Palliative and Supportive Care (2007), **5**, 187–196. Printed in the USA.

DOI: 10.1017/S1478951507070320

Clinical Update: Literature Abstracts

MEASURES

Use of Palliative Performance Scale in End-of-Life Prognostication

Lau, F., Downing, G.M., Lesperance, M., Shaw, J., and Kuziemsky, C.

Journal of Palliative Medicine, *9* (2006), 1066–1075.

Current literature suggests clinicians are not accurate in prognostication when estimating survival times of palliative care patients. There are reported studies in which the Palliative Performance Scale (PPS) is used as a prognostic tool to predict survival of these patients. Yet, their findings are different in terms of the presence of distinct PPS survival profiles and significant covariates. This study investigates the use of PPS as a prognostication tool for estimating survival times of patients with life-limiting illness in a palliative care unit. These findings are compared to those from earlier studies in terms of PPS survival profiles and covariates. This is a retrospective cohort study in which the admission PPS scores of 733 palliative care patients admitted between March 3, 2000, and August 9, 2002, were examined for survival patterns. Other predictors for survival included were age, gender, and diagnosis. Study findings revealed that admission PPS score was a strong predictor of survival in patients already identified as palliative, along with gender and age, but diagnosis was not significantly related to survival. We also found that scores of PPS 10% through PPS 50% led to distinct survival curves, and male patients had consistently lower survival rates than females regardless of PPS score. Our findings differ somewhat from earlier studies that suggested the presence of three distinct PPS survival profiles or bands, with diagnosis and non-cancer as significant covariates. Such differences are likely attributed to the size and characteristics of the patient populations involved and further analysis with larger patient samples may help clarify PPS use in prognosis.

Psychometric Characteristics of a Quality of Communication Questionnaire Assessing Communication about End-of-Life Care

Engelberg, R., Downey, L., and Curtis, J.R.

Journal of Palliative Medicine, *9* (2006), 1086–1098.

The importance of good clinician–patient communication to quality end-of-life care has been well documented, yet there are no validated measures that allow patients to assess the quality of this communication. Using a sample of hospice patients ($n = 83$) and patients with chronic obstructive pulmonary disease (COPD; $n = 113$), we evaluated the psychometric characteristics of a 13-item patient-centered, patient-report questionnaire about the quality of end-of-life communication (QOC). Our purpose was to explore the measurement structure of the QOC items to ascertain if the items represent unitary or multidimensional constructs and to describe the construct validity of the QOC score(s). Analyses included principal component analyses to identify scales, internal consistency analyses to demonstrate reliability, and correlational and group comparisons to support construct validity. Findings support the construction of two scales: a six-item "general communication skills" scale and a seven-item, "communication about end-of-life care" scale. The two scales meet standards of scale measurement, including good factor convergence (values $\geq$ .63) and discrimination (values different $\geq$ .25), percent of variance explained (69.3%), and good internal consistency (alpha $\geq$ .79). The scales' construct validity is supported by significant associations ($p \leq .01$) with items assessing overall quality of doctor communication and quality of care, number and type of end-of-life discussions, and doctor's awareness of patient's treatment preferences. The general communication skills scale correlates more strongly with the general communication items whereas the communication about end-of-life care scale correlates more strongly with items addressing end-of-life topics. Although further validation

studies are needed, this assessment of the QOC represents an important step toward providing a measure of the quality of end-of-life communication.

PSYCHOSOCIAL INTERVENTIONS

Efficacy of Psychosocial Interventions in Cancer Care: Evidence Is Weaker Than It First Looks

Coyne, J.C., Lepore, S.J., and Palmer, S.C.

Annals of Behavioral Medicine, 32 (2006), 104–110.

With increasing sophistication, successive reviews find weaker evidence for the efficacy of psychosocial interventions to reduce distress among cancer patients. However, these appraisals may still be overly positive because of reviewers' uncritical acceptance of flaws in the design, analysis, and reporting of the results of such trials. Using randomized trials from high-impact journals, we show confirmatory bias, selective reporting of the most favorable of multiple outcome measures, suppressing of null results in subsequent citations of trials, and dropping of data for patients least likely to benefit from intervention. The conclusion that typical cancer patients do not benefit from interventions to reduce distress is strengthened when these endemic problems with the literature are taken into account. Required registering of the details of clinical trials and adherence to CONSORT reduces but does not eliminate bias in the literature.

A Double-Blind, Multicenter, Parallel-Group Study of Paroxetine, Desipramine, or Placebo in Breast Cancer Patients (Stages I, II, III, and IV) with Major Depression

Musselman, D.L., Somerset, W.I., Guo, Y., Manatunga, A.K., Porter, M., Penna, S., Lewison, B., Goodkin, R., Lawson, K., Lawson, D., Evans, D.L., and Nemeroff, C.B.

