

Despite current literature suggesting that various social cognitive processes seem to be impaired in late adulthood, e.g., processing of social gaze cues, the trajectory decline of social cognition in late adulthood is not well understood (e.g., Grainger et al., 2018; Paal & Bereczkei, 2007). As part of a multi-institutional research project, we began to systematically investigate whether there is age-related decline in older adults' ability to infer others' mental states, integrate multiple referential cues, and identify emotional states of others using prosodic cues. Sixteen older adults aged 71-85, of which 9 were cognitively healthy and 7 with mild-to-moderate dementia, and 7 younger adults aged 19-37 underwent three tasks. In a theory-of-mind story task, participants answered true/false questions about the beliefs of the protagonists in the stories. A cue integration task assessed participants' ability to integrate the experimenter's gaze and semantic cues to identify a referent object. In an emotion-prosody task, participants judged whether the speaker sounded happy or sad in low-pass filtered audio. Non-parametric tests revealed that younger adults outperformed both groups of older adults (both  $p = .001$ ) in inferring the protagonists' beliefs in the stories. Younger adults were also better and more accurate than both groups of older adults in integrating cues to identify the referent object and in using prosodic cues to identify emotional states respectively ( $p < .001$ ). Both groups of older adults did not differ significantly from each other in the tasks. These findings provide emerging and important insights into the decline of social cognitive processes in late adulthood.

#### FACILITY AND RESIDENT LEVEL DIFFERENCES: ANTIBIOTIC USE IN NURSING HOMES FOR RESIDENTS WITH ADVANCE DEMENTIA

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Previous studies have shown that there is a high frequency of antibiotic use in NH for advance dementia patients. However, research has shown limited clinical benefit from antimicrobial use for this population, and antimicrobial exposure increases colonization with drug-resistant bacteria in nursing homes. The aim of this study was to identify NH and resident level characteristics associated with antibiotic use for patients with advance dementia. Using data from an ongoing cluster RCT in 28 Boston NHs; Trial to Reduce Antimicrobial use in Nursing home residents with Alzheimer's disease and other Dementias (TRAIN-AD), testing a program intervention to improve management of infections in advanced dementia. These data are taken from baseline measurements 2 months prior to intervention, and individual nursing home residents with advance dementia are units of analysis ( $n = 425$ ). We ran multivariable logistic regression model with antibiotic use as the outcome, adjusting for clustering at NH level, with NH (#beds, profit status, staffing, #cognitively impaired, etc.) and individual patient characteristics (age, gender, race, etc.) as independent variables. Analyses found residents were more likely to receive antibiotics if they resided in nursing homes that employed less intense infectious

disease practices prior to baseline (AOR = 2.34; 95% CI 1.08, 5.05), and full-time nurse practitioners or physician assistants (AOR= 3.68; 95%CI 1.49, 9.04). Female patients also had higher odds of receiving antibiotics (AOR=2.16; 95%CI1.10, 4.67). These findings provide potential insight into the importance of education regarding stringent infectious disease practices for practitioners, particularly for patients with advanced dementia.

#### AUTOMATED MEASUREMENT OF MUSCLE DENSITY ON COMPUTED TOMOGRAPHY (CT) PREDICTS ALL-CAUSE MORTALITY IN OLDER ADULTS

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The purpose was to examine the association of paraspinal muscle density (CT surrogate of myosteatosis) with all-cause mortality in 6803 men and 4558 women, age 60-69 years (mean age 63.6) in the National Lung Screening Trial. Our fully-automated machine learning algorithm: 1) selected the appropriate CT series, 2) chose a single CT image at the level of T12 vertebra, 3) segmented the left paraspinal muscle, and 4) recorded the muscle density in Hounsfield Units (HU). Association between baseline muscle density and all-cause mortality was determined using Cox proportional hazards models, adjusted for age, race, body mass index, pack years of smoking, and presence of diabetes, lung disease, cardiovascular disease, and cancer at enrollment. After a mean  $6.44 \pm 1.06$  years of follow-up, 635 (9.33%) men and 265 (5.81%) women died. In men, lower muscle density on baseline CT examinations was associated with increased all-cause mortality (HR per SD = 0.90; CI = 0.83, 0.99;  $p = 0.03$ ). Each standard deviation (7.8 HU) decrease in muscle density was associated with a 10% increase in mortality. In women, the association did not reach significance.

#### ORAL CANCER SCREENING IN NON-INSTITUTIONALIZED OLDER ADULTS LIVING IN RURAL COMMUNITIES OF SOUTHEAST GEORGIA

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The older population in the United States is growing at an unprecedented rate. Oral diseases such as oral cancer can affect physical, psychological, and social well-being in older adults. Oral cancer screening can prevent development of the disease in high-risk individuals. The purpose of this research was to assess determinants of preventive oral health behavior including oral cancer screening in noninstitutionalized older adults living in rural/medically underserved communities of southeast Georgia. A mixed methods sequential explanatory design was used. Surveys were administered to 206 individuals aged 50 and older. Phone interviews were conducted with 22 individuals from the survey sample and 11 key informants. The majority of the participants (83.01%) said they had