PRIMARY CARE DIABETES SOCIETY (PCDS) SCOTLAND – A UNIFIED APPROACH TO THE MANAGEMENT OF CVRM CONDITIONS

HEART FAILURE

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Prevalence of Heart Failure

- Around **900,000 people** in the UK have heart failure - with almost as many people having damaged hearts but no symptoms as yet
    - Around 1 in 35 people aged 65–74 years
    - About 1 in 15 of those aged 75–84 years
    - Just over 1 in 7 in those aged 85 years and above

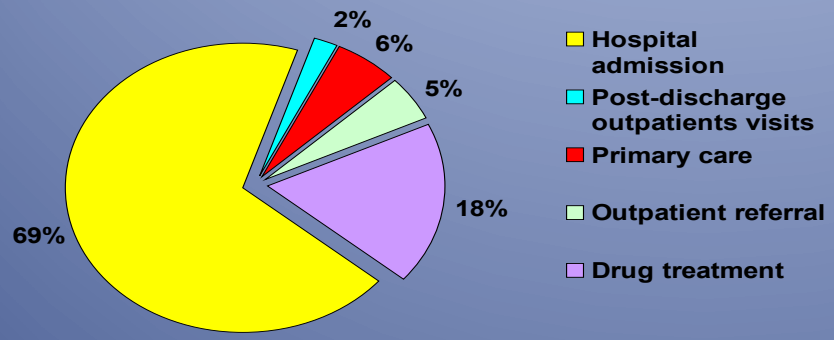
- **Prevalence expected to rise** through a combination of:
    - Improved survival of people with ischaemic heart disease
    - More effective treatments for heart failure
    - Effects of population ageing

- **Poor prognosis**: About half of all people who develop heart failure will die within 5 years of diagnosis.

- Survival rates are similar to those from cancer of the colon, and worse than those from cancer of the breast or prostate

Financial burden of heart failure

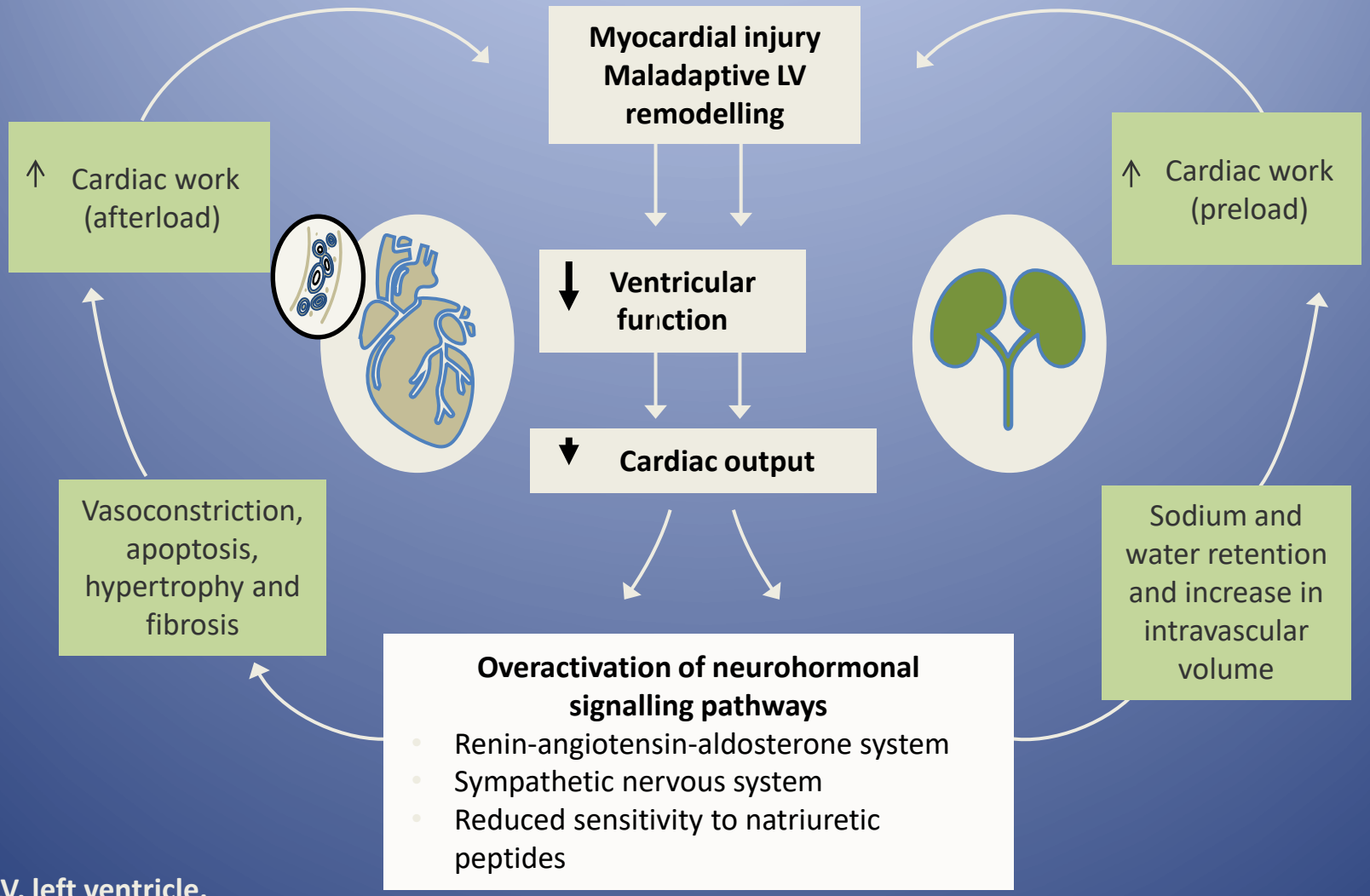
- 1 million inpatient bed days [1]
- 2% of all NHS inpatient bed-days [1]
- 5% of all emergency medical admissions to hospital [1]



