

# MENDED HEARTS

An Evening with your Pharmacists

# CHRIS MIN, PHARM D

- Cardiology Pharmacy Resident

# ANTICOAGULANTS

- Commonly referred to as “blood thinners”
- Used for 2 primary reasons:
  1. Prevent a new clot from forming
    - Atrial Fibrillation
    - Other high risk states
  2. Treat an existing clot
    - Pulmonary Embolism (PE)
    - Deep Vein Thrombosis (DVT)

# WARFARIN (COUMADIN®)

- Drug of choice for more than 50 years
- Requires monitoring of PT/INR
  - Reflects level of anticoagulation
  - Allows for daily dose to be adjusted
- Effect can be reversed with Vitamin K
- Diet can effect control
  - Key is consistency, not avoidance

# THE NEW ANTICOAGULANTS

- Dabigatran (Pradaxa®)
  - Must be taken twice daily
  - Must be stored in original packaging
- Rivaroxaban (Xarelto®)
  - Once daily dosing
  - Should be taken with the evening meal
- Apixaban (Eliquis®)

# TIPS FOR ALL ANTICOAGULANTS

- Take as directed
- Alert healthcare workers you are taking
  - Have a plan for invasive procedures
  - Screen for drug interactions
  - Safety in emergent situations
- Be mindful of signs of bleeding
  - Blood in urine, stool
  - Seek medical attention for persistent bleeding

# DANIELLE BLAIS, PHARM D

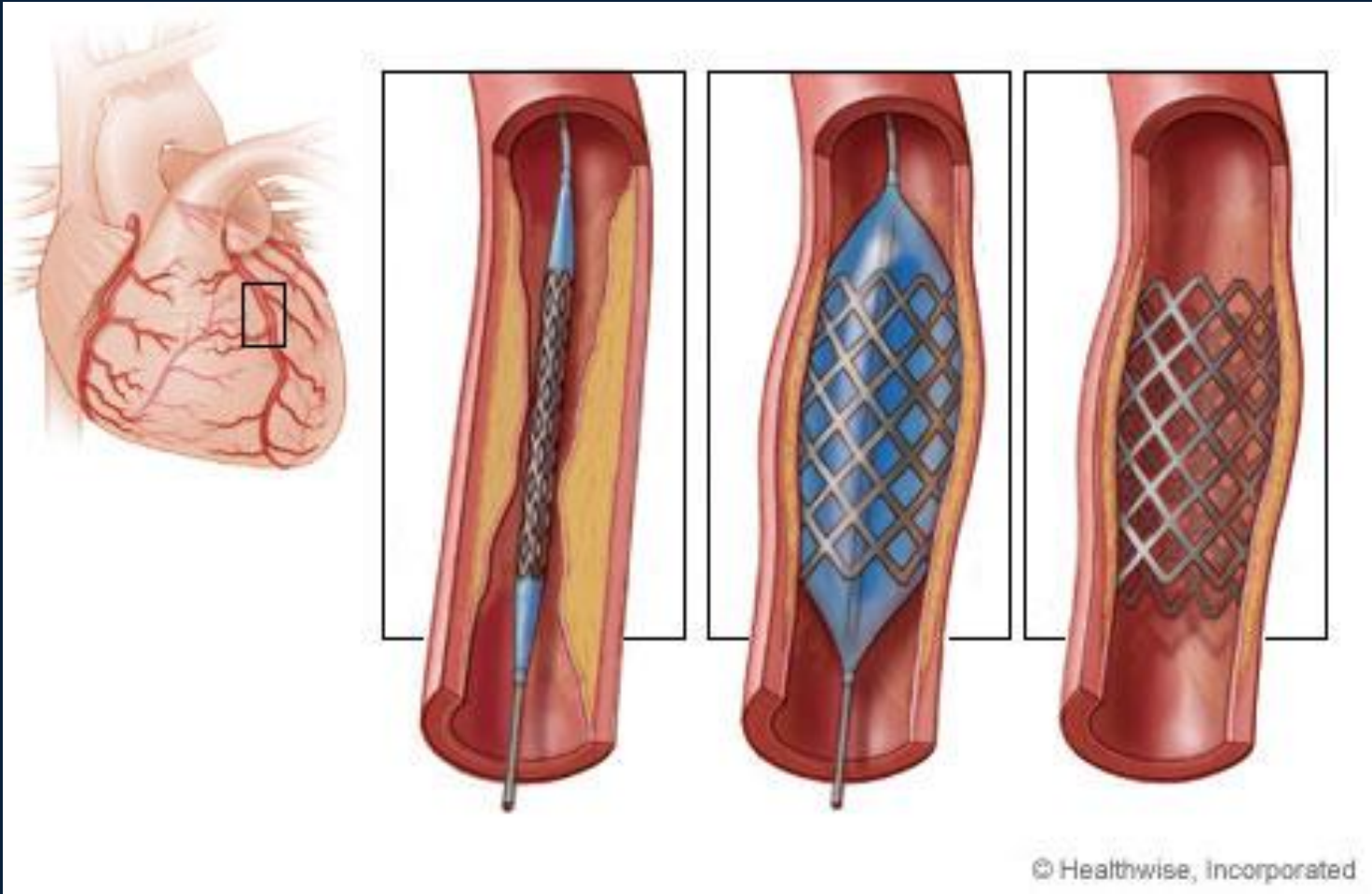
- Specialty Practice Pharmacist
- Acute Coronary Syndromes

