

Applied Drug Therapy Homework #5

Case

JZ is a 66 year old retired electrician who presents to you, upon the insistence of his wife, with a chief complaint of "chest pressure". This pressure is non-radiating, and occurs when he is engaged in moderate to severe physical activity, such as climbing a long flight of stairs or shoveling snow. He denies, SOB, nausea, vomiting, diaphoresis palpitations, or any other type of chest discomfort. His wife states that he had been diagnosed with hypertension in the past, though he attributes his elevated BP to "nerves". He is currently on no medications, but takes an occasional Xanax 0.25 mg for "nerves". He also states that he doesn't like to take drugs. He doesn't smoke, but his wife says that he drinks about a quart of beer daily. (At this point, JZ wants his wife to leave the room!)

His physical examination is essentially unremarkable. BP 160/94, HR 96, no edema or JVD, no S3 or S4. ECG shows NSR with some non-specific ST-T wave changes. His cholesterol is 302 mg/dl.

You make a presumptive diagnosis of stable angina, which is confirmed by a positive treadmill test. You elect to initiate pharmacological treatment.

1. You decide to give JZ a bottle of sublingual nitroglycerin tablets. What instructions are you going to provide him regarding this medication? (5 points)

2. Should this person be started on low-dose aspirin therapy? Why or why not? (5 points)

3. Match the drug on the left to the mechanism of action in CHF on the right **(2 points each)**

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| ___ Enalapril | a. Positive inotrope/Increases myocardial contractility |
| ___ Metoprolol | b. Aldosterone antagonist |
| ___ Digoxin | c. Blocks angiotensin II synthesis |
| ___ Furosemide | d. Enhances salt/water excretion by the kidney |
| ___ Spironolactone | e. Blocks excessive sympathetic nervous system stimulation of the myocardial beta receptors. |

4. Briefly (and I DO mean briefly) describe the role of beta-blockers in the treatment of CHF (Hint: When would you use it, when should it be given, what is the major side effect(s) to look out for.) **(5 points)**