

# **Cardiovascular Medications**

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# Statins



- **Atorvastatin (Lipitor®)**
- **Rosuvastatin (Crestor®)**
- **Simvastatin (Zocor®)**
- **Lovastatin (Mevacor®)**
- **Fluvastatin (Lescol®)**
- **Pravastatin (Pravachol®)**
- **Pitavastatin (Livalo®)**

# Cholesterol

- LDL = “bad” cholesterol
- Carries most of cholesterol in blood
- Can stay in blood vessels over time  
→ atherosclerosis (fatty deposits)

- ↑ LDL ↑ Risk



# Cholesterol

- HDL = “good” cholesterol
- Helps remove cholesterol from arteries
- Helps return cholesterol to liver
- ↑ HDL ↑ Protection



# What are “statins”?

- **Group of drugs that are used to lower the level of cholesterol in the blood**
- **Used for patients with**
  - Abnormally ↑ cholesterol levels
  - Family history of heart attacks
  - Increasing age
  - Diabetes



# Benefits of Statins

- **Lower LDL**
- **Higher HDL**
- **Lower Triglycerides**



- **Heart attack and stroke prevention**
- **Second heart attack risk reduction**

# Interactions

- **Blood pressure medicines (diltiazem)**
- **Amiodarone**
- **Grapefruit juice**
- **Prilosec**
- **Warfarin**

# Side effects

- **Headache**
- **Nausea and vomiting**
- **Constipation**
- **Diarrhea**
- **Weakness**
- **Muscle pain**



# Side Effects, cont'd

- **Report to your doctor**
  - Dark urine
  - Fever
  - Joint pain
  - Muscle cramps, pain
  - Unusually weak or tired
  - Trouble passing urine



# Beta-Blockers

Generic Name	Brand
Atenolol	Tenormin
Bisoprolol	Zebeta
Carvedilol	Coreg
Metoprolol	Lopressor, Toprol
Nadolol	Corgard
Sotalol	Betapace

# Beta Blockers

- They work by slowing the heart rate and decreasing the heart's demand for oxygen
- **Used for:**
  - Hypertension
  - Heart failure
  - Angina
  - Abnormal heart rhythms
  - Heart attack
- **How do I take it?**
  - As directed
  - Morning or Evening
- **May interact with other heart medications such as water pills or ACE inhibitors/ARBs by lowering blood pressure too much. If this happens contact your doctor, you may need to change the times you take each medication**



# Beta Blockers

- **Side effects**

- Fatigue
- Cold hands
- Headache
- Upset stomach
- Constipation
- Diarrhea
- Dizziness
- Shortness of breath
- Trouble sleeping
- Loss of sex drive/erectile dysfunction
- Depression

- **Side effects of beta-blockers are usually mild, but if the above symptoms persist or become severe, contact your doctor**



# ACE Inhibitors

Generic Name	Brand Name
benazepril	Lotensin
captopril	Capoten
enalapril	Vasotec
fosinopril	Monopril
lisinopril	Prinivil, Zestril
perindopril	Aceon
quinapril	Accupril
ramipril	Altace
trandolapril	Mavik

# ACE Inhibitors

- **These drugs widen blood vessels and thus lowers blood pressure**
- **Uses:**
  - High blood pressure
  - Heart failure
  - Heart attack
  - Diabetes
  - Heart disease prevention
- **How should I take it?**
  - Any time of day as directed with or without meals
  - Monitor blood pressure



# ACE Inhibitors

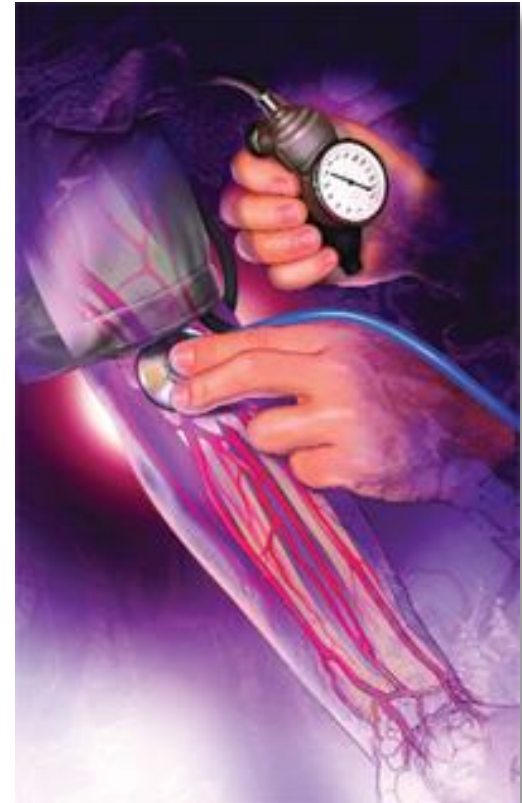
- **Side effects:**
  - Dry cough
  - Red, itchy skin rash
  - Dizziness, lightheadedness, or faintness
  - Salty or metallic taste or decreased ability to taste
  - Physical symptoms: irregular heart beat, chest pain
  - Swelling of neck, face and tongue
  - High potassium levels
  - Severe vomiting diarrhea
- **Contact your doctor if you experience:**
  - Dizziness
  - Persistent Cough
  - Swelling of neck, face and tongue
  - Severe vomiting or diarrhea

