



**NATIONAL REGISTER**  
OF HEALTH SERVICE PSYCHOLOGISTS

# **Pharmacology for Common Medical Conditions: Cardiovascular Disease**

**MORGAN T. SAMMONS, PhD, ABPP**  
**National Register of Health Service Psychologists**

# Cardiovascular disease management for the BHC

- **Persistent arrhythmias**
- **Chronic angina**
- **Cardiovascular compromise resulting from myocardial infarction**
- **Congestive heart failure**

# Arrhythmias and MI – Psychological Concerns

- **Atrial fibrillation**
  - Potential links to psychological distress
  - May occasionally be confused for Panic Attack/Disorder or generalized anxiety disorder
- **Myocardial infarction**
  - Links with substance abuse, psychological stress, depression, lifestyle (including homelessness)
  - Long term recovery from MI negatively affected by psych factors

# Do psychological interventions help in CVD?

- **Recent Cochrane meta analysis:**
  - Psychotherapy, exercise, or behavioral programs for increasing adherence
  - No effect on morbidity or mortality
  - Some effect on improving quality of life
  - Depressed patients may differentially benefit
  - Some improvement in coping and adaptive skills
- **Important not to oversell benefits of psychological intervention**

# Drugs for Angina Pectoris (classic angina)

- Psychological or physical stress can exacerbate angina
- Drugs include
  - Nitrates (nitroglycerin)
    - Vasodilation
  - Beta blockers
    - Reduction of cardiac output
    - No vasodilation
  - Calcium channel blockers
    - Vasodilation, reduction of cardiac output

# Heart failure

- **10% of deaths in US have HF as contributor**
- **Progressive; 50% mortality when diagnosed**
- **Important to treat predisposing causes**
- **Congestive heart failure**
  - **Inability to pump blood through lungs leads to pulmonary edema**
  - **Peripheral swelling, often legs, ankles, feet**

# Cardiac arrhythmias

- **Supraventricular and ventricular**
- **Acute and Chronic**
- Psychotropic drugs may be **arrhythmogenic**
- **Sodium channel blockers**
- **Beta blockers**
- **Calcium channel blockers**
- **Potassium channel blockers**





**NATIONAL REGISTER**  
OF HEALTH SERVICE PSYCHOLOGISTS