

This newsletter 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, CGP, [druginformation@hospiscript.com](mailto:druginformation@hospiscript.com)

## **Evaluation of Subcutaneous Phenobarbital Administration in Hospice Patients**

Hosgood J, Kimbrel J, Protus B, Grauer P

Phenobarbital is used in hospice and palliative care to treat refractory symptoms. In end-of-life care, Food and Drug Administration approved routes of administration may be unreasonable based on patients' status. In these cases, phenobarbital may be administered subcutaneously for symptom management. However, according to the American Hospital Formulary Service, subcutaneous administration of commercially available injectable phenobarbital is cautioned due to possible skin reactions. This study evaluates the tolerability of phenobarbital administered subcutaneously. Of 69 patients and 774 distinct subcutaneous phenobarbital injections, 2 site reactions were recorded (2.9% of patients; 0.3% of injections). Both were mild, grade 1 reactions. Each patient continued to receive subcutaneous phenobarbital via newly placed ports with no additional reactions. Based on these findings, phenobarbital appears to be well tolerated when administered subcutaneously. *Am J Hosp Palliat Med* 2016;33(3):209-213

## **Physical Restraint and Antipsychotic Medication Use Among Nursing Home Residents With Dementia**

Foebel A, Onder G, Finne-Soveri H, Lukas A, et al

**PURPOSE:** To explore antipsychotic (AP) medications and physical restraint use and their effects on physical function and cognition in older nursing home residents. **METHODS:** This retrospective cohort study involved 532 residents with dementia from 57 nursing homes participating in the Services and Health for Elderly in Long-Term Care study. Poisson log regression models explored the effect of physical restraint and/or AP medication use on cognitive or functional decline at 6 months. **RESULTS:** Physical restraint use was associated with a higher risk of both functional and cognitive decline compared with AP medication use alone. These risks were highest among residents receiving both AP medications and physical restraints, suggesting additive effects. **DISCUSSION:** Physical restraint use, and even more strongly, concurrent physical restraint and AP medication use, is related to function and cognitive decline in nursing home residents with dementia. Antipsychotic use is cautioned, but these results suggest physical restraint use is potentially more risky. *J Am Dir Assoc* 2016;17(2):184e9-184e14

## **Companion Animals and Well-Being in Palliative Care Nursing: A Literature Review**

MacDonald J, Barrett D

**Aims and objectives:** To evaluate and critique current knowledge regarding the role of animals in palliative care. To explore the impact that animals may have on the well-being of individuals and to identify gaps in the evidence base. **Background:** There is recognition that having a companion animal will affect patient experience. Similarly, there has been some previous exploration on the use of specific animal assisted therapies for patients with different healthcare needs. **Design:** A literature review was conducted to identify published and unpublished research about companion animals or animal-assisted therapy in palliative and/or end-of-life care. The primary objective was to explore the impact of animals on well-being at the end of life. **Methods:** A search for literature was carried out using a variety of databases and different combinations of search terms linked to animals in palliative care. Included works were critically appraised and thematically analysed. **Results:** A limited range of literature was identified. From the small number of studies included in the review (n = 4), it appears that there is some evidence of animals (either companion animals or those used specifically to enhance care) having a positive impact on the patient experience. **Conclusion:** This study suggests that animals play a large part in the lives of people receiving palliative care. Using animals to support care may also offer some benefits to the patient experience. However, there appears to be a dearth of high-quality literature in this area. More research is therefore required. **Relevance to clinical practice:** Nurses providing palliative care need to be aware of the part that a companion animal may play in the life of patients. There may also be the opportunity for nurses in some settings to integrate animal therapy into their provision of palliative care. *J Clin Nurs* 2016;25(3-4):300-310

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## **Hypoglycaemia in Elderly Patients with Type 2 Diabetes Mellitus: a Review of Risk Factors, Consequences and Prevention**

