

Staff Training Interventions to Improve End-of-Life Care of Nursing Home Residents

Lamppu P, Pitkala K

The aim was to review evidence from all randomized controlled trials (RCTs) using palliative care education or staff training as an intervention to improve nursing home residents' quality of life (QOL) or quality of dying (QOD) or to reduce burdensome hospitalizations. **Design:** A systematic review with a narrative summary. **Setting and Participants:** Residents in nursing homes and other long-term care facilities. **Methods:** We searched MEDLINE, CINAHL, PsycINFO, the Cochrane Library, Scopus, and Google Scholar, references of known articles, previous reviews, and recent volumes of key journals. RCTs were included in the review. Methodologic quality was assessed. **Results:** The search yielded 932 articles after removing the duplicates. Of them, 16 cluster RCTs fulfilled inclusion criteria for analysis. There was a great variety in the interventions with respect to learning methods, intensity, complexity, and length of staff training. Most interventions featured other elements besides staff training. In the 6 high-quality trials, only 1 showed a reduction in hospitalizations, whereas among 6 moderate-quality trials 2 suggested a reduction in hospitalizations. None of the high-quality trials showed effects on residents' QOL or QOD. Staff reported an improved QOD in 1 moderate-quality trial. **Conclusions and Implications:** Irrespective of the means of staff training, there were surprisingly few effects of education on residents' QOL, QOD, or burdensome hospitalizations. Further studies are needed to explore the reasons behind these findings. *J Am Med Dir Assoc* 2021;22(2):268-278

Palliative and End-of-life Care for the Older Adult with Cancer

Huynh L, Moore J

Despite established benefits of palliative care in the oncology population, it remains an underutilized resource particularly among older adults. The illness trajectory and needs of an older adult with cancer are unique. The purpose of this paper is to review the current literature on providing comprehensive palliative and end-of-life care for the older adult with cancer. **Recent findings:** Though the difficulties of applying traditional palliative care principles in the older patients with cancer have been discussed, this review reveals a clear gap in the literature in discussing the provision of comprehensive palliative and end-of-life care in this population. Very few articles have been published in this domain with even fewer published within the past 18 months. **Summary:** As such, this article reviews key aspects of palliative and geriatric medicine that need to be considered and integrated in order to provide comprehensive palliative care to the older adult with cancer. This includes a discussion of proper pain and symptoms assessment, performance status assessment, advance care planning, and end-of-life care while considering the nuances of geriatric syndromes. *Curr Opin Support Palliat Care* 2021;15(1):23-28

Systematic Review of the Efficacy and Safety of Over-the-Counter Medications Used in Older People for the Treatment of Primary Insomnia

Almond S, Warren M, Shealy K, et al

The purpose of this systematic review is to evaluate the available evidence for safety and efficacy of over-the-counter (OTC) sleep aids used for the treatment of insomnia in older people. **Data Sources:** PubMed, EBSCO, and International Pharmaceutical Abstracts. **Study Selection:** Five studies were included that involved humans 65 years of age and older being evaluated on OTC sleep aids in the outpatient setting. **Data Extraction:** Data extraction from each study included primary and secondary efficacy endpoints, such as differences in the mean total sleep time, sleep latency, sleep efficiency, and number of awakenings, along with safety endpoints, such as psychomotor ability, cognitive ability, and adverse effect profiles. Both subjective and objective measures of changes in sleep and adverse effects were included. **Data Synthesis:** Diphenhydramine had a statistically significant increase in sedation and decrease in number of awakenings but was not shown to be any less or more safe than compared products. Despite lacking safety issues, valerian was found to have no effect on subjective or objective sleep outcomes. Overall, melatonin had the most evidence and was found to have a statistically significant positive impact on sleep measures without safety issues. **Conclusion:** Diphenhydramine and melatonin appear to be efficacious in improving some sleep measures while causing minimal adverse effects. However, there are very few studies that examine the use of over-the-counter sleep aids in those 65 years of age and older with primary insomnia. Additional studies are needed in this population. *Sr Care Pharm* 2021;36(2):83-91

