Pharmacokinetics of Phenobarbital in Microenema via Macy Catheter versus Suppository
Lam YWF, Lam A, Macy B

The oral route is compromised for nearly all patients approaching death. When agitation, seizures, or other intractable symptoms occur, a quick, discreet, comfortable, and effective alternate route for medication delivery that is easy to administer in the home setting is highly desirable. **Objectives:** To characterize the early absorption profile, variability, and comfort of phenobarbital given in microenema suspensions delivered via the Macy Catheter® (MC) vs. the same dose given via suppository. **Methods:** This was a randomized, open-label, crossover study comparing the early absorption profile of equal doses of phenobarbital administered rectally in three treatment phases: phenobarbital suppository and two different microenemas with phenobarbital tablets crushed and suspended in 6 mL (MC-6) or 20 mL (MC-20) of tap water. **Results:** Mean plasma phenobarbital concentrations at 10 minutes were 12× higher for MC-20 and 8× higher for MC-6 compared to suppository. Concentrations achieved in 30 minutes via MC-20 took almost three hours to achieve with suppository. Mean AUC values were higher for MC-20 and MC-6 (82% and 46%, respectively) vs. suppository (P < 0.05). There was less variability in absorption for MC-20 and MC-6 (1.4- to 1.9-fold difference) compared to a 4.4-fold difference via suppository. MC administrations were reported as “not uncomfortable” compared to suppositories, which were reported as “mildly uncomfortable” (P < 0.05). **Conclusion:** These results suggest phenobarbital oral tablets crushed and suspended in water and administered via the MC is superior to suppository in delivering the medication reliably and rapidly. *J Pain Symptom Manage* 2016;51(6):994-1001

Full text of this article is freely available at [http://www.jpsmjournal.com/article/S0885-3924(16)30047-1/fulltext](http://www.jpsmjournal.com/article/S0885-3924(16)30047-1/fulltext)

Acetylcholinesterase Inhibitors for Delirium in Older Adults
Tampi R, Tampi D, Ghorri A

**Objectives:** The aim of this systematic review is to identify published randomized controlled trials (RCTs) that evaluated the use of acetylcholinesterase inhibitors for delirium in older adults (≥60 years). **Methods:** A literature search was conducted of PubMed, MEDLINE, EMBASE, PsycINFO, and Cochrane collaboration databases for RCTs in any language that evaluated the use of acetylcholinesterase inhibitors for delirium in older adults (≥60 years). Also, bibliographic databases of the published articles were searched for additional studies. **Results:** A total of 7 RCTs that evaluated the use of acetylcholinesterase inhibitors for delirium in older adults (≥60 years) were identified. In 5 of the 7 studies, there was no benefit for the acetylcholinesterase inhibitor in either the prevention or the management of delirium. In one study, there was a trend toward benefit for the active drug group on the incidence of delirium and the length of hospital stay, but both outcomes did not attain statistical significance. One study found a longer duration of delirium and a longer length of hospital stay in the active drug group when compared to the placebo group. The acetylcholinesterase inhibitors were well tolerated in 4 of the 7 studies. In 1 study, the mortality rate was found to be almost 3 times higher in the group receiving haloperidol and rivastigmine when compared to the group receiving haloperidol and placebo. **Conclusion:** Current evidence does not suggest efficacy of acetylcholinesterase inhibitors for the prevention or management of delirium in older adults. *Am J Alzheimers Dis Other Demen* 2016;31(4):305-310

Drug-Device Combinations: Are They Appropriate for the Aging Population?
Kubus C, Wick J

Hundreds of marketed products combine drugs with delivery devices. Experts estimate that these drug-device combinations (DDCs) generated nearly $24 billion in sales in 2014. DDCs appeal to clinicians and consumers for several reasons. Drugs delivered with a technology-assist may cause fewer side effects, avoid systemic exposure, result in a higher degree of efficacy, or create consistent blood levels. When physicians prescribe a DDC, consultant pharmacists have a unique role: ensuring patients can use the DDC appropriately. Available DDCs require some degree of eye-hand coordination, and older individuals often have difficulty with vision, dexterity, and grip strength. This review primarily discusses three types of DDC: those designed for diabetics, inhalers, and transdermal DDCs, and the characteristics that can challenge older patients. *Consult Pharm* 2016;31(5): 240-250
Associations between Alcohol Use, Polypharmacy, and Falls in the Older Adult
Wong H, Heuberger R, Logomarsino J, Hewlings S

Aims: To describe the prevalence of alcohol intake, medication use and falls, evaluate the association between alcohol intake and medication use, and assess the effects of use of alcohol, medication and/or both on the occurrence of falls. Method: Trained interviewers collected information on self-reported frequency of alcohol consumption, medication use and falls in a cross-sectional sample of 2,444 community-dwelling older adults in rural US. Polypharmacy was defined as taking five or more medications. Results: Of the sample, 38% consumed alcohol, 83% used medication and 19% had fallen. The ingestion of alcohol was inversely associated with the likelihood of taking medication, but had no statistically significant association with incidence of falls. Analyses with logistic regression indicated that alcohol intake was not a significant predictor of falls. Medication was positively related to, and a significant predictor of, falls. Conclusion: Nurses working with older people should be aware of medications that increase the risk of falls. Potentially deleterious falls may be prevented through ongoing risk-benefit assessment of prescribed medicines and, when feasible, use of non-pharmacological interventions. Nurs Older People 2016;28(1):30-36

