation. **DATA COLLECTION AND ANALYSIS:** Data on study methods, participants, interventions used and outcomes measured was extracted from each study. Data was entered into the Cochrane Review Manager software (RevMan 5.0) and analysed using Cochrane MetaView. **MAIN RESULTS:** In the present meta-analysis, we considered for the first time all ten randomised controlled trials so far performed. The findings of our work indicate that Polyethylene glycol is better than lactulose in outcomes of stool frequency per week, form of stool, relief of abdominal pain and the need for additional products. On subgroup analysis, this is seen in both adults and children, except for relief of abdominal pain. **AUTHORS' CONCLUSIONS:** Polyethylene Glycol should be used in preference to Lactulose in the treatment of Chronic Constipation.

4

The Lancet, Volume 376, Issue 9743, Pages 784 - 793, 4 September 2010

Effect of palliative oxygen versus room air in relief of breathlessness in patients with refractory dyspnoea: a double-blind, randomised controlled trial

Dr Amy P Abernethy MD, Christine F McDonald MBBS, Peter A Frith MBBS, Katherine Clark MBBS, James E Herndon PhD, Jennifer Marcello MS, Prof Iven H Young MBBS, Janet Bull MD, Andrew Wilcock MBChB, Sara Booth MD, Jane L Wheeler MSPH, Prof James A Tulsky MD, Alan J Crockett PhD, Prof David C Currow BMed

Background Palliative oxygen therapy is widely used for treatment of dyspnoea in individuals with life-limiting illness who are ineligible for long-term oxygen therapy. We assessed the effectiveness of oxygen compared with room air delivered by nasal cannula for relief of breathlessness in this population of patients.

Methods Adults from outpatient clinics at nine sites in Australia, the USA, and the UK were eligible for enrolment in this double-blind, randomised controlled trial if they had life-limiting illness, refractory dyspnoea, and partial pressure of oxygen in arterial blood (PaO₂) more than 7.3 kPa. Participants were randomly assigned in a 1:1 ratio by a central computer-generated system to receive oxygen or room air via a concentrator through a nasal cannula at 2 L per min for 7 days. Participants were instructed to use the concentrator for at least 15 h per day. The randomisation sequence was stratified by baseline PaO₂ with balanced blocks of four patients. The primary outcome measure was breathlessness (0—10 numerical rating scale [NRS]), measured twice a day (morning and evening). All randomised patients who completed an assessment were included in the primary analysis for that data point (no data were imputed). This study is registered, numbers [NCT00327873](#) and [ISRCTN67448752](#).

Findings 239 participants were randomly assigned to treatment (oxygen, n=120; room air, n=119). 112 (93%) patients assigned to receive oxygen and 99 (83%) assigned to receive room air completed all 7 days of assessments. From baseline to day 6, mean morning breathlessness changed by -0.9 points (95% CI -1.3 to -0.5) in patients assigned to receive oxygen and by -0.7 points (-1.2 to -0.2) in patients assigned to receive room air (p=0.504). Mean evening breathlessness changed by -0.3 points (-0.7 to 0.1) in the oxygen group and by -0.5 (-0.9 to -0.1) in the room air group (p=0.554). The frequency of side-effects did not differ between groups. Extreme drowsiness was reported by 12 (10%) of 116 patients assigned to receive oxygen compared with 14 (13%) of 108 patients assigned to receive

room air. Two (2%) patients in the oxygen group reported extreme symptoms of nasal irritation compared with seven (6%) in the room air group. One patient reported an extremely troublesome nose bleed (oxygen group).

Interpretation Since oxygen delivered by a nasal cannula provides no additional symptomatic benefit for relief of refractory dyspnoea in patients with life-limiting illness compared with room air, less burdensome strategies should be considered after brief assessment of the effect of oxygen therapy on the individual patient.

Refractory breathlessness: oxygen or room air? (Editorial) Irene J Higginson

Comment: Strong methods used to address a common clinical question in palliative care. Clinically important because oxygen is expensive. Accompanying editorial should be mentioned.

5

Rifaximin Treatment in Hepatic Encephalopathy

Nathan M. Bass, M.B., Ch.B., Ph.D., Kevin D. Mullen, M.D., Arun Sanyal, M.D., Fred Poordad, M.D., Guy Neff, M.D., Carroll B. Leevy, M.D., Samuel Sigal, M.D., Muhammad Y. Sheikh, M.D., Kimberly Beavers, M.D., Todd Frederick, M.D., Lewis Teperman, M.D., Donald Hillebrand, M.D., Shirley Huang, M.S., Kunal Merchant, Ph.D., Audrey Shaw, Ph.D., Enoch Bortey, Ph.D., and William P. Forbes, Pharm.D.

N Engl J Med 2010; 362:1071-1081

Background

Hepatic encephalopathy is a chronically debilitating complication of hepatic cirrhosis. The efficacy of rifaximin, a minimally absorbed antibiotic, is well documented in the treatment of acute hepatic encephalopathy, but its efficacy for prevention of the disease has not been established.

Methods

In this randomized, double-blind, placebo-controlled trial, we randomly assigned 299 patients who were in remission from recurrent hepatic encephalopathy resulting from chronic liver disease to receive either rifaximin, at a dose of 550 mg twice daily (140 patients), or placebo (159 patients) for 6 months. The primary efficacy end point was the time to the first breakthrough episode of hepatic encephalopathy. The key secondary end point was the time to the first hospitalization involving hepatic encephalopathy.

