home-care recipients (aged ≥60). The most common causes of pain among older people are degenerative arthropathy and musculoskeletal diseases. Care recipients (81% aged ≥65) constitute a specific sub-group among pain patients, due to the restrictions they experience. In Germany, the prevalence rate in this group is 70%. Currently, no comprehensive information on the pain situation of older home-care recipients exists in Germany. The findings presented are based on a cross-sectional study of older (aged ≥65) home-care recipients (SGB XI) in Berlin, with chronic pain (n=225), capable of self-report (MMST≥18). Structured interviews comprised the primary data source. The pain situation was determined using the German Brief Pain Inventory (BPI-NH). Multiple regression analysis was applied to test how the most severe pain (dependent variable) was influenced by socio-demographic and medical parameters, mental and physical restrictions and pain medication. Analyses of the pain situation show a value of M=4.81 (SD±1.88) on the BPI intensity index, and a BPI pain interference index of M=5.47 (SD±2.15). The most intense pain averaged 6.96 (SD±2.15). On average, respondents reported 16.20 (SD±13.25) pain locations (range: 0-65). The number of pain locations, alongside other factors, had a significant influence, R<sup>2</sup>=0.038 (corrected R<sup>2</sup>=0.034), F(1.219) = 8.760, p<0.01), on pain intensity. The findings show severe pain intensity among older home-care recipients not reported in previous findings (e.g. in long-term in-patient care). Action in medical care, nursing care and educational aspects is urgently needed.

## TRANSCRANIAL DIRECT CURRENT STIMULATION COMBINED WITH MEDITATION FOR OLDER ADULTS WITH KNEE OSTEOARTHRITIS

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Osteoarthritis (OA) of the knee is one of the most common causes of pain in older adults. Recent evidence suggests that knee OA pain is characterized by alterations in central pain processing in the brain. Two nonpharmacological pain treatments, transcranial direct current stimulation (tDCS) and mindfulness-based meditation (MBM), have been shown to improve pain-related brain function in older adults with knee OA. Because tDCS promotes neuroplasticity, it may potentiate the effect of MBM that also stimulates adaptive changes in the brain. However, no studies have examined whether tDCS combined with MBM can reduce OA symptoms in older adults with knee OA. Thus, the purpose of this study was to examine the preliminary efficacy of tDCS combined with MBM in older adults with knee OA. Thirty participants with knee OA were randomly assigned to receive 10 daily sessions of home-based 2 mA tDCS combined with active MBM for 20 minutes (n=15) or sham tDCS combined with sham MBM (n=15). We measured OA-related clinical symptoms using the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC). Participants (60% female) had a mean age of 59 years. Active tDCS combined with active MBM significantly reduced scores on the WOAMC (Cohen's d = 0.83, P = 0.02). Participants tolerated tDCS combined with MBM well without serious adverse effects. Our findings demonstrate promising clinical efficacy of home-based tDCS combined with MBM for older adults

with knee OA. Future studies with larger-scale randomized controlled trials with follow-up assessments are needed to validate our findings.

### YOU HAVE ONE REMINDER: SELF-MANAGE YOUR PAIN

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Pain has a significant impact in the lives of aging adults. As the population of America grows older, they need to be encouraged to use pain self-management strategies. Technology is an option, but current pain management applications have usability limitations in older adults. This feasibility study describes the usability of voice assistant reminders for pain self-management. We enrolled 15 community-dwelling aging adults with chronic pain. Participants created two pre-determined voice assistant reminder tasks: 1) to take scheduled pain medication, and 2) to write in a pain diary. We collected data on demographics, pain, confidence of managing symptoms, and objective ease of use. After four weeks, we collected information about subjective ease of use and usefulness of the voice assistant. Participants were mostly female, average age 65 years; reporting moderate pain severity 4.58 (SD 2.29) and pain interference 3.94 (SD 2.62). The mean PROMIS self-efficacy for managing symptoms score was 50.8 (SD 8.2). Voice assistant usability was above average (78 out of 100). The median time to make a voice assistant profile was five minutes (SD 7.5), with a median of seeking help two times. No significant relationships were found between pain and usability. Three participants made physical activity and distraction reminders to self-manage pain. Voice assistant reminders were perceived as consistent, easy to set up and helpful for accountability. Older users may provide helpful feedback for development and testing of voice assistant software for pain self-management. Voice assistants may provide helpful reminders that encourage the completion of pain self-management strategies.

