

sequences of eight self-reported age-related chronic diseases: hypertension, arthritis, diabetes, cancer, stroke, heart disease, chronic lung disease, and psychiatric disorders. There were 67 unique sequences of disease identified that occurred in at least 1% of the study population. The most common two event sequence was Arthritis=>Hypertension (15.5% of all subjects), and the second most common was Hypertension=>Arthritis (9.6%). The most common three-way sequence was Arthritis=>Hypertension=>Heart Disease (1.8%). Arthritis=>Stroke occurred in 1.5% of subjects and was associated with the highest mortality rate (71.3% of subjects died). Sequential pattern mining allows for the discovery of longitudinal patterns of disease that frequently occur in older adults and advancements in our understanding of the epidemiology of multimorbidity. Future applications may include predicting a given patient's disease trajectory based on their life course and disease history.

#### SEX DIFFERENCES IN BONE-ACTIVE MEDICATION UTILIZATION BEFORE AND DURING THE YEAR AFTER HIP FRACTURE

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Bone-active medications (BAM) [prescriptions (RxBAM) and supplements(calcium/vitamin D)] increase bone mineral density and reduce osteoporotic fracture risk. However, RxBAM utilization rates are low, and it is unclear who is treated with BAMs before/after a hip fracture. This study examined sex differences in BAM use at baseline and predicted the probability of RxBAM use during follow-up(2, 6, and 12-months). The sample included frequency-matched males and females 65 years or older from the Baltimore Hip Studies' seventh cohort. Differences in baseline characteristics between males and females with complete data(n=313) were assessed using t-tests and chi-square tests. Generalized estimating equations(GEE) predicted the probability of RxBAM use by sex among participants(n=270) with outcome data during follow-up adjusted for baseline characteristics. Prior to fracture, there were sex-differences in BAM use, with fewer men than women taking RxBAMs(9% versus 26%), calcium(18% vs. 57%) and vitamin D (55% vs. 68%). These differences remained over the year post-hip fracture. Only 12(3.5%) participants took RxBAM the entire study period. Of RxBAM users n=70(26%), there were few new-users (n=35), and many participants stopped or never started treatment. Unadjusted GEEs showed that men were less likely to use RxBAM (OR= 0.42; 95% CI:0.22,0.78, p=.007), during the hip fracture recovery period compared to females. However, after controlling for differences in baseline characteristics between males and females, particularly pre-fracture BAM medication use, the observed association (OR=0.62; 95% CI:0.29, 1.31; p= 0.23). RxBAM use was low, especially in men and may contribute to the high rates of preventable subsequent osteoporotic fractures and post-fracture mortality.

#### THE ACCEPTABILITY OF TECHNOLOGY IN HEALTH CARE AMONG OLDER KOREAN ADULTS WITH MULTIPLE CHRONIC CONDITIONS

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Background: Although there are benefits in utilizing ICT in health care, older adults have challenges in employ technologies in their health care management due to the changes in cognitive and physical functions, low motivation to use technology, and low computer/internet literacy (Adebayo et al, 2017; Wildenbos et al, 2018). The purpose of this study is to investigate the acceptance of technology among older Korean adults with multiple chronic conditions and examine factors associating with the acceptance of the technology. Method: The participants were 226 community-dwelling older adults who have more than two chronic conditions. Directed by the senior technology acceptance model (Chen & Chan, 2014), demographics, gerontechnology self-efficacy, gerontechnology anxiety, facilitating conditions, self-reported health conditions, cognitive ability, social relationship, attitude to life and satisfaction, physical functioning, and acceptance of technology were surveyed using a self-reported questionnaire. Findings: Older Korean adults with multiple chronic conditions showed a moderately high technology acceptance score (M = 25.35, SD = 5.28). There were significant differences in the acceptance of technology depending on age (r=-0.241, p<.01), cognitive ability (r=0.225, p<.01), gerontechnology self-efficacy (r=0.323, p<.0001), and facilitating conditions (r=0.288, p<.0001). Conclusion: While older age were associated to the acceptance of technology, gerontechnology self-efficacy which is one's judgment of their ability to perform a task successfully using gerontechnology and facilitating conditions which are environmental factors that help older adults use gerontechnology easier were positively associated with the acceptance of technology among older Korean adults with multiple chronic conditions.

