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Age and disease prevalence are the two biggest risk factors for COVID-19 symptom severity and death. We therefore hypothesized that increased biological age, beyond chronological age, may be driving disease-related trends in COVID-19 severity. Using the UK Biobank England data, we tested whether a biological age estimate (PhenoAge) measured more than a decade prior to the COVID-19 pandemic was predictive of two COVID-19 severity outcomes (inpatient test positivity and COVID-19 related mortality with inpatient test-confirmed COVID-19). Logistic regression models were used with adjustment for age at the pandemic, sex, ethnicity, baseline assessment centers, and pre-existing diseases/conditions. 613 participants tested positive at inpatient settings between March 16 and April 27, 2020, 154 of whom succumbed to COVID-19. PhenoAge was associated with increased risks of inpatient test positivity and COVID-19 related mortality (ORMortality=1.63 per 5 years, 95% CI: 1.43-1.86,  $p=4.7 \times 10^{-13}$ ) adjusting for demographics including age at the pandemic. Further adjustment for pre-existing disease s/conditions at baseline (OR\_M=1.50, 95% CI: 1.30-1.73 per 5 years,  $p=3.1 \times 10^{-8}$ ) and at the early pandemic (OR\_M=1.21, 95% CI: 1.04-1.40 per 5 years,  $p=0.011$ ) decreased the association. PhenoAge measured in 2006-2010 was associated with COVID-19 severity outcomes more than 10 years later. These associations were partly accounted for by prevalent chronic diseases proximate to COVID-19 infection. Overall, our results suggest that aging biomarkers, like PhenoAge may capture long-term vulnerability to diseases like COVID-19, even before the accumulation of age-related comorbid conditions.

## Session 3275 (Paper)

### LONG-TERM CARE III (SRPP PAPER)

#### ANTIPSYCHOTIC PRESCRIBING IN VA-CONTRACTED COMMUNITY NURSING HOMES AND INCIDENT USE AMONG VETERANS

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The Veterans Health Administration (VA) is increasingly purchasing long-term care for eligible Veterans from non-VA, community nursing homes (CNHs). Antipsychotics present safety risks for older adults, but it is unknown how the prevalent use of antipsychotics at CNHs influences whether newly admitted Veterans will initiate antipsychotic therapy. This study used 2013-2016 VA data, Medicare claims, Nursing Home Compare, and Minimum Data Set (MDS) assessments. We identified 10,531 long-stay CNH episodes for Veterans not prescribed antipsychotics 6 months before CNH admission. We categorized Veterans by whether,

12 months before admission, they were diagnosed with FDA-approved indications (including schizophrenia, Tourette's syndrome, Huntington's disease) for antipsychotic use. The exposure was the proportion of all CNH residents prescribed antipsychotics in the quarter preceding a Veteran's admission. Using adjusted logistic regression, we analyzed two outcomes measured using MDS assessments collected ~100 days after CNH admission: 1) new antipsychotic use, and 2) new diagnosis for an FDA-approved indication among Veterans without these conditions at admission. Among antipsychotic-naïve Veterans admitted to CNHs, 7,924 (75.2%) lacked an antipsychotic indication. Prevalent antipsychotic use in CNHs ranged 0%-10.9% (quintile 1) and 25.7%-91.4% (quintile 5). The odds of initiating antipsychotic use increased with higher CNH antipsychotic use rates (OR=2.52, 95% CI:2.05-3.10, quintile 5 vs. 1), as did the odds of acquiring a new indication (OR=2.08, 95% CI:1.27-3.40, quintile 5 vs. 1). Provider practices may be influencing new diagnoses indicating antipsychotic use at CNHs with high antipsychotic use. It may be important for VA to consider antipsychotic use when contracting with CNHs.

#### CASE MANAGEMENT IN PRIMARY CARE ASSOCIATED WITH SERVICE USE BY ADULTS WITH DEMENTIA AND COMORBIDITIES

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Community-dwelling adults with dementia are at higher risks than counterpart without dementia of poor health outcomes, and those with dementia and co-occurring conditions face even greater risks. Optimal treatment for dementia includes functional and psychosocial support through long-term services and supports (LTSS), but use remains low. Our study investigated whether case management provided in primary care and in dementia care settings facilitated LTSS use for Veterans with dementia and comorbidities. We performed a cross-sectional analysis of 2019 VA-paid health care on a cohort of Veterans with dementia, defined by clinical diagnoses (International Classification of Disease, Tenth Revision). Receipt of case management was measured by whether or not a Veteran enrolled in a VA (1) home-based primary care, (2) geriatric primary care, or (3) dementia clinic. Comorbidities were measured by an adapted Elixhauser comorbidities index and dichotomized as  $\leq 3$  or  $\geq 4$  comorbidities. LTSS use was measured by whether or not Veterans used home health, home respite, adult day care, hospice, or veteran-directed care. Multivariate logistic regressions showed that LTSS use was higher for enrollees in each case management program compared to Veterans not enrolled in any. LTSS use was also higher for enrollees in each primary care program with more comorbidities than program counterparts with fewer comorbidities. Case management in primary care