



AMERICAN ACADEMY OF  
HOSPICE AND PALLIATIVE MEDICINE

**Feature Editor: Mellar P. Davis, MD, FCCP, FAAHPM**



**PC-FACS** (Fast Article Critical Summaries for Clinicians in Palliative Care) provides hospice and palliative care clinicians with concise summaries of the most important findings from more than 100 medical and scientific journals. If you have colleagues who would benefit from receiving PCFACS, please encourage them to join the AAHPM at [aahpm.org](http://aahpm.org). Comments from readers are welcomed at [pcfacs@aahpm.org](mailto:pcfacs@aahpm.org).

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#### Examining How Better Language Can Impact End-of-Life Care

**Background.** The particularities of language determine what we pay attention to, consciously or not.<sup>1</sup> Can changing our language regarding end-of-life issues improve specificity and mindfulness about end-of-life interventions?

**Design and Participants.** This perspective article described a medical intern's concerns regarding end-of-life care for patients in the intensive care unit. Finding north in our medical culture can be difficult when our life-sustaining measures are advanced beyond our abilities to discern their best uses. End-of-life care training remains meager. When death is inevitable and patients/families consent, we may withdraw interventions, but we should never withdraw care. Based on her experience, the author noted the role words play in influencing how families and clinicians consider care for seriously ill patients.

**Results.** All a physician's knowledge and data culminate in each case in a diagnosis that is a well-supported guess. "Thinking is in fact a complex set of collaborations between linguistic and nonlinguistic representations and processes."<sup>2</sup> Words shape our cognitive processing. Studies have shown various effects of linguistic structures on perception (metaphors used

to describe problems shape the way people try to solve them). Words like “withdrawal of care” or “nothing to do” influence how we think about end-of-life care. Changing our language regarding end-of-life issues could change what we pay attention to and force specificity and mindfulness about extubation, stopping of pressors, or dialysis cessation. Each carefully planned intervention requires an equally thoughtful retreat. Clustering them together under a vague label confuses families, potentially prolongs futile measures and may lead physicians to provide inadequate care.

*Commentary.* Language profoundly influences our cognitive processing both consciously and unconsciously. Therefore, we must be mindful and intentional with our words when communicating with patients and colleagues. The careless use of vague language including euphemisms and dark humor can imply that the words we use don’t matter. This impetuous use of language can negatively influence the care we provide to our patients. As such, there is an ongoing need to educate our colleagues in other specialties regarding the careful use of language and good communication. Furthermore, we in hospice and palliative medicine must continue to cultivate our own communication skills so we can provide the best care for our patients with serious illness.

*Bottom Line.* We must strive to be cognizant of how we communicate and the language we use since this will ultimately influence the care we provide to our patients.

*Reviewer.* Timothy Mark Corbett, MD MA HMDC FAAHPM, Trellis Supportive Care and Wake Forest School of Medicine, Winston-Salem, NC.

*Source.* DeForest A. Better words for better deaths. *N Engl J Med.* 2019;380(3):211-213.

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### Assessment of Attitudes Toward Deprescribing in Older Medicare Beneficiaries

*Background.* Goals of deprescribing include minimizing risks associated with inappropriate medications and improving health and quality of life.<sup>1-3</sup> What are older Americans’ attitudes toward deprescribing?

*Design and Participants.* This population-based survey study explored Medicare beneficiaries’ attitudes toward deprescribing. Data were obtained from the Medication Attitudes module, fielded

through in-person interviews in round 6 of the National Health and Aging Trends Study, using a random one-third of the participants. Logistic regression and multivariate regression models were used.

