

Clinical audit: Management of systolic chronic heart failure (CHF)

Your patient code: Do not use patient name. Use this to identify your patients for the Review Phase.

Use a **black biro** to mark a **cross (X)** in the box beside your response. If you make a mistake, use white correction fluid.



NPS office use only

Diagnosis and symptoms

1. **Age:** ≤ 64 years 65–84 years ≥ 85 years

2. **Gender:** male female

3a. **Which of these investigations were used to diagnose systolic CHF?**

- echocardiogram ▼
- severe CHF (LVEF ≤ 30%)
 - moderate CHF (LVEF 31–39%)
 - mild CHF (LVEF ≥ 40%) ▶ exclude — not systolic CHF
 - LVEF unknown
 - electrocardiogram (ECG) B-type natriuretic peptide
 - chest X-ray cardiac nuclear scan
 - none – clinical diagnosis unknown
 - other _____

3b. **If echocardiogram was not used, reason:**

- cost not warranted patient co-morbidities
- patient refusal poor access thick chest wall
- other _____ unknown

4a. **Current symptoms:**

- No limitations in normal physical activity (NYHA I asymptomatic)
- Slight limitation of physical activity. Ordinary physical activity leads to fatigue, palpitation, dyspnoea or angina pectoris. (NYHA II mild heart failure)
- Marked limitation of physical activity. Less than ordinary physical activity leads to symptoms. (NYHA III moderate heart failure)
- Unable to carry out any physical activity without discomfort. Symptoms present at rest. (NYHA IV severe heart failure)
- unknown

4b. **Is the patient haemodynamically stable?**

- yes no unknown

to Q4c

4c. **How often are symptoms assessed?**

- at every visit when medicines change
- every 6 months when condition changes
- unknown not measured

5. **Are signs and symptoms related to fluid retention (i.e. breathlessness, oedema) currently controlled?**

- yes no partially no symptoms unknown

6. **Relevant co-existing condition(s):**

- anaemia diabetes
- arrhythmia hypertension
- arthritis/gout ischaemic heart disease
- asthma/COPD renal artery stenosis
- atrial fibrillation significant renal dysfunction (eGFR < 60 mL/min)
- depression other _____

7. **Date plasma urea, electrolyte and creatinine last measured:**

- 0–6 months > 6 months not measured unknown

Patients are at a high risk of premature morbidity or mortality if they have 2 or more factors in this shaded area. Additional factors* to be considered are:

- language barrier
- lower socio-economic status
- living alone or remote from specialist care services



* Charlson Index of Comorbidity Score of 2 or more. This score can be used to evaluate prognosis based on age and comorbid conditions. Available on http://www.medalreg.com/qhc/medal/ch1/1_13/01-13-01-ver9.php3.

Current pharmacological management

8a. **Is an ACE inhibitor being used?**

- yes ▼ no ▼
- captopril perindopril
 - enalapril quinapril
 - fosinopril ramipril
 - lisinopril trandolapril
 - other _____
- Type of product:
- single agent
 - fixed-dose combination

Total daily dose of ACE inhibitor: _____ mg

i Fixed-dose combinations may not be useful for titrating to target dose

8b. **Is current dose increased from initiating dose?**

- yes no unknown not used

to Q8c

8c. **Is target dose achieved?**

- yes no ▼ not used

- Reason:
- recently initiated (< 2 weeks ago)
 - over looked adverse effect
 - not warranted (current dose works well)
 - not confident unknown
 - other _____

9. **Is an angiotensin II-receptor antagonists being used?**

- yes ▼ no

- candesartan
 - eprosartan
 - irbesartan
 - losartan
 - olmesartan
 - telmisartan
- Type of product:
- single agent fixed-dose combination
- Reason for prescribing:
- ACE inhibitor not tolerated
 - patient symptomatic despite ACE inhibitor
 - continuing another doctor's therapy
 - unknown other _____

i Recommended target doses for CHF

- captopril 25–75 mg twice daily
- enalapril 10–20 mg twice daily
- fosinopril 20–40 mg daily
- lisinopril 20–40 mg daily
- perindopril erbumine 4–8 mg daily
- perindopril arginine 5–10 mg daily
- quinapril 20–40 mg daily
- ramipril 5–10 mg daily
- trandolapril 2–4 mg daily