Midwifing the End of Life: Expanding the Scope of Modern Midwifery Practice to Reclaim Palliative Care
Van Hoover C, Holt L

Historically, midwives held an important role in society as cradle-to-grave practitioners who eased individuals, families, and communities through difficult transitions across the life span. In the United States, during the first half of the 20th century, physicians assumed care for people during birth and death, moving these elements of the human experience from homes into the hospital setting. These changes in practice resulted in a dehumanization of birth and death experiences and led to detachment from what it means to be human among members of society. There is a current movement across the United States to incorporate palliative care and hospice care into both the home setting and the inpatient setting. Through their education and training, certified nurse-midwives/certified midwives (CNMs/CMs) are well equipped to serve as hospice and palliative care clinicians. Current midwives, skilled in assisting women and families through the transition of pregnancy to motherhood, can use their education and skills to help individuals and their families through the transition from life to death. The similarities between these states of the human experience (pregnancy to birth and terminal illness to death) allow for fluidity between these experiences from the midwife perspective. The many parallels between these 2 elements of the human condition include stress, anxiety, and pain. Training in holistic approaches to symptom management and supporting individuals through difficult experiences (eg, birth) gives midwives a unique perspective that is readily translatable to assist individuals and families through the passage between life and death. J Midwifery Womens Health 2016;61(3):306-314

Fidget Blankets: A Sensory Stimulation Outreach Program
Kroustos KR, Trautwein H, Kerns R, Sobota KF

Behavioral and Psychological Symptoms of Dementia (BPSD) include behaviors such as aberrant motor behavior, agitation, anxiety, apathy, delusions, depression, disinhibition, elation, hallucinations, irritability, and sleep or appetite changes. The current literature suggests that overall sensory de-privation in patients with dementia contributes to behavioral problems and worsening of BPSD. The pharmacist is in a unique position to display knowledge outside of pharmacologic interventions and can play a vital role in the interdisciplinary approach to behavioral management within the dementia population. A student-led project to provide sensory stimulation in the form of “fidget blankets” developed into a community outreach program. The goal was to decrease the use of antipsychotics used for BPSD. Consult Pharm 2016;31(6):320-324
Opportunities to Maximize Value with Integrated Palliative Care
Berman J, Laviana A

Palliative care involves aggressively addressing and treating psychosocial, spiritual, religious, and family concerns, as well as considering the overall psychosocial structures supporting a patient. The concept of integrated palliative care removes the either/or decision a patient needs to make: they need not decide if they want either aggressive chemotherapy from their oncologist or symptom-guided palliative care but rather they can be comanaged by several clinicians, including a palliative care clinician, to maximize the benefit to them. One common misconception about palliative care and supportive care in general, is that it amounts to "doing nothing" or "giving up" on aggressive treatments for patients. Rather, palliative care involves very aggressive care, targeted at patient symptoms, quality-of-life, psychosocial needs, family needs, and others. Integrating palliative care into the care plan for individuals with advanced diseases does not necessarily imply that a patient must forego other treatment options, including those aimed at a cure, prolonging of life, or palliation. Implementing interventions to understand patient preferences and to ensure those preferences are addressed, including preferences related to palliative and supportive care, is vital in improving the patient-centeredness and value of surgical care. Given our aging population and the disproportionate cost of end-of-life care, this holds great hope in bending the cost curve of health care spending, ensuring patient-centeredness, and improving quality and value of care. Level 1 evidence supports this model, and it has been achieved in several settings; the next necessary step is to disseminate such models more broadly. J Multidiscip Health 2016;9:219-216

Full text of this article is freely available at https://www.dovepress.com/opportunities-to-maximize-value-with-integrated-palliative-care-peer-reviewed-fulltext-article-JMDH

Life and Treatment Goals of Patients with Advanced, Incurable Cancer
Rand K, Banno D, Shea A, Cripe L

