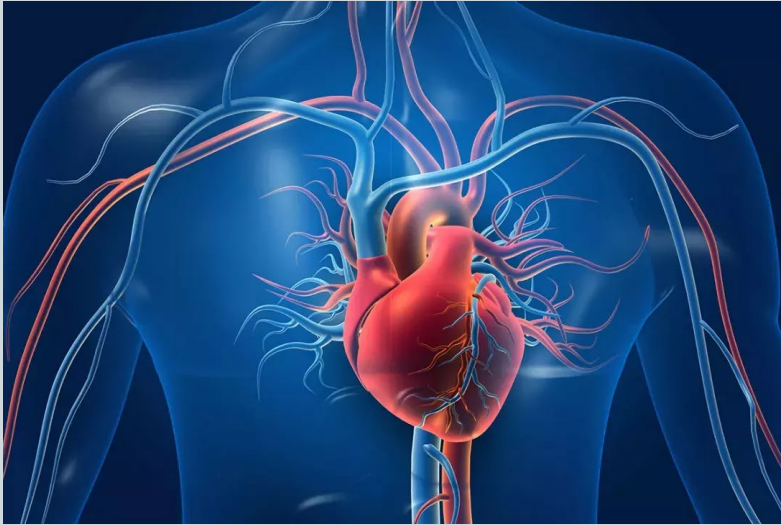


Hartfalen bij ouderen



Mathias Demuynck - geriatrie

Waarover we spreken

Hartfalen – Juf Danielle

NYHA classificatie

- klasse 1: *geen problemen met uitvoeren van fysieke activiteiten*
- klasse 2: *lichte beperking van fysieke activiteiten; geen klachten in rust, wel bij inspanning*
- klasse 3: *duidelijke beperking van fysieke activiteiten*
- klasse 4: *beperking zowel in rust als bij inspanning*



Hoe herkennen

Signs of Heart Failure and Congestive Heart Failure



Chest pain (especially during exertion)



Shortness of breath



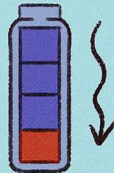
Dizziness/ lightheadedness



Swelling of legs, hands, and feet



Sudden weight gain



Sudden fatigue or weakness

Typische symptomen

dyspnoe/orthopnoe

verminderde inspanningscapaciteit

oedemen/gewichtstoename

vermoeidheid

(nachtelijke) hoest

Atypische symptomen (geriatrie)

anorexie

verwardheid

depressieve klachten

hartkloppingen

duizeligheid

syncope

vallen

Diagnostiek

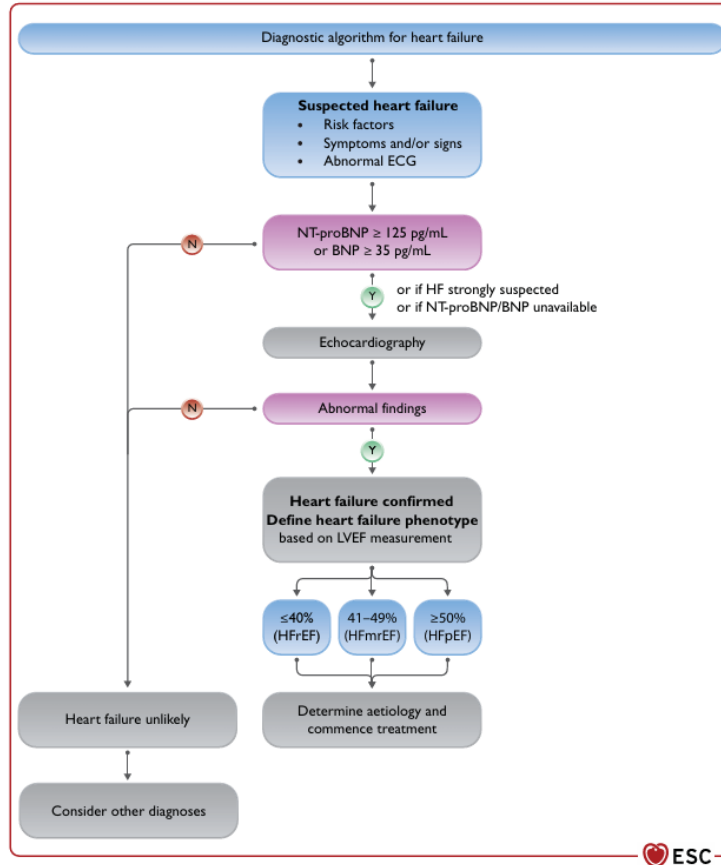


Figure 1 The diagnostic algorithm for heart failure. BNP = B-type natriuretic peptide; ECG = electrocardiogram; HFmrEF = heart failure with mildly reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; LVEF = left ventricular ejection fraction; NT-proBNP = N-terminal pro-B type natriuretic peptide. The abnormal echocardiographic findings are described in more detail in the respective sections on HFrEF (section 5), HFmrEF (section 7), and HFpEF (section 8).

