

# HEART FAILURE:

A distressing condition for all but  
a brighter future is within our  
grasp.

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# Chronic heart failure

- A complex syndrome that can result from any structural or functional cardiac disorder that impairs the pumping ability of the heart
- Most common cause is left ventricular muscle damage
- Various conditions may predispose to, or cause, such muscle damage

# Characterising the heart failure syndrome

Heart failure is not in itself a complete diagnosis.  
It is important to characterise the syndrome by:

- Symptoms and signs
- Severity of syndrome
- Underlying cardiac abnormalities
- Aetiology of cardiac abnormality
- Precipitating and exacerbating factors
- Identification of relevant co-morbidities
- Estimation of prognosis

# Symptoms and signs of heart failure

## Symptoms

- Shortness of breath on exertion
- Decreased exercise tolerance (often simply 'fatigue')
- Paroxysmal nocturnal dyspnoea
- Orthopnoea
- Ankle swelling

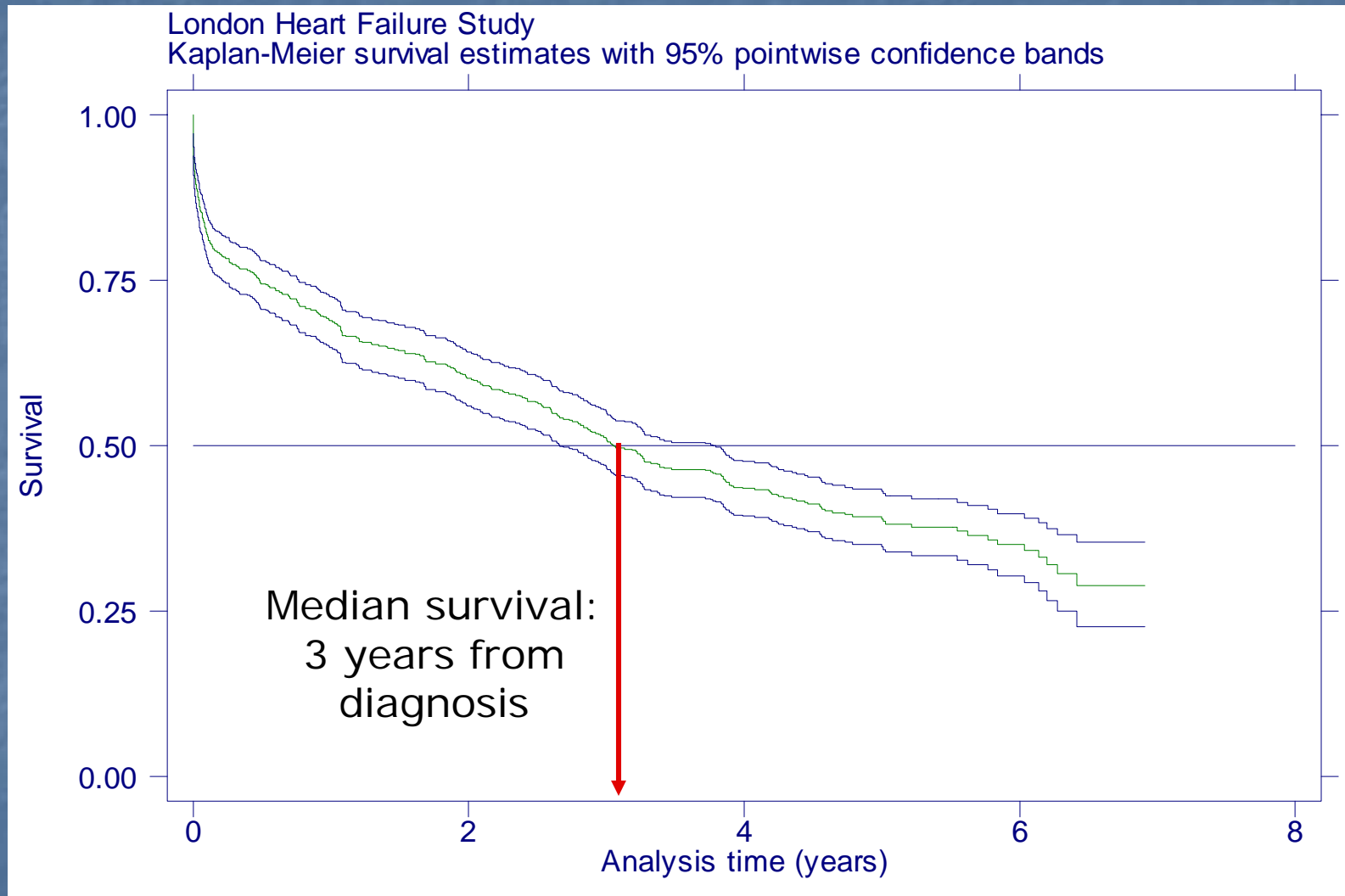
## Signs

- The most specific signs are:
  - Laterally displaced apex beat
  - Elevated jugular venous pressure
  - Third heart sound
- Less specific signs include:
  - Tachycardia
  - Lung crepitations (usually at bases)
  - Hepatic engorgement (tender hepatomegaly)
  - Peripheral oedema

# Causes Of Heart Failure

- Coronary Artery Disease
- Hypertension
- Cardiomyopathy
- Valvular and Congenital heart Disease
- Arrhythmias
- Alcohol and drugs
- High output failure-Anaemia, Thyrotoxicosis, Paget's Disease.
- Pericardial Disease
- Primary Right Sided Failure-Pulmonary hypertension, PE, tricuspid Incompetence