Journal of Clinical Psychiatry, *67* (2006), 288–296.

This study compared the efficacy and safety of paroxetine and desipramine with those of placebo in the treatment of depressive disorders in adult women with breast cancer, stages I–IV. In a double-blind, placebo-controlled study, 35 female outpatients with breast cancer and DSM-III-R major depression or adjustment disorder with depressed mood were randomly assigned to treatment with paroxetine (N = 13), desipramine (N = 11), or placebo (N = 11) for 6 weeks. Primary efficacy was assessed by change from baseline in score on the 21-item Hamilton Rating Scale for Depression (HAM-D), and the secondary outcome measure was change from baseline in the Clinical Global Impressions–Severity of Illness scale (CGI-S) score. Mean changes in the total HAM-D and CGI-S scores from baseline to 6-week endpoint for the paroxetine and desipramine groups were not significantly different than those for the placebo-treated group. An unusually high rate of response (defined as ≥50% improvement in the HAM-D score) in the placebo group was observed (55% [N = 6]): Adverse events precipitated patient discontinuation in the active treatment groups (9% [N = 1] for desipramine, 15% [N = 2] for paroxetine) similar to that in the placebo-treated patients (18% [N = 2]). Improvement on symptom dimensions within the HAM-D and Hamilton Rating Scale for Anxiety (depressive, anxiety, cognitive, neurovegetative, or somatic) was also similar between groups. The small number of women in this study most likely contributed to the lack of observed differences in efficacy observed during the 6 weeks of treatment. Randomized, placebo-controlled trials of adequate power seeking to determine efficacy of antidepressants in the United States for the treatment of women with breast cancer and comorbid depression remain of paramount importance.

Effectiveness of Atypical Antipsychotic Drugs in Patients with Alzheimer's Disease

Schneider, L.S., Tariot, P.N., Dagerman, K.S., Davis, S.M., Hsiao, J.K., Ismail, M.S., Lebowitz, B.D., Lyketsos, C.G., Ryan, J.M., Stroup, T.S., Sultzer, D.L., Weintraub, D., Lieberman, J.A., and CATIE-AD Study Group

New England Journal of Medicine, *355* (2006), 1525–1538.

Second-generation (atypical) antipsychotic drugs are widely used to treat psychosis, aggression, and agitation in patients with Alzheimer's disease, but their benefits are uncertain and concerns about safety have emerged. We assessed the effectiveness of atypical antipsychotic drugs in outpatients with Alzheimer's disease. In this 42-site, double-blind, placebo-controlled trial, 421 outpatients with Alzheimer's disease and psychosis, aggression, or agitation were randomly assigned to receive olanzapine (mean dose, 5.5 mg per day), quetiapine (mean dose, 56.5 mg per day), risperidone (mean dose, 1.0 mg per day), or placebo. Doses were adjusted as needed, and patients were followed for up to 36 weeks. The main outcomes were the time from initial treatment to the discontinuation of treatment for any reason and the number of patients with at least minimal improvement on the Clinical Global Impression of Change (CGIC) scale at 12

weeks. There were no significant differences among treatments with regard to the time to the discontinuation of treatment for any reason: olanzapine (median, 8.1 weeks), quetiapine (median, 5.3 weeks), risperidone (median, 7.4 weeks), and placebo (median, 8.0 weeks) ($p = .52$). The median time to the discontinuation of treatment due to a lack of efficacy favored olanzapine (22.1 weeks) and risperidone (26.7 weeks) as compared with quetiapine (9.1 weeks) and placebo (9.0 weeks) ($p = .002$). The time to the discontinuation of treatment due to adverse events or intolerability favored placebo. Overall, 24% of patients who received olanzapine, 16% of patients who received quetiapine, 18% of patients who received risperidone, and 5% of patients who received placebo discontinued their assigned treatment owing to intolerability ($p = .009$). No significant differences were noted among the groups with regard to improvement on the CGIC scale. Improvement was observed in 32% of patients assigned to olanzapine, 26% of patients assigned to quetiapine, 29% of patients assigned to risperidone, and 21% of patients assigned to placebo ($p = .22$). Adverse effects offset advantages in the efficacy of atypical antipsychotic drugs for the treatment of psychosis, aggression, or agitation in patients with Alzheimer's disease.

Bereavement Support for Families Following the Death of a Child from Cancer: Experience of Bereaved Parent.

deCinque, N., Monterosso, L., Dadd, G., Sidhu, R., Macpherson, R., and Aoun, S.

Journal of Psychosocial Oncology, *24* (2006), 65–83.

