Primary Care Management of Heart Failure  
South Wiltshire PCT  
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**Confirmed heart failure**

### Possible symptoms
- Fatigue  
- Weight Gain  
- Breathlessness  
- Orthopnoea  
- PND

### Possible Signs
- Tachycardia, displaced apex beat, 3rd heart sound, hypotension, tachypnoea, basal crackles, pleural effusion, raised JVP, Peripheral Oedema & cyanosis, ascites, hepatosplenomegaly

### Possible causes
- **Low Output**
  - Heart Muscle Disease e.g. CHD, Cardiomyopathy  
  - Excess Afterload e.g. Hypertension, AS  
  - Excess Preload e.g. Mitral Regurgitation  
  - Inadequate Heart Rate  
  - Negative Inotropes  
  - Restricted Heart Filling
- **High Output**
  - Anaemia, hyperthyroidism, A-V Malformation, Pregnancy

### Main Medical Treatment
1. Treat cause of heart failure & Stop NSAID, verapamil & diltiazem  
2. Start and maximise ACE inhibitor if no contraindication  
3. Consider ACE-II if intolerant of ACE inhibitor  
4. If symptomatic with maximal ACE-I consider:  
   - ♦ Loop diuretic to minimum effective dose  
   - ♦ Spironolactone 25mg &/or digoxin (therapeutic dose)  
5. Monitor at least every 6 months: record weight, BP, NYHA, HR, U+E’s + creat and adjust medication accordingly  
6. Refer for beta blocker to Heart Failure Clinic at Salisbury District Hospital

### Other issues to consider:
- Diet, alcohol, salt, fluid, smoking & exercise  
- CHD Secondary Prevention & BP/lipid control  
- Patient, family & carer education  
- Social & psychological support. Driving advice  
- Pneumococcal & influenza vaccination

### Indications for specialist referral
1. For consideration of revascularisation  
2. Valvular disease or renal artery stenosis  
3. Arrhythmias & consideration of cardioversion  
4. Beta blocker initiation  
5. **Cr >200umol/l**  
6. **Ur >12mmol/l**  
7. **Na+ <130mmol/l**  
8. Systolic BP < 100mmHg or symptomatic low BP  
9. Severe persistent heart failure symptoms  
10. Refer to palliative care team for NYHA 4

### Suspected heart failure
1. Consider adding frusemide while investigating  
2. UEC,FBC,TFT,LFT,Lipids,Glucose,Weight, uranalysis  
3. CXR,ECG, Peak Flow or spirometry & Open Access Echocardiogram

**NOTE:** if index of suspicion is low and both CXR and ECG are normal heart failure is unlikely and an echocardiogram is not required
NYHA classification

Class 1 - Asymptomatic
No limitation of physical activity. Suspected if there is a history of heart disease and confirmed by echocardiography. Patients in this group continue to have a normal lifestyle.

Class 2 - Mild
Slight limitation of physical activity. Strenuous activity causes breathlessness – eg walking uphill or climbing stairs. Patients in this group continue to have a near normal lifestyle.

Class 3 - Moderate
Marked limitation of physical activity. Comfortable at rest. Walking on the flat causes breathlessness.

Class 4 - Severe
Symptoms at rest. Usually housebound. Unable to carry out any physical activity without symptoms.

see South Wilts. Joint Formulary for prescription

ACE Inhibitors (ACE-I)
In the absence of specific contra-indication, all patients with left ventricular dysfunction should be prescribed an ACE-I. Titrate up to maximum dose (eg lisinopril 30mg or ramipril 10mg daily) over 4-8 weeks as tolerated. Blood pressure and blood chemistry must be checked 1 week after any dose increment.

Angiotensin II receptor antagonists (ACE-II)
Valsartan or candesartan may be given to those patients intolerant of ACE-I.

Loop diuretics
Patients with signs of sodium and water retention (pulmonary oedema, peripheral oedema) should be given the minimum dose of a loop diuretic necessary to relieve symptoms. The required dose may change.

Spironolactone
Patients with NYHA class III & IV who remain symptomatic despite treatment with an ACE-I and loop diuretic should be considered for spironolactone 25mg daily. Blood chemistry should be checked after 1, 2 and 4 weeks and then every 3 months for rising K⁺.

Digoxin
Patients with chronic heart failure who are receiving treatment with an ACE-I may derive symptomatic benefit from digoxin, even in sinus rhythm. The dose used should gradually be increased from 0.125mg OD until a serum concentration within the therapeutic range (0.6 – 2.6 nmol/l) is achieved.

Beta-blocker
Patients with NYHA class II & III, who are stable and taking standard therapy should be treated with a beta blocker (see Bisoprolol protocol for patients with stable chronic heart failure).