Jafari B, Britton M

The prevalence of diabetes in the elderly is high. Hypoglycaemia is a treatment-related complication of diabetes. Owing to age-related changes, decreased perception of hypoglycaemic symptoms, comorbidities and polypharmacy, elderly diabetic persons are at a greater risk of developing hypoglycaemia. Other risk factors include longer duration of diabetes, history of previous hypoglycaemic episodes, intensive glycaemic control, poor nutrition or missed meals and recent hospitalisation. Insulin and sulphonylureas are the medication classes most frequently associated with hypoglycaemia. Other antidiabetic medications typically cause hypoglycaemia only when used in combination with sulphonylureas or insulin. Hypoglycaemia in older people is associated with loss of independence, increased morbidity and mortality. Prevention of hypoglycaemia requires recognition of the risk, identification of precipitating factors, patient and caregiver education, appropriate prescribing and ongoing health professional support. *J Pharm Pract Res* 2015;45(4):459-469

**Full text of this article is freely available at <http://onlinelibrary.wiley.com/doi/10.1002/jppr.1163/full>**

## **Management of Diabetes in Long-term Care and Skilled Nursing Facilities: A Position Statement of the American Diabetes Association**

Munshi M, Florez H, Huang E, Kalyani R, et al

Diabetes is more common in older adults, has a high prevalence in long-term care (LTC) facilities, and is associated with significant disease burden and higher cost. The heterogeneity of this population with regard to comorbidities and overall health status is critical to establishing personalized goals and treatments for diabetes. The risk of hypoglycemia is the most important factor in determining glycemic goals due to the catastrophic consequences in this population. Simplified treatment regimens are preferred, and the sole use of sliding scale insulin (SSI) should be avoided. This position statement provides a classification system for older adults in LTC settings, describes how diabetes goals and management should be tailored based on comorbidities, delineates key issues to consider when using glucose-lowering agents in this population, and provides recommendations on how to replace SSI in LTC facilities. As these patients transition from one setting to another, or from one provider to another, their risk for adverse events increases. Strategies are presented to reduce these risks and ensure safe transitions. This article addresses diabetes management at end of life and in those receiving palliative and hospice care. The integration of diabetes management into LTC facilities is important and requires an interprofessional team approach. To facilitate this approach, acceptance by administrative personnel is needed, as are protocols and possibly system changes. It is important for clinicians to understand the characteristics, challenges, and barriers related to the older population living in LTC facilities as well as the proper functioning of the facilities themselves. Once these challenges are identified, individualized approaches can be designed to improve diabetes management while lowering the risk of hypoglycemia and ultimately improving quality of life. *Diabetes Care* 2016;39(2):308-318

**Full text of this article is freely available at <http://care.diabetesjournals.org/content/39/2/308.long>**

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## **Advancing Pharmacotherapy for Treating Huntington's Disease: a Review of the Existing Literature**

Mason S, Barker R

**Introduction:** Huntington's disease (HD) is an incurable chronic neurodegenerative disorder that typically presents in mid-life with a range of motor, cognitive and affective problems. Patients are currently managed using a combination of drug treatments and non-pharmacological therapies but at present there is no "gold standard" treatment for any aspect of the disease. **Areas covered:** In this review the empirical evidence supporting the use of drugs commonly used to treat HD was discussed. In particular, we focus on therapeutics that have either reached phase 3 clinical trials or are already in clinical use. **Expert opinion:** The results confirmed that there is a striking lack of evidence to support the efficacy of the drugs currently used in the management of HD. In fact, many drugs are prescribed on the basis of case reports, open label studies, small double blind placebo control trials of limited duration, or personal clinical experience. However of late, the establishment of large international databases, capturing all patients and their clinical details regardless of stage or geographical location has led to an increase in the number of clinical trials conducted on new therapies. Unfortunately, the same is not true for the existing therapies which look set to remain untested for the foreseeable future. *Expert Opin Pharmacother* 2016;17(1):41-52

