MANAGEMENT OF HEART FAILURE PATIENTS IN PRIMARY CARE

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Heart Failure Specialist Nurses

Karen Rees, Nicola Woodhouse & Chris Adams

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Heart Failure in Barnsley

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There are currently an estimated 3200 patients in Barnsley with a diagnosis of Heart Failure.

A proportion of these patients will require intensive specialist input and a referral into the Heart Failure Specialist Nursing Service (HFSN).

If patient is unstable with moderate or severe LVSD refer to HFNS team.

Patients with Right sided Heart Failure (RVSD) treatment is diuretic therapy – be aware of cardiac output.

Stable patients can be managed in Primary Care with access to HFSN for advice and guidance if required.

Post MI patients with mild LVSD must be titrated as soon as possible on Betablocker and ACE Inhibitor/ARB or ARNI.

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Normal Heart and Heart Failure

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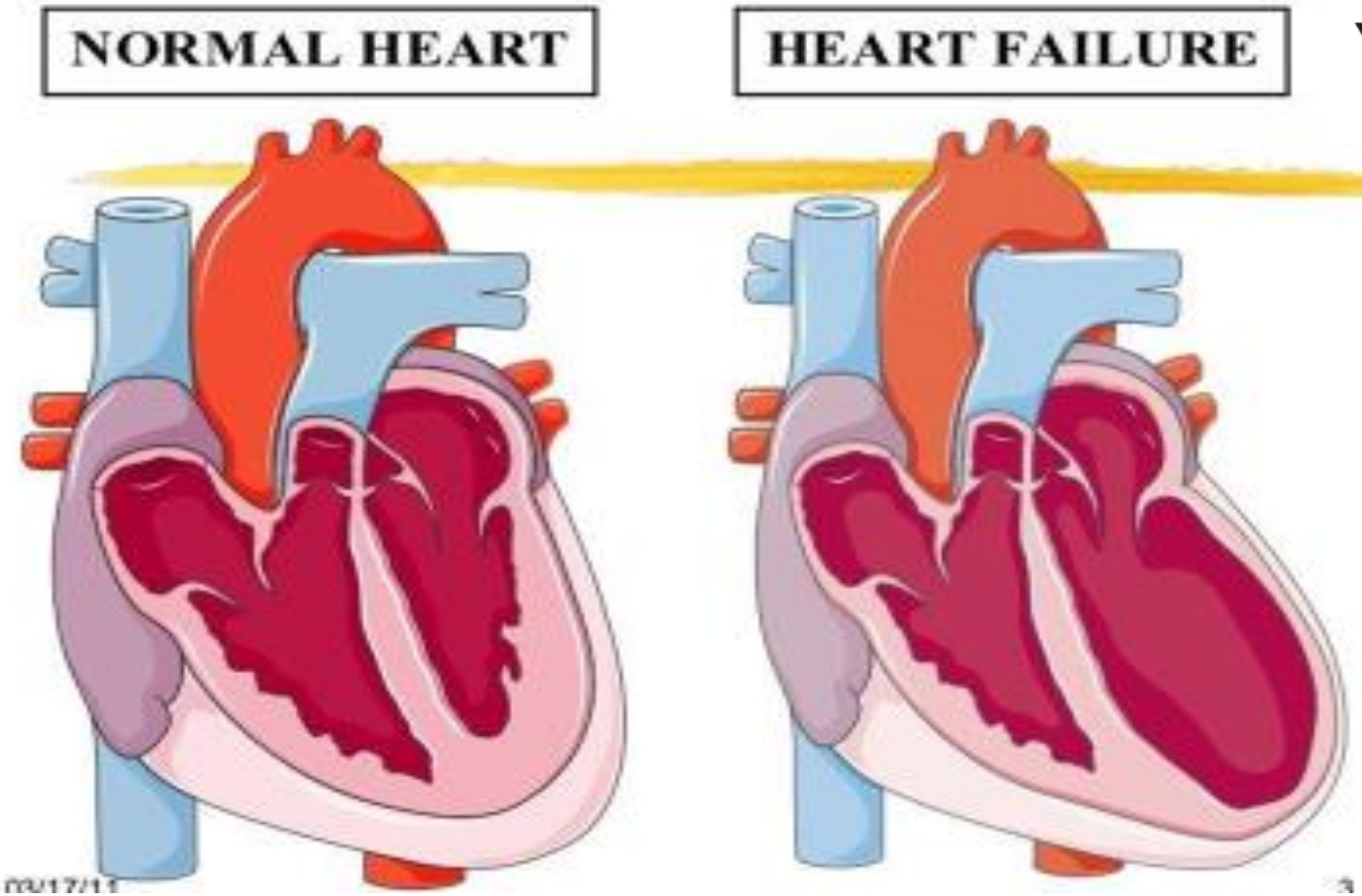

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New Diagnosis and mild Left Ventricular Systolic Dysfunction (LVSD).

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- Newly mildly diagnosed patients and post MI patients require their Betablocker and Ace Inhibitor/ARB or ARNI titrating as quickly as possible to prevent worsening of LV but can also resolve ventricular impairment from becoming permanent.
- The pathway will guide recommended titrations and remember your patient's condition will determine how far to go with titrations.
- The order of therapy is dependent on patient presentation and treat accordingly.

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ACE inhibitors

Ramipril, Lisinopril, Perindopril, Enalapril. (ARNI if commenced).