- Management of CHF currently accounts for **1-2 % of total health budget** (total annual cost to NHS £625m) [1-2]
- As well as NHS costs, heart failure also places a burden on other agencies such as social services and the benefits system, and of course on the patients with heart failure and their families and caregivers [1]

1. NICE clinical guideline 108 Management of chronic heart failure in adults in primary and secondary care / 2. Stewart S, *et al*. European J Heart Fail 2002; 4: 361-371.

The vicious cycle of heart failure with reduced ejection fraction[1]



LV, left ventricle.

- 1. Hartupee J, Mann DL. Nat Rev Cardiology 2017;14:30–38.

Patients with heart failure have a wide range of comorbidities, in part due to their advanced age[1]
This can lead to the concurrent use of multiple medications[2]
Most comorbidities are associated with worse clinical status and are predictors of poor prognosis in heart failure[2]

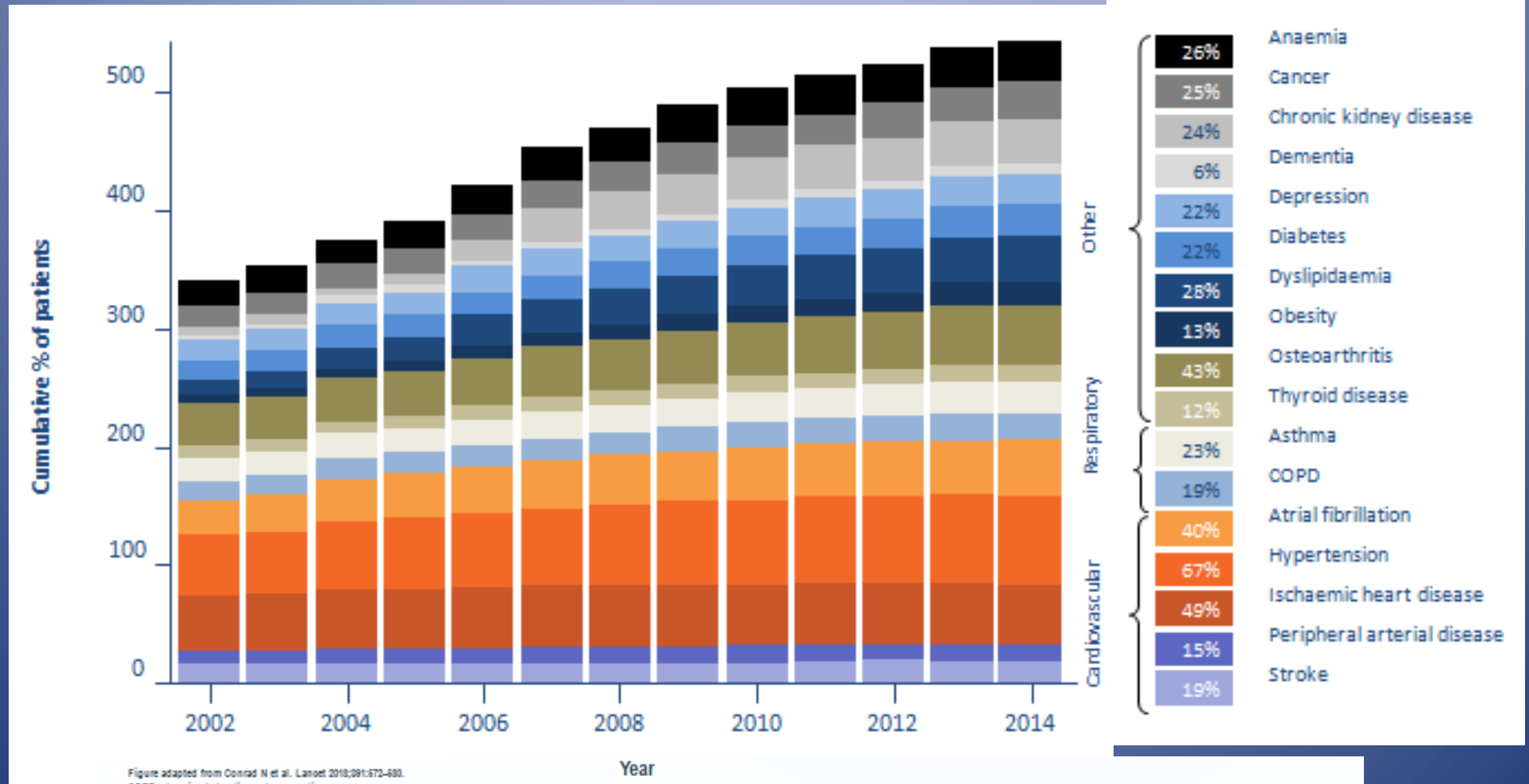


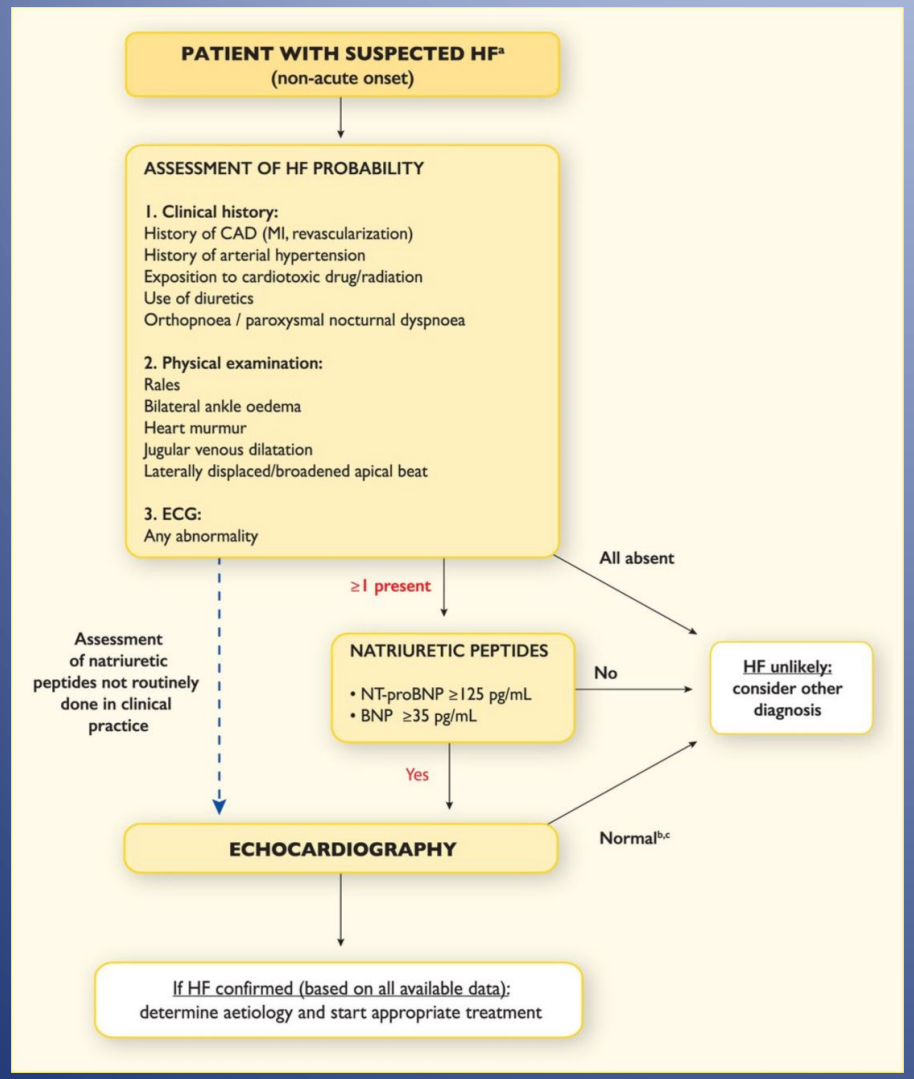
Figure adapted from Conrad N et al. Lancet 2018;391:572–580.
COPD, chronic obstructive pulmonary disease.

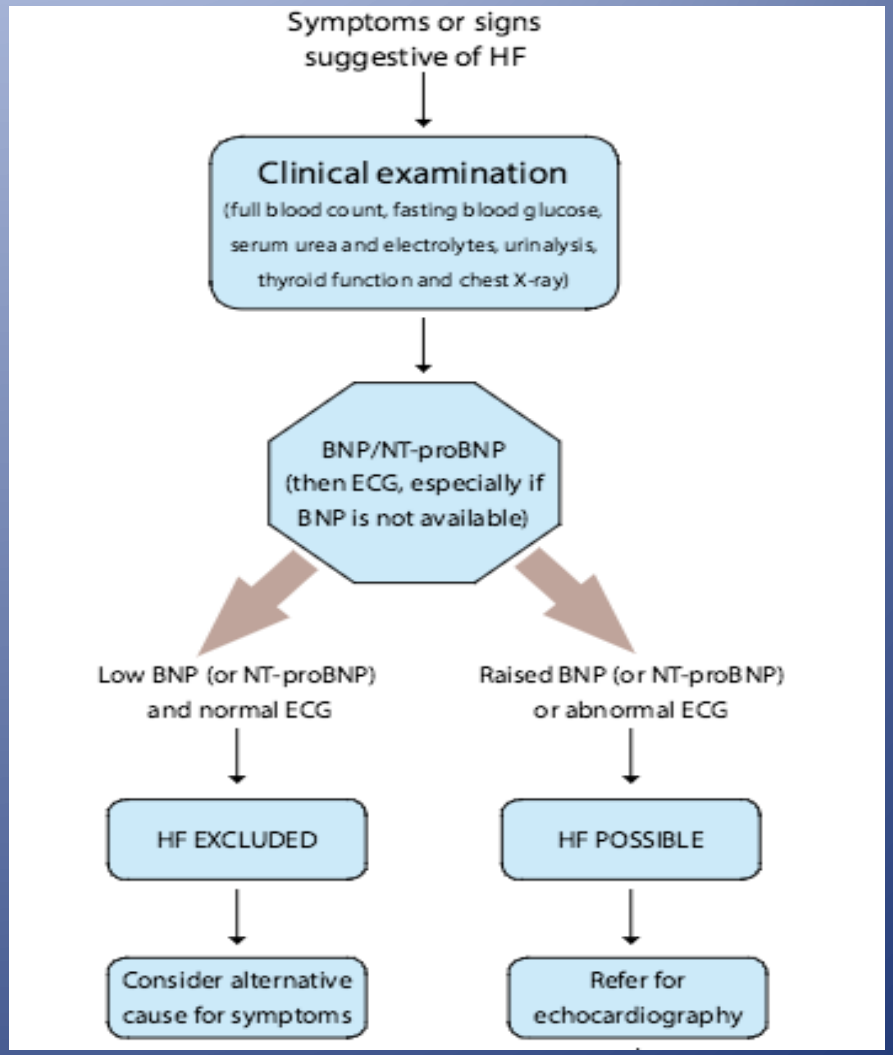
1. Conrad N et al. Lancet 2018;391:572–580; 2. Ponikowski P et al. Eur Heart J 2016;37:2129–2200.