This study explored the experiences and needs of nine parents who had received hospital-based bereavement support following the death of their child from cancer in Western Australia. Six prominent themes emerged from thematic data analysis: personal grief, personal coping, concern for siblings of the deceased child, hospital bereavement support, community supports, and unmet needs. Parents identified the need for more supportive contact from hospital staff during the palliative phase and following the child's death, early provision of information on how to practically and emotionally prepare for the death of their child, contact with other bereaved parents, and formal grief support for siblings. Areas for future research include exploration of parents' wish to become involved in activities to help others, bereavement support for siblings, the level of contact with the hospital unit that may be therapeutically beneficial, and parental behaviors associated with accessing both hospital and community-based bereavement supports.

SYMPTOM CONTROL

Risk Factors for Acute Pain and Its Persistence Following Breast Cancer Surgery

Katz, J., Poleshuck, E.L., Andrus, C.H., Hogan, L.A., Jung, B.F., Kulick, D.I., and Dworkin, R.H.

Pain, *119* (2005), 16–25

Although more severe acute postoperative pain increases the risk of chronic pain following breast cancer surgery, few studies have examined the characteristics of patients who develop greater acute pain. To identify risk factors for acute pain and its persistence 1 month following breast cancer surgery, a sample of 114 women scheduled for breast cancer surgery was assessed preoperatively for demographic, clinical, and emotional functioning variables that were hypothesized to be associated with acute pain severity. Clinically meaningful postoperative pain was assessed at follow-up interviews 2, 10, and 30 days after surgery. In univariate analyses, the risk of clinically meaningful acute pain was increased among women who were younger, unmarried, had more invasive surgeries, and had greater preoperative emotional distress. In multiple logistic regression analyses, greater preoperative anxiety was the only variable that made an independent contribution to predicting clinically meaningful acute pain at 2 days after surgery whereas younger age, being unmarried, and preoperative anxiety each made an independent contribution to predicting clinically meaningful acute pain that persisted from 2 to 30 days after surgery. These results increase understanding of neurobiologic mechanisms and psychosocial processes that contribute to the development of acute pain following breast cancer surgery and have implications for the development of interventions to prevent it.

Sustained Sleep Restriction Reduces Emotional and Physical Well-being

Haack, M. and Mullington, J.M.

Pain, *119* (2005), 56–64.

Chronic insufficient sleep is a common finding in many pain-related and other medical diseases and is frequently experienced in the general population. Prolonged curtailment of nocturnal sleep has been studied for its adverse effect on cognitive functioning and subjective tiredness, but relatively little is known about its effect on mood and physical symp-

toms. To test whether sleep restriction to 50% of the habitual time over 12 days affects diurnal and day-to-day variation of subjective ratings of mood and physical symptoms, 108 adjectives and statements were self-rated using visual analog scales every 2 h during the waking period. We used a randomized, 16-day controlled in-laboratory study, which was conducted in a General Clinical Research Center (GCRC) using 40 healthy subjects aged 21–40 years (14 females, 26 males). Subjects were randomized to either 4 h of sleep per night (11 p.m.–3 a.m., N = 22) or 8 h of sleep per night (11 p.m.–7 a.m., N = 18) for 12 consecutive days. Changes in the factor-derived variables optimism–sociability, tiredness–fatigue, anger–aggression, bodily discomfort, and items constituting bodily discomfort were compared between groups. Optimism–sociability progressively declined over consecutive days of sleep restriction by 15%. Bodily discomfort showed a slight, but significant interindividual increase of 3% across days of sleep restriction due to significant increases of generalized body pain, back pain, and stomach pain. Optimism–sociability and tiredness–fatigue showed diurnal variations with a quadratic function period within each day in both conditions. The data suggest that chronic insufficient sleep may contribute to the onset and amplification of pain and affect health by compromising optimistic outlook and psychosocial functioning.

Regular Use of Prescribed Opioids: Association with common Psychiatric Disorders

Sullivan, M.D., Edlund, M.J., Steffick, D., and Unutzer, J.

Pain, *119* (2005), 95–103.