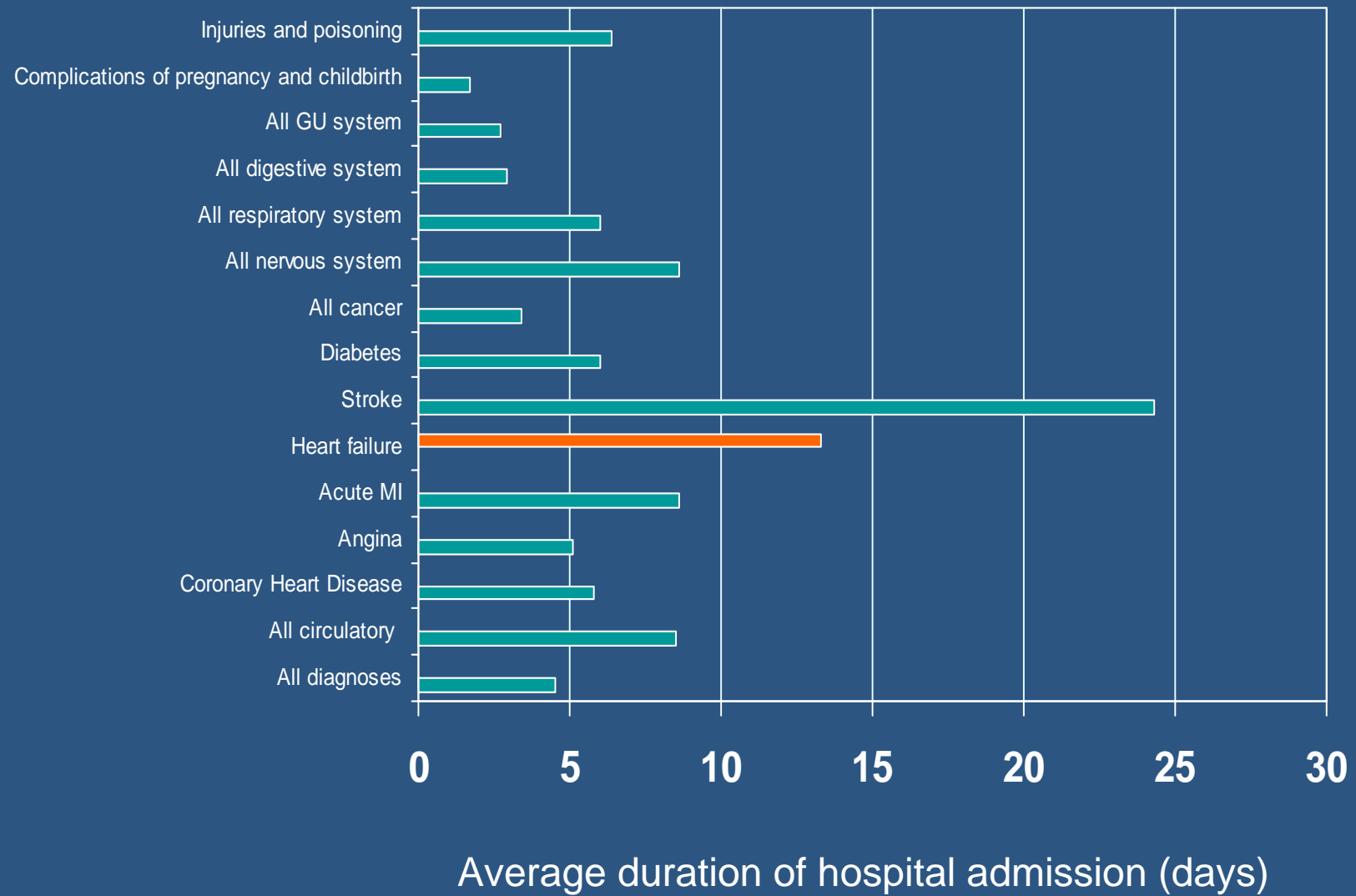
# The poor prognosis of heart failure



552 incident cases followed up to March 2002; 338 deaths

Cowie et al, Heart, 2000

# Heart failure admissions are long

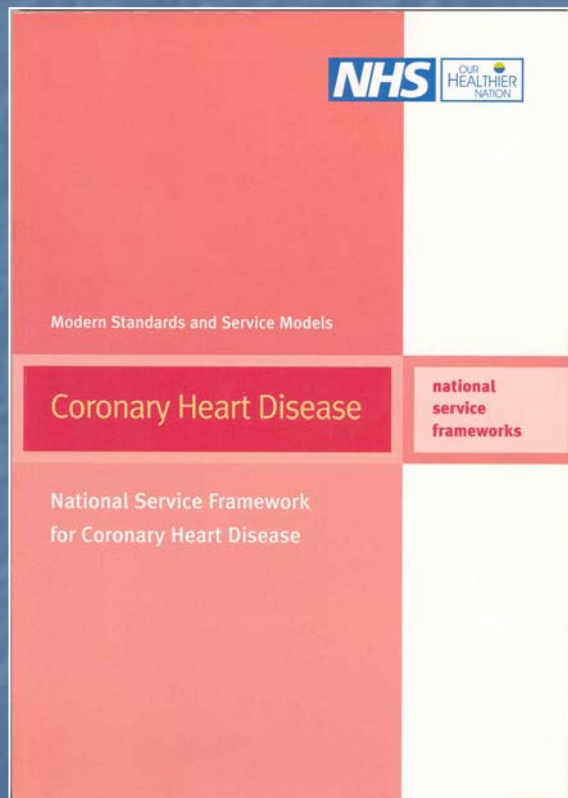


# Size of the problem

## Summary

- **Common**
  - Affects 1-2% of the population
  - Annual incidence is 0.5-1%
- **Serious**
  - Mortality is 40% by 12 months after new diagnosis, and 10% per year thereafter
- **Increasing**
  - Due to ageing population and more effective treatment of acute myocardial infarction
- **Disabling**
  - Symptoms have enormous impact on quality of life – worse than many other chronic conditions
- **Expensive**
  - Accounts for 1-2% of NHS budget, 5% of acute admissions, and 10% of bed occupancy