Patient Pathways

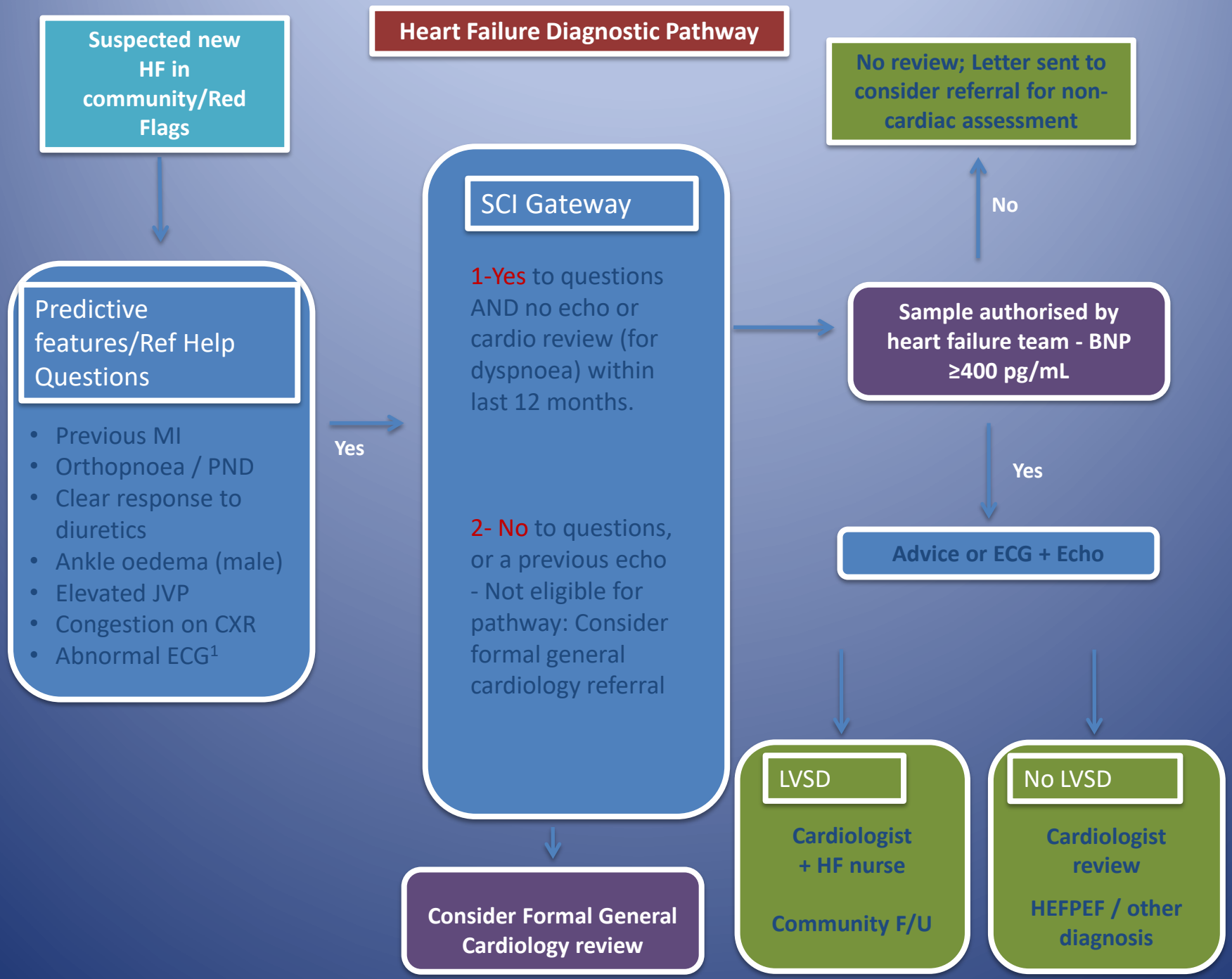
- A/E Presentation
- Hospital Admission
- Hospital Discharge
- Heart Failure Nurse Follow up
- Primary Care Review
- New Diagnosis Heart Failure