Use of opioids for chronic noncancer pain is increasing, but the clinical epidemiology and standards of care for this practice are poorly defined. Psychiatric disorders are associated with increased physical symptoms and may be associated with opioid use. We performed a secondary analysis of cross-sectional data from the Health Care for Communities (HCC) survey conducted in 1997–1998 (N = 9279) to determine the association of psychiatric disorders and self-reported regular use of prescribed opioids within the past year. Regular prescription opioid use was reported by 282 (3%) respondents. In unadjusted logistic regression models, respondents with common mental disorders in the past year (major depression, dysthymia, generalized anxiety disorder, or panic disorder) were more likely to report regular prescription opioid use than those without any of these disorders (OR = 6.15, 95% CI = 4.13, 9.14, $p < .001$). Respondents reporting problem drug use (OR = 4.75, 95% CI = 2.52, 8.94, $p < .001$), or problem alcohol use (OR = 1.89, 95% CI = 1.03, 3.40, $p = .041$) reported higher rates of prescribed opioid use than those without problem use. In multivariate logistic regression models controlling for demographic and clinical variables, the presence of a common mental disorder remained a significant predictor of prescription opioid use (OR = 3.15, 95% CI = 1.69, 5.88, $p < 0.001$), among individuals reporting low pain interference (N = 8307), but not (OR = 1.27, n.s.) among those reporting high pain interference (N = 972). Depressive, anxiety, and drug abuse disorders are associated with increased use of regular opioids in the general population. Depressive and anxiety disorders are more common and more strongly associated with prescribed opioid use than drug abuse disorders.

Illness Burden Mediates the Relationship between Pain and illicit drug use in Persons Living with HIV

Tsao, J.C., Dobalian, A., and Stein, J.A.

Pain, *119* (2005), 124–132.

We investigated predictive and concurrent relationships among reported pain, HIV/AIDS illness burden, and substance use history in 2267 participants in the longitudinal HIV Cost and Services Utilization Study (HCSUS). Substance use history was classified as screening positive for current illicit drug use (N = 253), past drug use (N = 617), and nonuser (N = 1397) at baseline. To control for demographic correlates, age, sex, and socioeconomic status (SES) were included as predictors. Covariance structure models indicated greater pain at baseline among participants acknowledging current substance use. Pain at baseline was also directly predicted by greater HIV/AIDS illness burden, lower SES, and older age. At 6 months, pain was directly predicted by prior pain, worse concurrent HIV/AIDS illness burden, and female sex. At 12 months, pain was predicted by older age, prior pain, and concurrent HIV/AIDS illness. It was also modestly but significantly predicted by current substance use at baseline. In addition to the direct effects on pain, there were significant indirect effects of demographic and drug use variables on pain mediated through HIV/AIDS illness burden and prior pain. There were significant and positive indirect effects of current and past drug use, greater age, and lower SES on pain at all three time periods. Pain at 6 months and pain at 12 months were also indirectly impacted by previous illness burden. Our results indicate that HIV+ persons who screened positive for current use of a range of

illicit substances experienced greater HIV/AIDS illness burden, which in turn predicted increased pain.

Suicide and Cancer: A Gender-Comparative Study

Kendal, W.S.

Annals of Oncology, (2006) Oct 19 [Epub ahead of print]

Persons with cancer commit suicide more frequently than those without, and males generally commit suicide more frequently than females. A population-based analysis of cancer patients was carried out here, comparing suicide risk between the genders, to elucidate the features specific to each gender. A total of 1.3 million cancer cases from the Surveillance, Epidemiology, and End Results program were analyzed. Cox proportional hazards models were fitted to personal, tumor-related, and social variates. A total of 265 female and 1307 male suicides were enumerated, reflecting 0.04% and 0.19% from each gender, and providing an overall hazard ratio for male suicide of 6.2 (95% confidence interval [CI] 5.4–7.1). Females with colorectal ($p = .01$) and cervical ($p < .0001$) cancers showed decreased suicide rates. Males with head and neck cancers ($p < .0001$) and myeloma ($p = .02$) had increased rates, whereas rates were decreased in males with lung cancer ($p = .01$), liver ($p = .01$), brain tumors ($p = .04$), and leukemia ($p = .007$). The hazard ratio associated for male suicide with distant metastasis was 2.84 (95% CI 2.49–3.24), for married status, 0.46 (95% CI 0.39–0.54), and for African-American ancestry, 0.24 (95% CI 0.17–0.34)—comparable ratios were seen here for female suicides. In head and neck cancers, with both genders analyzed together, the suicide hazard was increased if surgery was contraindicated (3.0, 95% CI 1.3–6.8), but not if refused. The high-risk patient was male, with head and neck cancer or myeloma, advanced disease, little social or cultural support, and limited treatment options. Oncologists and allied health professionals should be aware of the potential for suicide in cancer patients and their associated risk factors.

Suicidal Ideation and Attempts in Adult Survivors of Childhood Cancer

Recklitis, C.J., Lockwood, R.A., Rothwell, M.A., and Diller, L.R.

Journal of Clinical Oncology, *24* (2006), 3852–3857.