# CORONARY ARTERY DISEASE

- Leading cause of death in both men and women
- Risk factors
  - Age
  - Smoking
  - Diabetes
  - High blood pressure
  - High cholesterol



# CORONARY ARTERY DISEASE



# PROTECT YOUR STENT

- **To keep your Stent open**
  - **Aspirin 81 mg daily**
    - **FOR LIFE**
  - **Clopidogrel, Prasugrel, or Ticagrelor**
    - **For recommended duration - depends on the type of stent and reason for the stent**
- **Side effects - bleeding**
- **Take your medication every day**
- **Do not stop taking unless directed by your Cardiologist**

# MARIA PRUCHNICKI, PHARM D

- Specialty Practice Pharmacist

# NEW CHOLESTEROL MEDICATIONS

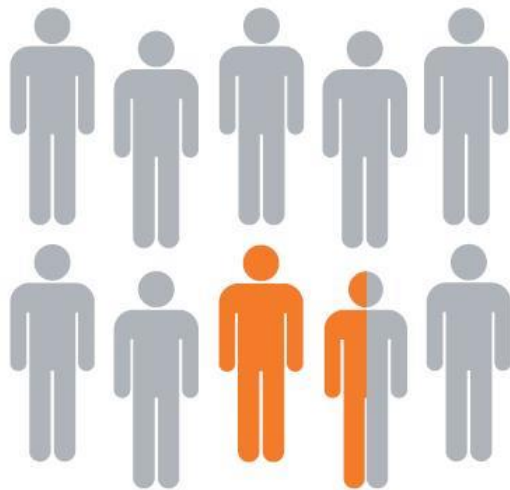
- New class of “cholesterol busters”
  - PCSK9 Inhibitors
- Monoclonal antibodies (MABs)
  - Biologic or “specialty” medication
- Two available agents
  - Praluent® (alirocumab) – July 2015
  - Repatha® (evolocumab) – August 2015

# WHAT YOU NEED TO KNOW

- Can reduce LDL-C by 30-60%
  - Injectable, once every other week (usually)
- Approved for patients with 2 primary conditions:
  1. Familial hypercholesterolemia
  2. History of heart attack or stroke
- Main side effects:
  - Injection reactions, flu-like symptoms, malaise
- Major limitations:
  - Risks and benefits not fully known
  - Cost (\$\$\$)

# WHAT IS THE IMPACT?

## Who may need PCSK9 Inhibitors?



**71 Million**

Americans have high cholesterol<sup>1</sup>

- Statin intolerant
- Genetic disorder (FH)
- Uncontrolled on statins

**11 Million**

Americans uncontrolled on cholesterol therapy may be targeted<sup>1</sup>

**1-2 Million<sup>2</sup>**

Potential Targeted PCSK9 inhibitor population in U.S.

Sources: 1. Morbidity and Mortality Weekly Report. Centers for Disease Control and Prevention. February 4, 2011.