*Results.* Participants were 55% 65-74 years old, 34% 75-84, and 12%  $\geq 85$ . Fifty-five percent were female, 57% were educated beyond high school, and 71% had  $\geq 2$  chronic medical conditions. Ninety-two percent agreed or strongly agreed they were willing to stop  $\geq 1$  of their medicines if their physician said it was possible, 67% reported they would like to reduce the number of medicines they were taking, 90% agreed or strongly agreed all of their medicines were necessary, and 16% agreed or strongly agreed they were taking a medicine they no longer needed. Participants taking  $\geq 6$  medications vs.  $< 6$  (adjusted odds ratio=2.90; 95% CI=1.74-4.82) and those with 2-3 medical conditions (2.87; 1.75-4.69) vs.  $< 2$  had almost 3 times greater odds of willingness to stop. Black respondents (vs. white) (0.60; 0.37-0.96) and those reporting fair/poor health (0.46; 0.24-0.86) had lower odds of willingness to stop. Odds of wanting to reduce were higher for those taking  $\geq 6$  medications (2.31; 1.71-3.13), those with 2-3 medical conditions (1.80; 1.28-2.53) vs.  $< 2$ , those 65-74 years old (vs.  $\geq 85$ ; 0.61; 0.43-0.86), and those without probable dementia (0.47; 0.32-0.71); all  $P < 0.05$ .

*Commentary.* Older adults with serious illness often continue medications that they may have been taking for decades despite evidence that certain medications may no longer offer previously hoped for benefits, such as the use of statins for those with limited life expectancy.<sup>4</sup> Clinicians may not bring up important conversations about stopping these medications because of worries that patients would oppose any attempt at deprescribing. Even though the study does not specifically examine those with serious illness, it should come as some reassurance that more than 90% of older adults agreed they would be willing to stop a medication if their doctor said it was possible. Hospice and palliative care clinicians can take additional comfort that those with more chronic medical problems were more likely to want to stop taking medications compared to those with fewer health problems.

*Bottom Line.* Don’t be afraid to make a recommendation to stop a medication—odds are, your patient may agree with you.

*Reviewer.* Eric Widera, MD, University of California, San Francisco, San Francisco, CA.

*Source.* Reeve E, Wolff JL, Skehan M, Bayliss EA, Hilmer SN, Boyd CM. Assessment of attitudes toward deprescribing in older Medicare beneficiaries in the United States. *JAMA Intern Med.* 2018;178(12):1673-1680.

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## Using Advance Care Planning Intervention to Support Patient and Family Preferences

**Background.** Professional bodies, physicians, and researchers have concerns regarding end-of-life care quality for cancer patients.<sup>1,2</sup> Can advance care planning (ACP) better guarantee that end-of-life care is consistent with patients' preferences?

**Design and Participants.** This multisite Australian trial (2014-2017) tested whether an ACP intervention would increase discussion/documentation of patient wishes for end-of-life care, increase compliance with end-of-life wishes, and decrease family members' (FM) distress. Patients with incurable cancer and FMs were randomized to usual care (UC) or UC+intervention (Respecting Patient Choices model). Two oncology nurses, 2 nurses, and 3 allied health professionals delivered ACP. FMs were interviewed 3 months postdeath, assessing FMs' perceptions of whether patient's wishes were discussed/met. Fisher's exact and Wilcoxon rank-sum tests, chi-square, t-tests, linear mixed models, and logistic regression were used.

**Results.** In this study, 208 patients (most commonly with lung cancer) and their FMs were enrolled (similar between-arm characteristics). Patients were mean age 66 years; FMs were mean age 58 years. Patients were 53% male; FMs were 27% male. Median survival was 5.4 months, with similar between-arm mortality rates (intervention 87%, UC 84%). Seventy-nine patients and 53 FMs attended an ACP discussion (mean 57 minutes). Patient and FM satisfaction with ACP was high: percentage agreeing or strongly agreeing ranged 69%-91% for 9 patient satisfaction items and 71%-93% for 9 FM satisfaction items. Forty-three percent of ACP FMs and 33% of

UC FMs reported that end-of-life wishes were discussed and met (difference 10%, 95% CI=-2.8,  $P=0.27$ ). There were no differences in end-of-life care received, patient satisfaction with care, FM satisfaction with care or with death, or FM well-being.

**Commentary.** This study examined whether ACP improves compliance with cancer patients' wishes regarding their death and reduces FM distress. Contrary to other studies,<sup>3,4</sup> this study found that although ACP documentation increased, there were no significant differences in following patients' preferences nor in family satisfaction with care. Surprisingly, postbereavement mental well-being was poorer in the intervention group, possibly because of the distress caused if the stated needs were not met. Nearly all participants had palliative care services, whereas as few as a tenth of cancer patients in America have palliative care involvement.<sup>5</sup> The findings highlight the need for further study into what elements of ACP and palliative care intervention positively impact care and support for patients and families and how best to deliver them.