Palliative Care in Movement Disorders: an Evolving Field

Macchi Z, Tarolli C, Kluger B

This review summarizes the current state of evidence for palliative care (PC) in movement disorders, describes the application of PC to clinical practice, and suggests future research directions. Recent findings: PC needs are common in persons living with movement disorders and their families from the time of diagnosis through end-of-life and contribute to quality of life. Early advance care planning is preferred by patients, impacts outcomes and is promoted by PC frameworks. Systematic assessment of non-motor symptoms, psychosocial needs and spiritual/existential distress may address gaps in current models of care. Several complementary and emerging models of PC may be utilized to meet the needs of this population. A PC approach may identify and improve important patient and caregiver-centered outcomes. As a relatively new application of PC, there is a need for research to adapt, develop and implement approaches to meet the unique needs of this population. *Curr Neurol Neurosci Rep* 2021;21(3):5

Full text is freely available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7840426/>

Patient-Reported Outcomes of Pain and Related Symptoms in Integrative Oncology Practice and Clinical Research: Evidence and Recommendations

Zhi W, Gentile D, Diller M, et al

Pain is a primary concern among patients with cancer and cancer survivors. Integrative interventions such as acupuncture, massage, and music therapy are effective nonpharmacologic approaches for cancer pain with low cost and minimal adverse events. Patient-reported outcomes (PROs) that have been validated in many clinical and research settings can be used to evaluate pain intensity, associated symptom burden, and quality of life. Clearly defined, reliable PROs can improve patient satisfaction and symptom control. As integrative oncology continues to evolve and expand, cancer-related pain PROs must be standardized to accurately guide clinicians and researchers. Well-validated pain PROs, such as the Brief Pain Inventory, are among the most commonly used for pain intensity assessment. Multiple symptom assessment tools such as the MD Anderson Symptom Inventory, the Memorial Symptom Assessment Scale, the Edmonton Symptom Assessment System, and the Patient-Reported Outcomes–Common Terminology Criteria for Adverse Events measurement system can also capture pain-associated symptom burden. Electronic PROs provide flexibility in collecting and analyzing PRO data. Clinical trials using carefully selected PROs and rigorous statistical analysis plans are fundamental to conducting high-quality integrative oncology research and promoting utilization of effective integrative interventions to improve patient outcomes. In this review, we aim to summarize current, validated PROs specific to cancer-related pain to aid integrative oncology clinicians and researchers in patient care and in study design and implementation. *Oncology* 2021;35(1):35-41

Full text is freely available at <https://www.cancernetwork.com/view/patient-reported-outcomes-of-pain-and-related-symptoms-in-integrative-oncology-practice-and-clinical-research-evidence-and-recommendations>

Strategies to Simplify Complex Medication Regimens

Bell J, McInerney B, Chen E, et al

Older people use increasingly complex medication regimens. Complex regimens are challenging to administer, particularly for those with cognitive impairment, frailty, poor eyesight or limited dexterity. Complex regimens have been linked to non-adherence, medication errors and hospital admissions. **Objective:** The aim of this article is to describe strategies to reduce the complexity of medication regimens in community and residential aged care settings. **Discussion:** Medication regimen simplification is the process of reducing medication burden through strategies such as consolidating dosing times, standardising routes of administration, using long-acting rather than shorter-acting formulations, and switching to combination products in place of single-ingredient products. Obtaining a best possible medication history, ensuring appropriateness of current therapy, and deprescribing are important steps prior to implementing regimen simplification. Implementing such strategies should be based on a discussion and consideration of patient preferences, and include clinical judgement to limit the risk of unintended consequences for patients or carers. *Aust J Gen Pract.* 2021;50(1-2):43-48

Euthanasia and Physician-Assisted Suicide in Patients With Multiple Geriatric Syndromes

