

1. The condition I selected was Atrial Fibrillation. According to the article, Atrial fibrillation is the most sustained common arrhythmia, and its incidence and prevalence are increasing in the United States and globally. Atrial Fibrillation is the result of either electrophysiological abnormalities that underlie impulse generation and/or structural abnormalities of cellular connections that typically facilitate rapid and uniform impulse conduction. It stems from waves of electrical activity originating from ectopic action potentials most generated in the pulmonary veins of the left atrium in response to reentrant activity promoted by conduction due to interstitial fibrosis. I work on a cardiac stepdown floor, and we see a lot of A-fib. Throughout my nursing career, I have seen a lot of patients with A-fib that have required different medications to try and convert them out of the abnormal rhythm and back into normal sinus rhythm. Medications I have used in my nursing career include Metoprolol, Amiodarone, Tikosyn, Sotalol, Diltiazem (Cardizem) and other medications. I have seen EP doctors prescribe tons of medications to help control the rate of A-fib to make it less symptomatic for patients that are in A-fib long term, and medications to keep them coagulated like Eliquis, Warfarin and even Lovenox/Heparin at home.
2. The recommendations have been updated with new evidence to guide clinicians. In addition, new recommendations addressing atrial fibrillation and thromboembolic risk assessment, anticoagulation, left atrial appendage occlusion, atrial fibrillation catheter or surgical ablation, and risk factor modification and prevention have developed. According to the article the strategies include managing heart rate, controlling rhythm, and preventing blood clots. The prescribing recommendations must be carefully adapted for those that are pediatric, pregnant and older adults due to distinct pharmacokinetic factors that affect how these individuals process the medications. For anticoagulation medications in pediatric patients, standard guidelines do not apply. Heparin is used, but the data for safe dosing of anticoagulation in children is limited. It must be used to weigh stroke risks, and risk of bleeding applies. For anticoagulation medications during pregnancy, anticoagulation medications can cross the placenta and can harm the fetus, they are generally contraindicated in pregnancy due to risks like fetal bleeding. Heparin and Lovenox are preferred during pregnancy because they do not cross the placenta. Warfarin can be used in the second trimester for high-risk patients but must be avoided in the first and third trimesters. Older adults often have altered receptor sensitivity and have an increased response to many drugs, which using anticoagulation increases their risk of bleeding, increases the risk of drug-drug interactions and might need to