Goals of care conversations have been suggested as a strategy for helping patients with advanced cancer manage the uncertainty and distress associated with end-of-life care. However, knowledge deficits about patient goals limit the utility of such conversations. We described the life and treatment goals of patients with incurable cancers, including goal values and expectancies. We examined the associations between paramount goals and patient prognosis, performance status, and psychological adjustment. Methods: Patients with advanced lung cancer, gastrointestinal cancer, or melanoma (N = 84) completed measures of prognosis for 12-month survival, hope, optimism, depression, and anxiety. Oncologists provided patient performance status and prognosis for 12-month survival. We conducted interviews with a subset of patients (N = 63), eliciting life and treatment goals, values, and expectancies. Results: Patient life goals resembled goals among healthy populations; whereas, treatment goals were perceived as separate and more important. Cure and fight cancer emerged as the most important goals. Patients who valued cure the most had worse performance status (M = 1.46 vs. 0.78) and more depressive symptoms (M = 6.30 vs. 3.50). Patients who valued fight cancer the most had worse self-prognosis (M = 69.23 % vs. 86.11 %), fewer treatment goals (M = 2.08 vs. 3.16), and lower optimism (M = 15.00 vs. 18.32). Conclusions: Patients with advanced cancer perceive treatment goals as separate from and more important than life goals. They hold optimistic expectancies for achieving their goals and for survival. Valuing cure highly may put patients at risk for experiencing psychological maladjustment. Support Care Canc 2016;24(7):2953-2962

When a Patient Discusses Assisted Dying: Nursing Practice Implications
Lehto R, Olsen D, Chan R

Patients with terminal illness in their final stages of life may contemplate their options for death and dying. There has been growing public interest and media attention regarding patient decision making and autonomy at the end of life. The article provides updated legal and ethical discussion about issues and trends associated with the assisted dying debate. A case study of a patient who was considering assisted dying via moving to the state of Oregon is presented. Practical strategies and resources for palliative care and hospice nurses who may have dialogue with patients relative to end-of-life concerns are described. J Hosp Palliat Nurs 2016;18(3):184-191
Longitudinal Analysis of Severe Anxiety Symptoms in the Last Year of Life among Patients with Advanced Cancer: Relationships with Proximity to Death, Burden, and Social Support


Temporal changes in the prevalence of anxiety disorders/symptoms for patients with cancer at the end of life (EOL) remain unclear. This study was undertaken to describe changes in the prevalence of severe anxiety symptoms and to identify its correlates in the last year of life for patients with cancer. **Methods:** A convenience sample of 325 patients with cancer was followed until death. Severe anxiety symptoms were identified as anxiety subscale scores of 11 or greater on the Hospital Anxiety and Depression Scale. Longitudinal changes in and correlates of severe anxiety symptoms were examined from demographics, disease-related characteristics, disease burden, perceived burden to others, and social support using multivariate logistic regression modeling with generalized estimating equations. **Results:** The prevalence of severe anxiety symptoms increased as death approached (18.6%, 21.9%, 26.7%, and 33.4% at 181–365, 91–180, 31–90, and 1–30 days before death, respectively). However, after controlling for covariates, this temporal increase was not significant. The prevalence of severe anxiety symptoms was not associated with fixed demographics and disease-related characteristics, except for diagnosis and metastatic status, but was significantly higher in patients with cancer with high physical symptom distress, severe depressive symptoms, high perceived burden to others, and strong perceived social support. **Conclusions:** Severe anxiety symptoms were not associated with time proximity to death per se but were related to factors modifiable by high-quality EOL care. Clinicians may decrease the likelihood of severe anxiety symptoms at EOL by adequately managing physical and depressive symptoms and lightening perceived burden to others for patients strongly connected with their social network to improve their psychological well-being. *J Natl Compr Canc Netw* 2016;14:727-734

Breathlessness in Elderly Adults during the Last Year of Life Sufficient to Restrict Activity: Prevalence, Pattern, and Associated Factors


**Objectives:** To investigate relationships between age, clinical characteristics, and breathlessness sufficient to have people spend at least half a day a month in bed or to cut down on their usual activities (restricting breathlessness) during the last year of life. Participants: Community dwelling, nondisabled persons aged 70 and older (N=754). Measurements: Monthly telephone interviews were conducted to determine the occurrence of restricting breathlessness. The primary outcome was percentage of months with restricting breathlessness reported during the last year of life. Results: Data regarding breathlessness were available for 548 of 589 (93.0%) participants who died (mean age 86.7, range 71-106; 38.8% male) between enrollment (March 1998 to October 1999) and June 2013; 311 of these (56.8%) reported restricting breathlessness at some point during the last year of life, but none reported it every month. Frequency increased in the months closer to death, irrespective of cause. Restricting breathlessness was associated with anxiety (0.25 percentage points greater in months with breathlessness per percentage point months reported anxiety, 95% confidence interval (CI)=0.16-0.34, P<.001), depression (0.14, 95% CI=0.05-0.24, P=.003), and mobility problems (0.07, 0.03-0.1, P<.001). Percentage months of restricting breathlessness was greater if chronic lung disease was noted at the most-recent comprehensive assessment (6.62 percentage points, 95% CI=4.31-8.94, P<.001), heart failure (3.34 percentage points, 95% CI=0.71-5.97, P=.01), and ex-smoker status (3.01 percentage points, 95% CI=0.94-5.07, P=.004) but decreased with older age (-0.19 percentage points, 95% CI=-0.37 to -0.02, P=.03). Conclusion: Restricting breathlessness increased in this elderly population in the months preceding death from any cause. Breathlessness should be assessed and managed in the context of poor prognosis. *J Am Geriatr Soc* 2016; 64(1):73-80