Diagnostiek

ECG

- normaal ECG > hartfalen onwaarschijnlijk
- afwijkingen
 - voorkamerfibrillatie
 - Q-golven
 - linkerventikelhypertrofie
 - verbreed QRS complex

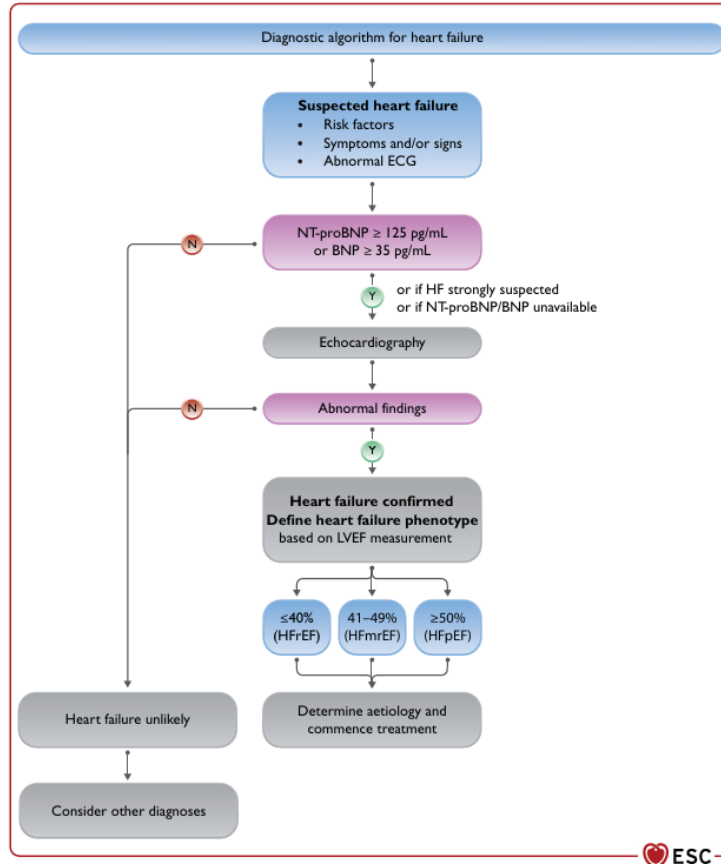


Figure 1 The diagnostic algorithm for heart failure. BNP = B-type natriuretic peptide; ECG = electrocardiogram; HFmrEF = heart failure with mildly reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; LVEF = left ventricular ejection fraction; NT-proBNP = N-terminal pro-B type natriuretic peptide. The abnormal echocardiographic findings are described in more detail in the respective sections on HFrEF (section 5), HFmrEF (section 7), and HFpEF (section 8).

Diagnostiek

Natriuretische peptiden BNP of NT-proBNP

- negatief voorspellende waarde bij chronisch hartfalen
- 50-75 jaar: NT-pro-BNP > 900 pg/mL
- > 75j: NT-pro-BNP > 1800 pg/mL

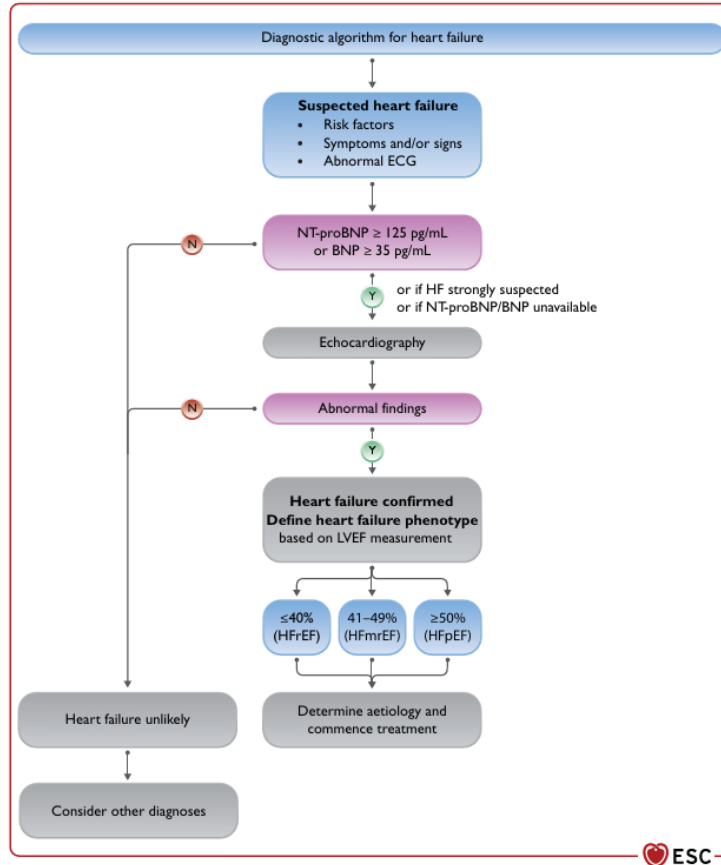
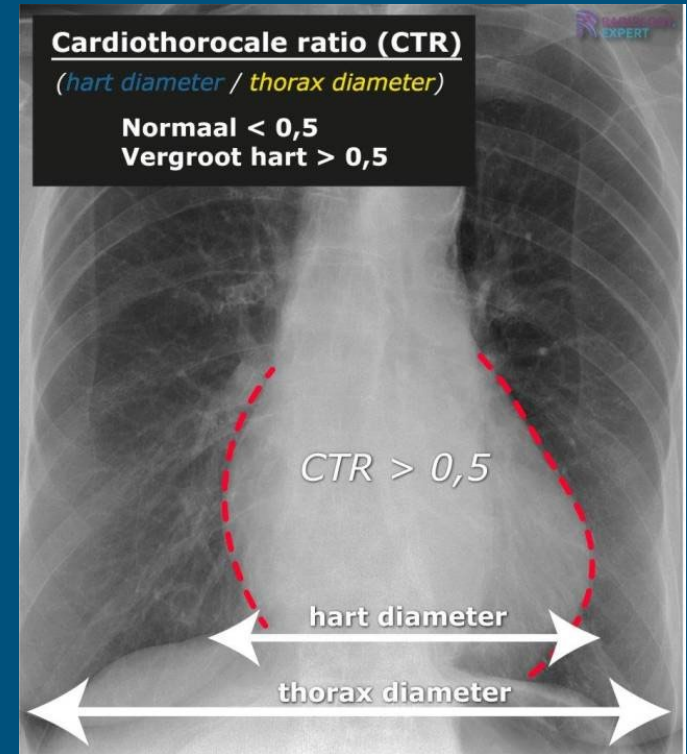