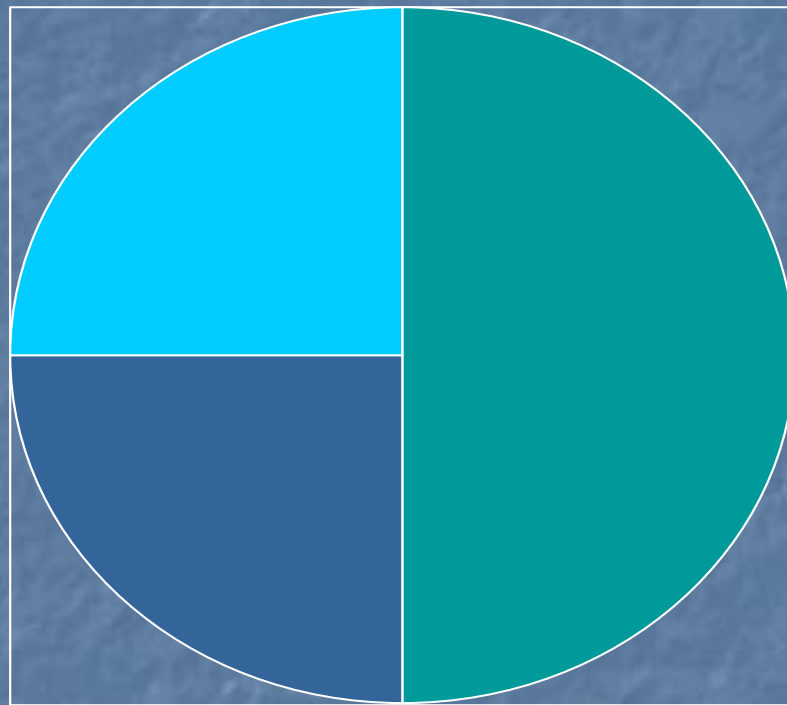
# The National Service Framework for Coronary Heart Disease



## TARGETS

**Every primary care team should** ensure that all those with heart failure are receiving a full package of appropriate investigation and treatment, demonstrated by clinical audit data not more than 12 months old

