

### Ask the Expert Webinar Atrial Fibrillation and Other Arrhythmias: What You Need to Know About Symptoms, Treatment and Prognosis Jan. 31, 2023 Supplemental Q&A

### 1. Does chemotherapy bring on atrial fibrillation (AFib)?

Certain types of chemotherapy have been associated with development of AFib. However, it is important to keep in mind that AFib can arise from a multitude of causes. As such, while certain chemotherapy drugs can be linked to AFib, it is difficult to pin them down as the "cause" of AFib.

### 2. Does thyroid disease have a role in heart conditions?

Thyroid hormone levels that are too high or too low are well known causes of tachycardia (a fast heart rate) and AFib. If you come to the <u>Inova AFib Center</u> with uncontrolled thyroid levels, we prioritize getting your thyroid levels taken care of first.

# **3.** When do you recommend the so-called "pill in the pocket" use of Eliquis vs. regular use – specifically for an active woman in her eighties who had one brief but documented episode of AFib and no cardiovascular disease risk factors other than mild hypertension?

I am a firm believer in an individualized approach to care. Usually, for a woman in her eighties, this would lead to a CHADS-VASC score – a tool to predict an individual's annual risk of AFib – that would require daily use of Eliquis. Taking Eliquis around the time of the episode does not fully protect this type of patient from having a stroke.

If my patients don't tolerate the medicine well, we will consider nonmedication options for stroke prevention. Of course, if there is a strong patient preference and understanding of the risks in not consistently taking Eliquis, I think this can be a case-by-case discussion. However, the risks versus benefits of each approach should be weighed very carefully.

### 4. What is the difference between AFib and heart flutter?

AFib is chaotic, unpredictable, fibrillatory electrical activity in the upper chambers of the heart. Atrial flutter is an organized circuit in the top chamber of the heart, leading to a very predictable timing of electrical activity across any given part of the upper chambers of the heart.



### 5. I had an ablation, and I am a competitive swimmer. Does ablation reduce an individual's anaerobic base?

I am not aware of any data regarding the negative impact of ablation on anaerobic base.

#### 6. Why do some AFib cases result in a low pulse rate, rather than a high pulse rate?

The electrical activity from AFib, which comes from the top chambers of the heart, gets to the bottom chambers through the AV node. This node filters the electrical signal and coordinates the squeeze of the bottom chambers. Sometimes, this process can lead to communication to the bottom chambers at a rate slower than 60 beats per minute. This can arise from medications, clinical status, vagal tone or simply from characteristics of the individual's AV node independent of medications.

### **7.** Should a patient have an ablation after only a short experience with AFib, maybe less than a year?

This is a nuanced question, but recent studies suggest that intervening earlier – whether with medications or with ablation to achieve rhythm control – can help prevent progression into the type of AFib that sticks around. In general, intervening earlier is associated with better outcomes for AFib ablation because there is less time to allow the top chambers to remodel, dilate and scar.

### 8. Is AFib inherited? My grandfather had it.

AFib certainly has a heritable component, particularly if you have relatives who were diagnosed at a relatively young age.

### 9. What is the maze procedure?

In the maze procedure, surgeons create a pattern, or maze, of scar tissue in the upper chambers of the heart using a device that delivers heat or cold energy. Scar tissue does not conduct electricity, and so the maze procedure can stop electrical signals that cause AFib.

### **10.** What type of exercise would benefit someone with AFib? For example, strength training?

We recommend any type of exercise, including aerobic and nonaerobic exercise. Strength training can be incorporated into circuit training for cardiovascular exercise. It also carries benefits for bone strength and other components of physical fitness that, while not directly related to preventing AFib, are helpful for overall wellbeing.



### **11.** If you have coronary artery disease (CAD), should you not use flecainide? How serious does your CAD need to be in order for the drug to be contraindicated?

Typically we do not recommend flecainide for people with <u>CAD</u> who have blockages noted on catheterization or signs on stress tests suggesting they have flow-limiting disease.

### **12.** Can AFib result from trauma, like falling down the stairs? And if it results from trauma, will it resolve on its own?

There are physical stressors that can exacerbate AFib, such as in a post-surgical setting. As such, trauma can certainly serve as a physical stressor, and in some individuals, this will resolve after the triggering episode has resolved. In other instances, we can see that the AFib continues after the stressor is over.

## **13.** Can Eliquis be used only when you are having an AFib episode, rather than taking it every day, especially if you have no risk factors other than being female and 65?

If you are female and just 65, I think this can be a reasonable approach, but I would recommend you discuss the option with your primary electrophysiologist.

### 14. Can COVID-19 make AFib worse?

Any illness or physical stressor can certainly worsen AFib.

### 15. My CPAP machine seems to have stopped my episodes of AFib, but should I expect it to return as I get older?

A continuous positive airway pressure (CPAP) machine is a fantastic intervention to help prevent AFib recurrence. I think of AFib recurrence like remission in cancer: We always hope that it is gone forever, but there is always a chance that it may return. I hope yours never comes back, but we will be here to help you if it does!

### 16. I'm confused about the role of exercise. Isn't it beneficial when you get your heart rate up via exercise? So, why would you want to use drugs to keep your heart rate low?

It is definitely physiologic to have a faster heart rate during exercise. The problem is that when you are in AFib, the conduction between the top and bottom chambers is more permissive. That means your heart rate can shoot up much faster and much more quickly than usual. This usually limits what people can do when they exercise, because your heart is beating much faster much sooner into the workout than usual.



### **17.** What is the pulsed field ablation procedure for AFib? Is this the same as the new force ablation procedure? Are these procedures available at Inova?

Pulsed field ablation is a new technology that uses electrical energy to electrically isolate the pulmonary veins. It is a different technology from the radiofrequency and cryoablation technologies that are currently available, and we are working to make these therapies available at Inova as quickly as possible.

### 18. Why is it difficult to thin some patients' blood with medications?

Everyone's blood can react differently to anticoagulation. Some individuals who take warfarin may have a difficult time achieving good results based on diet or other factors and may benefit from trying another type of blood thinner. Other individuals may have bleeding issues on the blood thinner medications.

### **19.** Is there food and drink that can naturally thin our blood if we cannot take blood thinners?

No, there is not a dietary option that provides an equivalent protective effect. There are nonmedication options that involve a procedure to block off the area that develops clots that lead to strokes, and this may be something you want to discuss with your doctor.

### **20.** What is the relationship between AFib and hypertrophic cardiomyopathy?

AFib can be seen in hypertrophic cardiomyopathy and can contribute to individuals with hypertrophic cardiomyopathy feeling shorter of breath or more tired. It can also increase stroke risk in these patients.

### 21. Are there long-term effects of COVID-19 on heart rhythm?

There are no large studies yet on COVID-19's effect on heart rhythm, but there have been reports of issues with tachycardia and orthostatic hypotension (a form of low blood pressure that happens when a person stands up after sitting or lying down for a while) following infection.

### 22. What is the role of hypertension and hypotension on AFib?

AFib can be associated with hypertension (high blood pressure), which is a risk factor for developing AFib. Hypotension (low blood pressure) can also arise when someone is in AFib, either due to the irregular blood flow in the heart or from medications that individuals take when they have AFib.