Hypertension, Hyperlipidemia and Obesity

Mi-CCSI

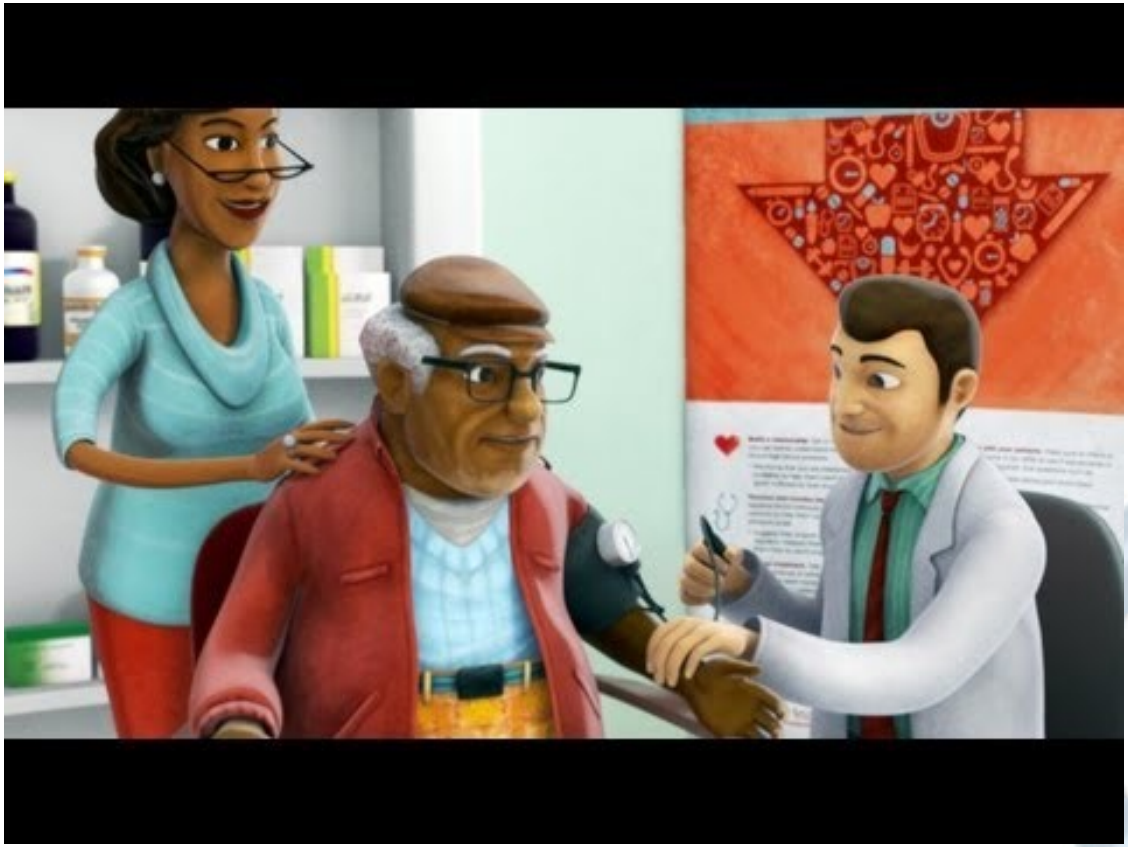
Objectives

- Review the prevalence of hypertension, hyperlipidemia and obesity
- Correlation of the 3 conditions
- Discuss why it is important to treat these conditions
- Identify the key areas of medically managing the 3 conditions
- Discuss lifestyle changes and self-management goals for patients living with these conditions

- Approximately 30% of adults have hypertension
- ½ do NOT have it in control
- 1 in 3 American adults have signs of prehypertension
- Most prevalent < 55
- Men and women are almost equally affected
- African Americans are more likely than Caucasians to have it

- 33% of Americans have high levels of LDL cholesterol (That's 71 million people)
- 1/3 with hyperlipidemia do not have it controlled
- < 60% of adults are considered overweight or obese (based on their body mass index (BMI)
- < 1/3 of children and young adults ages 6-9 are considered to be overweight or obese

https://www.youtube.com/watch?v=XbLmIoyDJuE



Diagnosing Hypertension

- Hypertension (HTN): Clinical term for high blood pressure
  - Normal values systolic/diastolic range:
    - from 90/60 mmHg to 120/80 mmHg
  - People with HTN have blood pressure ≥ 140/90 (systolic or diastolic)
  - Often patients have no signs or symptoms of HTN
  - HTN is a chronic condition
    - There is no cure, but can be managed
    - Treatment focuses on lifestyle and or medications

