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Should an ACE Inhibitor (ACEI) ever be combined with an Angiotensin II Receptor Blocker (ARB) or a Renin Inhibitor?

The answer to that question is, very rarely. Many years ago, physicians combined these medications hoping that by combining them, it would lead to better outcomes. As it turns out the combination of an ACEI and ARB aren't beneficial and may actually cause harm. Despite this we occasionally see patients admitted to a long-term care facility still taking these combos…often because they seem to be doing okay. It goes back to the "If it isn't broken…don't fix it theory." What we need to do is consider the evidence and whether it would be appropriate to change the therapy.

ACEI plus ARB combinations don't improve cardiovascular outcomes in patients with hypertension, vascular disease, diabetes or after a heart attack. Using the combination can lead to syncope or renal impairment. There's also no proof they reduce progression of kidney disease. The only time that it may make sense to use the combination, is in patients with systolic heart failure. Adding an ARB to an ACEI may modestly reduce mortality or hospitalizations however, a better choice may be to combine an ACEI with an aldosterone antagonist (spironolactone) instead of an ARB. Studies have shown that adding an aldosterone antagonist to an ACEI prevents 7 more deaths per 1000 patients per year than using the combination of an ARB plus ACEI. Much of the same can be said about the combination of a Renin Inhibitor (aliskiren - Tekturna). This combination doesn't improve cardiovascular outcomes in patients with diabetes or after a heart attack and puts the patient at risk for hypotension or hyperkalemia.

When a resident is receiving one of the above combinations, it is recommended that it be brought to the attending physician's attention for him to evaluate. Many times medications get changed or added to a patient's drug regimen when they are admitted/discharged from the hospital. Then when the resident is admitted to a long-term care facility these medications are combined with medications they were taking at home which may lead to unnecessary duplication of therapy. If it is decided that the resident is to remain on any of the above combinations, make sure the blood pressure and kidney function are monitored closely.

Todd Harris RPh. CGP

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Eliquis (apixaban)

A new anticoagulant for treatment of Atrial Fibrillation

In December 2012, Eliquis (apixaban), was approved by the FDA as a new molecular entity (NME) for prevention of strokes in patients with atrial fibrillation (A fib), not caused by a heart valve problem. Eliquis will join Pradaxa (dabigatran) and Xaralto (rivaroxaban) as alternatives to warfarin (Coumadin and Jantoven) in reducing the risk of stroke.

People with atrial fibrillation (an irregular heart beat) are at an increased risk of forming a blood clot in the heart. When your heart beats irregularly, it doesn't pump blood as it should. This can cause blood to pool in the upper chambers of your heart (called the atria). This pooling can cause a blood clot to form in your heart. A clot in your heart can break away and travel directly to your brain. There, it can block an artery and cause a stroke.

Preventing blood clots from forming is probably the most important part of treating A fib. The benefits of this type of treatment have been proven in multiple studies. Doctors prescribe blood-thinning medicines, called anticoagulants, to stop clots by targeting factors your blood needs to form clots.

Warfarin is an anticoagulant that has been extensively studied and prescribed by doctors to help reduce the risk of stroke in people with A Fib since 1954. To be sure you're getting the right amount of warfarin, your doctor will do a test called a Prothrombin Time ("ProTime" or "PT.") By using an INR (International Normalized Ratio), your doctor can keep your blood clotting at a safe and effective level.

With the introduction of the new anticoagulants, dabigatran (Pradaxa), rivaroxaban (Xaralto), and apixaban (Eliquis), there are now alternatives to warfarin for the treatment of A Fib. Unlike warfarin, there is no need for regular blood tests to see if your blood-thinning level is in the right range with these newer agents. However, one of the major downsides to these agents is that there is no antidote to reverse bleeding.

With the recent addition of Eliquis (apixaban), there will be new debate about which anticoagulant is best to prevent strokes in patients with A fib. There are advantages and disadvantages of the newer medications over warfarin. Below is a table to help compare these agents.

	Warfarin (Coumadin, Jantoven)	dabigantrim (Pradaxa)	Rivaroxaban (Xaralto)	Apixaban (Eliquis)
Mechanism	Vitamin K Antagonist	Direct Thrombin Inhibitor	Direct Factor Xa Inhibitor	Direct Factor Xa Inhibitor
Dosing	Once daily- with or without food	Two times each day- with or without food	Once or twice daily- with food at the same time each day	Twice daily
Regular blood tests (INR)	Yes	No	No	No
Renal function monitoring	No	Yes	Yes	Yes
Storage requirements	No	Dispense in original container. Discard after 4 months.	No	No
Dietary restrictions	Avoid foods high in Vitamin K, e.g. large amounts of leafy green vegetables and some vegetable oils. May need to avoid alcohol, cranberry juice, and products containing cranberries.	No	No	No
Antidote	Yes	No	No	No
Other		Causes dyspepsia in over 10% or patients.	Can cause dangerous bleeding. Stopping Xaralto increases your risk of having a stroke. Contraindicated in liver disease with bleeding risk.	Not recommended in severe hepatic impairment.

