

replacement: 8.7 vs. 5.0). Inpatient mortality was low ($\leq 1.0\%$) among both groups of patients across all surgeries except PTCA where mortality was significantly higher among SCD patients (5.8% vs. 0.8%, $p < 0.0001$). Findings remained largely the same after adjusting for age and comorbidities. **CONCLUSION:** SCD patients tend to undergo major surgical procedures at a younger age than non-SCD patients. Despite their younger age, SCD patients are hospitalized for longer periods when undergoing the same types of surgical procedures as non-SCD patients. There also appears to be a higher mortality rate among SCD patients undergoing PTCA.

PHM2

**STUDY OF ANEMIA IN LONG-TERM CARE (SALT):
RELATIONSHIP BETWEEN ANEMIA AND FALLS IN THE
NURSING HOME SETTING**

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OBJECTIVES: To examine the relationship between anemia and falls in nursing home residents. **METHODS:** A chart review was conducted in 40 nursing homes across the U.S. Residents were considered eligible if they were: ≥ 18 years old, had ≥ 1 hemoglobin (Hb) level during the period of January 1, 2004-February 1, 2005; had a recorded serum creatinine level; maintained residency in the facility; and did not receive dialysis during the 6-month follow-up period. Demographics, labs, comorbid conditions, medications, functional status, and anemia treatment information were obtained from chart review. All incidents of falls and hospitalizations were identified for each eligible resident. Two logistic regression models were developed to identify factors associated with falling (≥ 1 fall) and recurrent falls (≥ 2 falls). Anemia was defined using WHO criteria. **RESULTS:** Of the 579 residents who met inclusion criteria, 564 met criteria for data completeness. Mean age was 81 years; 70% of residents were female, 56% were identified as anemic, 24% had a documented fall during the 6-month follow-up period, and 12% had recurrent falls. The unadjusted falling rate for anemic residents was 31%, compared to 17% for non-anemic residents ($p < 0.001$). The respective rates for recurrent falls were 15% anemic vs. 7% non-anemic ($p = 0.003$). For the dependent variable of falling, significant associations were seen for anemia (OR = 2.22, $p < 0.001$), unable to ambulate (OR = 0.59, $p = 0.025$) and use of psychoactive medications (OR = 2.18, $p = 0.001$). For the dependent variable of recurrent falls, similar results were observed for anemia and psychoactive medication use. Of the 10 residents studied requiring hospital admission for fracture during the follow-up period, all were anemic. **CONCLUSION:** Both anemia and the use of psychoactive medications are potentially modifiable factors strongly associated with falling and recurrent falls. Since falls and related fractures are events associated with significant morbidity and mortality, these factors deserve special consideration for potentially reducing the risk of such events.

PHM3

**ANEMIA IN LONG-TERM CARE PATIENTS: PREVALENCE AND
RELATIONSHIP TO FALLS**

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OBJECTIVES: To quantify the prevalence of anemia in the long-term care (LTC) setting, and to study the association between

anemia and falling in LTC patients. **METHODS:** Electronic pharmacy consultant charts representing patient Minimum Data Set (MDS; standardized assessment of clinical and administrative information on LTC patients) 2.0 data between February 2005–September 2006 were abstracted from 26 LTC facilities based in North Carolina, Georgia, and Pennsylvania. Patients were included in the study if they were ≥ 65 years old, resided in the facility for ≥ 6 months, and had the following information available in their record: hemoglobin (Hb) and serum creatinine (Scr) values (for 6 months prior to the most recent MDS 2.0 assessment available), race, and gender. Patients receiving dialysis were excluded from the study. Anemia was defined using WHO criteria (Hb < 12 g/dL for women; < 13 g/dL for men). All incidents of falls were obtained from the patients' MDS Forms. An odds ratio (OR) was used to determine the association between anemia status and falls. **RESULTS:** A total of 804 patients met the inclusion criteria. Mean age was 83 years; 81% of patients were female. Over half of all patients studied were anemic (52%), with 55% of anemic patients having a Hb < 11 g/dL. At least one falling episode was recorded for 23% ($n = 181$) of the study population. A higher proportion of anemic patients fell compared to non-anemic patients, 59% ($n = 107$) vs. 41% ($n = 74$), respectively. Anemic patients had a 68% higher likelihood of falling compared to non-anemics (OR: 1.68; 95% Confidence Interval: 1.20, 2.36). **CONCLUSION:** In this large multi-state study of LTC patients, the majority of patients had anemia, which was associated with a significantly higher risk of falling. The results of the relationship between anemia and falls were consistent with recent published data on community dwelling elderly patients.

PHM4

**THE ASSOCIATION BETWEEN CONCOMITANT
MEDICATIONS USE AND THROMBOEMBOLIC
COMPLICATIONS IN ELDERLY VETERANS UNDERGOING
MAJOR ORTHOPEDIC SURGERY**

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OBJECTIVES: To evaluate the relationship between concomitant medications that are potentially inappropriate and the occurrence of venous thromboembolic (VTE) complications or bleeding in elderly veterans undergoing major orthopedic surgery (MOS) for one year after surgery. **METHODS:** The Veterans Affairs national database was used to identify all major orthopedic surgery patients over age 65 years between March 2003 and March 2004. The 2003 Beers criteria were used to select drugs that are likely to increase risks of bleed, interfere with ambulation, or increase the risk of fall. Logistic regression was used to study the relationship between the medications identified and VTE or bleed. We controlled for age, gender, obesity, cancer, and congestive heart failure in the logistic models. Due to the potential minimal impact of antihistamines, and potential protective effect of aspirin and clopidogrel, we analyzed the impact of the remaining drugs and divided patients by 0 or 1 drug versus 2 or more. **RESULTS:** Our final list included 43 drugs. A total of 5089 patients were elderly, and 3918 (77%) of them used at least one identified medication (mean \pm standard deviation = 1.6 ± 0.8). Mean age was 75.6 ± 6.3 . Our regression models found that patients using aspirin were less likely ($P = 0.008$) than those not using aspirin to have VTE (odds ratio, 95% confidence interval (0.72, 0.56–0.92)), but did not affect the risk of bleed ($p = 0.43$). After removing antihistamines, aspirin, and clopidogrel from the model, we found that patients using more than one inappropriate drug were more likely ($p = 0.04$) to have VTE than