Results

Rifaximin significantly reduced the risk of an episode of hepatic encephalopathy, as compared with placebo, over a 6-month period (hazard ratio with rifaximin, 0.42; 95% confidence interval [CI], 0.28 to 0.64; $P < 0.001$). A breakthrough episode of hepatic encephalopathy occurred in 22.1% of patients in the rifaximin group, as compared with 45.9% of patients in the placebo group. A total of 13.6% of the patients in the rifaximin group

had a hospitalization involving hepatic encephalopathy, as compared with 22.6% of patients in the placebo group, for a hazard ratio of 0.50 (95% CI, 0.29 to 0.87; P=0.01). More than 90% of patients received concomitant lactulose therapy. The incidence of adverse events reported during the study was similar in the two groups, as was the incidence of serious adverse events.

Conclusions

Over a 6-month period, treatment with rifaximin maintained remission from hepatic encephalopathy more effectively than did placebo. Rifaximin treatment also significantly reduced the risk of hospitalization involving hepatic encephalopathy. (ClinicalTrials.gov number, NCT00298038.)

Comment: This influential randomized controlled trial supports the use of rifaximin in patients with hepatic encephalopathy.

| | |
|---|--|
| 6 | <p>Simon, S. T., I. J. Higginson, et al. (2010). "Benzodiazepines for the relief of breathlessness in advanced malignant and non-malignant diseases in adults." <u>Cochrane Database Syst Rev</u>(1): CD007354.</p> <p>BACKGROUND: Breathlessness is one of the most common symptoms experienced in the advanced stages of malignant and non-malignant disease. Benzodiazepines are widely used for the relief of breathlessness in advanced diseases and are regularly recommended in the literature. However, the evidence for their use for this symptom is unclear. OBJECTIVES: To determine the efficacy of benzodiazepines for the relief of breathlessness in patients with advanced disease. SEARCH STRATEGY: We searched 14 electronic databases up to September 2009. We checked the reference lists of all relevant studies, key textbooks, reviews, and websites. We contacted investigators and specialists in palliative care for unpublished data. SELECTION CRITERIA: We included randomised controlled trials (RCTs) and controlled clinical trials (CCTs) assessing the effect of benzodiazepines in relieving breathlessness in patients with advanced stages of cancer, chronic obstructive pulmonary disease (COPD), chronic heart failure (CHF), motor neurone disease (MND), and idiopathic pulmonary fibrosis (IPF). DATA COLLECTION AND ANALYSIS: Two review authors independently assessed identified titles and abstracts. Three independent review authors performed assessment of all potentially relevant studies (full text), data extraction, and assessment of methodological quality. We carried out meta-analysis where appropriate. MAIN RESULTS: Seven studies were identified, including 200 analysed participants with advanced cancer and COPD. Analysis of all seven studies (including a meta-analysis of six out of seven studies) did not show a beneficial effect of benzodiazepines for the relief of breathlessness in patients with advanced cancer and COPD. Furthermore, no significant effect could be observed in the prevention of breakthrough dyspnoea in cancer patients. Sensitivity analysis demonstrated no significant differences regarding type of benzodiazepine, dose, route and frequency of delivery, duration of treatment, or type of control. AUTHORS' CONCLUSIONS: There is no evidence for a beneficial effect of benzodiazepines for the relief of breathlessness in patients with advanced cancer and COPD. There is a slight but non-significant trend towards a beneficial effect but the overall effect size is small. Benzodiazepines caused more drowsiness as an adverse effect compared to placebo, but less compared to morphine. These results justify considering benzodiazepines as a second or third-line treatment within an individual therapeutic trial, when opioids and non-pharmacological measures have failed to control breathlessness. Although a few good quality studies were included in this review, there is still a further need for well-conducted and adequately powered studies.</p> |
| 7 | <p>JAMA. 2010 Aug 18;304(7):779-86.</p> <p>Does this patient have delirium?: value of bedside instruments.</p> <p>Wong CL, Holroyd-Leduc J, Simel DL, Straus SE.</p> <p>CONTEXT: Delirium occurs in many hospitalized older patients and has serious consequences including increased risk for death and admission to long-term care. Despite its importance, health care clinicians often fail to recognize delirium. Simple bedside instruments may lead to improved</p> |

