

New Medicine Service

A FOCUS ON HEART FAILURE

Learning for this session

- ▶ **NMS service recap**
- ▶ **Recap on heart failure**
- ▶ **Overall management of heart failure**
- ▶ **Key information on each medicine category**
- ▶ **Key counselling points**
- ▶ **Clinical case study**
- ▶ **Further reading and signposting**



Objectives

NMS - Summary

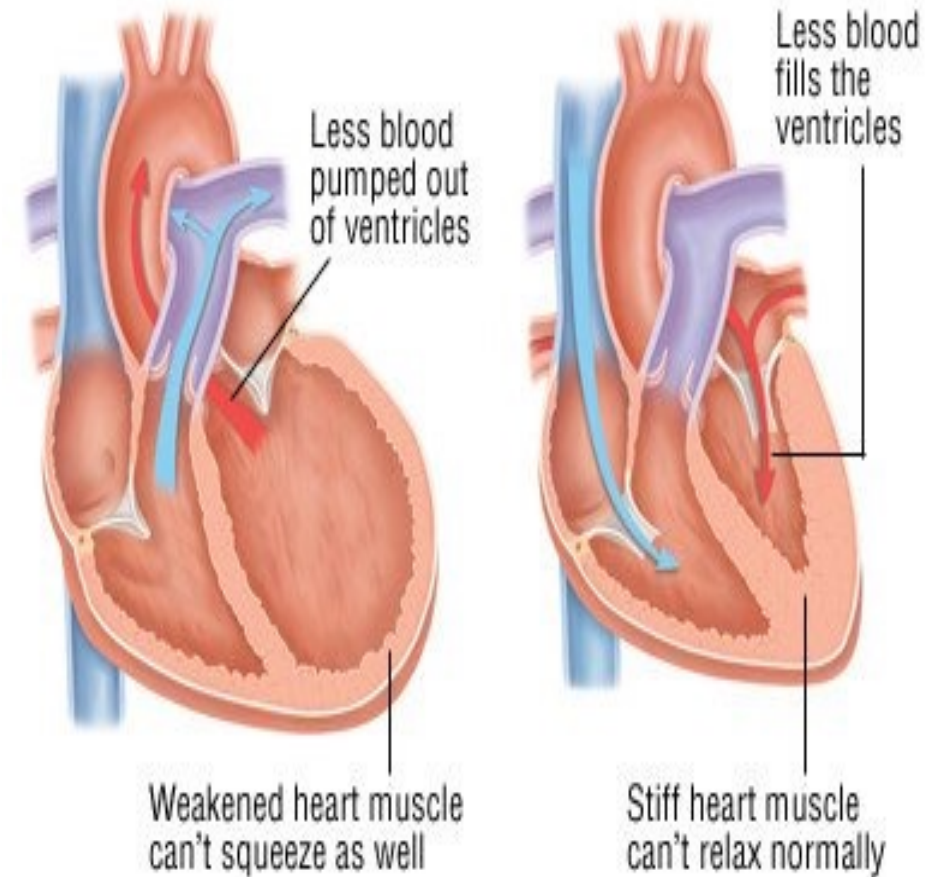
- ▶ **Patient consent and other data requirements**
- ▶ **Catch up NMS - between 1st September 2021 and 31st March 2022.**
- ▶ **Targets for payment**
 - ▶ All completed NMS provided by a contractor that fall below the 10% target will be paid at £20 each;
 - ▶ Once a contractor reaches the 10% target all completed NMS (including those which fall below the 10% target) will be paid at £25 each;
 - ▶ Once a contractor reaches the 20% target all completed NMS (including those which fall below the 20% target) will be paid at £26 each;
 - ▶ Once a contractor reaches the 30% target all completed NMS (including those which fall below the 30% target) will be paid at £27 each;
 - ▶ Once a contractor reaches the 40% target all completed NMS (including those up to the maximum target) will be paid at £28 each.