# ARBs

Generic Name	Brand Name
candesartan	Atacand
eprosartan	Teveten
irbesartan	Avapro
losartan	Cozaar
olmesartan	Benicar
telmisartan	Micardis
valsartan	Diovan

# ARBs

- **Blocks a chemical that narrows blood vessels thus widening blood vessels and lowering blood pressure**
- **Usually prescribed for people who cannot tolerate ACE inhibitors**
- **Can be taken on an empty or full stomach**
- **Monitor blood pressure and kidney function while taking this medication**



# Calcium Channel Blockers

Generic	Brand
Amlodipine	Norvasc
Felodipine	Plendil
Nicardipine	Cardene
Nifedipine	Procardia
Diltiazam	Cardizem
Verapamil	Calan

# Calcium Channel Blockers

- **Widen blood vessels that leads to lower blood pressure**
- **Diltiazem and Verapamil also work to lower heart rate**
- **Uses**
  - High Blood Pressure
  - Atrial Fibrillation (Diltiazam and Verapamil)

# Calcium Channel Blockers

- **How should I take it?**
  - Take as directed at the same time each day
- **Side Effects**
  - Flushing
  - Palpitation
  - Swelling
  - Headache
  - Dizziness
  - Fatigue



# Blood Thinners

- **Warfarin (Coumadin®)**
- **Pradaxa®**
- **Xarelto®**
- **Eliquis®**



# Effectiveness Compared To Warfarin

Medication	Stroke/Clots	Major bleeding	Intracranial bleeding (Brain)	GI bleed (Belly)
Pradaxa®	Less	Same	Less	More
Xarelto®	Same	Same	Less	More
Eliquis®	Less	Less	Less	Same

# Drug Interactions

Pradaxa®	Xarelto®	Eliquis®
Avoid with (ketoconazole, verapamil, amiodarone, Multaq®)	Avoid with (ketoconazole, phenytoin, carbamazepine, St. John's wort)	Avoid with ketoconazole, phenytoin, carbamazepine, St. John's wort)

# Pradaxa®

- Take with or without food.
- Swallow whole.
- Do not chew, open, or crush.
- Take with a full glass of water.

# What if I miss a dose?

- Take a missed dose as soon as you think about it.
- If it is less than 6 hours until the next dose, skip the missed dose and go back to the normal time.
- Do not take 2 doses at the same time or extra doses.

# Xarelto®

**15 mg and 20 mg tablets:** If you are taking 15 mg or more a day, take with food. You may also crush 15 mg and 20 mg tablets and mix with applesauce. Take right after mixing.

# What if I miss a dose?

- **15 mg twice daily dosing:**
  - Take missed dose right away to make sure you get 30 mg in one day. You may take 2 tablets at the same time. Then go back to your normal times the next day.
- **All other dosing:**
  - Take a missed dose as soon as you think about it.
  - If it is close to the time for your next dose, skip the missed dose and go back to your normal time.
  - Do not take 2 doses at the same time or extra doses.

# Eliquis®

- Take with or without food.
- Take a missed dose as soon as you think about it on the same day you missed the dose.
- Do not take 2 doses at the same time or extra doses.

# Comparison of Cost\*

Medication	Cost of 30 day supply
Pradaxa®	\$330.95
Xarelto®	\$324.95
Eliquis®	\$330.95
Warfarin (Coumadin®, Jantoven®)	\$13.95

\*cash price quote from Publix pharmacy

# Antiplatelet

Generic	Brand
Aspirin	Ecotrin, Bayer
Clopidogrel	Plavix
Prasugrel	Effient
Ticagrelor	Brilinta

# Antiplatelets

- **Help in the prevention of the formation of clots**
- **Used for:**
  - Heart Disease
  - Stroke
  - Peripheral artery disease
  - Angioplasty and Stents
  - Heart bypass or valve
  - Atrial Fibrillation
- **How do I take it?**
  - Usually once or twice a day with or without food
  - **Never stop without your doctor's permission**
  - Talk to doctor before surgery or dental surgery
  - Medications such as aspirin, ibuprofen, and naproxen may increase risk of bleeding



# Antiplatelets

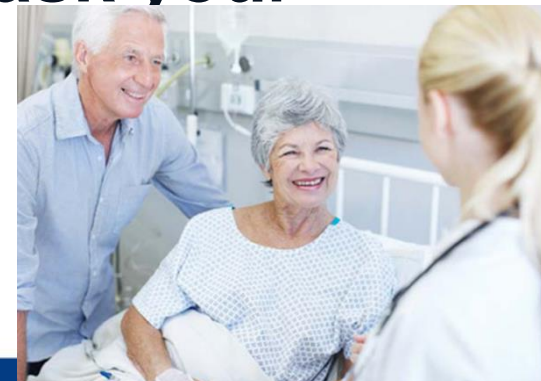
- **Side Effects**

- Nausea
- Stomach pain
- Minor Bleeding
- Major (Contact Doctor)
  - Blood in Urine or Stool (dark stool)
  - Nosebleeds
  - Coughing up blood
  - Heavy menstrual or vaginal bleeding
  - Vomit that looks like coffee grounds



# To Conclude

- **Your Healthcare Plan involves many providers of care and medications**
- **The most important coordinator of this plan is you**
- **Keep yourself informed and do not be afraid to ask questions**
- **For any question concerning your medications, do not be afraid to ask your pharmacist for more details**



# Questions

