Peripheral Vascular Disease: lipids causing occlusions building up in the legs, weakness, pain, ulcers, cool to the touch in the legs

**Cardiac Glycosides and Inotropic Agents:**
Actions: increases contractility of the heart, increases strength of heart pumping, work with the electrolytes, increase the calcium influx and help it contract more efficiently, increase cardiac output, decrease preload, decrease edema, sends blood to kidneys and helps them urinate to decrease edema
Uses: heart failure, when fluid is backing up, increased preload and afterload, correct A-fib and A-flutter, congestive heart failure
Side effects: headache, blurred vision, halos around light, decreased pulse (bradycardia), confusion, nausea, vomiting, diarrhea, check heart rate, could interact with lots of herbs and other meds, hypokalemia they need supplement of potassium
Need to check levels of digoxin, always check heart rate make sure it is greater than 60, check urine output, and check weight

**Digoxin (Lanoxin), inamrinone (Amrinone), milrinone (Primacor), nesiritide (Natrecor)**

**Nitrates**
Action: reduce venous tone, vasodilate vessels, increases blood flow
Uses: angina pain
Side Effects: can cause hypotension, dizziness, fainting, headache, weakness, reflex tachycardia (compensate for low blood pressure), pale, watch blood pressure, baseline vital signs, pulse rate, can give Tylenol for headache, do not put ointment on top of a pacemaker

**Nitroglycerin (nitrostat) no safety cap on it, isosorbide dinitrate (Isordil), isosorbide mononitrate (Imdur)**

**Beta Blockers**
Action: block the action of epinephrine and norepinephrine, block sympathetic response, decrease heart rate and contractility and blood pressure, decreases need for oxygen in the heart, decrease cardiac output
Uses: mostly for hypertension, work best for people with high renin levels, help with angina pain, dysrhythmias, sometimes with heart failure
Side Effects: bradycardia, hypotension, always check vitals, fatigue, dizziness, getting up slow, stuffy nose, depression, erectile dysfunction, bronchospasms, bronchoconstriction, impotence, psychosis, glucose issues, don’t need to come off of them immediately need to taper off of patients with diabetes because could cause hypoglycemia
Selective: not cause bronchoconstriction: Atenolol (Tenormin), Lopressor
Nonselective: hit both beta receptors, bronchoconstriction not used with asthma or COPD: Corgard, Inderal
Don’t necessarily work as well with African Americans, could need to be used in conjunction with something else

Atenolol (Tenormin), metoprolol (Lopressor), nadolol (Corgard), propranolol (Inderal), esmolol (Brevibloc), acebutolol (Sectral), sotalol (Betapace), cartelol (Cartrol)

**Calcium Channel Blockers**
Action: block calcium from crossing the membranes, relax arterioles and smooth muscles, vasodilation, reduce heart rate, decrease contractility and excitability, decreases afterload, calming the cardiac cells
Uses: hypertension, dysrhythmias, angina
Side Effects: hypotension, bradycardia, peripheral edema, low blood pressure, dizziness, headache, reflex tachycardia, heart block, constipation, light headedness, highly protein bound, not for patients with heart failure or heart block, effective for African American clients

Amlodipine (Norvasc), diltiazem (Cardizem), felodipine (Plendil), nifedipine (Procardia), verapamil (Calan)

**Alpha 2 Agonists**
Action: vasodilation, stimulate alpha 2 receptors, decrease release of epinephrine and norepinephrine
Uses: hypertension