Diagnostic Pathway - SIGN 147/ESC



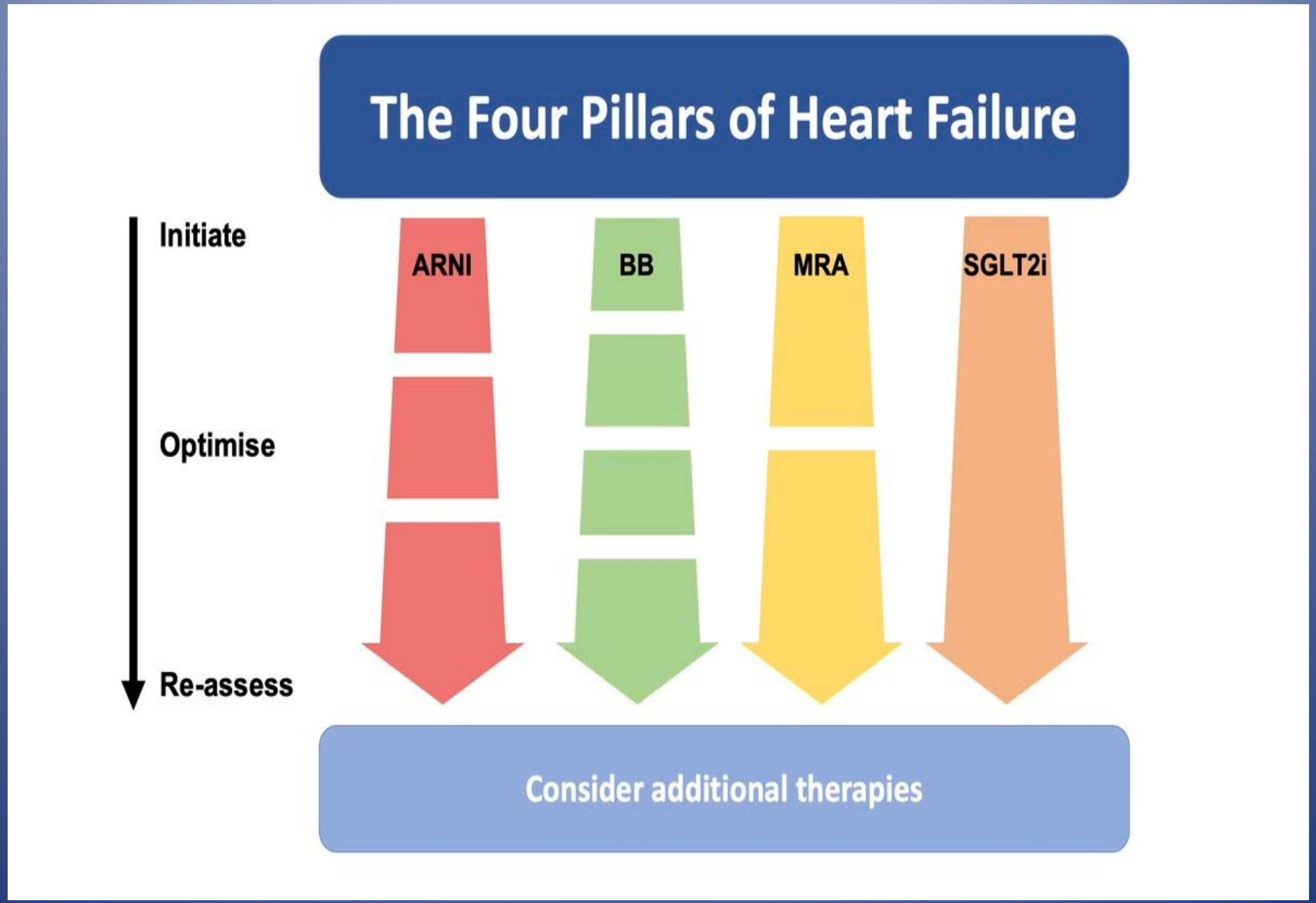


Heart Failure Diagnostic Pathway



Other conditions that may present with similar symptoms

• Obesity	• Hypoalbuminaemia
• Chest disease – including lung, diaphragm or chest wall	• Intrinsic renal or hepatic disease
• Venous insufficiency in lower limbs	• Pulmonary embolic disease
• Drug-induced ankle swelling	• Depression and/or anxiety disorders
• Drug-induced fluid retention (e.g. NSAIDs)	• Severe anaemia or thyroid disease
• Angina	• Atrial Fibrillation/Hypertension


The Four Pillars of Heart Failure
Initiate
Optimise
Re-assess
ARNI
BB
MRA
SGLT2i
Consider additional therapies

NHS Lothian Heart Failure Team: Standard Drug Optimisation Protocol*

To be used ONLY in patients under the direct supervision of NHS Lothian Heart Failure Service

Phase 1: Stabilise

- Frequent F2F visits; weekly U+E
- If K< 4 consider Eplerenone / Sando K
- Continue until euvolaemic / stable U+E

- Loop diuretic in sufficient dose to relieve congestion
- Consider adjunctive treatment with Dapagliflozin 10mg od +/or Eplerenone 25 mg od
- Review maintenance dose of loop diuretic once euvolaemic

Phase 2: Initiate 'Core 4'

- Could replace Candesartan with Ramipril if Entresto not appropriate.
- F2F initiation visit then phone review, BP & HR at each step