Please turn over to complete form

10a. Is a beta blocker being used?

yes ▼

Heart failure specific

- bisoprolol (Bicor)
- carvedilol (Dilatrend/Kredex)
- metoprolol controlled release (Toprol XL)

Total daily dose: _____ mg

Other beta blocker used:

- atenolol
- labetalol
- metoprolol tartarate
- oxprenolol
- pindolol
- propranolol
- not used
- other _____

no ▼

Reason not used:

- adverse effect
- contraindication
- not previously considered
- not confident
- unknown
- other _____

i Recommended target doses for heart failure specific beta blockers

- bisoprolol 10 mg daily
- carvedilol 25 mg twice daily
- metoprolol controlled release 190 mg daily

10b. Is current dose increased from initiating dose?

yes no unknown not used

10c. If a heart failure specific beta blocker used, is target dose achieved?

yes no ▼ not used

Reason:

- adverse effect
- not confident
- not warranted (current dose works well)
- over looked
- recently initiated (< 2 weeks ago)
- unknown
- other _____

11. Is an aldosterone antagonist being used?

yes ▼ no

- eplerenone
- spironolactone

Reason for prescribing:

- patient symptomatic despite ACE inhibitor and diuretic
- early post-MI period (3–14 days)
- continuing another doctor's therapy
- unknown
- other _____

12. Is digoxin being used?

yes ▼ no

Reason for prescribing:

- atrial fibrillation/paroxysmal atrial tachycardia
- continuing another doctor's therapy
- patient symptomatic
- unknown
- other _____

13. Is a loop or thiazide diuretic being used?

(regular or intermittent therapy)

yes no

14. Vaccination status

- Influenza vaccine given in the last 12 months
- pneumococcal vaccine
- none given unknown

Drugs that may exacerbate CHF

15. Are any of the following co-prescribed?

- anti-arrhythmic (except beta blockers, digoxin and amiodarone)
- antineoplastics (doxorubicin, cyclophosphamide, fluorouracil, trastuzumab)
- COX-2 selective NSAIDs (meloxicam, celecoxib, etoricoxib, parecoxib)
- conventional NSAIDs
- oral corticosteroid (e.g. cortisone, hydrocortisone, fludrocortisone)
- tumour necrosis factor antagonist (e.g. etanercept, adalimumab, infliximab)
- clozapine
- itraconazole
- rosiglitazone, pioglitazone
- tacrolimus
- tricyclic antidepressant
- verapamil, diltiazem
- none
- unknown

Modifiable factors

16a. Modifiable factors associated with poor health outcomes:

- adverse effects to prescribed therapy
- inadequate medical or surgical treatment
- inadequate patient knowledge of underlying illness
- inadequate social or carer support
- lack of motivation to manage own condition
- patient unable to manage acute episodes of clinical deterioration
- poor adherence to non-pharmacological therapy none of the above

16b. If modifiable factors present, list planned action(s) to address them:

17. Has the importance of long-term medication adherence been explained?

yes no unknown not applicable

18a. Is medication adherence sub-optimal?

yes ▼ no not assessed not applicable

- using multiple medicines experiencing adverse effects
- poor insight patient is confused/cognitive decline
- not applicable other _____

18b. Strategies to assist medication adherence:

- none dosing administration aid (e.g. Dosette, Webster pack)
- dosing at same time(s) of day
- once or twice-daily dosing education of patient/carers
- other _____ not applicable

Patient support and follow-up

19. Has the patient been referred for/to: none

- Home Medicines Review (HMR) Heart failure clinic/nurse
- Team Care Arrangement/GP management plan Cardiologist

20. Which of the following have been provided?

- consumer medicine information (CMI) written information
- NHF 'Living well with CHF' action plan

advice on lifestyle issues ▼

- physical activity alcohol intake
- smoking cessation healthy eating

advice on monitoring and control of fluid ▼

- daily weighing weight gain > 2 kg in 2 days, see GP
- caffeine intake self-regulate diuretic dose
- fluid restrictions reduce sodium intake
- none other _____