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The recommendation to prescribe an ACE-inhibitor to all people with heart failure with reduced ejection fraction (HF-REF) is based on the evidence and efficacy in reducing mortality and morbidity in NICE guidelines, (NICE, 2018) and the European Society of Cardiology (ESC,2021).

- U&E and renal function:- before and 2 weeks after starting an ACE inhibitor, and after each dose increment. If K+ >5.5 half the dose, > 6 stop.
- If AKI occurs, don't stop completely(reduce dose), these are not nephrotoxic medications. Expected to have 25% increase in creatinine level.
- During initiation, renal dysfunction can occur due to a drop in renal perfusion pressure and subsequent decrease in glomerular filtration. This is attributed to the drug's preferential vasodilation of the renal efferent arteriole, which impairs the kidney's ability to compensate for low perfusion states. (Nih.Gov 2018).
- Contraindication:- Aortic stenosis. Previous angioedema
- Low dose and titrate upwards at short intervals (for example, every 2 weeks) until the target or maximum tolerated dose is reached.

Beta-Blockers.
Bisoprolol, Nebivolol, Carvedilol, Metoprolol.

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- Introduce beta-blockers in a '**start low, go slow**' manner. Assess heart rate and clinical status after each titration. Measure blood pressure before and after each dose increment of a beta-blocker

- **Do not withhold treatment with a beta-blocker solely** because of age or the presence of peripheral vascular disease, erectile dysfunction, diabetes, interstitial pulmonary disease or chronic obstructive pulmonary disease.

- **Switch people-** who are already taking a beta-blocker such as Atenolol, Propranolol for angina, anxiety, hypertension, to a beta-blocker licensed for heart failure as above.

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Beta-Blockers.
Bisoprolol, Nebivolol, Metoprolol, Carvedilol.

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Recommended heart rates for different heart related causes.

- Post MI the recommendations are 50-60 bpm to allow heart to heal.
- In Heart Failure heart rate of 60-70 bpm is preferred for continued cardiac output.
- In AF heart rate recommended at 70-80 bpm at rest.

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Patient self – monitoring.

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- Weigh self-daily initially, to obtain base weight. If puts on 4lbs over couple of days inform team. Look for increase in pitting oedema.
- Record BPs and Heart Rate (HR) at home to bring to clinic as can have false reading (White Coat) in clinic. Good baseline.
- Eat healthy diet and monitor fluid intake to 2 litres daily unless instructed by HFSN or Cardiologist.
- Record symptoms for likely patterns.
- Avoid NSAIDs in tablet form in Heart Failure.
- Low Salt intake NO LOSALT/SOLO.
- Sick day rules – D&V stop Loop, MRA, SGLT2 and resume once symptoms resolve.

Case Study One

82 yo female with mild LVSD and AF.

Meds: Bisoprolol 1.25mg od, Ramipril 1.25mg od, Apixaban 2.5mg bd, Frusemide 20mg od.

Vital Signs: HR 75 irregular, BP 145/78 no deficit on standing, eGFR 72.

Oedema has improved but remains in ankles

Chest clear

PLAN: ?

PLAN:

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Patient is in Atrial Fibrillation, so HR is stable and ok at this level.

BP remains elevated consider increasing Ramipril

Consider increasing Loop for ankle oedema after next review if oedema remains.

Monitor bloods and BP 2 weeks post to assess renal function and effect of change.

If responds well to therapy continue to increase ACE until optimised as per maximum dose or patient tolerance.

Case Study Two

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55 yo male POST STEMI – mild LVSD, waiting 3-month post MI ECHO to assess LV for stunning.

Meds: Bisoprolol 1.25mg od, Ramipril 1.25mg od, Eplerenone 12.5mg od, Atorvastatin 80mg on, Aspirin 75mg od, Ticagrelor 90mg bd.

Vital signs: HR 64 regular, BP 128/78 no deficit on standing.

Mild oedema to sock line continues.

Bloods Na 138, K 3.4, Creatinine 78, Urea 6.0, eGFR >90.

PLAN?

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PLAN

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- In view of oedema and low potassium increase Eplerenone to 25mg od if able or ask GP to prescribe.
- Review bloods, BP and oedema level 2 weeks post increase.
- If oedema remains and potassium in normal range, consider then adding in low dose loop diuretic.

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Case Study Three

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- 88 yo male
- Mild LVSD, COPD, T2DM, HTN
- Meds: Bisoprolol 7.5mg od, Ramipril 5mg BD, Fostair, Salbutamol, Carbocysteine, Metformin 500mg bd, Atorvastatin 40mg on.
- Vital Signs: 132/74, HR 49 Reg,
- Patient reports lethargy and sleepy. Increased cough, Nil oedema noted.
- PLAN: ?

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PLAN

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- Check manual pulse for rate and rhythm
- 12 Lead ECG as soon as possible
- Reduce Betablocker by 2.5mg
- Reassess in 1 week and if remains low reduce further unless patient has pacemaker insitu.
- If HR improved but cough remains, consider changing to Metoprolol or consider reducing ACE if dry cough.

When Specialist Input is required

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- Following the initiation and titration of medication, some patient may still be experiencing symptoms of their heart failure. At this point a referral to the Heart Failure Specialist Nurse should be completed.
- A referral form and copy of echocardiogram result should be send to: rightcarebarnsleyintegratedspa@swyt.nhs.uk
- A copy of the referral form can be found by clicking the link below and scrolling to key documents. You will also be able to access further information about the service.
- Heart Failure Specialist Nurse Service (barnsleyccg.nhs.uk)

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THANK
YOU

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ANY QUESTIONS ?

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