This study examined the prevalence of suicidal ideation and past suicide attempt in adult survivors of childhood cancer and investigated the relationship of suicidal symptoms to cancer treatment and current health. The hypothesis that poor physical health would be significantly associated with suicidality after adjusting for mental health variables was specifically tested. Two hundred twenty-six adult survivors of childhood cancer (mean age, 28 years) seen in a survivor clinic completed the Short Form-36 and the Beck Depression Inventory (BDI), as well as suicide items from the Symptom Checklist-90 Revised and Beck Scale for Suicide Ideation. Participants reporting current suicide ideation or any past suicide attempt were classified as suicidal. Twenty-nine participants (12.83%) reported suicidality, although only 11 of these were significantly depressed by BDI criteria. Univariate analyses found suicidality unrelated to age or sex but positively associated with younger age at diagnosis, longer time since diagnosis, cranial radiation treatment, leukemia diagnosis, depression, hopelessness, pain, and physical appearance concern. A hierarchical logistic regression showed that current physical functioning, including pain, was significantly associated with suicidality even after adjusting for treatment and depression variables. Suicidal symptoms, which are reported by a significant minority of adult survivors of childhood cancer, are related to cancer treatments and posttreatment mental and physical health. Association of suicidal symptoms with physical health problems is important because these represent treatable conditions for which survivors may seek follow-up care. The relationship of physical well-being to suicidality underscores the need for a multidisciplinary approach to survivor care.

The Relationship between Antidepressant Prescription Rates and Rate of Early Adolescent Suicide

Gibbons, R.D., Hur, K., Bhaumik, D.K., and Mann, J.J.

American Journal of Psychiatry, *163* (2006), 1898–1904.

In 2002, 264 children and adolescents ages 5–14 died by suicide in the United States, the fifth leading cause of death. Of these suicides, 260 were in the 10–14-year age group, making suicide the third largest cause of death behind accidents and malignancy. Although 60% of suicides in the general population occur in the midst of a mood disorder, usually untreated, little is known about the relationship between treatment of mood disorders and youth suicide. The FDA recently linked adverse event reports of suicidal ideation among children and adolescents in randomized controlled trials to selective serotonin reuptake inhibitors (SSRIs) and

consequently required a change in labeling that included a black box warning regarding SSRI use for all age groups. Given that the age-adjusted suicide rate is about six times higher in 15–19-year-olds compared with 10–14-year-olds, the risk–benefit ratio may be different in younger children. Therefore, this study examined the association between antidepressant medication prescription rate and suicide rate in children ages 5–14 prior to the FDA findings by analyzing associations at the county level across the United States. National county-level suicide rate data among children ages 5–14 were broken down by sex, income, and race during the period 1996–1998. National county-level antidepressant prescription rate data were expressed as number of pills prescribed per person. The primary outcome measure was the suicide rate in each county expressed as number of suicides for a given population size. After adjustment for sex, race, income, access to mental health care, and county-to-county variability in suicide rates, higher SSRI prescription rates were associated with lower suicide rates in children and adolescents. The aggregate nature of these observational data precludes a direct causal interpretation of the results. More SSRI prescriptions are associated with lower suicide rates in children and may reflect antidepressant efficacy, treatment compliance, better quality mental health care, and low toxicity in the event of a suicide attempt by overdose.

Symptom Distress and Quality-of-Life Assessment at the End of Life: The Role of Proxy Response

Kutner, J.S., Bryant, L.L., Beaty, B.L., and Fairclough, D.L.

Journal of Pain and Symptom Management, *32* (2006), 300–310.

This study sought to advance understanding of the relationships among proxy and patient reports of symptom distress and quality of life (QOL). English-speaking adults ($n = 86$), their nurses ($n = 86$), and family caregivers ($n = 49$) from 11 hospice/palliative care organizations completed the Memorial Symptom Assessment Scale (MSAS) and McGill Quality of Life Questionnaire (MQOL) at hospice/palliative care enrollment, at 1 week, 2 weeks, then monthly until death or discharge. Patients and proxies provided similar average reports of symptom distress, both physical and psychological, but MSAS correlations were generally poor. MQOL correlations were higher for nurse–patient than for patient–caregiver dyads. Based on small differences between ratings but only moderate levels of correlation, proxy response appears to be a fair substitute for patient response, suggesting that symptom and QOL reports should be obtained from all available respondents throughout the course of clinical care or research in the hospice/palliative care setting.

Fatigue and Depression in Cancer Patients Undergoing Chemotherapy: An Emotion Approach

Kim, Y., Hickok, J.T., and Morrow, G.

Journal of Pain and Symptom Management, *32* (2006), 311–321.