**Bottom Line.** The study's ACP intervention, a facilitator-led structured meeting, did not improve adherence to patient preferences nor family satisfaction with care or death.

**Reviewer.** David Z. Kalir, DO MS, and Renato V. Samala, MD MHPE HMDC FACP FAAHPM, Cleveland Clinic, Cleveland, OH.

**Source.** Johnson SB, Butow PN, Bell ML, et al. A randomised controlled trial of an advance care planning intervention for patients with incurable cancer. *Br J Cancer*. 2018;119(10):1182-1190.

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### **Limited Training and Knowledge of Nurses Providing Palliative and Hospice Care to Children**

*Background.* Approximately 500,000 American children suffer from life-limiting illnesses each year, most of whom never receive hospice services.<sup>1,2</sup> What are the experience and comfort levels of hospice nurses who care for these children and families?

*Design and Participants.* This study investigated levels of clinician training, experience, and comfort in delivering care to children with life-limiting illness and their families. A cross-sectional survey was developed, assessing hospice nurses across symptom management, end-of-life care, goals of care, family-centered care, and bereavement domains. Nurses employed by all accredited hospice organizations in Tennessee, Arkansas, and Mississippi (and whose job description included possible provision of palliative or hospice care to pediatric patients and their families) were surveyed to identify perceived barriers to optimal community-based care provision. Descriptive statistics were used.

*Results.* Nurses (N=551, 71 hospices) were 86% female, 85% white, 26% age 40-49 years, and 26% age 50-59. Ninety percent reported no training in pediatric palliative or hospice care. Fifty-four percent reported <5 years of hospice experience and 49% reported no pediatric hospice experience. Those with pediatric hospice experience reported limited opportunities to maintain/build their skills, with 86% providing care to children  $\leq$ several times/year. Seventy-seven percent reported that their agencies lacked training/resources on providing care to children, 65% of whom reported a desire for educational strategies to improve comfort/competency. Sixty-four percent reported providing supportive care or other interventions for parents/siblings. Seventy-nine percent had rarely, if ever, provided bereavement support/resources for families postdeath. Respondents reported feeling somewhat or very uncomfortable providing services to children during the illness trajectory (47%) or dying process (47%).

*Commentary.* This study demonstrates the disparity between pediatric needs at the end of life and hospice nurses' self-reported lack of skill training. Seriously ill children in this tristate cohort received care from adult-centric hospice organizations with insufficient training resources and alarming rates of inexperience and discomfort in the domains of symptom management, communication, psychosocial support, and bereavement in the care of dying children and their families. The infrequent enrollment of children in hospice brings into question how effective traditional strategies—such as dissemination of standardized education—are in enhancing care at the bedside.

Innovative “just-in-time” training or supplemental strategies to support hospice nurses during a child’s time in hospice care should be explored.

*Bottom Line.* Children at the end of life are at risk of receiving suboptimal care because of insufficient training and experience of hospice staff that are primarily focused on caring for adults.

*Reviewer.* Christopher Collura, MD, Mayo Clinic Children’s Center, Rochester, MN.

*Source.* Kaye EC, Gattas M, Kiefer A, et al. Provision of palliative and hospice care to children in the community: a population study of hospice nurses. *J Pain Symptom Manage.* 2019;57(2):241-250.

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2. National Hospice and Palliative Care Organization. ChiPPS white paper: a call for change: recommendations to improve the care of children living with life-threatening conditions. Published October 2001.

### **Effect of Specialized Palliative Care and Dyadic Psychological Intervention on Caregiver Well-Being**

*Background.* Many patients with advanced cancer require family member caregiving, which can negatively affect caregivers’ mental health.<sup>1,2</sup> What are the effects of specialized palliative care (PC) and dyadic psychological intervention on caregiver anxiety and depression?