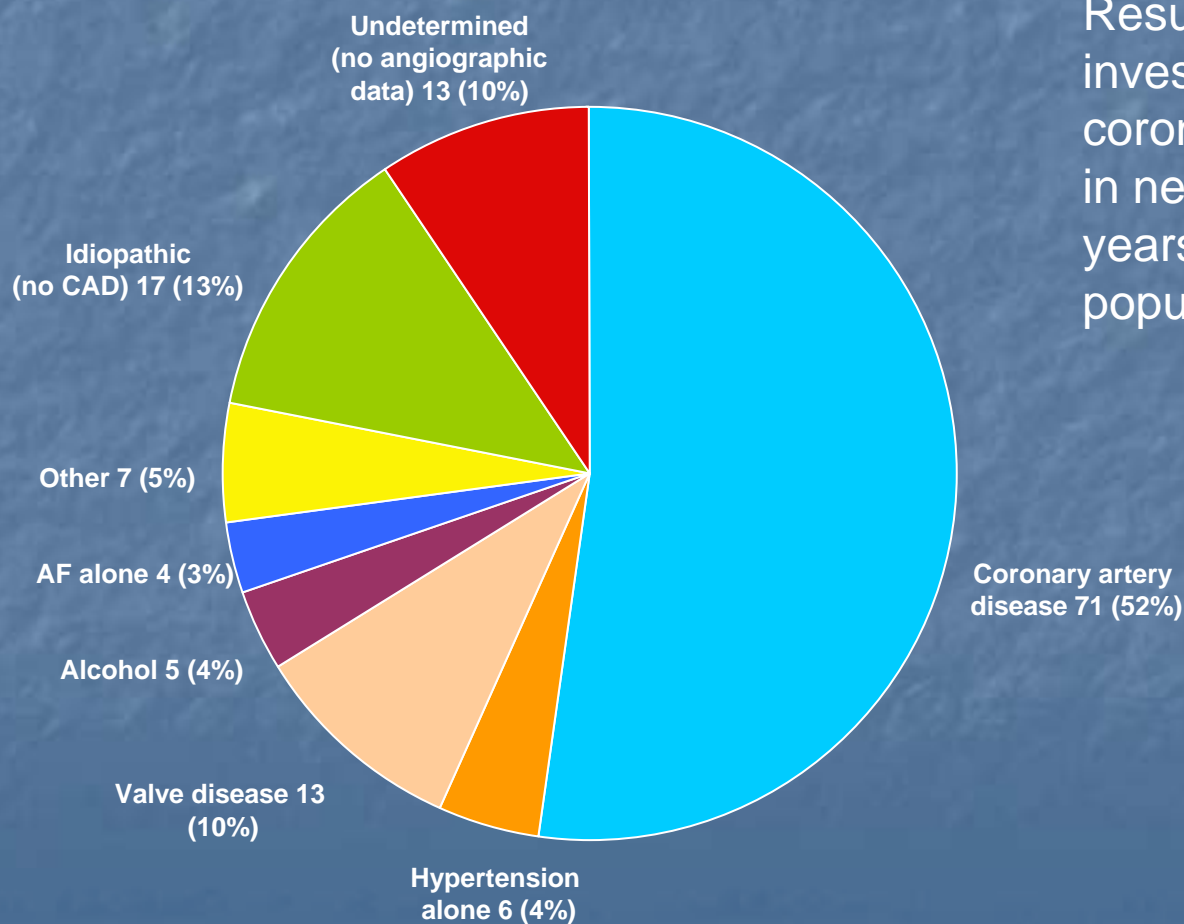
# Proactive management



- Treatment No CCF
- CCF-Inadequate therapy
- CCF appropriate therapy

Primary care has a key role in the early detection and treatment of patients with the major risk factors for developing heart failure