Figure 1 The diagnostic algorithm for heart failure. BNP = B-type natriuretic peptide; ECG = electrocardiogram; HFmrEF = heart failure with mildly reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; LVEF = left ventricular ejection fraction; NT-proBNP = N-terminal pro-B type natriuretic peptide. The abnormal echocardiographic findings are described in more detail in the respective sections on HFrEF (section 5), HFmrEF (section 7), and HFpEF (section 8).

Diagnostiek

- bloedname
- RX thorax
- transthoracale echocardiografie
 - gestoorde LiV functie
 - gestoorde diastolische functie (oa hypertrofie ventrikel; vergrote atria)
 - gestoorde ReV functie of verhoging in druk in a pulmonalis



Diagnostiek

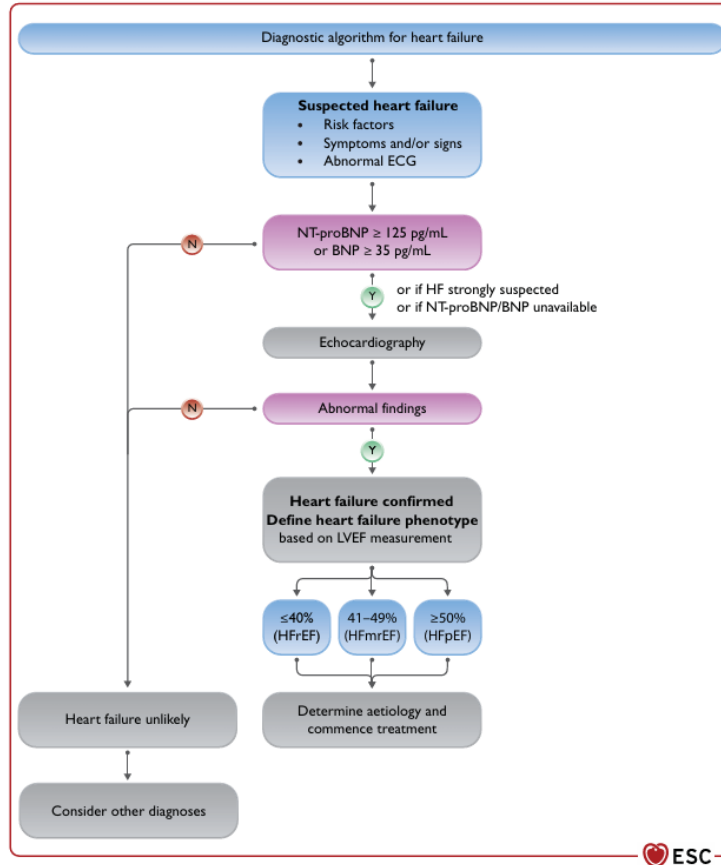
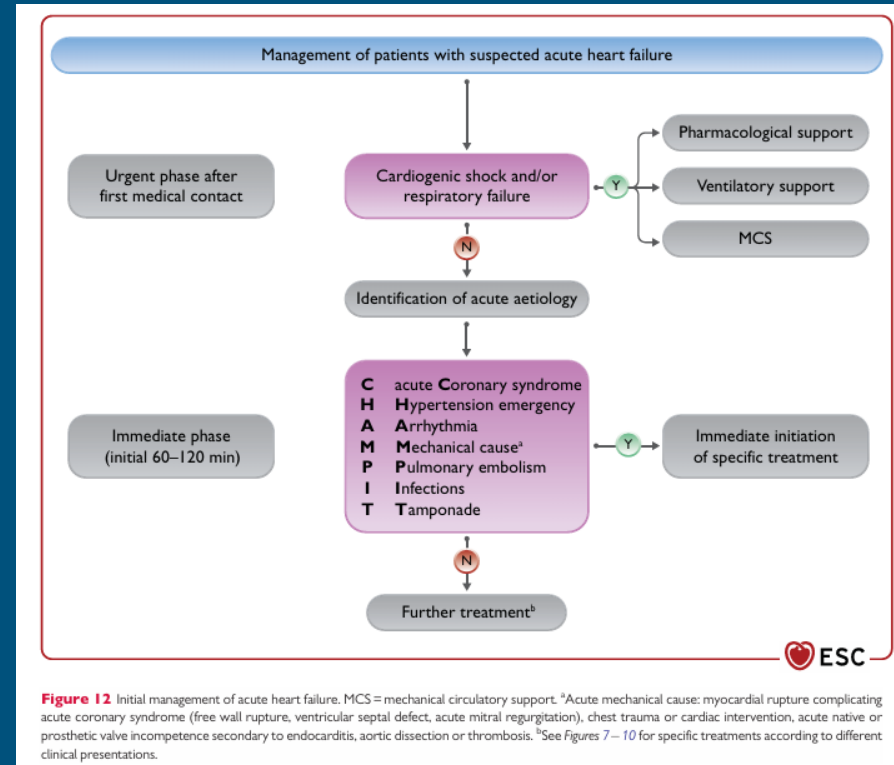