- U+E 1-2 weeks after ARNI/ARB & MRA

Entresto 24/26 mg bd or Candesartan 4mg od → Bisoprolol 1.25 - 2.5mg od → Dapagliflozin 10mg od → Eplerenone 25mg od

4-6 weeks

Phase 3: Uptitrate

- F2F Review after 2 weeks of Core 4:
  - review symptoms and bloods
  - adjust diuretic as required
  - prescribe drugs
- Switch ARB to Entresto if ongoing HF symptoms (otherwise ↑ARB)
- Phone review, BP & HR at each step
- U+E 1-2 weeks after ↑ARNI/ARB

Entresto 24/26 mg bd (or Candesartan 8mg od)

Bisoprolol 5mg od

Entresto 49/51 mg bd (or Candesartan 16mg od)

Bisoprolol 7.5mg od

Entresto 97/103 mg bd (or Candesartan 32mg od)

Bisoprolol 10mg od

8-12 weeks

*Appropriate for patients with moderate or severe LVSD and: eGFR>30; K<5.2; SBP >100; no major frailty / cognitive impairment

Changes in Practice

- Scottish Heart Failure Hub (National Advisory Committee for /Heart Disease) – advocated changes to medication titration
- Increased use of telephone reviews
- Development of remote monitoring/medication up-titration

Future Challenges

- Predicted increase in numbers of heart failure presentations
- Increasing frailty and multiple co-morbidities
- Polypharmacy
- Sustainable availability of diagnostic services
- Funding for increased heart failure services, increased referrals

Thank you

Any Questions?