# Coronary artery disease is the leading cause of heart failure in the UK

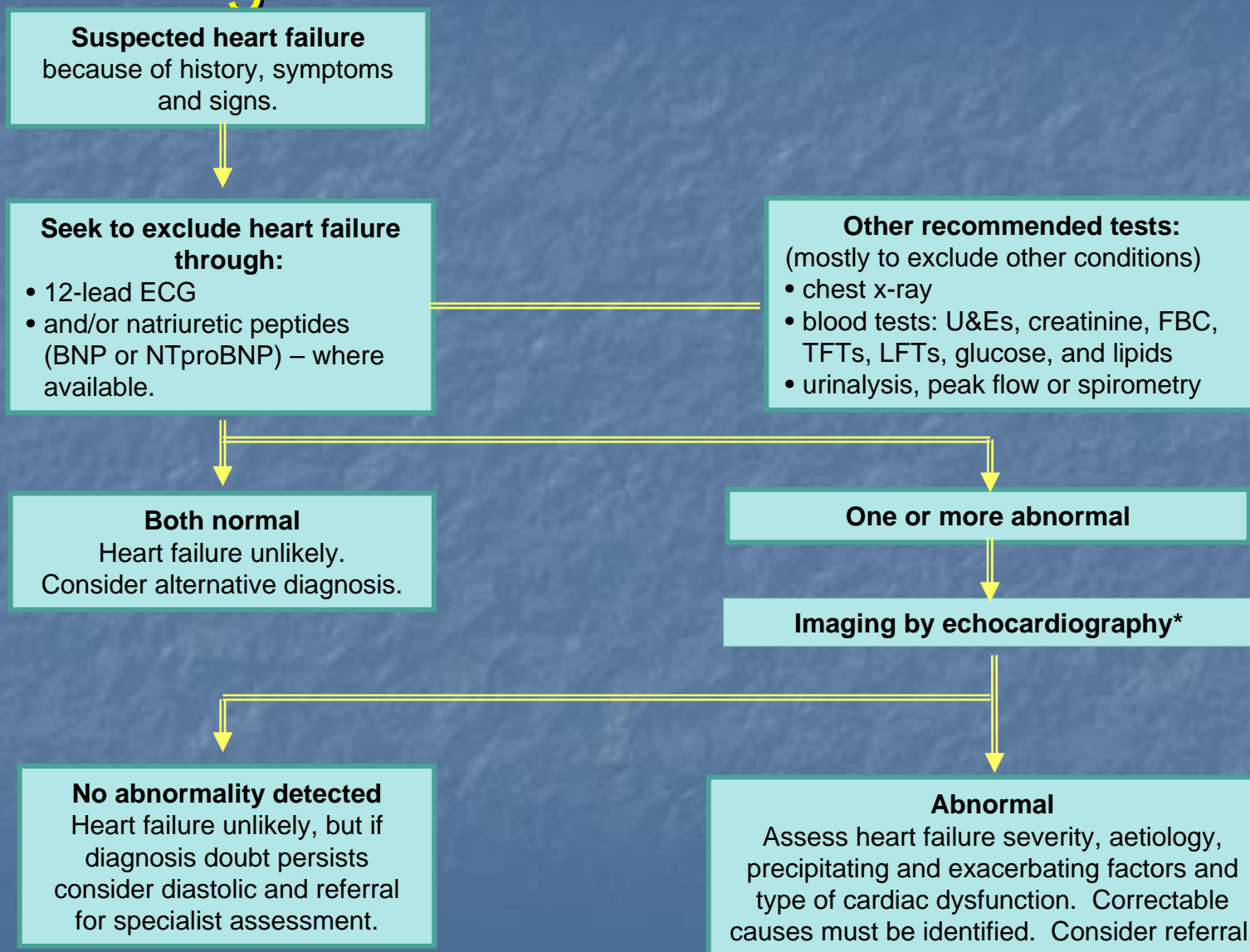


Results based on full investigation (including coronary angiography) in new patients aged <75 years identified in a UK population-based study

## The NYHA classification of heart failure is based on the severity of the patient's symptoms

<b>Class I</b>	No limitations on activity. No fatigue, breathlessness or palpitation on ordinary physical activity		Annual mortality 3-5%
<b>Class II</b>	Patients are comfortable at rest but ordinary physical activity such as climbing stairs or doing housework results in symptoms	'Mild' heart failure	Annual mortality 10%
<b>Class III</b>	Patients have a marked limitation of physical activity. Although patients are comfortable at rest, less than ordinary physical activity will lead to symptoms	'Moderate' heart failure	Annual mortality 12-16%
<b>Class IV</b>	Patients have symptoms even at rest and are unable to undertake any physical activity without discomfort	'Severe' heart failure	Annual mortality 15-20%  Worse prognosis than most cancers