*Design and Participants.* This trial<sup>3</sup> evaluated home-based specialized PC with integrated dyadic psychological intervention, targeting both patients’ and caregivers’ distress. Adult patients with incurable cancer and limited antineoplastic treatment options, and their caregivers, were recruited from a university hospital oncology department (a socioeconomically diverse population ensured by a Scandinavian healthcare setting with equitable care access). Participants were randomized to usual care or accelerated transition from oncological treatment to home-based specialized PC. The primary outcomes were patients’ time at home, the number of home deaths, and patient and caregiver distress (only caregiver psychological outcomes are reported in this article). The Symptom Checklist-92 assessed caregivers’ anxiety and depression up to 6 months postrandomization and 19 months into bereavement. Intervention effects were estimated using mixed effects models (intent-to-treat).

*Results.* Caregivers (n=134 intervention, n=115 control) were mean (SD) age 61 (12) years, 64% female, and 55% educated beyond high school. Seventy-eight

percent were married/partnered to the patient and 21% had children at home. The most common cancer was lung (21%). Between-group baseline characteristics were similar. The intervention attenuated increases in caregivers' anxiety symptoms overall (estimated difference  $-0.12$ ; 95% CI  $-0.22$ – $-0.01$ ,  $P=0.0266$ ), depression symptoms at 8 weeks ( $-0.17$ ;  $-0.33$ – $-0.02$ ;  $P=0.0314$ ) and 6 months ( $-0.27$ ;  $-0.49$  to  $-0.05$ ;  $P=0.0165$ ), and bereavement at 2 weeks ( $-0.28$ ;  $-0.52$ – $-0.03$ ;  $P=0.0295$ ) and 2 months ( $-0.24$ ;  $-0.48$ – $-0.01$ ;  $P=0.0448$ ).

**Commentary.** This randomized controlled trial demonstrated that providing specialized palliative care that included dyadic psychological support for both patient and caregiver significantly reduced caregiver anxiety and depression both before and during bereavement. Although a prior systematic review<sup>4</sup> determined interventions that target either the dyad or the patient or caregiver separately result in similar outcomes, there are advantages to interventions at the dyad level. Because psychological distress is interrelated between caregivers and patients<sup>5,6</sup> and, to some extent, dependent on the way members cope together,<sup>7</sup> dyadic interventions may be better able to facilitate and maintain change than efforts where only 1 partner is receiving the intervention. It also gives clinicians the opportunity to address relational issues, including patient-caregiver communication. This is particularly helpful in situations where patient and caregiver perspectives may not always coincide.

**Bottom Line.** Dyadic psychological support for patient and caregiver has the potential to significantly reduce anxiety and depression in the caregiver while also giving the clinician the opportunity to address patient-caregiver relational and communication aspects.

**Reviewer.** Ronit Elk, PhD, University of Alabama at Birmingham, Birmingham, AL.

**Source.** von Heymann-Horan A, Bidstrup P, Guldin MB, et al. Effect of home-based specialised palliative care and dyadic psychological intervention on caregiver anxiety and depression: a randomised controlled trial. *Br J Cancer*. 2018;119(11):1307-1315.

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### Using Pregabalin to Treat Radiotherapy-Related Neuropathic Pain in Patients With Head and Neck Cancer

**Background.** Pain is a common adverse event among patients undergoing radiotherapy for head and neck cancers.<sup>1</sup> Can pregabalin treat radiotherapy-related neuropathic pain?

**Design and Participants.** This double-blind trial (4 Chinese centers) evaluated pregabalin for treating radiotherapy-related neuropathic pain. Eligible adults had pain lasting  $\geq 4$  weeks with a mean intensity score  $\geq 4$  (11-point numeric rating scale [NRS]) during the 7-day run-in, a neuropathic pain diagnosis (according to clinical history, symptoms, physical signs, and a LANSSQ<sup>2</sup> score  $\geq 12$ ), prior radiotherapy for head and neck malignancy, and  $\geq 5$  months survival. Patients were assigned to receive pregabalin or placebo. The primary outcome was pain reduction at week 16, via NRS. Secondary outcomes were mood, quality of life, and patient satisfaction. Analyses (intent-to-treat) included Newcombe-Wilson, Cochran-Mantel-Haenszel, chi-squared, and Fisher's tests and repeated measures ANCOVA.