Fatigue and depressive symptoms are common in cancer patients, but the nature of the relationship between the two remains unclear. We examined the degree to which two dimensions of emotion assessed as psychological factors (i.e., arousal and valence) predicted changes in fatigue and depressive symptoms over four cycles of chemotherapy in cancer patients who participated in a randomized clinical trial. Among 549 patients enrolled in the study, 525 provided data from a minimum of two treatments and were included in the multilevel modeling analyses. Multilevel models were used to identify significant predictors of initial levels and changes of fatigue and depressive symptoms and to determine the relationship between fatigue and depressive symptoms independent of other predictors proposed in this study. Multiple factors, including age, gender, and cancer site, predicted the initial levels. More importantly, the two dimensions of psychological factors significantly predicted changes in fatigue and depressive symptoms, in similar patterns but to different degrees. Specifically, changes in fatigue depended more on the valence dimension, whereas changes in depressive symptoms depended on both the valence and arousal dimensions. Theoretical and practical implications of the current findings are discussed and suggestions for interventions to alleviate fatigue and depressive symptoms in cancer patients are proposed.

SYMPTOM CONTROL

Errors in Symptom Intensity Self-Assessment by Patients Receiving Outpatient Palliative Care

Garyali, A., Palmer, J.L., Yennurajalingam, S., Zhang, T., Pace, E.A., and Bruera, E.

Journal of Palliative Medicine, *9* (2006), 1059–1065.

Patient-based symptom scores are the standard method for assessment in palliative care. There has

been limited research on the frequency of errors upon using this approach. The Edmonton Symptom Assessment Scale (ESAS) is a reliable and valid assessment tool routinely used for symptom intensity assessment in our cancer center. The objective of this study was to determine if patients were scoring the symptoms on the ESAS in the way it was supposed to be scored. The study was carried out at the outpatient palliative care center using a retrospective review of 60 consecutive patient charts where the patient had initially scored the ESAS. The physician looked at this scoring on the ESAS and went back to the patient to do the scoring again to see if the patient had scored it in the way it was intended to be scored. The same physician did the assessment on all of the patients. Our outcome measures were level of agreement (weighted kappa) before versus after the physician visit and screening performance of patient-completed ESAS for mild and moderate symptom intensity. The results showed that complete agreement ranged from 58% (sleep) to 82% (well-being); the weighted kappa ranged from 0.49 (drowsiness) to 0.78 (well-being). There was more agreement for symptoms such as dyspnea, nausea, anxiety, and depression and less agreement for symptoms such as lack of sleep and lack of appetite. The screening performance of the initial patient self-assessment showed less sensitivity for nauseaand drowsiness if the intensity was mild and less sensitivity for pain, nausea, anxiety, and drowsiness if the intensity was moderate. Vigilance needs to be maintained about the ESAS scores done by the patients particularly for symptoms of sleep, appetite, and pain. There is a likelihood of error if doctors or nurses do not routinely check the way patients have completed the assessment form. More research is needed to determine the best way to teach patients how to minimize errors in self-reporting of symptoms.

Palifermin Reduces Patient-Reported Mouth and Throat Soreness and Improves Patient Functioning in the Hematopoietic Stem-Cell Transplantation Setting

Stiff, P.J., Emmanouilides, C., Bensinger, W.I., Gentile, T., Blazar, B., Shea, T.C., Lu, J., Isitt, J., Cesano, A., and Spielberger, R.

Journal of Clinical Oncology, *24* (2006), 5186–5193.

Our objective was to describe patient-reported outcomes of mouth and throat soreness (MTS) and related sequelae on daily activities from a phase III study of palifermin in the autologous hematopoietic stem-cell transplantation (HSCT) setting and to compare patient self-evaluations with clinicians' assessments of oral mucositis using objective scales. Patients ($n = 212$) received palifermin (60 μg/kg/d) or placebo for 3 days before total-body irradiation (12 Gy), etoposide 60 mg/kg, and cyclophosphamide 100 mg/kg, and 3 days after HSCT. Patients completed a daily questionnaire (Oral Mucositis Daily Questionnaire [OMDQ]) evaluating MTS severity and its effects on daily functional activities. Patients' self-assessment data were compared with clinicians' assessments of oral mucositis using the objective scales. Palifermin reduced the incidence and duration of severe oral mucositis, as assessed by both clinicians and patients. Comparisons between patient and clinician assessments demonstrated that the average daily scores between mucositis grade and subjective (MTS) instruments were similar, although patients reported MTS onset, peak, and resolution earlier (1 to 3 days) than clinicians' assessments. Patients receiving palifermin reported statistically significant improvements ($p < .001$) in daily functioning activities (swallowing, drinking, eating, talking, sleeping) and required significantly less narcotic opioids ($p < .001$); improvement in the patient's overall physical and functional well-being was also reported. This was confirmed by the results of the Functional Assessment of Cancer Treatment questionnaire. These results support the clinical benefit of palifermin in the HSCT setting, providing evidence that a patient's self-assessment instrument (OMDQ) may serve as an alternative

Palifermin Reduces the Incidence of Oral Mucositis in Patients with Metastatic Colorectal Cancer Treated with Fluorouracil-Based Chemotherapy

Rosen, L.S., Abdi, E., Davis, I.D., Gutheil, J., Schnell, F.M., Zalcberg, J., Cesano, A., Gayko, U., Chen, M.G., and Clarke, S.