Van den Berg V, van Thiel G, Zomers M, et al

The Dutch Regional Euthanasia Review Committees (RTEs) reviewed and reported an increasing number of cases of euthanasia and physician-assisted suicide (EAS) requested by older people with multiple geriatric syndromes (MGS). Knowledge of the characteristics of cases of EAS for MGS is important to facilitate societal debate and to monitor EAS practice. **Objective:** To examine the accumulation of patient characteristics, geriatric syndromes, and other circumstances as reported in the case summaries of the RTEs that led to unbearable suffering associated with a request for EAS and to analyze the RTEs' assessments of these cases of EAS. **Design, Setting, and Participants:** A qualitative content analysis was conducted of all case summaries filed from January 1, 2013, to December 31, 2019, under the category MGS and published in a national open access database. These case summaries were selected by the RTEs from the total of 1605 reported cases of EAS in the category MGS. **Results:** The RTEs published 53 cases (41 [77%] female) under the category MGS. A total of 28 patients (53%) had always perceived themselves as independent, active, and socially involved. None of the patients suffered from life-threatening conditions. Multiple geriatric syndromes, such as visual impairment (34 cases [64%]), hearing loss (28 cases [53%]), pain (25 cases [47%]), and chronic tiredness (22 cases [42%]), were common. The request for EAS was often preceded by a sequence of events, especially recurrent falls (33 cases [62%]). Although physical suffering could be determined in all cases, the case descriptions found that suffering occurred on multiple dimensions, such as the loss of mobility (44 [83%]), fears (21 [40%]), dependence (23 [43%]), and social isolation (19 [36%]). **Conclusions and Relevance:** This qualitative study suggests that an accumulation of geriatric syndromes leading to a request for EAS is often intertwined with the social and existential dimension of suffering. This leads to a complex interplay of physical, psychological, and existential suffering that changes over time. *JAMA Intern Med* 2021;181(2):245-250

Frequency and Characteristics of First-Time Palliative Care Referrals During the Last Day of Life

Heung Y, Azhar A, Naqvi S, et al

Palliative care referrals (PCRs) improve symptom management, provide psychosocial and spiritual support, clarify goals of care, and facilitate discharge planning. However, very late PCR can result in increased clinician distress and prevent patients and families from benefiting from the full spectrum of interdisciplinary care. **Objectives:** To determine the frequency and predictors of PCR within 24 hours of death. **Methods:** Consecutive first-time inpatient PCR from September 1, 2013 to August 31, 2017 was identified to determine the frequency and predictors of referrals within 24 hours of death. We compared the clinical characteristics with a random sample of patients discharged alive or died more than 24 hours after first-time PCR as a control, stratified by year of consult in a 1:1 ratio. **Results:** Of 7322 first-time PCRs, 154 (2%) died within 24 hours of referral. These patients were older ($P = 0.003$) and had higher scores for depression ($P = 0.0009$), drowsiness ($P = 0.02$), and shortness of breath ($P = 0.008$) compared with a random sample of 153 patients discharged alive or died more than 24 hours after first-time PCR. Patients who received a PCR within 24 hours of death were more likely than the control group to have Eastern Cooperative Oncology Group 4 (95% vs. 25%, $P < 0.0001$), delirium (89% vs. 17%, $P < 0.0001$), do-not-resuscitate code status (81% vs. 18%, $P < 0.0001$), and hematologic malignancies (39% vs. 16%, $P < 0.0001$). In the multivariate analysis, depression (odds ratio [OR] 1.4; $P = 0.005$), do-not-resuscitate code status (OR 9.1; $P = 0.003$), and Eastern Cooperative Oncology Group 4 (OR 9.8; $P = 0.003$) were independently associated with first-time PCR within 24 hours of death. **Conclusion:** Although only a small proportion of first-time PCR occurred in the last 24 hours of life, the patients had a significant amount of distress, indicating a missed opportunity for timely palliative care intervention. These sentinel events call for specific guidelines to better support patients, families, and clinicians during this difficult time. Further research is needed to understand how to minimize very late PCR. *J Pain Symptom Manage* 2021;61(2):358-363

Progression of Behavioral Disturbances and Neuropsychiatric Symptoms in Patients With Genetic Frontotemporal Dementia