Figure 1 The diagnostic algorithm for heart failure. BNP = B-type natriuretic peptide; ECG = electrocardiogram; HFmrEF = heart failure with mildly reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; LVEF = left ventricular ejection fraction; NT-proBNP = N-terminal pro-B type natriuretic peptide. The abnormal echocardiographic findings are described in more detail in the respective sections on HFrEF (section 5), HFmrEF (section 7), and HFpEF (section 8).

Behandeling - acuut hartfalen

- mortaliteit in ziekenhuis 4-10%
- snelle aanpak aangewezen met oa
 - zuurstof zo saturatie $< 90\%$
 - nastreven hemodynamische stabiliteit (eventueel inotropica/vasopressie)
 - diagnose/aanpak onderliggende problematiek (infectie/acuut coronair syndroom/ritmestoornissen/hypertensie...)
 - iv lisdiuretica
 - opiaten



Behandeling - niet farmacologisch

- lichaamsbeweging
- stoppen met roken
- aanpak overgewicht, behandeling arteriële hypertensie, hypercholesterolemie, diabetes
- vaccinatie Influenza, COVID & S pneumoniae
- alcohol



Behandeling - niet farmacologisch

- uitleg over aandoening, symptomen en behandeling
- vochtrestrictie
 - 1.5-2L per dag voor betere symptoomcontrole
 - heroverwegen in periodes van warm weer, nausea/braken/diarree of end-of-life
- zoutbeperkende voeding (vermijden > 5g zout per dag)
- aanpak psychosociale problemen (bvb depressie, angst, ...)
- cardiale revalidatie
- vroegtijdig gesprek over zorgplanning & palliatieve zorg

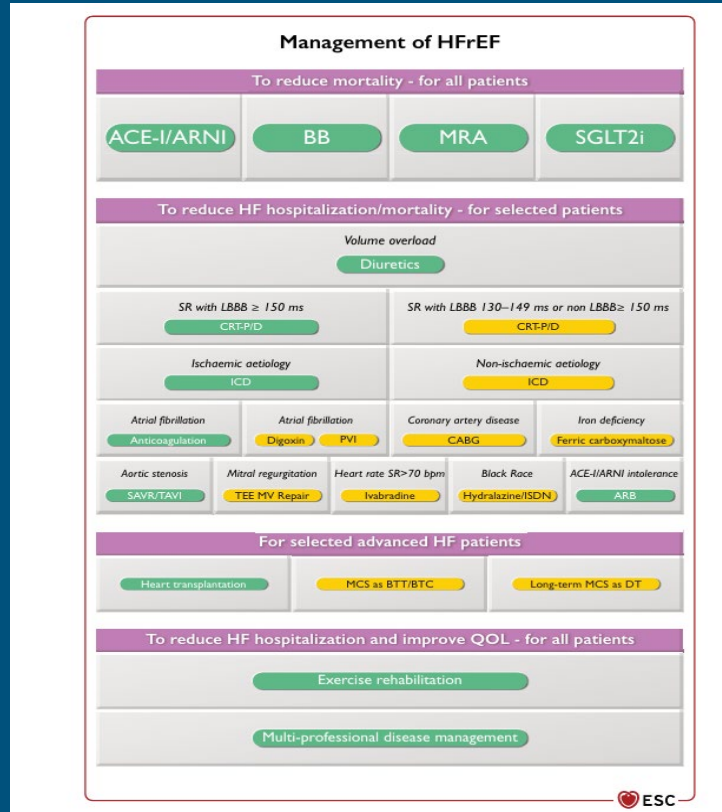
> voorkeur voor multidisciplinaire aanpak



