AFIB AND CKD
A GUIDE TO EDUCATING YOUR PATENTS ABOUT STROKE PREVENTION

- **Define Afib:** Atrial fibrillation (Afib) is a type arrhythmia, or irregular heartbeat. It is the most common type of arrhythmia. There are generally two types of Afib: one that is caused by a heart valve problem called valvular Afib, and one that is not, called nonvalvular Afib (NVAF). NVAF is more common. Sometimes Afib can come and go without intervention (paroxysmal), while other times it can be more permanent (chronic or long standing). Signs and symptoms of Afib can include fatigue, chest pain, a rapid or fluttering heartbeat, dizziness, and shortness of breath.

- **Define CKD:** CKD (chronic kidney disease) is a loss of kidney function that happens gradually, and has been present for 3 months or more. It is usually not reversible. In CKD, the kidneys become less able to perform many vital functions, including removing metabolic wastes from the body, balancing the body’s fluids, regulating blood pressure, producing red blood cells, and maintaining healthy bones.

- **Afib is linked with stroke:** Afib is a common risk factor for stroke. Some people with Afib may not feel symptoms, but they are still at risk.

- **Explain how Afib can lead to stroke:** Afib causes improper blood flow, which can raise the risk of a clot to form. Clots are important for your body to stop bleeding from cuts, but clots forming in the heart or blood vessels can cause stroke. If a clot or piece of a clot breaks loose and travels to the brain, then blood flow to specific areas of the brain can become blocked or restricted. This can result in a stroke, which can have very serious health consequences.

- **CKD is also a risk factor for stroke:** CKD is another condition that increases the risk of heart disease and stroke. As the blood filtering units of your body, your kidneys are prone to problems with blood circulation and blood vessels. CKD has also been linked with Afib. People with CKD are at higher risk for Afib and stroke.

- **Afib testing:** In general, Afib is evaluated by physical exam and EKG (electrocardiogram), or heart rhythm tracing. Your medical and family histories will also be reviewed, and other tests will check how well your heart functions (echocardiogram or ECHO).

- **CKD testing:** In general, CKD is diagnosed by a urine test to detect protein (albuminuria) and blood (hematuria). Blood tests can check levels of protein and waste products. Glomerular filtration rate (GFR) is a blood test that checks how well the kidneys are filtering. If necessary and appropriate, a kidney biopsy can help confirm CKD.
**Afib treatment:** Afib is treated in two ways. Rate control uses medications to control the heart rate. Rhythm control uses medication or specific cardiac procedures to prevent Afib. Controlled use of a small electric shock, or cardioversion, can be used to correct, or convert, the heart rate. People with NVAF can also take medicines, called anticoagulants, which are used to help prevent harmful blood clots that can cause a stroke.

**Managing related risk factors:** Both Afib and CKD are linked with high blood pressure, high cholesterol, and high blood sugar (diabetes), all of which can increase the risk of a stroke. Therefore, these conditions need to be managed to help reduce risk of stroke and heart disease. These conditions are generally managed through more physical activity, a modified diet, and medications.

**Diet and lifestyle changes:** Eat healthier foods. Control your intake of sugar and fat, be more physically active, and get regular exercise. See a healthcare professional to discuss which dietary and lifestyle changes might be best for you, and to address any medical conditions. Lose weight if you are overweight. Obesity can lead to other conditions such as high blood pressure and diabetes, which can hurt the kidneys and heart.

**Blood pressure control:** It is important to manage blood pressure. Control your intake of salt.

**Caution against NSAIDs:** Avoid overuse of non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen and naproxen, which can harm kidneys. Before taking any over-the-counter drug, vitamin, or mineral ask your doctor which is safe.

**Avoid herbal supplements:** Many herbal products can harm kidneys.

**Avoid smoking:** Smoking increases the chance of heart disease and stroke.

**Discuss medications:** Take all medicines as instructed by your doctor, and do not miss any appointments. Understand the risks and benefits of any treatment. Your doctor may need to change the amount of certain drugs you take in order to keep the right levels in your blood at all times. As soon as you have any problems, let your doctor know.

**Discuss anticoagulants:** Understand the risks and benefits of anticoagulants. Anticoagulants can be very helpful in preventing harmful clots, but they may also carry a risk of preventing helpful clots (such as clots that stop a cut from bleeding), and this can increase the risk of bleeding too much, even from small breaks in your skin. With some anticoagulants you may need to get a special blood test on a regular basis to make sure they are helping you, and you also need to watch your intake of certain foods. Some anticoagulants may have different risks of bleeding. Each type of anticoagulant may have different effects on stroke prevention. If you are on dialysis, the risks and benefits of anticoagulants will need to be carefully considered by your doctor, especially if you have a very high risk of stroke. Talk to your doctor about any new drugs, treatments, and research that can help with your disease, and which treatment might be best for you.

**Know the signs and symptoms of Afib:** Fatigue, chest pain, palpitations or a rapid or fluttering heartbeat, dizziness, or shortness of breath. Contact your healthcare professional if you experience any of these symptoms.

**Knowing GFR, ACR, and CKD:** Know your GFR and ACR and if you have CKD. GFR (glomerular filtration rate) is a blood test for kidney function. ACR (albumin-to-creatinine ratio) is a urine test for signs of kidney damage. The CKD tracker on your take-home sheet can help you keep a record of your GFR and ACR.