**Full text of this article is freely available at <http://www.tandfonline.com/doi/full/10.1517/14656566.2016.1109630>**

## **Remaining Life Expectancy with and without Polypharmacy: a Register-Based Study of Swedes Aged 65 Years and Older**

Watesson J, Canudas-Romo V, Lindahl-Jacobsen R, Johnell K

**Objectives:** To investigate the remaining life expectancy with and without polypharmacy for Swedish women and men aged 65 years and older. **Design:** Age-specific prevalence of polypharmacy from the nationwide Swedish Prescribed Drug Register (SPDR) combined with life tables from Statistics Sweden was used to calculate the survival function and remaining life expectancy with and without polypharmacy according to the Sullivan method. **Setting:** Nationwide register-based study. **Participants:** A total of 1,347,564 individuals aged 65 years and older who had been prescribed and dispensed a drug from July 1 to September 30, 2008. **Measurements:** Polypharmacy was defined as the concurrent use of 5 or more drugs. **Results:** At age 65 years, approximately 8 years of the 20 remaining years of life (41%) can be expected to be lived with polypharmacy. More than half of the remaining life expectancy will be spent with polypharmacy after the age of 75 years. Women had a longer life expectancy, but also lived more years with polypharmacy than men. **Discussion:** Older women and men spend a considerable proportion of their lives with polypharmacy. **Conclusion:** Given the negative health outcomes associated with polypharmacy, efforts should be made to reduce the number of years older adults spend with polypharmacy to minimize the risk of unwanted consequences. *J Am Med Dir Assoc* 2016;17(1):31-35

**Full text of this article is freely available at <http://www.sciencedirect.com/science/article/pii/S1525861015004946>**

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## **Burden of Polypharmacy in Patients Near the End of Life**

McNeil M, Kamal A, Kutner J, Ritchie C, Abernethy A

Patients with advanced illness are prescribed multiple medications in the last year of life, intensifying the risk of negative consequences related to polypharmacy. Objectives: To describe the medication burden of patients near the end of life and identify potential areas for improvement in clinician prescribing practices. Methods: This was a prespecified secondary analysis of data from a prospective trial. Eligible participants were adults with less than 12 months estimated prognosis taking a statin medication for primary prevention of cardiovascular disease. Participants were enrolled from 15 sites, randomized to continue or discontinue statin medications, and followed for up to a year. Concomitant medications were recorded at least monthly from study enrollment through death. Prescribed medications were categorized by class and subclass. Descriptive statistics were calculated. Results: On average, participants (n = 244) were 74.3 years old (SD 11.5) and lived 264 days (SD 128); 47.5% of the patients had a primary diagnosis of malignant tumor. This population was exposed to medications across 51 classes, 192 subclasses, and 423 individual medications. Patients took an average of 11.5 (SD 5) medications at the time of enrollment and 10.7 (SD 5) medications at death or study termination. The five most common classes of medications prescribed near the end of life were antihypertensives, broncholytics/bronchodilators, laxatives, antidepressants, and gastric protection agents. Conclusion: There is a significant medication burden placed on patients with advanced illness. Although most medications were prescribed for supportive care, we observed a high prevalence of medications for managing non-life-threatening comorbidities. *J Pain Symptom Manage* 2016;51(2):178-183

## **Utilization of Hospice Bereavement Support by At-Risk Family Members**

Ghesquiere A, Thomas J, Bruce M

Approximately 10% of the bereaved are at risk of bereavement-related mental health disorders. Hospices' bereavement services could potentially address needs of many at risk, but little is known about their service use. We analyzed data from 6160 bereaved family members of hospice patients. Risk of mental health problems was identified by hospice providers postloss. Of those characterized as "at-risk," 52% used services compared to 18% of the "low risk." Factors associated with service use among at-risk were female gender and younger age of death. Those who lost a child used services less than other bereaved. Although hospices appear to be skilled at identifying and providing bereavement services to the at-risk, services do not reach almost half. Results suggest the need to improve care access, especially among men and those losing a child. *Am J Hosp Palliat Med* 2016; 33(2):124-129