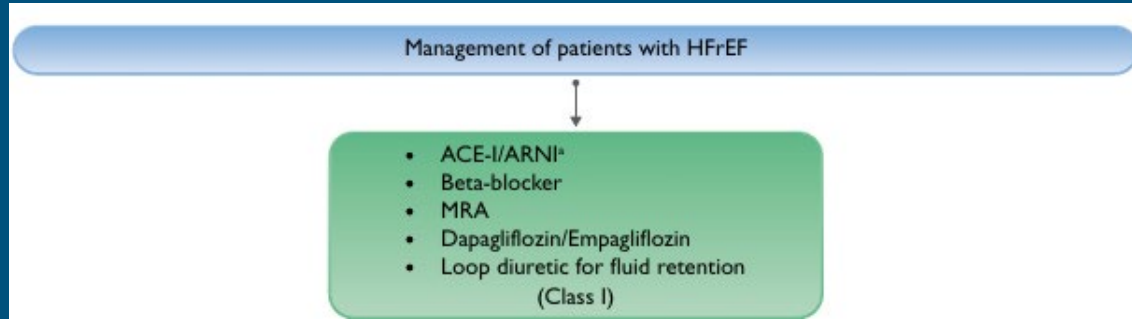
PALLIATIEVE ZORG
meer dan
stervensbegeleiding



Behandeling - farmacologisch



Behandeling - farmacologisch

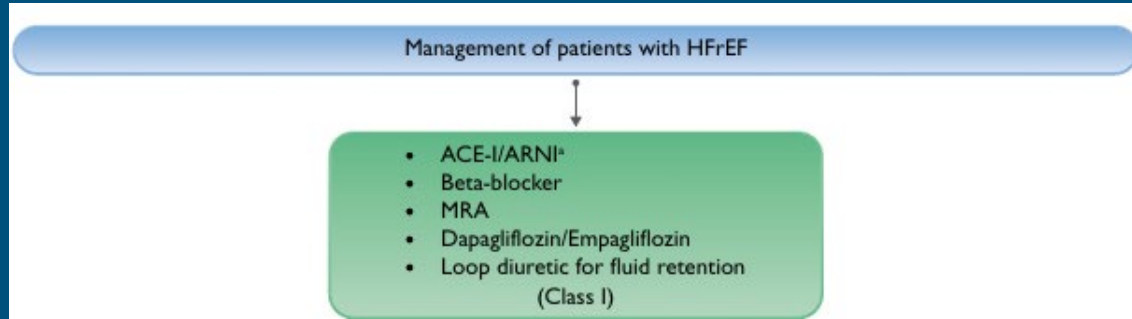


ACE-inhibitie

- afname mortaliteit, morbiditeit & verlichting van symptomen
- captopril, enalapril (*renitec*), lisinopril (*zestril*), ramipril (*tritace*)
- vervangen door sartaan indien intolerantie

	Starting dose	Target dose
ACE-I		
Captopril ^a	6.25 mg t.i.d.	50 mg t.i.d.
Enalapril	2.5 mg b.i.d.	10–20 mg b.i.d.
Lisinopril ^b	2.5–5 mg o.d.	20–35 mg o.d.
Ramipril	2.5 mg b.i.d.	5 mg b.i.d.

Behandeling - farmacologisch

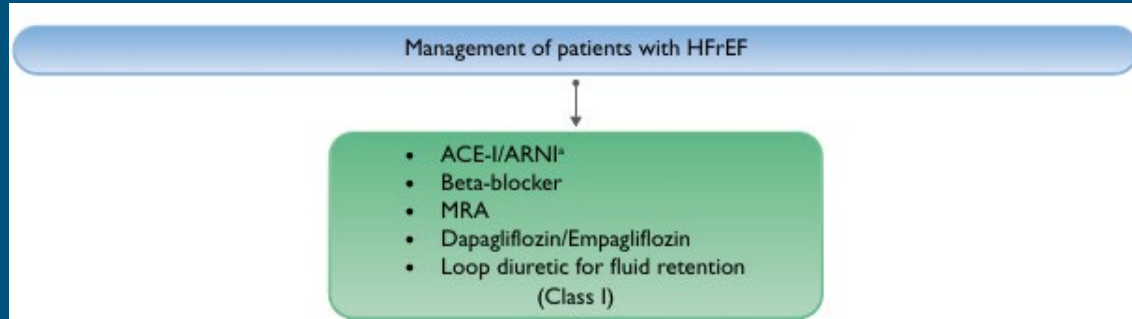


Beta-blokker

- afname mortaliteit, morbiditeit & verlichting van symptomen (in combinatie met ACE-I en diuretica)
- starten in stabiele toestand bij euvoemie
- bisoprolol (*emconcor*), carvedilol (*kredex*), metoprolol (*seloken*), nebivolol (*nobiten*)