The condition and clinical features

- ▶ the heart cannot pump efficiently enough to meet the body's need for blood.
- ▶ Congestive heart failure,
- ▶ can occur at any age
- ▶ long-term condition gradually worse over time.
- ▶ cannot usually be cured
- ▶ symptoms can often be controlled

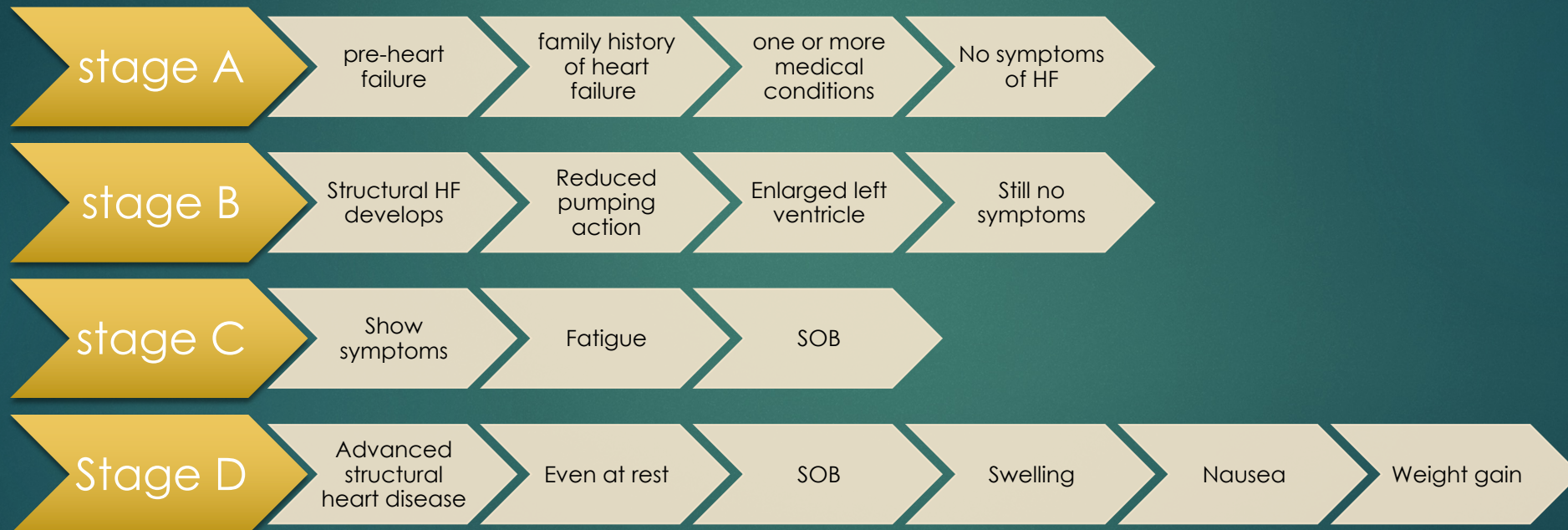
The condition

- ▶ the heart muscle becomes weaker
- ▶ the heart muscle becomes stiff
- ▶ Can develop suddenly
- ▶ Damage to liver, kidneys and lungs
- ▶ 15million cases worldwide each year
- ▶ Aging population
- ▶ Hospitalisation
- ▶ Prognosis poor