| | |
|----------|---|
| | <p>identification.</p> <p>OBJECTIVE: To systematically review the evidence on the accuracy of bedside instruments in diagnosing the presence of delirium in adults.</p> <p>DATA SOURCES: Search of MEDLINE (from 1950 to May 2010), EMBASE (from 1980 to May 2010), and references of retrieved articles to identify studies of delirium among inpatients.</p> <p>STUDY SELECTION: Prospective studies of diagnostic accuracy that compared at least 1 delirium bedside instrument to the Diagnostic and Statistical Manual of Mental Disorders-based diagnosis made by a geriatrician, psychiatrist, or neurologist.</p> <p>DATA SYNTHESIS: There were 6570 unique citations identified with 25 prospectively conducted studies (N = 3027 patients) meeting inclusion criteria and describing use of 11 instruments. Positive results that suggested delirium with likelihood ratios (LRs) greater than 5.0 were present for the Global Attentiveness Rating (GAR), Memorial Delirium Assessment Scale (MDAS), Confusion Assessment Method (CAM), Delirium Rating Scale Revised-98 (DRS-R-98), Clinical Assessment of Confusion (CAC), and Delirium Observation Screening Scale (DOSS). Normal results that decreased the likelihood of delirium with LRs less than 0.2 were calculated for the GAR, MDAS, CAM, DRS-R-98, Delirium Rating Scale (DRS), DOSS, Nursing Delirium Screening Scale (Nu-DESC), and Mini-Mental State Examination (MMSE). The Digit Span test and Vigilance "A" test in isolation have limited utility in diagnosing delirium. Considering the instrument's ease of use, test performance, and clinical importance of the heterogeneity in the confidence intervals (CIs) of the LRs, the CAM has the best available supportive data as a bedside delirium instrument (summary-positive LR, 9.6; 95% CI, 5.8-16.0; summary-negative LR, 0.16; 95% CI, 0.09-0.29). Of all scales, the MMSE (score <24) was the least useful for identifying a patient with delirium (LR, 1.6; 95% CI, 1.2-2.0).</p> <p>CONCLUSION: The choice of instrument may be dictated by the amount of time available and the discipline of the examiner; however, the best evidence supports use of the CAM, which takes 5 minutes to administer.</p> |
| | <p>Advanced directives/surrogate decision making/communication</p> |
| <p>1</p> | <p>N Engl J Med. 2010 Apr 1;362(13):1211-8.</p> <p>Advance directives and outcomes of surrogate decision making before death.</p> <p>Silveira MJ, Kim SY, Langa KM.</p> <p>BACKGROUND: Recent discussions about health care reform have raised questions regarding the value of advance directives.</p> <p>METHODS: We used data from survey proxies in the Health and Retirement Study involving adults 60 years of age or older who had died between 2000 and 2006 to determine the prevalence of the need for decision making and lost decision-making capacity and to test the association between preferences documented in advance directives and outcomes of surrogate decision making.</p> <p>RESULTS: Of 3746 subjects, 42.5% required decision making, of whom 70.3% lacked decision-making capacity and 67.6% of those subjects, in turn, had advance directives. Subjects who had living wills were more likely to want limited care (92.7%) or comfort care (96.2%) than all care possible (1.9%); 83.2% of subjects who requested limited care and 97.1% of subjects who requested comfort care received care consistent with their preferences. Among the 10 subjects who requested all care possible, only 5 received it; however, subjects who requested all care possible were far more likely to receive aggressive care as compared with those who did not request it (adjusted odds ratio, 22.62; 95% confidence interval [CI], 4.45 to 115.00). Subjects with living wills were less likely to receive all care possible (adjusted odds ratio, 0.33; 95% CI, 0.19 to 0.56) than were subjects without living wills. Subjects who had assigned a durable power of attorney for health care were less</p> |

| | |
|---|--|
| | <p>likely to die in a hospital (adjusted odds ratio, 0.72; 95% CI, 0.55 to 0.93) or receive all care possible (adjusted odds ratio, 0.54; 95% CI, 0.34 to 0.86) than were subjects who had not assigned a durable power of attorney for health care.</p> <p>CONCLUSIONS: Between 2000 and 2006, many elderly Americans needed decision making near the end of life at a time when most lacked the capacity to make decisions. Patients who had prepared advance directives received care that was strongly associated with their preferences. These findings support the continued use of advance directives.</p> <p>2010 Massachusetts Medical Society</p> <p><i>Comment: This large study used HRS data to study to support the ethical consensus that advanced directives are often needed as patients often lack capacity to make their own decisions at the end of life and are useful in ensuring that a patient's care is consistent with his/her preferences.</i></p> |
| 2 | <p>Boyd EA, Lo B, Evans LR, Malvar G, Apatira L, Luce JM, White DB. "It's not just what the doctor tells me:" factors that influence surrogate decision-makers' perceptions of prognosis. Crit Care Med. 2010 May;38(5):1270-5.</p> <p>OBJECTIVE: Physicians and surrogate decision-makers for seriously ill patients often have different views of patients' prognoses. We sought to understand what sources of knowledge surrogates rely on when estimating a patient's prognosis.</p> <p>DESIGN: Prospective, mixed-methods study using face-to-face, semistructured interviews with surrogate decision-makers.</p> <p>SETTING: Four intensive care units at the University of California, San Francisco Medical Center in 2006 to 2007.</p> <p>PARTICIPANTS: Participants were 179 surrogate decision-makers for 142 incapacitated, critically ill patients at high risk for death. MAIN RESULTS: Less than 2% (3 of 179) of surrogates reported that their beliefs about the patients' prognoses hinged exclusively on prognostic information provided to them by physicians. The majority cited other factors in addition to physicians' predictions that also contributed to their beliefs about the patients' prognoses, including perceptions of the patient's individual strength of character and will to live; the patient's unique history of illness and survival; the surrogate's own observations of the patient's physical appearance; the surrogate's belief that their presence at the bedside may improve the prognosis; and the surrogate's optimism, intuition, and faith. For some surrogates, these other sources of knowledge superseded the importance of the physician's prognostication. However, most surrogates endeavored to balance their own knowledge of the patient with physicians' biomedical knowledge.</p> <p>CONCLUSIONS: Surrogates use diverse types of knowledge when estimating their loved ones' prognoses, including individualized attributes of the patient, such as their strength of character and life history, of which physicians may be unaware. Attention to these considerations may help clinicians identify and overcome disagreements about prognosis.</p> |
| 3 | <p>Dow, L.A., Matsuyama, R.K., Ramakrishnan, V., Kuhn, L., Lamont, E.B., Lyckholm, L., and Smith, T.J., <i>Paradoxes in advance care planning: the complex relationship of oncology patients, their physicians, and advance medical directives.</i> J Clin Oncol, 2010. 28(2): p. 299-304.</p> <p>PURPOSE: Many seriously ill patients with cancer do not discuss prognosis or advance directives (ADs), which may lead to inappropriate and/or unwanted aggressive care at the end of life. Ten years ago, patients with cancer said they would not like to discuss ADs with their oncologist but would be willing to discuss them with an admitting physician. We assessed whether this point of view still held. PATIENTS AND METHODS: Semi-structured interviews were conducted with 75 consecutively admitted patients with cancer in the cancer inpatient service. RESULTS: Of those enrolled, 41% (31 of 75) had an AD. Nearly all (87%, 65 of 75) thought it acceptable</p> |

