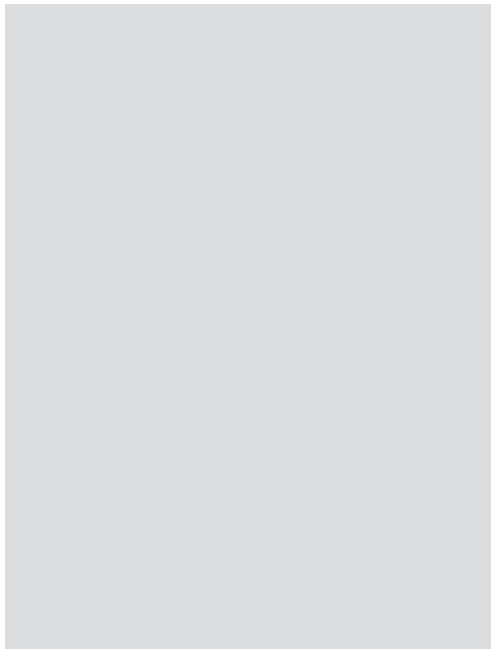




Volume 40, January 2017



of a woman with presenile dementia in 1906. The histologic features Dr. Alzheimer identified in the autopsy – amyloid plaques and neurofibrillary tangles – remain the defining features of

The specific protein responsible for the formation of amyloid plaques was identified 30 years

The second histologic feature, the neurofibrillary tangle, is composed of

tau fibrils, which eventually forms tangles within the cell that lead to synaptic dysfunction. Synaptic dysfunction and loss are the findings most closely associated with cognitive decline

Cognitive assessment is vital to the diagnosis of MCI. Tests that detect deficits in the

. To fulfill the diagnosis of MCI,

Epidemiologists
predict Alzheimer's
will be "the" epidemic
of the 21st century.



to decrease the propensity for the formation of neurofibrillary tangles in animal models.

A novel anti-inflammatory drug, CSP-1103, acts to reduce inflammation in the brain associated with the deposition of amyloid protein. The anti-inflammatory activity of this drug, currently in

Census Bureau Reports

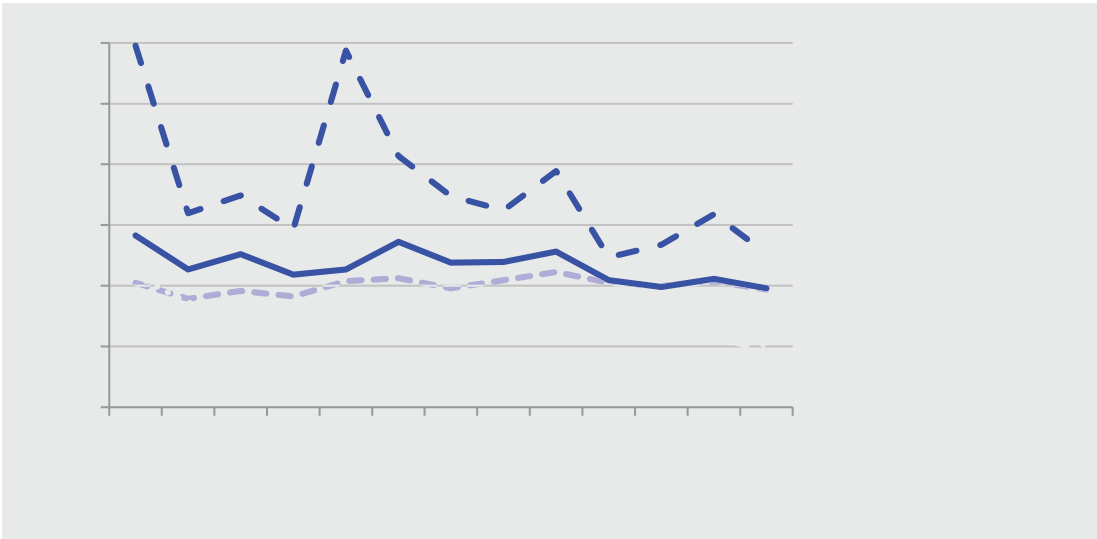
An Aging World: 2015,

The first few months of 2015 exhibited exceptionally high mortality experience in several countries, including the U.S., Japan, and the U.K. This experience was noted by insurance investment analysts, and research was carried out during the first half of 2015 to further develop an understanding of the underlying causes. The new research built on the 2012 seasonality research conducted by RGA¹. The 2012 study had highlighted how a variety of demographic, socioeconomic, and geographic factors influence the degree and direction of seasonal mortality. The 2015 research focused on global seasonality, and how flu and pneumonia (F&P) mortality correlates with other causes of death. These findings were used to monitor the 2016 season, which turned out to be less severe than the 2014-15 season, when flu vaccine effectiveness was especially

s

Flu and pneumonia (F&P) mortality is the most winter-specific seasonal cause of death,

albeit not as significant as respiratory causes, with the exception of cancer.