#### USE OF THE NEW ICD-10 VISION CODES AMONG MEDICARE BENEFICIARIES WITH STROKE

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Older adults can experience vision impairment following stroke in combination with pre-existing ophthalmologic disease. The new ICD-10 coding system for identifying vision related health conditions provides a much higher level of detail for coding these complex scenarios than the previous ICD-9 system. While this new coding system has advantages for clinical care and billing, the degree to which providers are utilizing the expanded code structure is unknown. The study objective was to describe the use of ICD-10 vision codes in a large cohort of stroke survivors. We used a retrospective cohort design to study national 100% Medicare claims files from 2015 through 2017. Data were analyzed using all available ICD-10 vision codes

for beneficiaries who had an acute care stay because of a stroke and who also had an ICD-10 visual code recorded at least once in their claims chart. The cohort (n= 269,314) was mostly female (57.1%) with ischemic stroke (87.8%). Approximately 15% were coded as having one or more vision impairments. Unspecified glaucoma was the most frequently used code among men (2.83%), beneficiaries over 85+ (4.80%) and non-Hispanic blacks (4.12%). But multiple vision codes were used in few patients, overall (0.6%). Less than 3% of those in the oldest group (85+ years) had two vision codes noted in their claims. Despite more available codes, the coding used to describe the vision impairments in this population of stroke survivors was not specific or diverse. Hospital providers should pay attention to specificity in order to improve coding practices.

## SESSION 2906 (POSTER)

### HEALTH AND HEALTH PROMOTION

#### ALTERED FEBRILE RESPONSES IN OLDER ADULTS: A SYSTEMATIC REVIEW

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Human and animal studies support generalizations that older adults are less able than younger adults to mount an effective febrile response. Beyond difficulties this presents for assessing signs and symptoms of infection, concern exists that older adults may lack fever's protective immuno-stimulant benefits. Fever is a systemic physiological host response to a pyrogen resulting in release of proinflammatory cytokines that produce a regulated elevation of thermoregulatory set-point. Heat is generated, by shivering and molecular activity, and conserved, by vasomotor activity, elevating and maintaining body temperature at the higher set-point level. Because immunological, vasomotor, and kinetic activities raise body temperature, age-associated alterations have been hypothesized to explain blunted febrile responses in older adults. Purpose: A systematic review was done to 1) determine factors underlying presumed origins and alterations in older adults' febrile responses. 2) assess for gaps and controversies in emerging research that could inform care decisions. Comparisons of disciplinary assumptions, perspectives, and cross-disciplinary interpretations sought relevance to interdisciplinary care. Methods: Search of literature databases: Medline (OVID), and CINAHL (EBSCO). PubMed, and included relevant animal and human research findings since 2000 from physiology, gerontology, immunology, infectious disease, clinical medicine, and nursing. Findings: Altered innate immunity in sepsis shows early hyper-reactive response, prolonged inflammatory activity, and fever response contributing to cardiovascular and neurological morbidity, not temperature elevation. Morbidly was attributed to disease not age. Conclusions: Hazards of blunted febrile temperatures include undetected infections and possible loss of immune benefits. Significant evidence of age-related diminished febrile temperature's immune consequences shown with animal models.

#### ANNUAL FOOT EXAMS AND INCIDENT AMPUTATION

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Diabetes-related lower extremity amputations (LEA) are high cost and high prevalence. Individuals with complications such as neuropathy, foot deformity, history of diabetic foot ulcer or LEA increased morbidity and mortality.1 Current national recommend a foot exam for individuals with diabetes annually or more often depending on risk for LEA.2, The purpose of this pilot study was to examine the relationship between annual foot exams and incident lower extremity amputation in a large Veteran cohort. We conducted a secondary analysis of a national VA Diabetes administrative dataset registry for Veterans with diabetes aged 65 and older during the period of fiscal year 2002-2014 (n=1,544,654; mean age 77.6 years; 97.9 % male). Using logistic regression, we examined the association between annual foot exams and incident LEA. Our analysis was adjusted for demographics, comorbidities, and LEA foot risk. The study included 18,759 (1.21%) Veterans with incident LEA and foot exams, 2,234 (0.14%) Veterans with incident LEA without foot exams. Median age range was 65-75 years old. Gangrene, osteomyelitis, foot ulcers, and neuropathy were the covariates with the highest risk of incident LEA with foot exam. Foot exams did not reduce the risk of LEA when examining Veterans with incident LEA (unadjusted OR of 1.62 (CI 1.56 - 1.69), p<.0001 and adjusted OR was 1.77 (CI 1.69 -1.86), p<.0001. Annual foot exams were not protective for LEA in Veterans with foot exams and incident LEA. Additional research is warranted to examine this relationship considering the effect of early intervention on LEA risk.

#### DESIGN AND PRELIMINARY EVALUATION OF A COMMUNITY-BASED BRAIN HEALTH PROMOTION AND WELLNESS PROGRAM

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Recommendations for risk reduction of dementia and cognitive decline emphasize addressing modifiable risk factors including physical activity, cognitive stimulation, and socialization. However, existing resources and programs to promote brain health through multifaceted risk factor reduction are often costly, challenging to individualize, and limited in their delivery format, narrowing their accessibility among older adults. To address community identified needs for brain health promotion resources, we applied a user-centered design approach to develop, implement, and