Choosing between the anticoagulants for atrial fibrillation is tricky. When you have A. fib, you will need to work closely with your doctor to help choose the medication that has the most benefit with the least risk, to help reduce your risk of stroke.

By Cindy DeRan, R.Ph., CGP, Consultant Pharmacist, ICP, Inc.

Look-Alike/Sound-Alike Medications

The below medications are a few of the top offenders of this category. These medications warrant special awareness and consideration when administering the medication due to their potential for medication errors.

Submitted by: Heidi Trautwein RPh,PharmD,CGP

Drug	Typical Use
Amiodarone	antiarrhythmic
Amantadine	Antiviral, Parkinson's
Buproprion	Antidepressant
Buspirone	Anxiolytic
Ceftin	Antibiotic
Cefzil	Antibiotic
Diabeta	Antidiabetic
Zebeta	Antihypertensive
Glipizide	Antidiabetic
Glyburide	Antidiabetic
Labetalol	Antihypertensive
Lamotrigine	Seizures, Bipolar Disorder

Drug	Typical Use
Lexapro	Antidepressant
Lisinopril	Antihypertensive
Methadone	Pain, Analgesia, Detox
Methylphenidate	CNS Stimulant
Oxycontin	Pain- Extended Release
Oxycodone	Pain- Immediate Release
Proscar	BPH
Prozac	Antidepressant
Risperdal	Antipsychotic
Requip	RLS/ Parkinson's
Tramadol	Pain
Trazodone	Antidepressant

Cold or Allergies: How to Tell

Spring is just around the corner, but don't be surprised to see winter weather – and viruses – linger a little longer. So what's behind your stuffy nose: Spring allergies or a cold?

The two miseries share symptoms despite their different causes. But there are clues that can help you find the source of your spring sniffles and choose the right remedy.

"A cold can be accompanied by low-grade fever, sore throat and a cough, whereas allergies usually don't have those things," said Dr. William Schaffner, chair of preventive medicine at Vanderbilt University Medical Center in Nashville, Tenn. "You might have a little bit of sore throat with allergies, but it's mostly runny nose and red, itchy eyes."

The viruses that cause colds can also cause body aches and fatigue, symptoms you will not have from allergic reactions.

The National Institute of Allergy and Infectious Diseases gives this table as guidance:

Symptom	Cold	Allergy
Cough	Usually	Sometimes
General aches and pains	Sometimes	Never
Fatigue	Sometimes	Sometimes
Itchy eyes	Rarely	Usually
Sneezing	Usually	Usually
Sore throat	Usually	Sometimes
Runny nose	Usually	Usually
Stuffy nose	Usually	Usually
Fever	Rarely	Never

If you have a cold, you might find relief in over-the-counter decongestants and pain relievers, Schaffner said. And don't forget to drink plenty of fluids and take it easy, too.

If you have allergies, on the other hand, you might want to try an over-the-counter antihistamine. And if you know the allergy trigger, try to steer clear.

Whatever you do, don't take antibiotics.

"Antibiotics work against bacteria, and bacteria don't cause colds or allergies," Schaffner said. "And the more we use them, the more resistant the bacteria are going to be, so the next time we really need antibiotics, they might not work."

http://abcnews.go.com/blogs/health/2013/03/18/cold-or-allergies-how-to-tell/ By Katie Moisse

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FDA Alert: Azithromycin- Risk of Potentially Fatal Heart Rhythms

Azithromycin, also known by the trade name Zmax, or Zithromax, is an antibiotic of the macrolide class. The FDA approved indications for azithromycin include acute bacterial exacerbations of chronic obstructive pulmonary disease, acute bacterial sinusitis, community-acquired pneumonia, pharyngitis or tonsillitis, uncomplicated skin infections, urethritis and cervicitis, and genital ulcer disease.

Recently, the FDA has issued a warning that azithromycin can cause a potentially fatal irregular heart rhythm, known as torsades de pointes. Patients at increased risk for this include, but are not limited to, those with existing QT interval prolongation, those on other medications known to prolong QT prolongation, low Potassium or Magnesium, a slower than normal heart rate, drugs used to treat irregular heart rhythms or arrhythmias. This warning was issued after a study that compared the risks of cardiovascular deaths in patients , found an increase in cardiovascular deaths in persons treated with a 5-day course of azithromycin compared to ciprofloxacin, amoxicillin or placebo. The risk of death associated with levofloxacin (Levaquin) was similar to those with azithromycin treatment in the study, indicating the risk of CV deaths with azithromycin is similar to that of Levaquin.

Currently, the FDA recommends that healthcare professionals consider the risk of torsades de pointes and fatal arryhtmias with azithromycin when evaluating treatment options for those already at risk for cardiovascular events. It is important to note, however, that many alternative treatments used to treat infections indicated for azithromycin use (such as fluoroquinolones, and other macrolides) also have potential for QT prolongation or other significant side effects that must be considered.

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