| | |
|---|---|
| | <p>to discuss ADs with the admitting physician with whom they had no prior relationship, and 95% (62 of 65) thought that discussing AD issues was very or somewhat important. Only 7% (5 of 75) had discussed ADs with their oncologist, and only 23% (16 of 70) would like to discuss ADs with their oncologist. When specifically asked which physician they would choose, 48% (36 of 75) of patients would prefer their oncologist, and 35% (26 of 75) would prefer their primary care physician.</p> <p>CONCLUSION: Fewer than half of seriously ill patients with cancer admitted to an oncology service have an AD. Only 23% (16 of 70) would like to discuss their ADs with their oncologist but nearly all supported a policy of discussing ADs with their admitting physician. However, fully 48% (36 of 75) actually preferred to discuss advance directives with their oncologist if AD discussion was necessary. We must educate patients on why communicating their ADs is beneficial and train primary care physicians, house staff, hospitalists, and oncologists to initiate these difficult discussions.</p> |
| 4 | <p>Mack, J.W., Weeks, J.C., Wright, A.A., Block, S.D., and Prigerson, H.G., <i>End-of-life discussions, goal attainment, and distress at the end of life: predictors and outcomes of receipt of care consistent with preferences</i>. J Clin Oncol, 2010. 28(7): p. 1203-8.</p> <p>PURPOSE: Physicians have an ethical obligation to honor patients' values for care, including at the end of life (EOL). We sought to evaluate factors that help patients to receive care consistent with their preferences. METHODS: This was a longitudinal multi-institutional cohort study. We measured baseline preferences for life-extending versus symptom-directed care and actual EOL care received in 325 patients with advanced cancer. We also measured associated sociodemographic, health, and communication characteristics, including EOL discussions between patients and physicians. RESULTS: Preferences were assessed a median of 125 days before death. Overall, 68% of patients (220 of 325 patients) received EOL care consistent with baseline preferences. The proportion was slightly higher among patients who recognized they were terminally ill (74%, 90 of 121 patients; P = .05). Patients who recognized their terminal illness were more likely to prefer symptom-directed care (83%, 100 of 121 patients; v 66%, 127 of 191 patients; P = .003). However, some patients who were aware they were terminally ill wished to receive life-extending care (17%, 21 of 121 patients). Patients who reported having discussed their wishes for EOL care with a physician (39%, 125 of 322 patients) were more likely to receive care that was consistent with their preferences, both in the full sample (odds ratio [OR] = 2.26; P < .0001) and among patients who were aware they were terminally ill (OR = 3.94; P = .0005). Among patients who received no life-extending measures, physical distress was lower (mean score, 3.1 v 4.1; P = .03) among patients for whom such care was consistent with preferences. CONCLUSION: Patients with cancer are more likely to receive EOL care that is consistent with their preferences when they have had the opportunity to discuss their wishes for EOL care with a physician.</p> |
| 5 | <p>Volandes, A. E., M. J. Barry, et al. (2010). "Improving decision making at the end of life with video images." <u>Med Decis Making</u> 30(1): 29-34.</p> <p>BACKGROUND: Decision making at the end of life is frequently complex and often filled with uncertainty. We hypothesized that people with limited health literacy would have more uncertainty about end-of-life decision making than people with adequate literacy. We also hypothesized that video images would decrease uncertainty.</p> <p>DESIGN: . Before and after oral survey. Participants. Subjects presenting to their primary</p> |

care physicians.

METHODS: Subjects were asked about their preferences for end-of-life care after they heard a verbal description of advanced dementia and were asked to rate the level of their uncertainty. Subjects then viewed a video of a patient with advanced dementia and were asked again about their preferences and uncertainty. Uncertainty was measured using the Decisional Conflict Scale with score ranges from 3 (high uncertainty) to 15 (no uncertainty). Health literacy was measured using the Rapid Estimate of Adult Literacy in Medicine, and subjects were divided into 3 literacy categories: low (0-45, 6th grade and below), marginal (46- 60, 7th-8th grade), and adequate (61-66, 9th grade and above).

RESULTS: A total of 146 patients completed the interview. Prior to the video, the average uncertainty scores for subjects with low, marginal, and adequate health literacy were 10.8, 12.4, and 13.5, respectively ($P < 0.0001$). After the video, the 3 groups had similar uncertainty about their decisions. The average uncertainty scores for subjects with low, marginal, and adequate health literacy were 13.6, 14.1, and 14.5, respectively ($P = 0.046$).

CONCLUSIONS: Subjects with limited health literacy expressed more uncertainty about their preferences for end-of-life care than did subjects with adequate literacy. Our video decision aid improved end-of-life decision making by decreasing uncertainty regarding subjects' preferences, especially for those with limited literacy.

Comment: Interesting study of using new multimedia methods to augment our palliative care discussions. Results were modest, but implications of testing these methods further for patient/family communication in our field important.

6

El-Jawahri, A., Podgurski, L.M., Eichler, A.F., Plotkin, S.R., Temel, J.S., Mitchell, S.L., Chang, Y., Barry, M.J., and Volandes, A.E., *Use of video to facilitate end-of-life discussions with patients with cancer: a randomized controlled trial.* J Clin Oncol, 2010. **28**(2): p. 305-10.