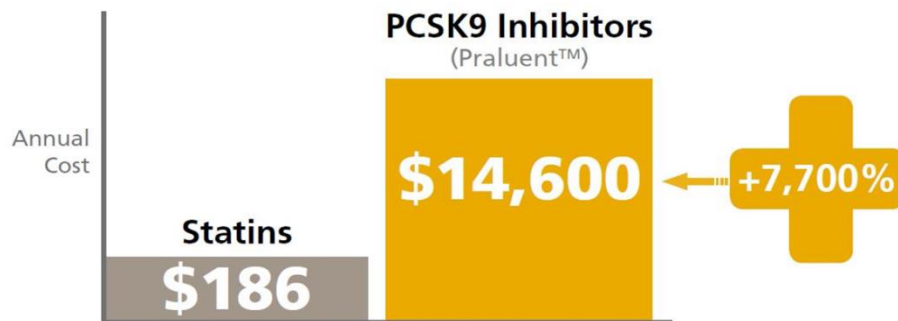
2. Forbes. The New Cholesterol Drugs From Amgen And Regeneron Could Still Be Blockbusters. June 10, 2015.

# WHAT IS THE IMPACT?

## Who may need PCSK9 Inhibitors?

### Average Annual Cost of Therapy

Costs could soar with widespread use of PCSK9 Inhibitors



Statin cost: WAC drug costs for atorvastatin. OptumRx Q2-2015 utilization data.  
Reuters. New heart drugs come in more expensive than expected. Jul 27, 2015.

- Statin intolerant
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**1-2 Million<sup>2</sup>**

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# THE BOTTOM LINE

## Statins are Current Treatment of Choice for High Cholesterol

Lower LDL by 30% to 60%\*

Up to 30% fewer heart attacks\*\*

Up to 20% fewer strokes#

\* Stone NJ, Robinson JG, Lichtenstein AH, et al. 2013 ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *Circulation*. 2014;129:S1-45.

\*\* LaRosa JC, He J, Vupputuri S. Effect of statins on risk of coronary disease: a meta-analysis of randomized controlled trials. *JAMA*. 1999;282:2340-6.

# Amarenco P, Labreuche J. Lipid management in the prevention of stroke: review and updated meta-analysis of statins for stroke prevention. *Lancet Neurol*.