Beta-blockers		
Bisoprolol	1.25 mg o.d.	10 mg o.d.
Carvedilol	3.125 mg b.i.d.	25 mg b.i.d. [®]
Metoprolol succinate (CR/XL)	12.5 – 25 mg o.d.	200 mg o.d.
Nebivolol ^d	1.25 mg o.d.	10 mg o.d.

Behandeling - farmacologisch

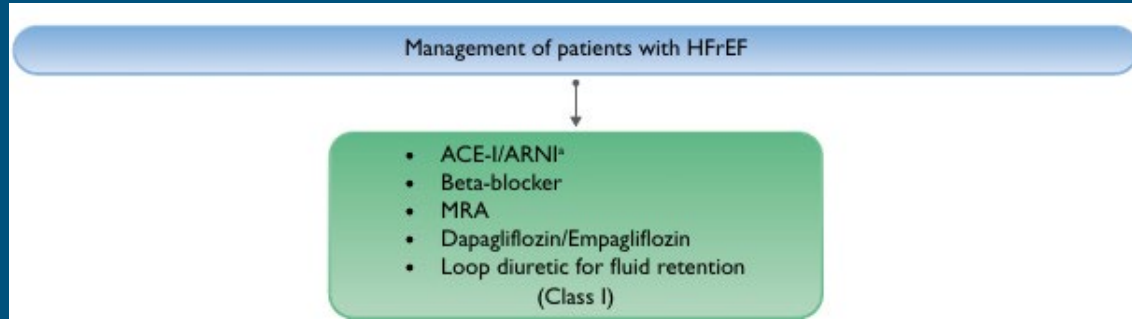


Mineralocorticoid Receptor Antagonist

- spironolactone (*aldactone*)
- afname mortaliteit, morbiditeit & verlichting van symptomen (in combinatie met ACE-I en beta-blokker)

MRA		
Eplerenone	25 mg o.d.	50 mg o.d.
Spironolactone	25 mg o.d. ^f	50 mg o.d.

Behandeling - farmacologisch

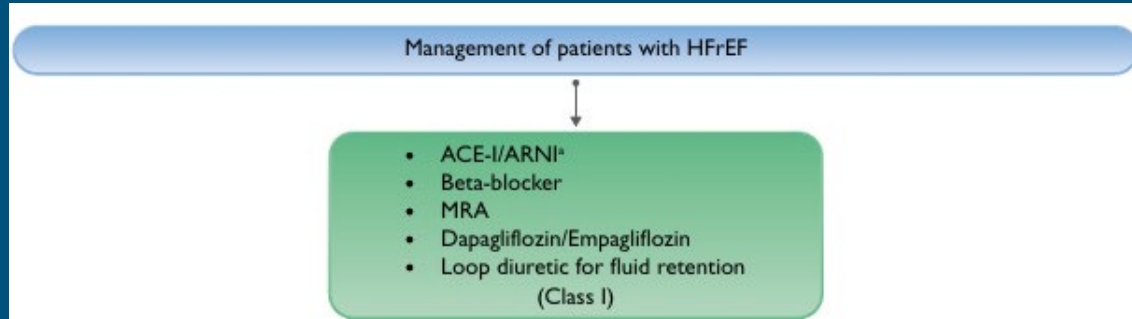


SGLT2inhibitoren

- dapagliflozin (*forxiga*), empagliflozin (*jardiance*)
- combinatie met ace-i, BB, MRA
- onafhankelijk van diabetes mellitus
- afname hospitalisatie en mortaliteit

SGLT2 inhibitor		
Dapagliflozin	10 mg o.d.	10 mg o.d.
Empagliflozin	10 mg o.d.	10 mg o.d.