### **SESSION 2895 (POSTER)**

#### **MEDICATION ISSUES**

### A WASTEFUL AND HARMFUL PRACTICE: SLIDING SCALE INSULIN USE AMONG NURSING HOME VETERANS

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The American Medical Directors Association and the American Diabetes Association discourage the use of sliding scale insulin (SSI) in nursing home residents with diabetes due to its association with hypoglycemia, hyperglycemia, nursing burden, and patient discomfort. However, prevalence of SSI use is unclear. We used Veterans Affairs (VA) data from October 2013 to September 2016 to determine

the weekly prevalence of SSI among 22,847 veterans with diabetes admitted to VA nursing homes (NHs). Average age was 75.3 (SD 8.3) years, mean A1c was 7.3% (SD 1.6%) and 57% were admitted from hospital. We first identified residents receiving any short-acting insulin. We then classified short-acting insulin use into three mutually exclusive regimens: (1) fixed scheduled doses, (2) SSI, defined as a variable dose of short-acting insulin without a concurrent fixed dose or (3) bolus with correction (BWC), defined as a variable dose given concurrently with a fixed dose that day. During the first week of NH admission, 64.7% of residents with diabetes received no short-acting insulin, 7.4% received fixed scheduled doses, 6.3% received BWC and 21.4% were on SSI. At week 12, the prevalence of fixed dose and BWC regimens was unchanged from baseline (fixed dose = 8.4%; BWC = 7.0%). In contrast, the prevalence of SSI decreased weekly to 15.8% (p for linear trend < 0.0001). Although SSI prevalence decreased from week 1 to week 12, 51% of residents on short-acting insulin were still using SSI in their 12th week of their NH stay.

# ASSOCIATION BETWEEN PRESCRIPTION OPIOID USE AND MORTALITY IN COMMUNITY-DWELLING OLDER ADULTS

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Prescription opioid use is concerning among older adults. Yet, few studies have examined the impact of opioid use on mortality by considering multimorbidity. Our sample includes 1586 older adults aged ≥65 recruited in primary care from 2011-2013 in a large health administrative region in Quebec and participating in the ESA-Services study, a longitudinal study on aging and health service use. An opioid prescription delivered in the 3 years prior to the baseline interview was identified using the provincial pharmaceutical drug registry. Mortality was ascertained from the vital statistics registry until 2015. The presence of chronic diseases was based on self-reported and physician diagnostic codes in health administrative databases. Physical multimorbidity was defined as ≥3 chronic physical conditions from either source. Physical/psychiatric multimorbidity was defined as ≥3 chronic physical conditions and ≥1 common mental disorder from either source. Logistic regression analyses were conducted to examine the association between opioid use and mortality, controlling for sociodemographic factors. Interactions were tested for opioid use and multimorbidity. Older adults with physical multimorbidity using opioids were 1.76 (95%CI: 1.02-3.03) times more likely to die than those not using opioids. Those with physical/psychiatric multimorbidity using opioids were 2.27 (95%CI: 1.26-4.09) times more likely to die than those not using opioids. Older age, male sex, and single marital status significantly increased the risk of mortality. Overall, opioid use increases the risk of death in older adults with multimorbidity. The presence of mental disorders further increases the risk of death in older adults with physical multimorbidity using opioids.

# CAREGIVERS' PERSPECTIVES OF MEDICATION MANAGEMENT ADVICE FOR PEOPLE WITH DEMENTIA AT HOSPITAL DISCHARGE

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People with dementia admitted to hospitals are more likely to be exposed to inappropriate polypharmacy and experience worse outcomes than people without dementia. Family and informal caregivers play an important role in managing medications across transitions of care; however, studies describing the experiences of medication guidance provided to caregivers at hospital discharge are limited. We have explored caregivers' perceptions on the quality of and factors that influence caregiver participation in medication guidance at discharge. A qualitative approach using semistructured interviews was conducted with 29 caregivers of people with dementia across Australia by telephone. Purposive sampling was used to ensure maximum variation of diverse perspectives. Content analysis was used to derive themes. Three themes were derived from analysis: inconsistent approaches to provision of medication information at discharge, caregiver awareness to advocate for the care recipient and managing competing priorities. Some caregivers reported inadequate information was provided because the information was communicated to the patient without the caregiver being present. Other caregivers stated a medication list, discharge summary and discussion with a healthcare profession provided useful information. Caregiver involvement in discussions on medication guidance at discharge was influenced by caregiver awareness to advocate for the care recipient to ensure medication safety and managing competing priorities at the time of discharge to manage stress. Caregivers flagged the need to establish structured caregiver education at discharge and community-based services to manage medications safely. Future studies are needed to explore development of resources to caregiver encourage participation during medication guidance at discharge.

#### EVALUATION OF A COLLABORATIVE CARE MANAGEMENT PROGRAM FOR COMMUNITY-DWELLING OLDER ADULTS ON HIGH-DOSE OPIATES

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Treating pain in later life is complex, and there are significant safety risks associated with the use of analgesics, particularly opioids. This study examined preliminary results from a pilot study of a telephone-delivered collaborative care service designed for community-dwelling older adults with chronic pain receiving prescriptions for high doses of opioids