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The Growing Need for EP Services in the Elderly Population

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According to the U.S. Census Bureau, the fastest-growing segment of the population is the 85+ age group. In the United States, estimated survival after age 80 is 9.73 years for women and 8.28 years for men. By the year 2030, it is anticipated that the 85+ population will tip 8.5 million in the U.S., which is a 6% increase in longevity compared to 2010. In addition, the global population of 80+ is currently around 137 million and is expected to triple by 2050.

Given these baby boomer longevity statistics, it is no wonder the American College of Cardiology notes that there will be a significant need to treat cardiac arrhythmias over the next 2-3 decades. One of the common heart rhythm disorders that is associated with the elderly is Atrial Fibrillation (AFib). Managing AFib in the elderly requires a comprehensive approach, often including both pharmacology and procedural intervention. By 2050, up to 16 million Americans are projected to have AFib. This article will highlight a few of the common procedural interventions for managing cardiac arrhythmias in the elderly. As we work with clients nationally at Corazon, we are often asked to assess EP programs and services and make recommendations to meet the needs of growing geriatric communities.

Electrical Cardioversion: This procedure is used to restore normal heart rhythm in patients with AFib. It involves delivering a controlled electric shock to the heart through paddles or patches placed on the chest. The goal is for the shock to "reset" the heart's electrical system and restore normal heart rhythm. This procedure is effective at treating AFib in the short term. However, the long-term success rate can vary, with many patients experiencing a return to abnormal heart rhythms within six months.

Catheter Ablations: This procedure involves creating small scars in the heart tissue to block abnormal electrical signals and restore a normal heart rhythm. This is a minimally invasive procedure where energy (radiofrequency or cryotherapy) is used to ablate the problematic tissue. This is a highly effective procedure to restore normal heart rhythm. Catheter-based ablations are expected to continue to gain popularity in the future, given the technological advancements and desire by patients and healthcare providers to shorten recovery times and lower complication rates. Studies have shown that catheter ablations can be effective in elderly patients, with complication rates comparable to those in younger patients.

One of the newer emerging procedures to watch is the Pulsed Field Ablation (PFA) and other non-thermal ablation techniques. These minimally invasive catheter-based procedures are safer and more effective, according to early trials and studies. Non-thermal ablation is particularly beneficial for patients who do not respond well to medications or have recurrent AFib episodes. PFA significantly reduces the risk of damage to surrounding tissues, such as the esophagus and phrenic nerve, which are common concerns with thermal ablation techniques. PFA procedures are generally faster, often completed in less than an hour, compared to thermal ablation procedures that can take two or more hours. The Pulsed AF clinical trials found that PFA successfully eliminated AFib episodes for 12 months in up to 80% of patients, which is significant.

Pacemaker Implantation: In some cases, AFib can lead to a slow heart rate (bradycardia) or heart block, where the electrical signals are delayed or blocked, which is more common in older adults. These conditions can lead to symptoms like fatigue, dizziness, fainting, and even heart failure. A pacemaker helps by sending electrical impulses to the heart to maintain a regular heartbeat, thus reducing the risk of complications associated with irregular heart rhythms. This minimally invasive procedure is often combined with atrioventricular (AV) node ablation, where the AV node is destroyed to prevent the transmission of abnormal signals from the atria to the ventricles. Many elderly patients with pacemakers report significant improvements in their daily activities and overall well-being. Modern pacemakers are sophisticated devices that can be adjusted to meet the specific needs of the patient, and they often come with features that allow for remote monitoring by healthcare providers. This means that any issues can be detected and addressed promptly, ensuring that elderly patients receive the best possible care with minimal disruption to their lives.

Left Atrial Appendage Closure: The left atrial appendage (LAA) is a small, ear-shaped sac in the muscle wall of the left atrium where blood clots can form in patients with AFib. For patients who cannot tolerate long-term anticoagulation therapy, LAA closure devices, such as the Watchman device, offer an alternative to reduce stroke risk. This minimally invasive procedure involves placing a device in the LAA to prevent blood clot formation. It is particularly useful for elderly patients who are at high risk of bleeding complications from anticoagulants.

While this article narrowly focused on a few minimally invasive procedures for treating AFib in the elderly, there are other cardiac surgical techniques and pharmacological interventions that are highly effective. Procedural options

such as electrical cardioversion, catheter ablation, left atrial appendage closure, and pacemaker implantation offer various benefits and risks that must be carefully considered based on the individual patient's health status and preferences. The growing geriatric population highlights the importance of developing and implementing effective AFib management programs and services to improve the quality of life and positive outcomes for elderly patients.

If you have questions about EP services or to better understand how to position your hospital or program for strategic growth to meet your growing geriatric population, reach out to Corazon to start the conversation!

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