**Results.** Participants ( $n=64$  pregabalin,  $n=64$  placebo) were mean (SD) age 56 (8) years and 40% female, with a mean (SD) BMI of 21 (2) kg/m<sup>2</sup> (between-group differences were insignificant). Thirty-six percent, 34%, and 30% received a maximum daily dose of 300, 450, and 600 mg

respectively. Pregabalin-arm pain intensity reduction was 2.44, vs. 1.58 for placebo (adjusted mean difference=0.87 [95% CI=0.30-1.44;  $P=.003$ ]). Fifty-nine percent of treated patients achieved  $\geq 30\%$  pain relief, vs. 33% for placebo ( $P=.006$ ). Thirty percent of treated patients achieved  $\geq 50\%$  pain relief, vs. 7.8% for placebo ( $P=.003$ ). Total scores on the Profile of Mood States-Short Form, pain severity and functional interference of Brief Pain Inventory-Short Form, and the physiology and psychology domain of the WHO Quality-of-Life-BREF all were reduced, vs. placebo ( $P<.05$ ). There was no between-arm difference in adverse event incidence.

*Commentary.* This study was well designed and conducted with stringent scientific criteria. It had a low attrition rate and the researchers used an unusually large number of outcome assessment tools. The difference in pain improvement between groups was only 0.87 within an 11-point scale, but it is remarkable that in the intervention group almost 30% of patients reported a pain relief of 50% or more. The changes in the secondary outcomes were overall more impressive. Relevant findings were that rescue doses of NSAIDs, acetaminophen, and opioids were needed by only 8 patients (12.5%) who received pregabalin vs. 26 patients (40.6%) who received placebo and that the only 2 patients who required hospital admission for pain management were enrolled in the placebo group. Subjects in the study group also experienced significant decreases in anxiety, depression, and fatigue.

*Bottom Line.* Patients with head and neck cancer who have neuropathic pain as a result of radiotherapy might benefit from pregabalin treatment.

*Reviewer.* Giovanni Elia, MD FAAPM, University of California San Francisco, San Francisco, CA.

*Source.* Jiang J, Li Y, Shen Q, et al. Effect of pregabalin on radiotherapy-related neuropathic pain in patients with head and neck cancer: a randomized controlled trial. *J Clin Oncol.* 2019;37(2):135-143.

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#### Rave Reviews

Mahna D, Puri S, Sharma S. DNA methylation signatures: biomarkers of drug and alcohol abuse. *Mut Res.* 2018;777:19-28.

Opioid use disorder, using opioids and other drugs for nonmedical purposes, has become an epidemic in this country. Recently, epigenetic modifications influencing gene expression have gathered increasing attention by researchers and include DNA methylation, chromatin remodeling, noncoding RNA, and histone modifications. This review article highlights the effect of various drugs on DNA methylation. In the future, methylation patterns may be used as a biomarker of opioid dependence and could provide insight into how the environment, drug exposure, and disease are interconnected.

Wilgosz J, Goldberg SB, Kral TRA, Dunne JD, Davidson RJ. Mindfulness meditation and psychopathology [Published online ahead of print December 10, 2018]. *Ann Rev Clin Psychol.* <https://doi.org/10.1146/annurev-clinpsy-021815-093423>.

Eastern religious and spiritual practitioners have advocated meditation to reduce suffering. This review of mindfulness meditation, which is being increasingly incorporated as a nonpharmacological approach for symptom improvement, highlights the basic neuroscience and potential beneficial applications for symptoms of depression, anxiety, chronic pain, and substance abuse.

#### PC-FACS Feedback

We appreciate your feedback. Help us help you—send your comments to [pc-facs@aahpm.org](mailto:pc-facs@aahpm.org).

PC-FACS was created in 2005 by Founding Editor-in-Chief Amy P. Abernethy, MD, PhD, FACP, FAAHPM. The Academy is deeply grateful to Dr. Abernethy for creating this important publication and for her many contributions to the field of hospice and palliative medicine.

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