PURPOSE: To determine whether the use of a goals-of-care video to supplement a verbal description can improve end-of-life decision making for patients with cancer. **METHODS:** Fifty participants with malignant glioma were randomly assigned to either a verbal narrative of goals-of-care options at the end of life (control), or a video after the same verbal narrative (intervention) in this randomized controlled trial. The video depicts three levels of medical care: life-prolonging care (cardiopulmonary resuscitation [CPR], ventilation), basic care (hospitalization, no CPR), and comfort care (symptom relief). The primary study outcome was participants' preferences for end-of-life care. The secondary outcome was participants' uncertainty regarding decision making (score range, 3 to 15; higher score indicating less uncertainty). Participants' comfort level with the video was also measured. **RESULTS:** Fifty participants were randomly assigned to either the verbal narrative ($n = 27$) or video ($n = 23$). After the verbal description, 25.9% of participants preferred life-prolonging care, 51.9% basic care, and 22.2% comfort care. In the video arm, no participants preferred life-prolonging care, 4.4% preferred basic care, 91.3% preferred comfort care, and 4.4% were uncertain ($P < .0001$). The mean uncertainty score was higher in the video group than in the verbal group (13.7 v 11.5, respectively; $P < .002$). In the intervention arm, 82.6% of participants reported being very comfortable watching the video. **CONCLUSION:** Compared with participants who only heard a verbal description, participants who viewed a goals-of-care video were more

| | |
|---|--|
| | likely to prefer comfort care and avoid CPR, and were more certain of their end-of-life decision making. Participants reported feeling comfortable watching the video. |
| 7 | <p>The impact of advance care planning on end of life care in elderly patients: randomised controlled trial</p> <p>Karen M Detering, respiratory physician and clinical leader,¹ Andrew D Hancock, project officer,¹ Michael C Reade, physician,² William Silvester, intensive care physician and director¹</p> <p>ABSTRACT</p> <p>Objective To investigate the impact of advance care planning on end of life care in elderly patients.</p> <p>Design Prospective randomised controlled trial.</p> <p>Setting Single centre study in a university hospital in Melbourne, Australia.</p> <p>Participants 309 legally competent medical inpatients aged 80 or more and followed for six months or until death.</p> <p>Interventions Participants were randomised to receive usual care or usual care plus facilitated advance care planning. Advance care planning aimed to assist patients to reflect on their goals, values, and beliefs; to consider future medical treatment preferences; to appoint a surrogate; and to document their wishes.</p> <p>Main outcome measures The primary outcome was whether a patient's end of life wishes were known and respected. Other outcomes included patient and family satisfaction with hospital stay and levels of stress, anxiety, and depression in relatives of patients who died.</p> <p>Results 154 of the 309 patients were randomised to advance care planning, 125 (81%) received advance care planning, and 108 (84%) expressed wishes or appointed a surrogate, or both. Of the 56 patients who died by six months, end of life wishes were much more likely to be known and followed in the intervention group (25/29, 86%) compared with the control group (8/27, 30%; P<0.001). In the intervention group, family members of patients who died had significantly less stress (intervention 5, control 15; P<0.001), anxiety (intervention 0, control 3; P=0.02), and depression (intervention 0, control 5; P=0.002) than those of the control patients.</p> <p>Patient and family satisfaction was higher in the intervention group.</p> <p>Conclusions Advance care planning improves end of life care and patient and family satisfaction and reduces stress, anxiety, and depression in surviving relatives.</p> <p>Trial registration Australian New Zealand clinical trials registry ACTRN12608000539336. BMJ 2010;340:c1345</p> |
| 8 | <p>Ann Intern Med. 2010 Jul 20;153(2):76-84.</p> <p>Effect of an End-of-Life Planning Intervention on the completion of advance directives in homeless persons: a randomized trial.</p> <p>Song J, Ratner ER, Wall MM, Bartels DM, Ulvestad N, Petroskas D, West M, Weber-Main AM, Grenge L, Gelberg L.</p> <p>Background: Few interventions have focused on improving end-of-life care for underserved populations, such as homeless persons.</p> <p>Objective: To determine whether homeless persons will complete a counseling session on advance care planning and fill out a legal advance directive designed to assess care preferences and preserve the dignity of marginalized persons.</p> <p>Design: Prospective, single-blind, randomized trial comparing self-guided completion of an advance directive with professionally assisted advance care planning. (ClinicalTrials.gov registration number: NCT00546884)</p> <p>Setting: 8 sites serving homeless persons in Minneapolis, Minnesota.</p> <p>Participants: 262 homeless persons recruited between November 2007 and August 2008.</p> <p>Intervention: Minimal, self-guided intervention consisting of advance directive forms and written educational information versus a one-on-one advance planning intervention consisting of counseling and completing an advance directive with a social worker.</p> |