that flu and pneumonia are the most seasonal causes of mortality. Thus it would be

influenza there was poor vaccine match with circulating strain (as was seen in the 2014-

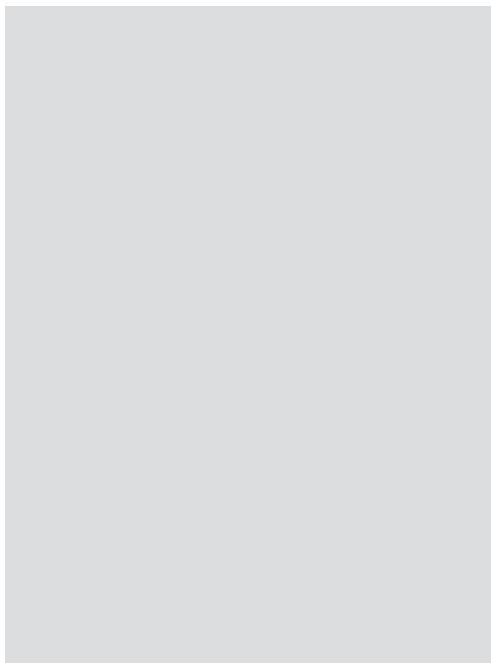
F&P involves a pro-inflammatory process, and inflammation is a driver in many other

position on individuals at high risk for flu-related complications. The CDC lists asthma,

conditions that heighten the risk for flu complications.

insurance companies. As fu season predictions continue to evolve and improve, insurance
adverse experience and financial results. This greater knowledge could also result in an

typically much less significant than the former for a



Cell Reports, Oct 11, 2016

Interesting and relevant articles to the field of insurance medicine recently appearing in the literature...

This study was designed to evaluate the impact of intensive (< 120 mm Hg) compared with standard (< 140 mmHg) systolic blood pressure treatment targets in persons aged 75 years and older with hypertension without diabetes. Among the 2,636 participants who were followed for a mean period of 3.14 years there was a significantly lower (HR 0.66) risk of cardiovascular events and lower all-cause mortality (HR 0.67) in the intensive treatment group compared with the standard treatment group. Serious adverse events were comparable in both groups. While few insurance applicants are currently greater than 75 years of age, that number may increase in the coming years. From an older-age underwriting point of view, the results of this study demonstrate better outcomes in those with more aggressive blood pressure control.

<http://www.bmj.com/content/354/bmj.i4482>

The authors performed a meta-analysis of 109 eligible studies incorporating more than 9.5 million subjects. The authors were able to confirm that atrial fibrillation (AF) was associated with increased overall all-cause mortality (RR 1.46) and stroke (RR 2.42). However, the risk did not stop there. They also demonstrated increase relative risk for cardiovascular (CV) mortality (RR 2.03), CV events (RR 1.96), ischemic heart disease (RR 1.61), sudden cardiac death (RR 1.88), heart failure (RR 4.99), chronic kidney disease (RR 1.64), and peripheral arterial disease (RR 1.31). Given that the risks of some of these are near or greater than the risk of stroke the authors concluded that greater efforts are needed to reduce the risk of non-stroke CV outcomes in adults with AF. Insurers should consider all of these complications in detail especially when developing living benefits products which might be offered to individuals with a history of AF.

This was a randomized Phase 3 study of women with early stage breast cancer deemed to be at high clinical risk and low genomic risk and vice versa, based upon MammaPrint, the 70-gene signature genomic test. The groups were divided into chemotherapy recipients and those who did not receive chemotherapy. Those with high clinical risk and low genomic risk who did not receive chemotherapy only had a 1.5% lower five-year survival rate without distant metastasis compared with those receiving chemotherapy. Those with low clinical and high genomic risk had no statistically significant outcome difference regardless of whether or not chemotherapy was used. If a 1.5% lower survival rate is acceptable, the authors conclude that for women with high risk clinical disease and low risk MammaPrint results, a 46.2% reduction in the use of chemotherapy in that group could be realized. From an insurance point of view, there would likely be little difference in mortality outcomes, yet potentially significantly less morbidity and health care costs if chemotherapy is not utilized.



Presenter: Stephen T. Oh, M.D. Ph.D.

