HEART FAILURE

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POINT OF DISCUSSION

• Introduction
• Definition of heart failure
• Warning signs of HF
• Types of HF
• Stages of HF
• Causes of HF
• How to diagnose
• Treatment of HF
• Nursing care of patients with HF
INTRODUCTION

- Heart failure is more likely to happen as we age, but anyone can develop heart failure, which is a serious, long-term (chronic) condition. But you can live a full and active life with the right medical treatment and the attention you pay to your lifestyle.
DEFINITION OF HF

What is Heart Failure?

- A disorder in which the heart loses its ability to pump blood efficiently throughout the body.

↓ Cardiac Output

- Heart failure occurs when CO is inadequate to provide the oxygen needed by the body.

NORMAL

Oxygen rich blood is pumped to the body
Left Ventricle
Septum

HEART FAILURE

Reduced Volume
Dilated Ventricle
HF 3D

WARNING SIGNS OF HF

- Shortness of Breath
- Chronic Coughing or Wheezing
- Build-up of Fluid (edema)
- Fatigue or Feeling Lightheaded
- Confusion or Impaired Thinking
- High Heart Rate
**Types of HF**

**RIGHT SIDED HEART FAILURE**
*(Cor Pulmonale)*

- Fatigue
- ↑ Peripheral Venous Pressure
- Ascites
- Enlarged Liver & Spleen
- May be secondary to chronic pulmonary problems
- Distended Jugular Veins
- Anorexia & Complaints of GI Distress
- Weight Gain
- Dependent Edema

**LEFT SIDED HEART FAILURE**

- Paroxysmal Nocturnal Dyspnea
- Elevated Pulmonary Capillary Wedge Pressure
- Pulmonary Congestion
  - Cough
  - Crackles
  - Wheezes
  - Blood-Tinged Sputum
  - Tachypnea
- Restlessness
- Confusion
- Orthopnea
- Tachycardia
- Exertional Dyspnea
- Fatigue
- Cyanosis
Stages of HF

<table>
<thead>
<tr>
<th>Stage</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mild weakness, doesn't affect daily tasks</td>
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<tr>
<td>2</td>
<td>More than usual tiredness after performing daily exercise</td>
</tr>
<tr>
<td>3</td>
<td>Excessive fatigue after performing daily tasks</td>
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<tr>
<td>4</td>
<td>Any physical activity causes discomfort</td>
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CAUSES OF HF

Causes of Congestive Heart Failure

- Primary causes:
  - Cardiomyopathy
  - Coronary artery disease
  - Hypertension
- Secondary causes:
  - High salt intake
  - Noncompliance with treatment
  - Side effects of drug therapy
  - Kidney failure
  - Stress
  - Infection and inflammation
  - Cigarette smoking
  - Obesity
How to diagnose HF
• Blood tests
• Chest x-ray
• ECG
• ECHO
• Stress ECG
• MRI / CT
• Coronary angiogram
• Myocardial biopsy

Treatment of HF

1_Medications:
Doctors usually treat heart failure with a combination of medications. Depending on your symptoms, you might take one or more medications, including:

• Angiotensin-converting enzyme (ACE) inhibitors
• Angiotensin II receptor blockers
• Beta blockers
• Diuretics
• Aldosterone antagonists
• Inotropes
• Digoxin (Lanoxin)
2_Surgery and medical devices

- Coronary bypass surgery
- Heart valve repair or replacement
- Implantable cardioverter-defibrillators (ICDs)
- Cardiac resynchronization therapy (CRT)
- Ventricular assist devices (VADs)
- Heart transplant

3_Lifestyle and home remedies

- Stop smoking
- Discuss weight monitoring with your doctor
- Check your legs, ankles and feet for swelling daily
- Eat a healthy diet
- Restrict sodium in your diet
- Limit alcohol and fluids
- Reduce stress
Nursing care of patients with HF

• **Nursing Diagnosis**
  Decreased cardiac output related to changes in myocardial contractility manifested by decrease in heart rate

• **Goal**:
  show vital signs within acceptable limits

**Nursing Interventions**:
- a. Auscultation apical pulse, assess the frequency and rhythm
- b. Record the heart sounds
- c. Palpation of peripheral pulses
- d. Assess the skin of cyanosis and pallor
- e. Provide a comfortable and quiet environment

• **Nursing Diagnosis**.
  Activity intolerance related to imbalance between supply oxygenation needs manifested by increase respiration rate.

• **Goal**: Participate in a desired activity

**Nursing Interventions**:
- a. Check vital signs before and after the activity, particularly when patients using vasodilator, diuretic.
- b. Assess the precipitator / causes weakness example: treatment, pain, medication.
- c. Evaluation of an increase in activity intolerance.
- d. Provide assistance in self-care activities
• **Nursing Diagnosis:**
  Excessive Fluid volume related to decreased cardiac output and sodium and water retention manifested by Edema of extremities
  
  **Goal:** Patient will demonstrate adequate fluid balanced

• **Nursing Interventions:**
  - Assess patient’s general condition
  - Monitor I&O every 4 hours
  - Weigh patient daily and compare to previous weights.
  
  - Assess for presence of peripheral edema. Do not elevate legs if the client is dyspnic

• **Nursing Diagnosis**
  Unpleasant sensory and emotional experience arising from actual or potential tissue damage manifested by restlessness
  
  **Goal**: Patient’s pain will be decreased.
  
  **Nursing Interventions**:
  - Assess patient pain for intensity using a pain rating scale
  - Administer or assist with self-administration of vasodilators, as ordered.
  - Provide comfort measures.
  - Teach patient relaxation techniques and how to use them to reduce stress.
  - Teach the patient how to distinguish between angina pain and signs and symptoms of myocardial infarction.
Thanks for giving me your Time