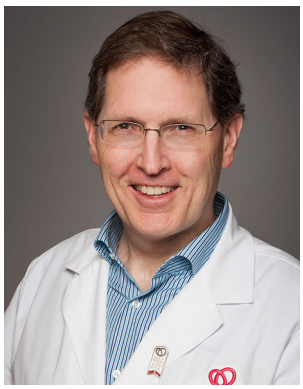
# ASNC PRESIDENT'S MESSAGE

## OLDER PATIENTS WITH CARDIOVASCULAR DISEASE: A NEW FRONTIER FOR NUCLEAR CARDIOLOGY?



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President ASNC, 2019.

''*Age is an issue of mind over matter. If you don't mind, it doesn't matter.* ''*Mark Twain*

''*I don't believe in aging. I believe in forever altering one's aspect to the sun.*'' *Virginia Woolf*

I was honored to attend and present at the International Cardiology Meeting in Curitiba Brazil in August 2019 [sidebar—shout out to Joao Vitola and Rodrigo Cerci for an exceptional meeting and another example of ASNC's collaboration and global impact – making the world a smaller place].[1] As I presented a case of cardiac sarcoidosis, I cited consensus statements from the Heart Rhythm Society and from ASNC/SNMMI that one of the indications for FDG PET is 'young' patients (< 60 years old) presenting with high grade AV block.[2,3] Then, it hit me: I no longer qualified as 'young'. Further reflection as per Mark Twain and Virginia Woolf that age is state of mind or altered aspect to the sun, reassured me. Then I considered all of the patients for whom we provide care, in their 70s, 80s and 90s and even age 100+—how the world and medicine have changed with them and for them.

Age is a key risk factor for almost all cardiovascular disease which remains the #1 killer in the world.[4] Still people are living longer with cardiovascular disease, thanks to prevention strategies and treatments such as acute PCI for STEMIs. As the baby-boomer generation ages, in many countries, including the USA and even more so in Canada, the ratio of people over 65 to those 15 to 64, continues to grown to represent more that 12 and 15%, respectively.[5] As we age, our vasculature, valves, myocardium and indeed ourselves become stiff and calcified[6] which creates a vulnerability that does exist in our youth.[6] As well, we develop more and more co-morbidities (e.g.. renal failure, dementia) and our frailty increases.[7]

While much of our clinical data have focused on mortality ('tomb-stone trials'), not surprisingly our older patients are more interested in their quality of life (freedom from stroke, recurrent hospitalization and nursing homes).[8] This combined with social considerations, shortages of long-term care, palliative and supportive care, must now all be considered in decision-making. Data are desperately needed on the impact on these outcomes for our elderly patients and indeed ourselves as clinicians.

Choosing the right test for the right patient becomes more challenging in our elderly patients where the incidence of disease is high. Although CTCA has prognostic value in patients over 70,[9] calcification can plague the definition of significant stenosis. PET perfusion imaging, in spite of its accuracy advantages in younger patient populations, may not have these advantages in patients over 85.[10] However, Nudi et al. showed the value of SPECT perfusion imaging to risk stratify increases with age (Figure 1)[11]—this may be the right test for the right elderly patient particularly those with known CAD. This, combined with the theoretical value of viability imaging in older patients[12] and the increasing role of Tc-99m pyrophosphate imaging in the detection of cardiac amyloidosis[13,14] (where ASNC has developed practice points),[15] mean Nuclear Cardiology will have a key role in our aging population.

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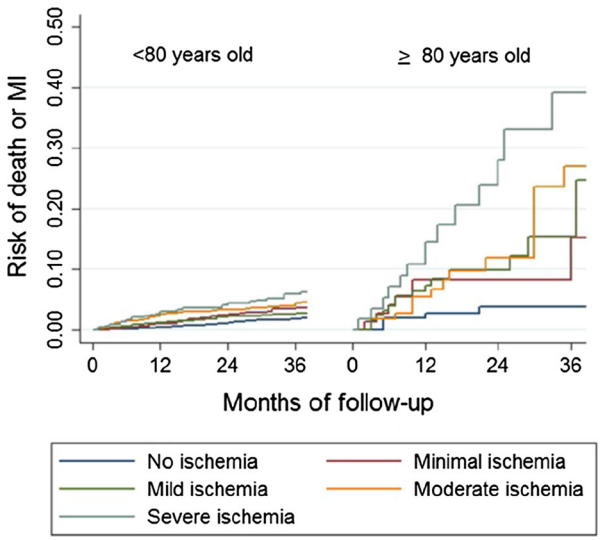


**Figure 1.** ''Kaplan–Meier Failure curves for the risk of death or myocardial infarction (MI), stratified by maximal ischemia score, in patients $< 80$ (left panel) and $\geq 80$ years old (right pane). $P < 0.001$ in both groups. From Nudi et al. J Nucl Cardiol. 2018;25(4):1342–1349.

ACC has recently presented ''A Call to ACTION in Caring for Older Patients With Multimorbidity''.[16] Action #1 is to: ''Identify and communicate patients' health priorities and health trajectory''. Action 2 and 3 are to ensure care is in relation to- and decisions are aligned with these priorities and trajectory. ASNC's mission is to improve cardiovascular outcomes through image guided patient management. Considering the health priorities and trajectories of our older patients, outcomes of quality of life, freedom disability or repeat hospitalization[8] become paramount for our consideration. Indeed, we need more data but Nuclear Cardiology with its high diagnostic and prognostic value is sure to have an increasing role in our older patients. Aligned with ACCs statement, Nuclear Cardiology can direct therapy decisions that consider the benefit and risk of interventions important for a patient's priorities and health trajectory. It is time to increase our representation of elderly patients in our research and to develop position statements and guidelines for imaging in this growing population, which has unique priorities and needs and where decision-making can be the most challenging. ASNC and Nuclear Cardiology can and should take a leadership role as our population ages and we change 'our state of mind' and ''alter our aspect to the sun.''

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