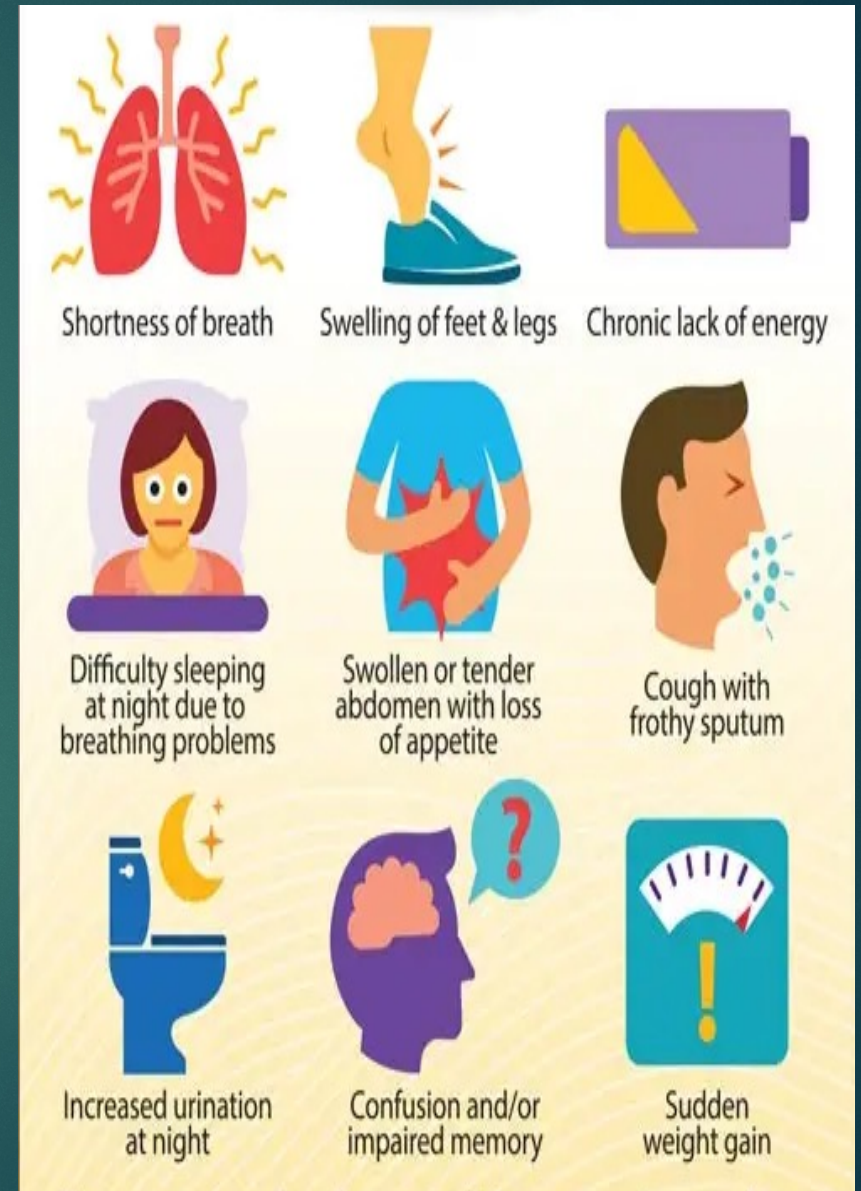
The condition

There are four main stages of HF



Clinical features

- Fatigue.
- Shortness of breath and wheezing occur during exertion.
- As fluid accumulates in the lungs, people with heart failure may begin to sleep propped up with pillows.
- Chronic cough due to fluid accumulation in the lungs.
- Fluid collects in the legs and ankles, causing swelling.
- Fluid can accumulate in the middle of the body.
- Urinate several times during the night
- Significant weight gain.



Risk factors

Coronary heart
disease

Hypertension

Cardiomyopathy

Arrhythmias

Heart valve
disease

Congenital heart
disease

Metabolic

toxicity

The management

▶ NICE Guidance

<https://www.nice.org.uk/guidance/ng106>

▶ BNF <https://bnf.nice.org.uk/treatment-summary/chronic-heart-failure.html>



Heart Failure treatments

ACE inhibitors	ARBs	Beta blockers	diuretics	Mineralocorticoid receptor antagonists
ramipril	candesartan	bisoprolol	furosemide	spironolactone
captopril	losartan	nebivolol	bumetanide	eplerenone
enalapril maleate	valsartan	carvedilol	torasemide	
Quinapril				

The medicines - ACEi

All HF patients should be offered ACEi

Initiated in low doses

Titrated upwards every 2 weeks

Max dose or what can be tolerated

Enalapril tends to be used first but lisinopril and ramipril also used

Blood tests measured at baseline and again after 2 weeks K and Na and assess renal function