Journal of Clinical Oncology, *24* (2006), 5194–5200.

The purpose of this study was to characterize the efficacy and safety of palifermin in reducing the incidence of oral mucositis (OM) and diarrhea when administered to patients with metastatic colorectal cancer (CRC) receiving fluorouracil/leucovorin (FU/LV) chemotherapy. Patients ($N = 64$) were randomly assigned to receive either placebo or palifermin (40 μg/kg for 3 consecutive days) before each of two consecutive cycles of chemotherapy with FU/LV. The incidence of OM and diarrhea, safety, disease progression, and survival were evaluated. Thirty-six patients received placebo and 28 patients received palifermin. The incidence of WHO grade 2 or higher OM was lower in patients who received pali-

fermin compared with placebo (29% vs. 61% in cycle 1; 11% vs. 47% in cycle 2). FU dose reductions in the second chemotherapy cycle were more frequent in the placebo group (31%) than in the palifermin group (14%). Investigators reported lower mucositis scores and patients reported less severe symptoms with palifermin. There were no statistically significant differences in the incidence or severity of diarrhea or in overall survival between the groups. Overall, palifermin was safe and well tolerated. Palifermin administered at the indicated dosing regimen (40 μg/kg for 3 consecutive days) before chemotherapy was well tolerated and resulted in a statistically significant and clinically meaningful reduction in the incidence of WHO grade 2 or higher OM in patients with metastatic CRC.

QUALITY OF PALLIATIVE CARE

Methodological Challenges in Measuring Quality Care at the End of Life in the Long-Term Care Environment

Thompson, G.N. and Chochinov, H.M.

Journal of Pain and Symptom Management, *32* (2006), 378–391.

Understanding what constitutes quality end-of-life care from the perspective of the patients, their family, and health care professionals has been a priority for many researchers in the past few decades. Literature in this area has helped describe many of the barriers to measuring the quality of care in various environments, such as the hospital, hospice, and home. However, much of the work to date in defining the domains of quality care at the end of life has not been conducted within the long-term care environment. This environment is expected to provide care to an increasing number of dying persons with the concurrent aging of the population in many Western countries and demand for more formal services. In this review, the methodological issues involved in measuring quality care at the end of life are examined, with specific attention given to the challenges encountered in the long-term care environment.

Physicians' Opinions on Palliative Care and Euthanasia in the Netherlands

Georges, J.J., Onwuteaka-Philipsen, B.D., van der Heide, A., van der Wal, G., and van der Maas, P.J.

Journal of Palliative Medicine, *9* (2006), 1137–1144.

In recent decades significant developments in end-of-life care have taken place in The Netherlands. There has been more attention to palliative care and, alongside, the practice of euthanasia has been regulated. The aim of this paper is to describe the opinions of physicians with regard to the relationship between palliative care and euthanasia and determinants of these opinions. We used cross-sectional, representative samples of physicians (n = 410), relatives of patients who died after euthanasia and physician-assisted suicide (EAS; n = 87), and members of the Euthanasia Review Committees (ERCs; n = 35). We conducted structured interviews with physicians and relatives of patients and used a written questionnaire for the members of the ERCs. Approximately half of the physicians disagreed and one third agreed with statements describing the quality of palliative care in The Netherlands as suboptimal and describing the expertise of physicians with regard to palliative care as insufficient. Almost two thirds of the physicians disagreed with the suggestion that adequate treatment of pain and terminal care make euthanasia redundant. Having a religious belief, being a nursing home physician or a clinical specialist, never having performed euthanasia, and not wanting to perform euthanasia were related to the belief that adequate treatment of pain and terminal care could make euthanasia redundant. The study results indicate that most physicians in The Netherlands are not convinced that palliative care can always alleviate all suffering at the end of life and believe that euthanasia could be appropriate in some cases.

Palliative Care for Frail Older Adults: "There Are Things I Can't Do Anymore That I Wish I Could . . ."

Boockvar, K.S. and Meier, D.E.

JAMA, *296* (2006), 2245–2253.