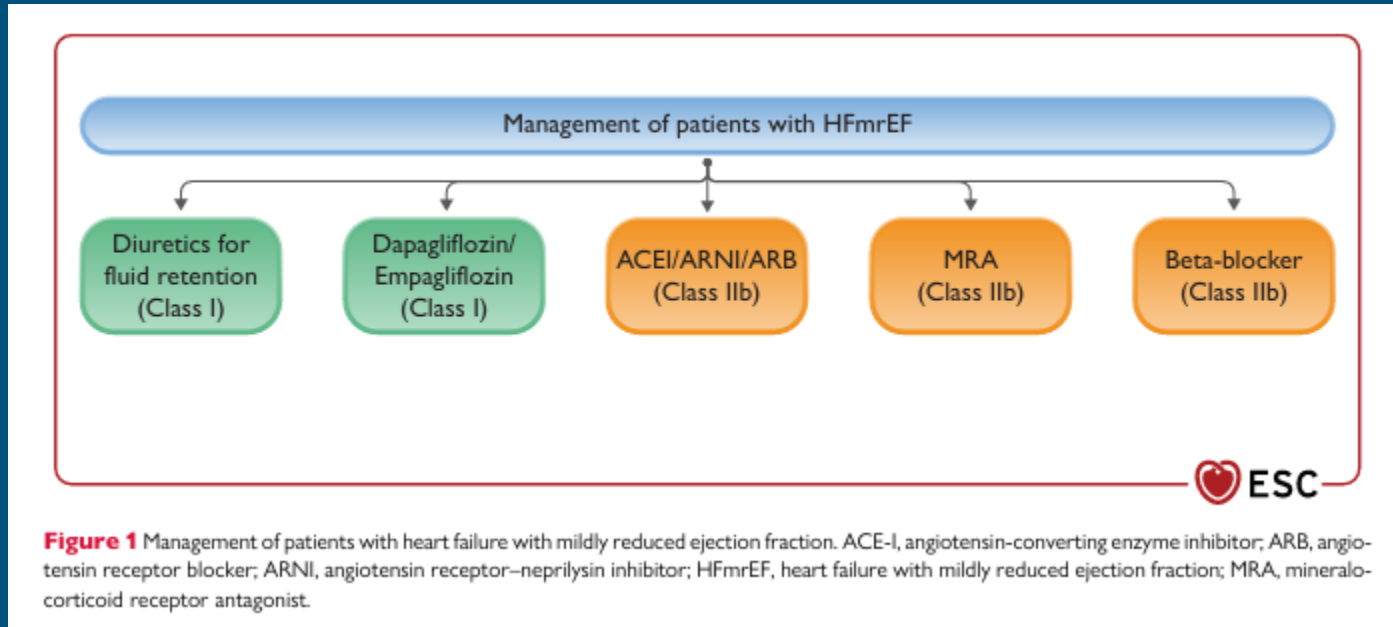
Behandeling - farmacologisch



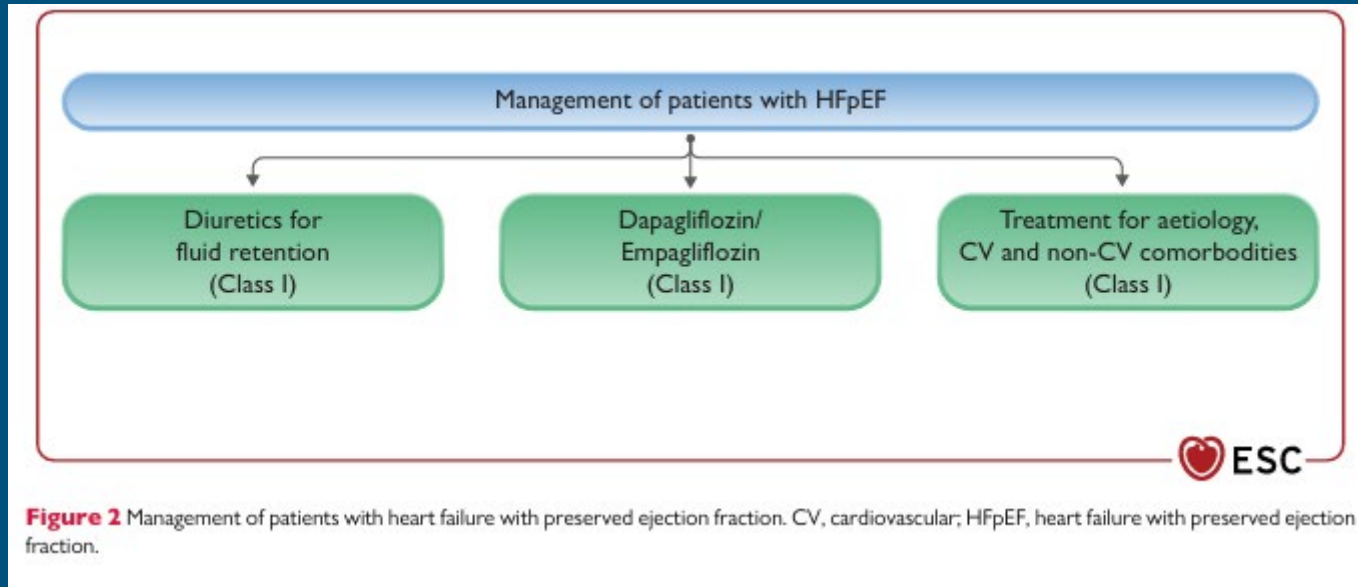
Lisdiuretica

- furosemide (*lasix*), bumetanide (*burinex*), torasemide (*torrem*)
- symptoomverlichting
- effecten op mortaliteit/morbiditeit minder goed onderzocht