Diagnosing Hyperlipidemia

- Hyperlipidemia (HL): Clinical term for high cholesterol. Sometimes also called hypercholesterolemia
  - Cholesterol is a natural substance found in our blood and nerve cells
  - Foods also contain cholesterol, specifically animal fats
    - Common sources include eggs, meat, cheese and other dairy
  - Normal values are total cholesterol <200 mg/dL,
    - LDL (bad) cholesterol <100 mg/dL,
    - HDL (good) cholesterol >40 mg/dL for men and > 50 mg/dL for women
    - Triglycerides <150 mg/dL
  - Hyperlipidemia is classified as a chronic condition by the center for Medicare and Medicaid
    - As with hypertension, treatment focuses on lifestyle and or medications

Diagnosing Obesity

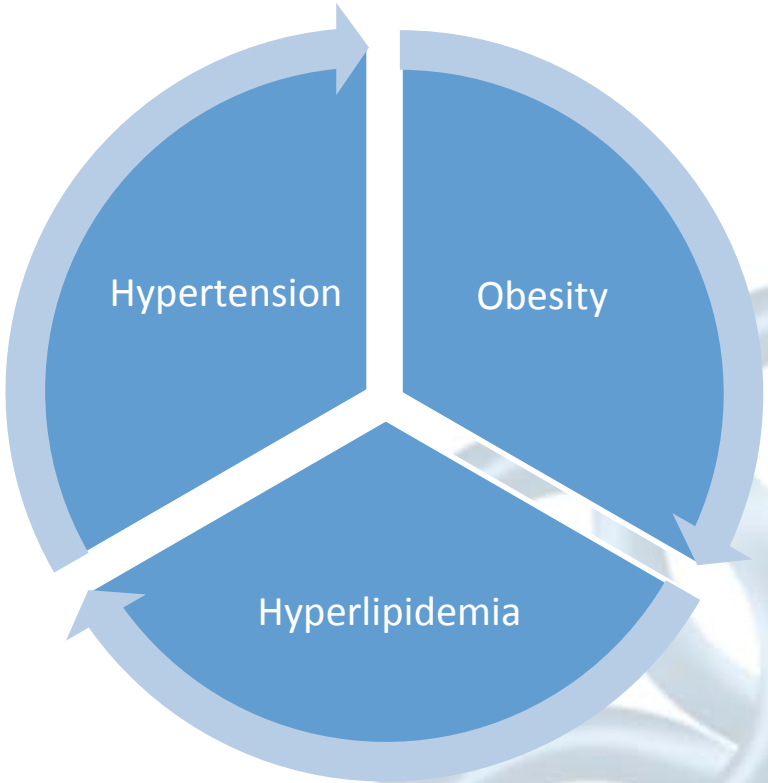
According to the Center for Disease Control, obesity is defined as, "weight that is higher than what is considered as a healthy weight for a given height."

- Obesity is determined by a person's body mass index (BMI) which is an estimate of body fat based on a person's height and weight
  - Normal BMI is 18.5 – 24.9
  - BMI of 25 – 29.9 is considered overweight
  - BMI $\geq$ 30 is considered obese

- Obesity is a serious concern because it is associated with poorer mental health outcomes, reduced quality of life, and the leading causes of death in the U.S. and worldwide, including diabetes, heart disease, stroke, and some types of cancer

Relationship: Hypertension Hyperlipidemia and Obesity

- Obesity is a risk factor for hypertension and hyperlipidemia
- Foods high in cholesterol are usually also high in calories, which contributes to obesity
- The build-up of cholesterol in the artery walls can restrict blood flow, which increases blood pressure and can lead to hypertension



Risk Factors

Hypertension

- Obesity
- Diabetes
- Smoking tobacco
- Eating foods high in Na+
- Eating foods low in K+
- Drinking excess alcohol
- Not enough exercise
- Genetics and family hx
- Advanced age
- Prehypertension and or pre-eating disorders
- African American

Hyperlipidemia

- Obesity
- Diabetes
- Smoking tobacco
- Eating foods high in Na+
- Eating foods low in K+
- Drinking excess alcohol
- Not enough exercise
- Genetics and family hx
- Advanced age