BP before increasing the dose

U&Es every 6 months

Dry cough, increased K levels, fatigue, headaches, loss of taste

The medicines - Beta Blockers

Only use the ones licensed for HF

Start low and go slow

Heart rate, BP

If already on Beta blocker for another condition then switch to a licensed one for HF

Bisoprolol, carvedilol, nebivolol

Bradycardia, confusion, diarrhoea, dry eye, headache, bronchospasm

The medicines - **ARB**

Angiotensin 2 receptor blockers

Relaxes blood vessels

Candesartan, losartan, valsartan

Alternative to ACEi

Does not cause cough

ARB and ACEi together?

Back pain, GI disturbances, vomiting, postural hypotension,
headache

Angioedema

The medicines - MRA

Mineralocorticoid receptor antagonists

Spirolactone, eplerenone

block the effects of the hormone aldosterone which can cause heart failure to get worse

Used in addition to ACEi (or ARBs) and Beta blockers

Starting dose of 12.5mg or 25mg on alternative days. Increase to 25-50mg once a day

Measure K and Na and assess renal function

Monitor treatment at least every 6 months

Increased K levels, kidney stones, GI disturbances,

The medicines - diuretics

Furosemide, bumetanide

Relief of fluid retention

Titrated up and down depending on need

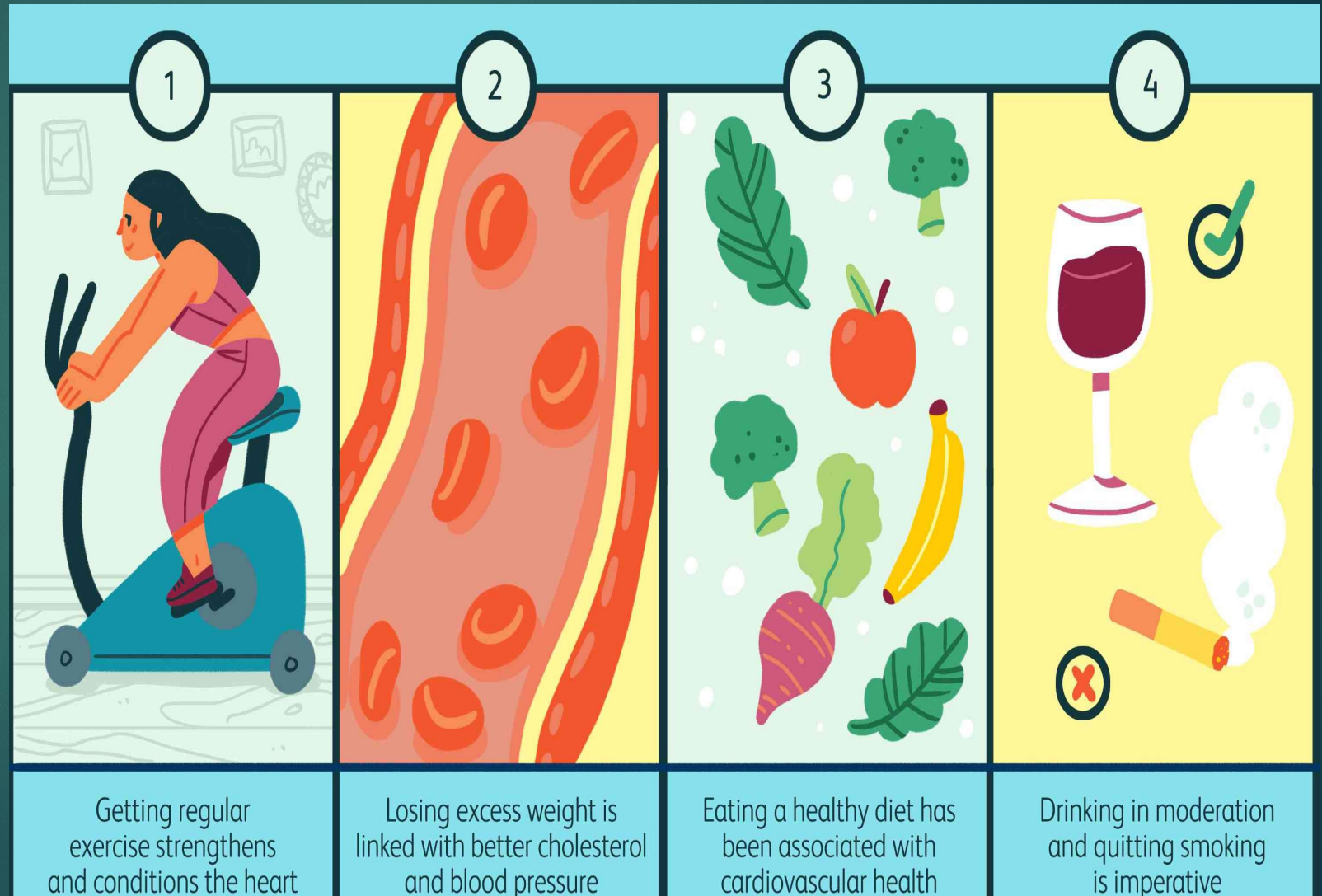
Use lowest dose possible

Furosemide usually once a day but can be BD for additional diuresis. Upto 240mg daily

Can add in metolazone for synergistic effect

Self-help counselling points

- Healthy diet
- Exercise
- Stop smoking
- Limit alcohol
- Vaccinations
- Regular reviews
- Report any new symptoms



Clinical case study

The patient is a 60-year-old white female presents to the pharmacy to collect her first prescription for an ACEi and beta blocker

What side-effects will you discuss with the patient?

What self-help will you advise?

You contact the patient after one week and she tells you that she has dry eye, fatigue and stomach ache

How do you respond?