| | |
|----------|---|
| | <p>Measurements: Rate of advance directive completion, assessed by inspection of completed documents.</p> <p>Results: The overall completion rate for advance directives was 26.7% (95% CI, 21.5% to 32.5%), with a higher rate in the counselor-guided group (37.9%) than in the self-guided group (12.8%) (CI of adjusted difference, 15.3 to 34.3 percentage points). This difference persisted across all sites and most subgroups. The advance directive's 4 clinical scenarios found a preference for surrogate decision making in 29% to 34% of written responses.</p> <p>Limitations: Sampling was limited to a more stable subset of the homeless population in Minneapolis and may have been subject to selection bias. Modest compensation to complete the preintervention survey could have influenced participants to complete advance directives.</p> <p>Conclusion: Both a simple and complex intervention successfully engaged a diverse sample of homeless persons in advance care planning. One-on-one assistance significantly increased the completion rate. Homeless persons can respond to an intervention to plan for end-of-life care and can express specific preferences for care or a surrogate decision maker, but additional studies are needed to assess the effect of these directives on subsequent care.</p> |
| | <p>Prognostication and long-term outcomes</p> |
| <p>1</p> | <p>Extermann, M., E. J. Crane, et al. (2010). "Cancer in nonagenarians: profile, treatments and outcomes." <u>Crit Rev Oncol Hematol</u> 75(2): 160-164.</p> <p>An increasing number of nonagenarians are treated for cancer. However, very few data are available to guide treatment choices in this often frail population. The charts of all patients registered at Moffitt Cancer Center between 1993 and 2006 who were aged 90 or older at the time of treatment/evaluation were reviewed, and those treated for an active cancer (n=177) were included in the analysis. For 23.5% of patients, the index cancer was a second malignancy. Initial treatments were: surgery 41%, chemotherapy 9%, radiation therapy 15%, concomitant chemo-radiation therapy 2%, hormonal therapy 12%, targeted therapy 8%, photodynamic therapy 1%, observation/supportive care 3%, hospice 9%. The median survival was 1.69 years [95% CI=1.34, 2.17, range 0.1-6.21]. For early stage cancer it was 2.02 years [95% CI=1.56, 2.87], and for advanced stage cancer, 1.06 years [95% CI=0.58, 1.63] (p=0.02 by log-rank). Treatment related mortality was low (1.1%). In conclusion, our nonagenarians underwent a broad range of treatments with low treatment related mortality. Advanced cancer still limits the survival of nonagenarians. Second cancers are frequent in older cancer survivors.</p> |
| <p>2</p> | <p>JAMA. 2010 Feb 10;303(6):544-50.</p> <p>Hospital characteristics associated with feeding tube placement in nursing home residents with advanced cognitive impairment.</p> <p>Teno JM, Mitchell SL, Gozalo PL, Dosa D, Hsu A, Intrator O, Mor V.</p> <p>CONTEXT: Tube-feeding is of questionable benefit for nursing home residents with advanced dementia. Approximately two-thirds of US nursing home residents who are tube fed had their feeding tube inserted during an acute care hospitalization.</p> <p>OBJECTIVE: To identify US hospital characteristics associated with higher rates of feeding tube insertion in nursing home residents with advanced cognitive impairment.</p> <p>DESIGN, SETTING, AND PATIENTS: The sample included nursing home residents aged 66 years or older with advanced cognitive impairment admitted to acute care hospitals between</p> |

2000 and 2007. Rate of feeding tube placement was based on a 20% sample of all Medicare Claims files and was assessed in hospitals with at least 30 such admissions during the 8-year period. A multivariable model with the unit of the analysis being the hospital admission identified hospital-level factors independently associated with feeding tube insertion rates, including bed size, ownership, urban location, and medical school affiliation. Measures of each hospital's care practices for all patients with serious chronic illnesses were evaluated, including intensive care unit (ICU) use in the last 6 months of life, the use of hospice services, and the ratio of specialist to primary care physicians. Patient-level characteristics were also considered.

MAIN OUTCOME MEASURE: Endoscopic or surgical insertion of a gastrostomy tube during a hospitalization.

RESULTS: In 2797 acute care hospitals with 280,869 admissions among 163,022 nursing home residents with advanced cognitive impairment, the rate of feeding tube insertion varied from 0 to 38.9 per 100 hospitalizations (mean [SD], 6.5 [5.3]; median [interquartile range], 5.3 [2.6-9.3]). The mean rate of feeding tube insertions per 100 admissions was 7.9 in 2000, decreasing to 6.2 in 2007. Higher insertion rates were associated with the following hospital features: for-profit ownership vs government owned (8.5 vs 5.5 insertions per 100 hospitalizations; adjusted odds ratio [AOR], 1.33; 95% confidence interval [CI], 1.21-1.46), larger size (>310 beds vs <101 beds: 8.0 vs 4.3 insertions per 100 hospitalizations; AOR, 1.48; 95% CI, 1.35-1.63), and greater ICU use in the last 6 months of life (highest vs lowest decile: 10.1 vs 2.9 insertions per 100 hospitalizations; AOR, 2.60; 95% CI, 2.20-3.06). These differences persisted after controlling for patient characteristics. Specialist to primary care ratio and hospice use were weakly or not associated with feeding tube placement.

CONCLUSION: Among nursing home residents with advanced cognitive impairment admitted to acute care hospitals, for-profit ownership, larger hospital size, and greater ICU use was associated with increased rates of feeding tube insertion, even after adjusting for patient-level characteristics.

3

[Ann Intern Med.](#) 2010 Aug 3;153(3):167-75.

One-year trajectories of care and resource utilization for recipients of prolonged mechanical ventilation: a cohort study.

[Unroe M](#), [Kahn JM](#), [Carson SS](#), [Govert JA](#), [Martinu T](#), [Sathy SJ](#), [Clay AS](#), [Chia J](#), [Gray A](#), [Tulsky JA](#), [Cox CE](#).

Background: Growing numbers of critically ill patients receive prolonged mechanical ventilation. Little is known about the patterns of care as patients transition from acute care hospitals to postacute care facilities or about the associated resource utilization.

Objective: To describe 1-year trajectories of care and resource utilization for patients receiving prolonged mechanical ventilation.

Design: 1-year prospective cohort study.

Setting: 5 intensive care units at Duke University Medical Center, Durham, North Carolina.

Participants: 126 patients receiving prolonged mechanical ventilation (defined as ventilation for ≥ 4 days with tracheostomy placement or ventilation for ≥ 21 days without tracheostomy), as well as their 126 surrogates and 54 intensive care unit physicians, enrolled consecutively over 1 year.