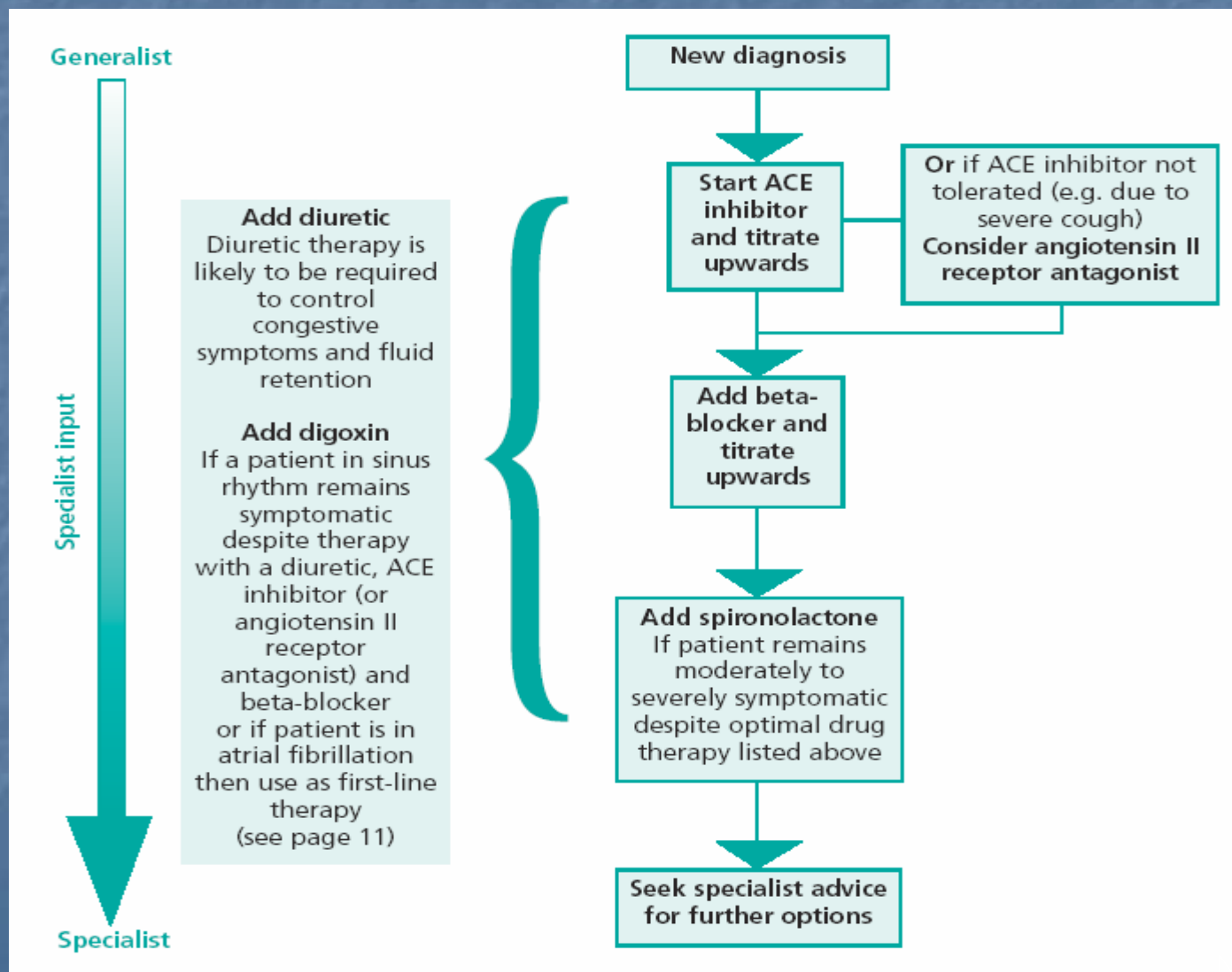
# The NICE algorithm for new diagnosis of heart failure



# The modern management of chronic heart failure

- The therapeutic approach in chronic heart failure due to systolic dysfunction consists of:
  - General advice and other non-pharmacological measures
    - Patient education
    - Weight control
    - Dietary measures e.g. salt avoidance
    - Reducing fluid intake
    - Smoking cessation
    - Exercise / rehabilitation
    - Influenza vaccination annually
  - Pharmacological therapy
  - Devices and surgery

# The NICE treatment algorithm for chronic heart failure due to LVSD, 2003



# Other treatment options for chronic heart failure

## Surgery and devices

- Coronary revascularisation (PCI/CABG)
- Transplantation
- Left ventricular assist device (LVAD)
- Cardiac resynchronisation therapy (CRT)
- Implantable cardioverter defibrillator (ICD)
- Other invasive therapies
  - Valve repair / replacement
  - Left ventricular aneurysmectomy

# THE NEED FOR PRACTICAL ADVICE

- *“It’s the practical advice that helps. I know what to do if I put on weight suddenly and I know that I can prevent myself getting into danger if I act quickly and call S [nurses name]. It’s also good to know why I have to take so many tablets-S has explained all this to me”.*

# Empowering patients

## Education and support:

- Patients taught how to monitor their volume status by daily weights. Expert patients can be taught how to adjust their diuretic regimen.
- Patients taught how to recognise early signs of decompensation and when to seek professional help