Frailty in older adults is increasingly a recognized syndrome of decline, sometimes subtle, in function and health that may be amenable to available approaches to care. Frailty manifests the following core clinical features: loss of strength, weight loss, low levels of activity, poor endurance or fatigue, and slowed performance. The presence of three or more of these features is associated with adverse outcomes including falls, new or worsened function impairment, hospitalization, and death. In this article, we use the case of Mrs K to describe the challenges of recognizing frailty in clinical practice, common problems and symptoms that frail older adults experience, and approaches to these issues that clinicians may incorporate into their practices. We discuss the importance of advance care plan-

ning, provider–patient communication, and appropriate palliative care and hospice referral for frail older adults. Frailty is associated with symptomatic long-term disease, decline in function, and abbreviated survival. Therefore, when frailty is severe, delivery of palliative care focused on relief of discomfort and enhancement of quality of life is highly appropriate. The application of multidisciplinary, team-based palliative approaches and of up-to-date geriatrics knowledge is beneficial for treating these patients because of the complexity of their coexisting social, psychological, and medical needs.

SPIRITUALITY

Spiritual Pain among Patients with Advanced Cancer in Palliative Care

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Journal of Palliative Medicine, *9* (2006), 1106–1113.

The large body of empirical research suggesting that patients' spiritual and existential experiences influence the disease process has raised the need for health care professionals to understand the complexity of patients' spiritual pain and distress. The current study explores the multidimensional nature of spiritual pain, in patients with end-stage cancer, in relation to physical pain, symptom severity, and emotional distress. The study combines a quantitative evaluation of participants' intensity of spiritual pain, physical pain, depression, and intensity of illness, with a qualitative focus on the nature of patients' spiritual pain and the kinds of interventions patients believed would ameliorate their spiritual pain. Fifty-seven patients with advanced-stage cancer in a palliative care hospital were interviewed by chaplains. Overall, 96% of the patients reported experiencing spiritual pain, but they expressed it in different ways: (1) as an intrapsychic conflict, (2) as interpersonal loss or conflict, or (3) in relation to the divine. Intensity of spiritual pain was correlated with depression ($r = .43$, $p < .001$), but not physical pain or severity of illness. The intensity of spiritual pain did not vary by age, gender, disease course, or religious affiliation. Given both the universality of spiritual pain and the multifaceted nature of pain, we propose that when patients report the experience of pain, more consideration be given to the complexity of the phenomena and that spiritual pain be considered a contributing factor. The authors maintain that spiritual pain left unaddressed both impedes recovery and contributes to the overall suffering of the patient

Maslow's Hierarchy of Needs: A Framework for Achieving Human Potential in Hospice

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Journal of Palliative Medicine, *9* (2006), 1120–1127.

Although the widespread implementation of hospice in the United States has led to tremendous advances in the care of the dying, there has been no widely accepted psychological theory to drive needs assessment and intervention design for the patient and family. The humanistic psychology of Abraham Maslow, especially his theory of motivation and the hierarchy of needs, has been widely applied in business and social science but only sparsely discussed in the palliative care literature. In this article we review Maslow's original hierarchy, adapt it to hospice and palliative care, apply the adaptation to a case example, and then discuss its implications for patient care, education, and research. The five levels of the hierarchy of needs as adapted to palliative care are (1) distressing symptoms, such as pain or dyspnea; (2) fears for physical safety, of dying or abandonment; (3) affection, love, and acceptance in the face of devastating illness; (4) esteem, respect, and appreciation for the person; and (5) self-actualization and transcendence. Maslow's modified hierarchy of palliative care needs could be utilized to provide a comprehensive approach for the assessment of patients' needs and the design of interventions to achieve goals that start with comfort and potentially extend to the experience of transcendence.

COMMUNICATION

Communication about Prognosis between Parents and Physicians of Children with Cancer: Parent Preferences and the Impact of Prognostic Information

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Journal of Clinical Oncology, *24* (2006), 5265–5270.

Concerns about the harms of prognostic information, including distress and loss of hope, cause some physicians to avoid frank disclosure. We aimed to determine parent preferences for prognostic information about their children with cancer and the results of receiving such information. We surveyed 194 parents of children with cancer (overall response rate, 70%), treated at the Dana-Farber Cancer Institute and Children's Hospital (Boston, MA) and the children's physicians. Our main outcome

measure was parent rating of prognostic information as extremely or very upsetting. The majority of parents desired as much information about prognosis as possible (87%) and wanted it expressed numerically (85%). Although 36% of parents found information about prognosis to be extremely or very upsetting, those parents were more likely to want additional information about prognosis than those who were less upset ($p = .01$). Parents who found information upsetting were no less likely to say that knowing prognosis was important ($p = .39$), that knowing prognosis helped in decision making ($p = .40$), or that hope for a cure kept them going ($p = .72$). Although many parents find prognostic information about their children with cancer upsetting, parents who are upset by prognostic information are no less likely to want it. The upsetting nature of prognostic information does not diminish parents' desire for such information, its importance to decision making, or parents' sense of hope.

https://doi.org/10.1017/S1478951507070320 Published online by Cambridge University Press