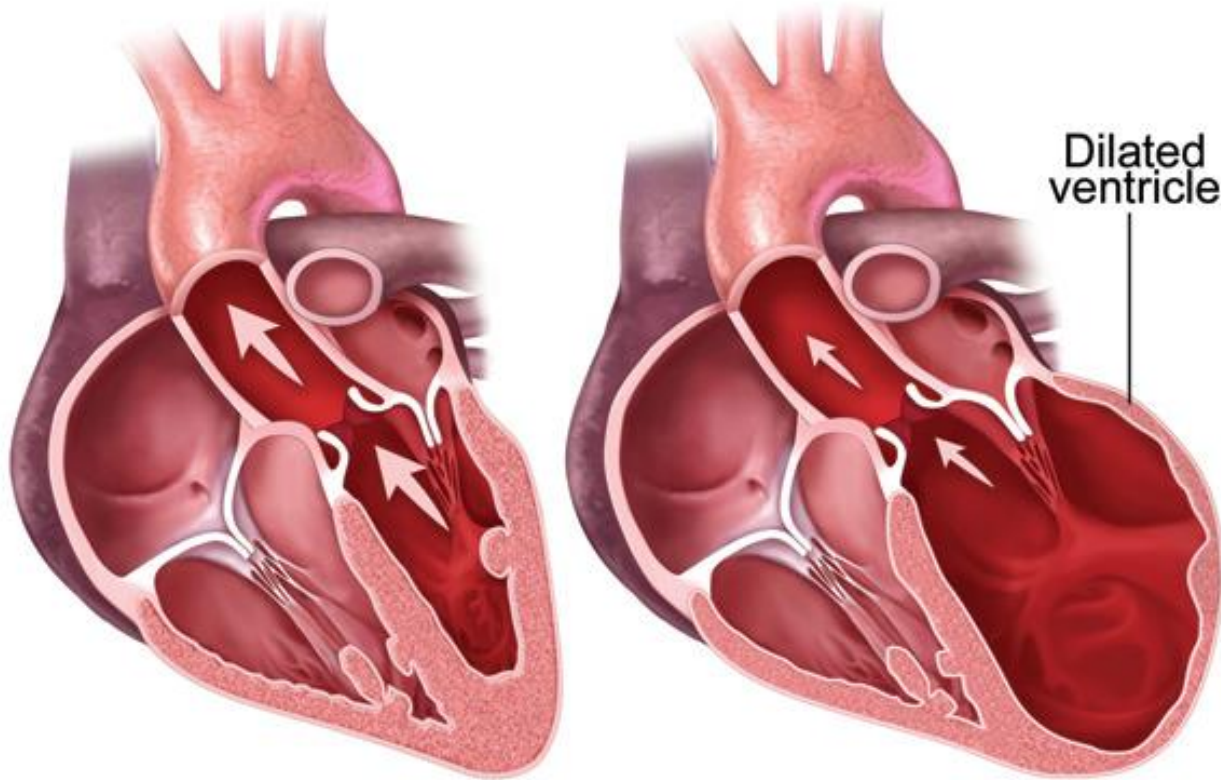
# KERRY PICKWORTH, PHARM D

- Specialty Practice Pharmacist
- Heart Failure

# HEART FAILURE

Normal Heart

Dilated Cardiomyopathy



# DRUGS USED TO TREAT

- **Drugs which make the heart pump more effectively**
  - Enalapril, Lisinopril, Valsartan (Diovan), Losartan (Cozaar)
  - Metoprolol XL (Toprol XL), Carvedilol (Coreg)
- **Drugs which improve the symptoms**
  - Diuretics ( water pills )
    - Furosemide (Lasix) , Torsemide (Demadex)

# WATER PILLS

- Weigh yourself daily
- If weight ↑ by 2-3 lbs /day or 5 lbs /wk
- Watch you liquid intake
- Restrict your salt intake
- May need potassium and magnesium supplements

# LIBBY HERMAN, PHARM D

- Cardiology Pharmacy Resident

# ACHES, PAINS, AND FEVERS

- Acetaminophen (Tylenol)
  - Dose
    - 325-650 mg every 4-6 hours
    - Maximum of 4,000 mg per day
- Aspirin
  - Dose
    - 325-650 mg every 4-6 hours
  - Side Effects
    - Bleeding
    - Upset stomach



# DO NOT USE

- Non-Steroidal Anti-inflammatory Drugs (NSAIDs)
  - Ibuprofen (Motrin, Advil)
  - Naproxen (Aleve)

**DANGER**  
**NSAIDs**



# AVOID NSAIDS

## ■ Why?

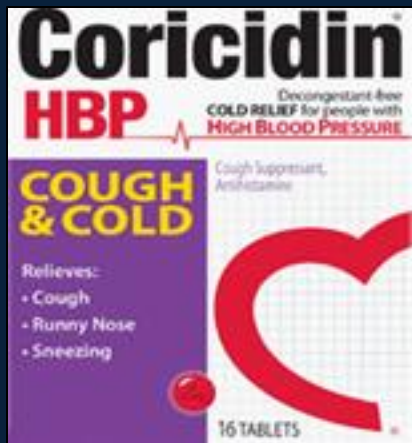
- Damages the kidneys
- Increased risk of heart attack and stroke
- Can increase blood pressure
- Can interact with many medications, including:
  - Warfarin (Coumadin)
  - Aspirin
  - Clopidogrel (Plavix)



# COUGH AND COLD

- Chlorpheniramine  
(Coricidin HBP)

- Variety of available formulations



- Guaifenesin  
(Robitussin)

- Variety of available formulations



# DO NOT USE

## ■ Pseudoephedrine Products

- Sudafed
- Advil Cold and Sinus
- DayQuil-D
- NyQuil-D
- Claritin-D
- Mucinex-D

## ■ Phenylephrine

- Sudafed PE
- DayQuil
- Nyquil Sinus



# CHECK THE LABELS



## ***Drug Facts***

**TAMPER EVIDENT: D**  
Failure to follow the

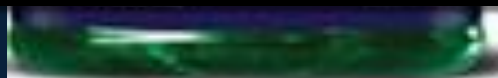
### ***Active ingredients (in each 15 m***

Acetaminophen 500 mg .....

Dextromethorphan HBr 15 mg .....

Doxylamine succinate 6.25 mg .....

Pseudoephedrine HCl 30 mg .....



Know Your  
**MEDICINE**  
Know Your  
**PHARMACIST**

# CONTACT INFO

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