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AAHFN Leadership Message

Doing more to serve our patients



Living with heart failure (HF) has a significant impact on a person's lifestyle and their overall health. The total healthcare expenditure for patients with cardiovascular disease in the United States is over \$30 billion annually.¹ As cardiovascular nurses, we have many interventions to help improve our patients' health. Some of these interventions comprise of working towards tobacco cessation, education around low fat and low sodium diets, medication adherence and maintaining physical activity. However, by focusing only on the heart specific interventions, we are not doing the best we can for our patients. For instance, immunizations are an important tool in the armamentarium against heart disease and HF. As we enter the fall season, this message could not be more timely and imperative. Lost productivity and hospitalizations from HF alone is concerning; however, when looking at the potential illnesses that could impact HF but are preventable by proper vaccination, the effects are staggering.²

Adults with heart disease should at minimal have up-to-date vaccinations for seasonal influenza, pneumococcal pneumonia, Tdap (tetanus, diphtheria, and pertussis) and Zoster. Not only for improved general health, but people with cardiovascular disease are more prone to have serious sequelae from certain diseases such as an increased risk of heart attack, thus making vaccinations even more important.³ In January of 2018, Kwong and associates published a study where they found a significant association between influenza infection and myocardial infarction (MI). Specifically, the 7 days following an influenza infection, patients have a 6-fold increase in risk of MI. There may even be cardioprotective mechanisms in play from influenza and PPSV 23 vaccination from inhibition of chronic inflammation and cytokine productions as well as inhibition of oxidated LDL uptake. Additionally, a sub-analysis of the PARADIGM-HF trial

demonstrated a reduced risk of all-cause mortality in influenza vaccinated patients with heart failure with reduced ejection fraction.⁴ In a 2019 Danish study by Modin et al., it was determined that in the fall, September through October, consistent annual vaccinations correlated with larger reductions in risk of death for patients with HF.⁵ Unfortunately to date, we have no randomized control trial data specifically comparing HF patients vaccinated to those who are unvaccinated.

Taken individually, the studies currently available are not large nor robust, though together they are adding to the larger body of knowledge that supports the need for vaccination in the cardiovascular population. In addition, this evidence collectively may send a strong message that immunizations provide a necessary protection from preventable illnesses to patients with heart failure. Nurses are uniquely positioned to make a difference in vaccination rates.

As we have now entered the fall season, I hope you will join me in bringing forward vaccination as an important treatment modality for those under our care. Vaccinate and be vaccinated, the time is now!

References

1. Heart Failure Fact Sheet. Accessed at www.CDC.gov @ 6/6/2019.
2. Vaccine Information for Adults. Accessed at www.CDC.gov @ 5/27/2019.
3. Bhatt AS, DeVore AD, Hernandez AF, Mentz RJ. Can vaccinations improve heart failure outcomes?: contemporary data and future directions. *JACC: Heart Failure*. 2017;5(3):194–203.
4. Kwong JC, Schwartz KL, Campitelli MA, et al. Acute myocardial infarction after laboratory-confirmed influenza infection. *N Engl J Med*. 2018;378(4):345–353.
5. Modin D, Jørgensen ME, Gislason G, et al. Influenza vaccine in heart failure: cumulative number of vaccinations, frequency, timing, and survival: a Danish nationwide cohort study. *Circulation*. 2019;139(5):575–586.

S. Craig Thomas, MSN, ACNP, ACNS, CHFN has been a Heart Failure nurse for 18 years and an Acute Care Nurse Practitioner and Clinical Instructor in Nursing at UVA for the last 6 years. He trained at University of Virginia and is the recipient of the ANCC 2018 Board Certified Nurse Award in the ACNP category. Craig joined the AAHFN in 2007. In 2013, he became a member of the Education Committee and in 2018 joined the Board of Directors. Craig is professionally involved in nursing education, clinical heart failure care, readmission reduction strategies, transitional care strategies and use of telehealth in the delivery of care.

S. Craig Thomas
University of Virginia, United States
E-mail: sct2z@virginia.edu