

to Short Falls Efficacy Scale International (SFES-I) score, assessing FOF in different situations. A total score is calculated to determine the mild, moderate or severe level of FOF. Previous falls and TUG were used to evaluate patients' mobility. OARS, ISAR and SOF were used to evaluate patient frailty. Descriptive statistics were performed and multiple regression was performed to show the association between SFES-I score and outcomes. **Results:** FOF was measured in 2899 participants, of which 2214 participated at the 3 months follow-up and 2009 participated at the 6 months follow-up. Odds Ratio (OR) of return to ED at 3 months was 1.10 for moderate FOF and 1.52 for severe FOF (Type 3 test  $p = 0.11$ ). At 6 months, OR was 1.03 for moderate FOF and 1.25 for severe FOF (Type 3 test  $p = 0.63$ ). OR of subsequent fall at 3 months was 1.80 for moderate FOF and 2.18 for severe FOF (Type 3 test  $p < 0.001$ ). At 6 months, OR of subsequent fall was 1.63 for moderate FOF and 2.37 for severe FOF (Type 3 test  $p < 0.001$ ). **Conclusion:** The multicenter cohort study showed that severe fear of falling is strongly associated with subsequent falls over the next 6 months following ED discharge, but not significantly associated with return to ED episodes. Further research should be done to analyze the association between severe FOF and RTED.

**Keywords:** community-dwelling elderly, fall, fear of falling

#### LO12

##### **Efficacy of calcitonin for treating acute pain associated with osteoporotic vertebral compression fracture: an updated systematic review and meta-analysis**

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**Introduction:** Acutely painful osteoporotic vertebral compression fractures (OVCFs) are common in elderly individuals. Most OVCFs result from falls or routine activities, such as lifting objects or bending. OVCFs are associated with increased hospitalization, mortality and reduced quality of life. Calcitonin has been studied as an alternative or adjunct to opioid or non-opioid analgesia for treating acute pain associated with OVCFs. This review evaluates current evidence on the benefits and harms of calcitonin related to OVCFs. **Methods:** We registered our review protocol on PROSPERO (CRD42018084850) and conducted our study in compliance with PRISMA guidelines. We searched MEDLINE, EMBASE, The Cochrane Database of Systematic Reviews, clinical trials registries, conference papers and reference lists of included studies. Eligible studies evaluated the effect of calcitonin on pain scores in adults  $\geq 60$  years-old with a recent OVCF ( $< 45$  days prior). Two reviewers independently screened studies, extracted data and allocated bias in duplicate. Data were pooled for meta-analysis using standard mean difference (SMD) and a random-effects model. Heterogeneity was evaluated with  $I^2$  and sensitivity analyses were performed. The certainty of evidence was assessed with GRADE criteria. Our primary outcome was pain; secondary outcomes include mobility and adverse events. **Results:** 1180 articles were screened, 11 eligible studies were identified and 9 (627 participants) were pooled for meta-analysis. Pain at rest was lower in the calcitonin group than the control group at week 1 (SMD -1.11, 95% confidence interval (CI) -1.95 to -0.26,  $I^2 = 92\%$ ). Sensitivity analysis showed that the route of administration influenced this effect: the SMD for calcitonin nasal spray was -1.88 (95% CI -2.31 to -1.44,  $I^2 = 53\%$ ) compared to -0.35 (95% CI -0.86 to 0.17,  $I^2 = 60\%$ ) for intramuscular injection. Improvements in mobility were observed at week 4 (SMD -0.48, 95% CI -0.79 to -0.17,

$I^2 = 45\%$ ). The risk of adverse events was increased with calcitonin (Risk Ratio 2.72, 95% CI 0.90 to 8.17,  $I^2 = 41\%$ ) and consisted of flushing, headache, dizziness and gastrointestinal effects. The overall certainty of evidence was downgraded to low due to concerns over risk of bias and inconsistency between studies. **Conclusion:** Calcitonin, particularly as a nasal spray, is beneficial and safe for treating acute pain associated with OVCFs. Further studies are needed to improve the certainty of evidence.

**Keywords:** back pain, elderly, vertebral fracture

#### LO13

##### **Characteristics of emergency department visits by community-dwelling older adults who screened positive for elder abuse during home care assessments**

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**Introduction:** Elder abuse is infrequently detected in the emergency department (ED) and less than 2% are reported to proper law authorities by ED physicians. This study aims to examine the characteristics of community-dwelling older adults who screened positive for elder abuse during home care assessments and the epidemiology of ED visits by these patients relative to other home care patients. **Methods:** This study utilized a population-based retrospective cohort study of home care patients in Canada between April 1, 2007 and March 31, 2015. Standardized, comprehensive home care assessments were extracted from the Home Care Reporting System. A positive screen for elder abuse was defined as at least one of these criteria: fearful of a caregiver; unusually poor hygiene; unexplained injuries; or neglected, abused, or mistreated. Home care assessments were linked to the National Ambulatory Care Reporting System in the regions and time periods in which population-based estimates could be obtained to identify all ED visits within 6 months of the home care assessment.

**Results:** A total of 30,413 from the 2,401,492 patients (1.3%) screened positive for elder abuse during a home care assessment. They were more likely to be male (40.5% versus 35.3%,  $p < 0.001$ ), to have a cognitive impairment (82.9% versus 65.3%,  $p < 0.001$ ), a higher frailty index (0.27 versus 0.22,  $p < 0.001$ ) and to exhibit more depressive symptoms (depression rating scale 1 or more: 68.7% versus 42.7%,  $p < 0.001$ ). Patient who screened positive for elder abuse were less likely to be independent in activities of daily living (41.9% versus 52.7%,  $p < 0.001$ ) and reported having fallen more frequently (44.2% versus 35.5%,  $p < 0.001$ ). Caregiver expressing distress was associated with elder abuse (35.3% versus 18.3%,  $p < 0.001$ ) but not a higher number of hours caring for the patient. Victims of elder abuse were more likely to attend the ED for low acuity conditions (Canadian triage and acuity scale (CTAS) 4 or 5). Diagnosis at discharge from ED were similar with the exception of acute intoxication that was more frequent in patients who are victims of abuse. **Conclusion:** Elder abuse is infrequently detected during home care assessments in community-dwelling older adults. Higher frailty index, cognitive impairment, depressive symptoms were associated with elder abuse during homecare assessments. Patients who are victims of elder abuse are attending EDs more frequently for low acuity conditions but ED diagnosis at discharge, except for acute intoxication, are similar.

**Keywords:** elder abuse, epidemiology, neglect