Measurements: Patients and surrogates were interviewed in the hospital, as well as 3 and 12 months after discharge, to determine patient survival, functional status, and facility type and duration of postdischarge care. Physicians were interviewed in the hospital to elicit prognoses. Institutional billing records were used to assign costs for acute care, outpatient care, and interfacility transportation. Medicare claims data were used to assign costs for postacute care.

| | |
|---|---|
| | <p>Results: 103 (82%) hospital survivors had 457 separate transitions in postdischarge care location (median, 4 transitions [interquartile range, 3 to 5 transitions]), including 68 patients (67%) who were readmitted at least once. Patients spent an average of 74% (95% CI, 68% to 80%) of all days alive in a hospital or postacute care facility or receiving home health care. At 1 year, 11 patients (9%) had a good outcome (alive with no functional dependency), 33 (26%) had a fair outcome (alive with moderate dependency), and 82 (65%) had a poor outcome (either alive with complete functional dependency [4 patients; 21%] or dead [56 patients; 44%]). Patients with poor outcomes were older, had more comorbid conditions, and were more frequently discharged to a postacute care facility than patients with either fair or good outcomes ($P < 0.05$ for all). The mean cost per patient was \$306 135 (SD, \$285 467), and total cohort cost was \$38.1 million, for an estimated \$3.5 million per independently functioning survivor at 1 year.</p> <p>Limitation: The results of this single-center study may not be applicable to other centers.</p> <p>Conclusion: Patients receiving prolonged mechanical ventilation have multiple transitions of care, resulting in substantial health care costs and persistent, profound disability. The optimism of surrogate decision makers should be balanced by discussions of these outcomes when considering a course of prolonged life support.</p> |
| 4 | <p>JAMA. 2010 Jun 9;303(22):2253-9.</p> <p>Long-term Acute Care Hospital Utilization After Critical Illness</p> <ol style="list-style-type: none"> 1. Jeremy M. Kahn, MD, MSc; 2. Nicole M. Benson, BS; 3. Dina Appleby, MS; 4. Shannon S. Carson, MD; 5. Theodore J. Iwashyna, MD, PhD <p>Context Long-term acute care hospitals have emerged as a novel approach for the care of patients recovering from severe acute illness, but the extent and increases in their activity at the national level are unknown.</p> <p>Objective To examine temporal trends in long-term acute care hospital utilization after an episode of critical illness among fee-for-service Medicare beneficiaries aged 65 years or older.</p> <p>Design, Setting, and Patients Retrospective cohort study using the Medicare Provider Analysis and Review files from 1997 to 2006. We included all Medicare hospitalizations involving admission to an intensive care unit of an acute care, nonfederal hospital within the continental United States.</p> <p>Main Outcome Measures Overall long-term acute care utilization, associated costs, and survival following transfer.</p> <p>Results The number of long-term acute care hospitals in the United States increased at a mean rate of 8.8% per year, from 192 in 1997 to 408 in 2006. During that time, the annual number of long-term acute care admissions after critical illness increased from 13 732 to 40 353, with annual costs increasing from \$484 million to \$1.325 billion. The age-standardized population incidence of long-term acute care utilization after critical illness increased from 38.1 per 100 000 in 1997 to 99.7 per 100 000 in 2006, with greater use among male individuals and black individuals in all periods. Over time, transferred patients had higher numbers of comorbidities (5.0 in 1997-2000 vs 5.8 in 2004-2006, $P < .001$) and were more likely to receive mechanical ventilation at the long-term acute care hospital (16.4% in 1997-2000 vs 29.8% in 2004-2006, $P < .001$). One-year mortality after long-term</p> |

acute care hospital admission was high throughout the study period: 50.7% in 1997-2000 and 52.2% in 2004-2006.

Conclusions Long-term acute care hospital utilization after critical illness is common and increasing. Survival among Medicare beneficiaries transferred to long-term acute care after critical

5

[JAMA](#). 2010 Oct 27;304(16):1787-94.

Long-term cognitive impairment and functional disability among survivors of severe sepsis.

CONTEXT: Cognitive impairment and functional disability are major determinants of caregiving needs and societal health care costs. Although the incidence of severe sepsis is high and increasing, the magnitude of patients' long-term cognitive and functional limitations after sepsis is unknown.

OBJECTIVE: To determine the change in cognitive impairment and physical functioning among patients who survive severe sepsis, controlling for their presepsis functioning.

DESIGN, SETTING, AND PATIENTS: A prospective cohort involving 1194 patients with 1520 hospitalizations for severe sepsis drawn from the Health and Retirement Study, a nationally representative survey of US residents (1998-2006). A total of 9223 respondents had a baseline cognitive and functional assessment and had linked Medicare claims; 516 survived severe sepsis and 4517 survived a nonsepsis hospitalization to at least 1 follow-up survey and are included in the analysis.

MAIN OUTCOME MEASURES: Personal interviews were conducted with respondents or proxies using validated surveys to assess the presence of cognitive impairment and to determine the number of activities of daily living (ADLs) and instrumental ADLs (IADLs) for which patients needed assistance.

RESULTS: Survivors' mean age at hospitalization was 76.9 years. The prevalence of moderate to severe cognitive impairment increased 10.6 percentage points among patients who survived severe sepsis, an odds ratio (OR) of 3.34 (95% confidence interval [CI], 1.53-7.25) in multivariable regression. Likewise, a high rate of new functional limitations was seen following sepsis: in those with no limits before sepsis, a mean 1.57 new limitations (95% CI, 0.99-2.15); and for those with mild to moderate limitations before sepsis, a mean of 1.50 new limitations (95% CI, 0.87-2.12). In contrast, nonsepsis general hospitalizations were associated with no change in moderate to severe cognitive impairment (OR, 1.15; 95% CI, 0.80-1.67; P for difference vs sepsis = .01) and with the development of fewer new limitations (mean among those with no limits before hospitalization, 0.48; 95% CI, 0.39-0.57; P for difference vs sepsis <.001 and mean among those with mild to moderate limits, 0.43; 95% CI, 0.23-0.63; P for difference = .001). The declines in cognitive and physical function persisted for at least 8 years.

CONCLUSIONS: Severe sepsis in this older population was independently associated with substantial and persistent new cognitive impairment and functional disability among survivors. The magnitude of these new deficits was large, likely resulting in a pivotal downturn in patients' ability to live independently.