Two weeks later, at the next NMS session, she tells she keeps coughing and feels her lips are slightly swollen

What do you recommend?

Further reading and signposting

- ▶ <https://www.verywellhealth.com/ways-to-prevent-congestive-heart-failure-3859866>
- ▶ <https://www.nice.org.uk/guidance/ng106>
- ▶ <https://www.nhs.uk/conditions/heart-failure/>
- ▶ <https://patient.info/heart-health/heart-failure-leaflet>

Bibliography/References

- ▶ <https://www.nice.org.uk/guidance/ng106>
- ▶ <https://bnf.nice.org.uk/treatment-summary/chronic-heart-failure.html>
- ▶ <https://www.pat.nhs.uk/downloads/New%20NCA%20Leaflets/Cardiology/506%20-%20Spironolactone%20or%20Eplerenone.pdf>
- ▶ <https://www.topdoctors.co.uk/medical-articles/understanding-4-stages-heart-failure>
- ▶ <https://www.ucsfhealth.org/conditions/heart-failure/treatment>
- ▶ http://www.derbyshiremedicinesmanagement.nhs.uk/assets/Clinical_Guidelines/Formulary_by_BNF_chapter_prescribing_guidelines/BNF_chapter_2/Heart_failure.pdf

Clinical case study

The patient is a 60-year-old white female presents to the pharmacy to collect her first prescription for an ACEi and beta blocker

What side-effects will you discuss with the patient? Care due to postural hypotension, Angioedema symptoms

What self-help will you advise? There are plenty of support groups available. Also mention about health lifestyle by eating veg and fruit, reduce alcohol and smoking

You contact the patient after one week and she tells you that she has dry eye, fatigue and stomach ache

How do you respond? You need to understand if the dry eye could be relieved first by drops. If this continues to be a problem then the GP may need to change treatment. The GI disturbances and fatigue should wear off within a few weeks

Two weeks later, at the next NMS session, she tells she keeps coughing and feels her lips are slightly swollen

What do you recommend? Check it is a dry tickly cough, recommend to see the GP for an ARB. However both ARBs and ACEi can cause Angioedema