Behandeling - farmacologisch



Behandeling - farmacologisch

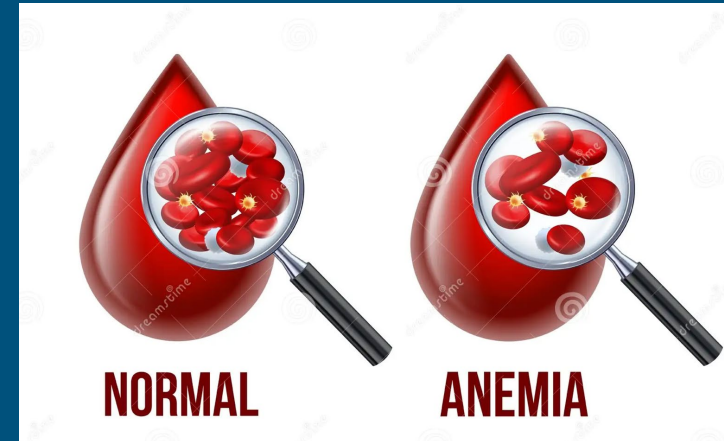


Behandeling

- aanpak ritmestoornissen (medicatie; pacemaker; ICD (defibrillator); CRTD (resynchronisatie)
- bloedverdunning (anti-agregantia, anticoagulantia)
- aanpak coronair lijden
- aanpak kleplijden
- aanpak schildklierlijden
- aanpak nierinsufficiëntie
- ...

Ijzer deficiëntie

- occult verlies, malabsorptie of verstoorde metabolisatie
- > meer hospitalisaties, hogere mortaliteit, minder inspanningstolerantie
- Adviezen
 - HFrEF en HFmrEF
 - ijzerdeficiëntie: laag ferritine ($< 100\mu\text{g/L}$) of lage transferrine saturatie ($< 20\%$)
- injectafer/venofer/fercayl/monoferric
- verbetering QoL en symptomen van hartfalen



Behandeling - opvolging

- advies tot opvolging < 6 maanden (eerder na recente hospitalisatie of recente aanpassing therapie)
 - huisarts/specialist: studies niet duidelijk
- jaarlijks EKG
- echocardiografie herhalen zo klinische deterioratie of na 3-6 maanden bij HFrEF
- nt-pro-BNP: rol onduidelijk
- telemonitoring (data over symptomen, gewicht, hartfrequentie, bloeddruk): vermoedelijk gunstig effect

Specifieke aandachtspunten geriatrie

Atypische symptomen

Polyfarmacie

- hartfalen therapie = combinatie van meerdere geneesmiddelen
- nadelen van polyfarmacie...

Specifieke aandachtspunten geriatrie










Zelfzorg

- inname medicatie, opvolging gewicht & alarmsymptomen, dieetmaatregelen, ...
- belang van mantelzorg (al dan niet professioneel) + educatie ervan

Specifieke aandachtspunten geriatrie

Frailty

- frequente associatie met hartfalen
- gepaard met
 - meer ongunstige prognose bij hartfalen
 - minder goede tolerantie van therapie
- nood aan multidisciplinaire aanpak

Clinical Frailty Scale	
	1. Very fit – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.
	2. Well – People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g. seasonally.
	3. Managing well – People whose medical problems are well controlled, but are not regularly active beyond routine walking.
	4. Vulnerable – While not dependent on others for daily help, often symptoms limit activities. A common complaint is being "slowed up", and/or being tired during the day.
	5. Mildly frail – These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.
	6. Moderately frail – People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.
	7. Severely frail – Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).
	8. Very severely frail – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.
	9. Terminally ill – Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.
Scoring frailty in people with dementia	
The degree of frailty corresponds to the degree of dementia. Common symptoms in mild dementia include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.	
In moderate dementia , recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.	
In severe dementia , they cannot do personal care without help.	

Specifieke aandachtspunten geriatrie

Sarcopenie/cachexie

- verlies van spier en/of vetmassa, spierkracht, uithouding, ...
- versneld optreden bij chronische aandoeningen bvb hartfalen
- meer ongunstige prognose
- Belang van revalidatie (weerstandstraining) en/of eiwitrijke voeding

Specifieke aandachtspunten geriatrie

Elektrolytenstoornissen

- hypo-/hyperkalemie; hyponatremie; hypochloremie
- vaak iatrogeen
- gepaard met meer ongunstige prognose



Specifieke aandachtspunten geriatrie

Depressie

- tot 20% bij personen met hartfalen
- aandacht voor symptomen, eventuele psychologische begeleiding en/of medicatie
- voorkeur geen TCA

Specifieke aandachtspunten geriatrie

Jicht

- invaliderende arthritis > invloed op zelfstandigheid/mobiliteit
- prevalentie tot 50% bij personen met hartfalen
- preventie met allopurinol (*zyloric*)
- acute jichtarthritis:
 - geen NSAIDs
 - voorkeur colchicine



Bedankt voor uw aandacht

