

# Madigan Army Medical Center

## Referral Guidelines

### Congestive Heart Failure

#### Diagnosis/Definition

- Clinical syndrome with symptoms of shortness of breath, fatigue, and signs of elevated jugular venous pressure, rales, displaced PMI, S4, S3, and lower extremity edema.
  - Systolic dysfunction - congestive heart failure (CHF) with decreased left ventricular ejection fraction (LVEF) <40%. Common causes are coronary artery disease (CAD), hypertension (HTN), idiopathic dilated cardiomyopathy and alcohol abuse.
  - Normal Systolic Heart failure - normal LVEF (> 40%) with elevated filling pressures. Common causes are CAD, HTN, diabetes mellitus, and aortic stenosis, and older age.

#### Initial Diagnosis

- 12 lead electrocardiogram.
- PA and LAT CXR.
- Transthoracic echocardiogram (CHCS: ORE->RAD-> Echo).
- Labs - CBC, chem 7, albumin, lipids, LFTs, UA, thyroid function (if Afib or unexplained failure), iron panel.

#### Initial Management

- Hospitalize if first episode of moderate to severe heart failure, or recurrent heart failure complicated by acute events or myocardial infarction (MI), pulmonary embolism (PE), acute pulmonary edema, hypotension, symptomatic arrhythmias.
- LV systolic dysfunction:
  - ACE-I at max doses (if contraindicated, use angiotensin II blocker), digoxin, diuretic for congestion, anticoagulation (if Afib or h/o embolization), beta-blocker (if volume compensated, start low and titrate slowly).
  - Other: 2Gm sodium restricted diet
  - Dynamic exercise as tolerated.
- LV diastolic dysfunction:
  - ACE-I and beta-blockers. Consider diuretic, nitrates.
  - Digoxin and other positive inotropic agents are not indicated.

#### Ongoing Management and Objectives

- Stabilization of symptoms with attention to common management errors:
  - Inappropriate medical therapy: no ACE-I or inappropriate doses, inadequate diuretic dose, deleterious effects of CaCB (in systolic dysfunction), use of NSAID's, inadequate BP control (SBP 90-100 should be the goal), untreated tachycardia (ventricular rate goal 60-80 bpm).
  - Lifestyle noncompliance: >2 Gm sodium, alcohol and nicotine use.
  - Untreated comorbidities: infection, anemia, thyroid, nutritional deficiencies.
- Consider evaluating for associated CAD.

## **Indications for Specialty Care Referral**

- Recurrent CHF symptoms and/or hospitalizations despite appropriate medical therapy.
- Need for ischemia evaluation.
- Assistance with medical therapy if presence of acute renal failure, consideration of other meds such as Carvedilol and/or drug studies.
- Consideration of Bi-ventricular pacemaker in pts with EF<35% and class 3 – 4 CHF.
- Consideration of ICD in pts with EF<35%

## **Criteria for Return to Primary Care**

- Stabilization of symptoms on medications.
- Any required evaluation or treatment for CAD accomplished.

Last Review for this Guideline: **January 2010**

Referral Guidelines require review every three years.

Maintained by the Madigan Army Medical Center - Quality Services Division  
Clinical Practice and Referral Guidelines Administrator