Obesity

- Not enough exercise
- Unhealthy diet
- Genetics and family hx
- Advanced age

Medical Management of Hypertension

ACE inhibitors (Angiotensin Converting Enzyme)	ARBs (Angiotensin II Receptor Blockers)	Beta Blockers	Calcium Channel Blockers	Diuretics
Prinivil (Lisinopril)	Diaovan (valsartan)	Toprol-XL (metoprolol)	Norvasc (amalodipine)	Lasix (furosemide)
Vasotec (enalapril)	Atacand (Candesartan)	Corgard (nadolol)	Cardizem (diltiazem)	Microzide (hydrochlorothiazide, HCTZ)
Altace (Ramipril)	Cozaar (losartan)			

Accurately taking a blood pressure

Ideally, use an automated cuff

If using a manual cuff deflate the cuff slowly (if too quickly, the BP can appear 20 to 30 mm Hg lower that it really is)

Patient preparation

- Place cuff on a bare arm, with the cuff entirely covering the arm's circumference
- Ensure proper positioning: seated in a chair with back support
- Feet planted firmly on the floor, legs uncrossed and arms supported
- Patients should have an empty bladder
- Refrain from talking with the patient during the reading
- If the blood pressure is 140/90 mg Hg or higher, confirm the reading with a repeat BP

Demonstration

https://www.youtube.com/watch?v=gUHALsLeeoM

Medical management of hyperlipidemia

- Statins are the most common medications used to lower cholesterol
  - Statins should be taken at night because most cholesterol is synthesized or produced when dietary intake is at its lowest, which occurs overnight

Common prescribed Statins	Other medications used to lower LDL cholesterol and triglycerides and increase HDL cholesterol
Lipitor (atorvastatin)	Nicotinic acid
Zocor (simvastatin)	Fibrates
Crestor (rosuvastatin)	Bile acid sequestraints

Lifestyle changes to help address hypertension hyperlipidemia and obesity

- Following a healthy eating plan
- Reducing the amount of salt in the diet
- if overweight or obese – lose weight
- Avoid drinking too much alcohol
- Stop smoking
- Identifying ways to reduce stress
- Exercise at least 30 minutes per day most days of the week

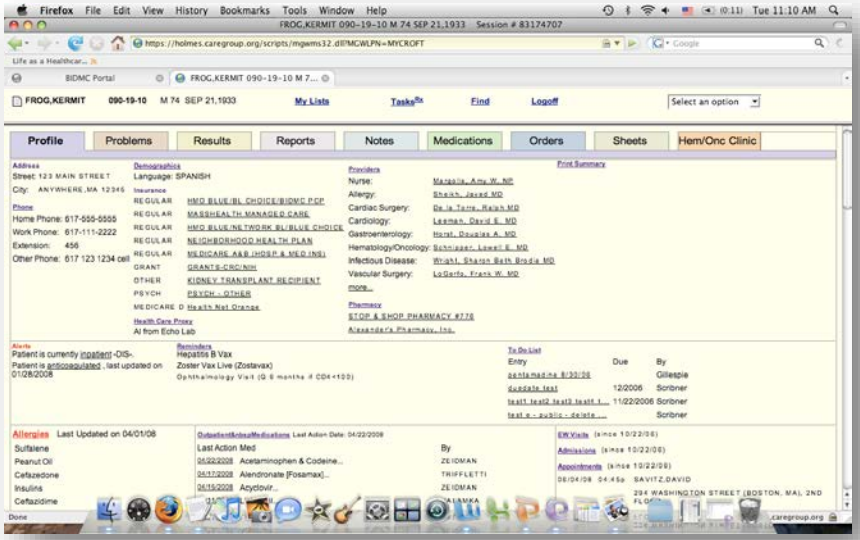
Importance of Physical Activity

- Improves blood pressure and cholesterol levels
- Decreases weight
- Lowers the risk of type 2 diabetes, heart disease, stroke and some cancers
- Strengthens lungs muscles and joints
- Slows bone loss
- Increases energy levels
- Helps with relaxation, coping and stress management
- Promotes better sleep

Quality Metrics in the Practice

Frequency	Test	Impact
Annual Exam and at each visit	Blood Pressure	The first indication of high blood pressure
	Cholesterol	The first indicator of hyperlipidemia
	BMI	Indicator to determine obesity

How do I help manage hypertension, hyperlipidemia and obesity in my practice?



- Use of the registry tool
- Pre-visit planning

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Congratulations!

Questions or comments