Benussi A, Premi E, Gazzina S, et al

Behavioral disturbances are core features of frontotemporal dementia (FTD); however, symptom progression across the course of disease is not well characterized in genetic FTD. **Objective:** To investigate behavioral symptom frequency and severity and their evolution and progression in different forms of genetic FTD. **Design, Setting, and Participants:** This longitudinal cohort study, the international Genetic FTD Initiative (GENFI), was conducted from January 30, 2012, to May 31, 2019, at 23 multicenter specialist tertiary FTD research clinics in the Europe and Canada. Participants included a consecutive sample of 232 symptomatic FTD gene variation carriers comprising 115 with variations in C9orf72, 78 in GRN, and 39 in MAPT. A total of 101 carriers had at least 1 follow-up evaluation (for a total of 400 assessments). Gene variations were included only if considered pathogenetic. **Main Outcomes and Measures:** Behavioral and neuropsychiatric symptoms were assessed across disease duration and evaluated from symptom onset. Hierarchical generalized linear mixed models were used to model behavioral and neuropsychiatric measures as a function of disease duration and variation. **Results:** Of 232 patients with FTD, 115 (49.6%) had a C9orf72 expansion (median age at evaluation, 64.3 years; 72 men [62.6%]), 78 (33.6%) had a GRN variant (median age, 63.4 years; 40 women [51.3%]), and 39 (16.8%) had a MAPT variant (median age, 56.3 years; 25 men [64.1%]). All core behavioral symptoms, including disinhibition, apathy, loss of empathy, perseverative behavior, and hyperorality, were highly expressed in all gene variant carriers (>50% patients), with apathy being one of the most common and severe symptoms throughout the disease course. Patients with MAPT variants showed the highest frequency and severity of most behavioral symptoms, particularly disinhibition and compulsive behavior, compared with C9orf72 carriers and GRN carriers. Alongside behavioral symptoms, neuropsychiatric symptoms were very frequently reported in patients with genetic FTD: anxiety and depression were most common in GRN carriers and MAPT carriers; hallucinations, particularly auditory and visual, were most common in C9orf72 carriers. Most behavioral and neuropsychiatric symptoms increased in the early-intermediate phases and plateaued in the late stages of disease, except for depression, which steadily declined in C9orf72 carriers, and depression and anxiety, which surged only in the late stages in GRN carriers. **Conclusions and Relevance:** This cohort study suggests that behavioral and neuropsychiatric disturbances differ between the common FTD gene variants and have different trajectories throughout the course of disease. These findings have crucial implications for counseling patients and caregivers and for the design of disease-modifying treatment trials in genetic FTD. *JAMA Netw Open* 2021;4(1):e2030194

Full text is freely available at <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2774641>

Short Hospice Length of Service in a Comprehensive Cancer Center

Sedhom R, Gupta A, Smith T

The benefits of hospice for patients with advanced cancer are well established. Short hospice length of service (LOS) is a marker of poor quality care and patient and family dissatisfaction. Interventions based on behavioral science might reduce suboptimal hospice use. **Objective:** To assess effects of peer comparisons on rates of short hospice LOS for cancer patients at a tertiary comprehensive cancer center. **Design:** Pre-post design utilizing a peer-comparison feedback intervention comparing individual oncologist hospice data. **Setting:** Urban, academic, comprehensive cancer center in Maryland. **Measurements:** Hospice enrollment rate. Median hospice LOS and percentage short hospice LOS (defined as ≤ 7 days). **Results:** Sixty oncologists received the intervention. Before the intervention, 394 patients enrolled in hospice for a period of 21 months (18.76 enrollments per month). Median hospice LOS was 14.5 days. After the intervention, 418 patients enrolled in hospice for 14 months (29.85 enrollments per month). Median hospice LOS was nine days. The percentage of patients experiencing a short hospice LOS increased from 33.3% to 43.5%. **Conclusions:** The methods are not sufficient to conclude that the intervention does not improve hospice use. A substantial number of patients with cancer who used hospice had LOS ≤ 7 days, a marker of poor quality. Using peer comparison in combination with additional behavioral interventions should be considered to improve end-of-life care. *J Palliat Med* 2021;24(2):257-260

Hospilink includes news briefs and abstracts of the current literature related to hospice and palliative care. Since abstracts are not always accurate reflections of the content of the article, please refer to the complete journal article before making changes to practice or patient care based on the information contained in this update. Editor: Bridget McCrate Protus, PharmD, MLIS, BCGP, CDP bridget.protus@optum.com