Comment: This study uses a large sample size to study the long term outcomes for elderly patients who suffer from sepsis and provides useful prognostic information that may be

useful in a clinical setting, such as an ICU.

6

[JAMA](#). 2010 Jul 28;304(4):443-51.

Delirium in elderly patients and the risk of postdischarge mortality, institutionalization, and dementia: a meta-analysis.

[Witlox J](#), [Eurelings LS](#), [de Jonghe JF](#), [Kalisvaart KJ](#), [Eikelenboom P](#), [van Gool WA](#).

CONTEXT: Delirium is a common and serious complication in elderly patients. Evidence suggests that delirium is associated with long-term poor outcome but delirium often occurs in individuals with more severe underlying disease.

OBJECTIVE: To assess the association between delirium in elderly patients and long-term poor outcome, defined as mortality, institutionalization, or dementia, while controlling for important confounders.

DATA SOURCES: A systematic search of studies published between January 1981 and April 2010 was conducted using the databases of MEDLINE, EMBASE, PsycINFO, and CINAHL.

STUDY SELECTION: Observational studies of elderly patients with delirium as a study variable and data on mortality, institutionalization, or dementia after a minimum follow-up of 3 months, and published in the English or Dutch language. Titles, abstracts, and articles were reviewed independently by 2 of the authors. Of 2939 references in the original search, 51 relevant articles were identified.

DATA EXTRACTION: Information on study design, characteristics of the study population, and outcome were extracted. Quality of studies was assessed based on elements of the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist for cohort studies.

DATA SYNTHESIS: The primary analyses included only high-quality studies with statistical control for age, sex, comorbid illness or illness severity, and baseline dementia. Pooled-effect estimates were calculated with random-effects models. The primary analysis with adjusted hazard ratios (HRs) showed that delirium is associated with an increased risk of death compared with controls after an average follow-up of 22.7 months (7 studies; 271/714 patients [38.0%] with delirium, 616/2243 controls [27.5%]; HR, 1.95 [95% confidence interval {CI}, 1.51-2.52]; I(2), 44.0%). Moreover, patients who had experienced delirium were also at increased risk of institutionalization (7 studies; average follow-up, 14.6 months; 176/527 patients [33.4%] with delirium and 219/2052 controls [10.7%]; odds ratio [OR], 2.41 [95% CI, 1.77-3.29]; I(2), 0%) and dementia (2 studies; average follow-up, 4.1 years; 35/56 patients [62.5%] with delirium and 15/185 controls [8.1%]; OR, 12.52 [95% CI, 1.86-84.21]; I(2), 52.4%). The sensitivity, trim-and-fill, and secondary analyses with unadjusted high-quality risk estimates stratified according to the study characteristics confirmed the robustness of these results.

CONCLUSION: This meta-analysis provides evidence that delirium in elderly patients is associated with poor outcome independent of important confounders, such as age, sex, comorbid illness or illness severity, and baseline dementia.

Comment: This meta-analysis was completed after a comprehensive literature search and shows that delirium is associated with poor long term outcomes. This information may be helpful for clinicians trying to make prognostications for their geriatric patients.

Professionalism

1

[JAMA](#). 2010 Sep 15;304(11):1173-80.

Relationship between burnout and professional conduct and attitudes among US medical students.

[Dyrbye LN](#), [Massie FS Jr](#), [Eacker A](#), [Harper W](#), [Power D](#), [Durning SJ](#), [Thomas MR](#), [Moutier C](#), [Satele D](#), [Sloan J](#), [Shanafelt TD](#).

CONTEXT: The relationship between professionalism and distress among medical students is unknown.

OBJECTIVE: To determine the relationship between measures of professionalism and burnout among US medical students.

DESIGN, SETTING, AND PARTICIPANTS: Cross-sectional survey of all medical students attending 7 US medical schools (overall response rate, 2682/4400 [61%]) in the spring of 2009. The survey included the Maslach Burnout Inventory (MBI), the PRIME-MD depression screening instrument, and the SF-8 quality of life (QOL) assessment tool, as well as items exploring students' personal engagement in unprofessional conduct, understanding of appropriate relationships with industry, and attitudes regarding physicians' responsibility to society.

MAIN OUTCOME MEASURES: Frequency of self-reported cheating/dishonest behaviors, understanding of appropriate relationships with industry as defined by American Medical Association policy, attitudes about physicians' responsibility to society, and the relationship of these dimensions of professionalism to burnout, symptoms of depression, and QOL.

RESULTS: Of the students who responded to all the MBI items, 1354 of 2566 (52.8%) had burnout. Cheating/dishonest academic behaviors were rare (endorsed by <10%) in comparison to unprofessional conduct related to patient care (endorsed by up to 43%). Only 14% (362/2531) of students had opinions on relationships with industry consistent with guidelines for 6 scenarios. Students with burnout were more likely to report engaging in 1 or more unprofessional behaviors than those without burnout (35.0% vs 21.9%; odds ratio [OR], 1.89; 95% confidence interval [CI], 1.59-2.24). Students with burnout were also less likely to report holding altruistic views regarding physicians' responsibility to society. For example, students with burnout were less likely to want to provide care for the medically underserved than those without burnout (79.3% vs 85.0%; OR, 0.68; 95% CI, 0.55-0.83). After multivariable analysis adjusting for personal and professional characteristics, burnout was the only aspect of distress independently associated with reporting 1 or more unprofessional behaviors (OR, 1.76; 95% CI, 1.45-2.13) or holding at least 1 less altruistic view regarding physicians' responsibility to society (OR, 1.65; 95% CI, 1.35-2.01).

CONCLUSION: Burnout was associated with self-reported unprofessional conduct and less altruistic professional values among medical students at 7 US schools.