# MANAGING THE COMPLEX PATIENT

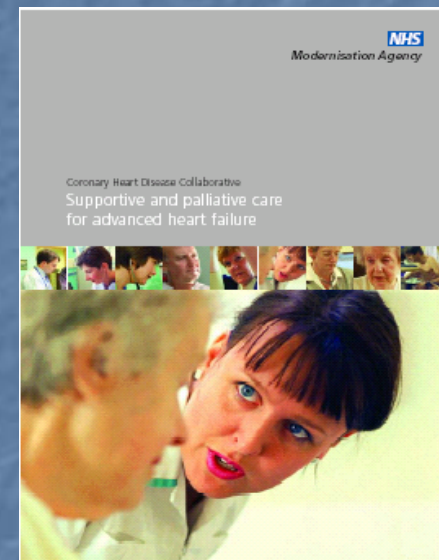
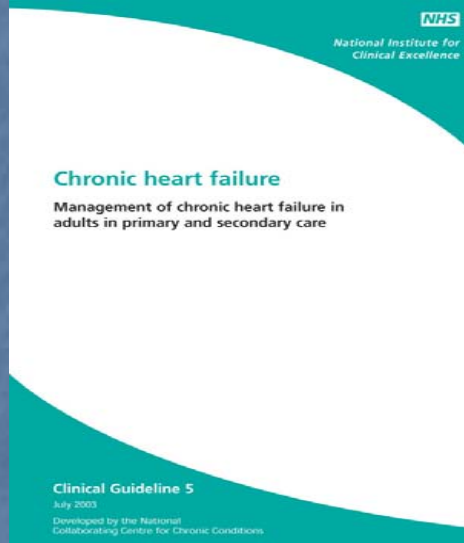
## Challenges:

- Co-morbidities
- Elderly with reduced functional and mental capacity
- Psycho-social problems
- Lack of family support

# CASE MANAGEMENT

- Home visits
- Telephone monitoring
- Initiation and adjustment of medication
- Crisis management
- Co-ordinating MDT support.
- Liaising with secondary care
- Assisting early discharge
- Palliative care for end stage Heart Failure

# End of life issues in heart failure



## **NICE recommends:**

The palliative needs of patients and carers should be identified, assessed and managed at the earliest opportunity.

Patients with heart failure and their carers should have access to professionals with palliative care skills within the heart failure team.

“Supportive and palliative care for advanced heart failure”- put palliative care at the forefront of all clinicians involved in the care of HF pts

# End of life tools

## Preferred place of care

- Provide pt and carer a choice as to where a pt would like to die- within reasons

## Gold standards framework (GSF)

- Pt register
- Regular review
- Anticipatory care
- Communication
- Out of hrs

## Liverpool care pathway

- Likely symptoms
- Detailing current and anticipatory drugs
- Clear guidance on when/ who to call
- Clear instructions for MDT on symptom management
- Social & spiritual care

# Palliative care

## Aim

improve the quality of life for terminally ill patients and to help family and carers by:

- Providing symptom control
- Providing psychological and social support
- Planning for the future and providing end of life care
- Improves symptom control
- Reduces time spent in hospital
- Improves patient and carer choice and satisfaction
- Reduces overall costs

# HOW WOULD YOU FEEL?

*“Well I didn’t know anything about it. I was diagnosed with cardiomyopathy and that’s what I thought I had. I asked them how to spell it because I had never heard of it. I was told I would be given an ACE inhibitor and a diuretic and they would see me in six months. I read my sick note and it said heart failure and I thought my heart was going to stop within minutes or hours. I did not relate cardiomyopathy to heart failure”.*

# Research

Two small qualitative studies:

1. The perceptions of heart failure patients and carers living with the condition in the community.
2. Diuretics and how patients cope with them.

# RESULTS

Four major themes emerged:

- The need for practical advice
- Confusion at diagnosis
- Shock of diagnosis and illness
- Adaptation occurred.