



# Resource impact summary report

Resource impact

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This guideline covers diagnosing and managing chronic heart failure in people aged 18 and over. It aims to improve diagnosis and treatment to increase the length and quality of life for people with heart failure. Evidence reviewed covered treating and monitoring heart failure with reduced ejection fraction (HFrEF), mildly reduced ejection fraction (HFmrEF) and preserved ejection fraction (HFpEF).

The following new recommendations represent a change to current practice. Further potential impacts are discussed in the resource impact section of this report.

- Recommendations on treatments of people with newly diagnosed and pre-existing
  HFrEF. The recommendations expand the population eligible for sodium-glucose
  transport protein 2 (SGLT2) inhibitors, and angiotensin receptor-neprilysin inhibitors
  (ARNIs) and therefore drug costs. Treatments could help reduce hospitalisations, A&E
  attendances, mortality, with potential increase in adverse events therefore impacts
  would be in both secondary and primary care [recommendations 1.4.1 to 1.4.4].
- Recommendation to consider intravenous iron therapy for people with HFrEF. It may increase drug costs, but the costs could be partly or wholly offset by benefits such as a reduced hospitalisation [recommendation 1.4.6].
- Recommendation to consider angiotensin-converting enzyme (ACE) inhibitor, a betablocker, a mineralocorticoid receptor antagonist (MRA) for people with newly diagnosed and pre-existing HFmrEF. It may increase use of these drugs and the associated costs [recommendation 1.5.1].
- Recommendation to consider an MRA and an SGLT2 inhibitor for treating HFpEF. It may
  increase treatments with MRAs as standard care rather than an add on if required.
   SGLT2 inhibitors are already recommended for this group of people so no significant
  change is expected [recommendation 1.5.3].

A <u>resource impact template</u> has been developed and published alongside this report. The template focuses on the following recommendations:

- Treatments of people with newly diagnosed and pre-existing heart failure with reduced ejection fraction [recommendations 1.4.1 to 1.4.4].
- Treatments of people with preserved ejection fraction [recommendation 1.5.3].

Although the recommendations to consider intravenous iron therapy for adults with chronic HFrEF, and to consider ACEi, BB, and MRA for people with newly diagnosed and pre-existing HFmrEF may increase drug costs they are unlikely to have a significant resource impact so have not been considered. This is because clinical experts suggest ACEi, BB, and MRA are unlikely to replace the already recommended SGLT2is. IV iron therapy is already common practice, so the impact is unlikely to be significant.

The template includes population percentage changes of people who switch from 2 and 3 pillars to 4 pillars for heart failure treatment based on treatment pillars that were included in the economic evidence review.

These are for illustration and users are advised to adjust these for their local expected change in practice. The template allows cost estimates to be calculated for ICB populations.

The impact of implementing an increase in 4 pillar treatments is demonstrated in the resource impact section and these are based on increasing the number of people on 4 pillars from <u>Seghezzo et al. 2025</u> current estimate of around 15% to 45% of the total population with HFrEF (See <u>resource impact template</u>). The key areas of impact are:

- an increase in the cost of treatments in primary care from an increased number of people prescribed SGLT2 inhibitors and people switching from ARBs to ARNI. The figures presented in table 1 include the recent change to the price of dapagliflozin.
   Users should amend any of the prices if local ones are different from the prices populated in the template
- a reduction in heart failure hospitalisations and A&E attendances
- an increase in drug related adverse events. Acute kidney injury, hepatic injury and fractures treated in a secondary care setting have the highest financial impact. Other adverse events incurred may be in both primary and secondary care settings but with a lower financial impact.

#### Resource impact (cash and capacity items)

Table 1 shows the estimated net additional resource impact per 100,000 total population ranging from £14,000 in year 1 to £66,000 by year 5. These are based on a set of assumptions that models the switch of around 70% of people who currently use 2 and 3 pillar treatments to a 4-pillar treatment option. This excludes people on 2 and 3 pillar treatments that were not included in the economic evidence review. These figures will change if there is a further price change, and if the market share between the SGLT2 inhibitors changes.

Table 1 Estimated total cost per year and change in cost per year to current practice per 100,000 total population

| Year                            | Drug<br>costs | Titration<br>costs | Heart failure hospital admissions costs | A&E<br>attendances<br>costs | Adverse events costs | Total<br>of all<br>costs | Chan in cos each year curre |
|---------------------------------|---------------|--------------------|---|-----------------------------|----------------------|--------------------------|-----------------------------|
| -                               | £'000         | £'000              | £'000                                   | £'000                       | £'000                | £'000                    | £'000                       |
| Year 0<br>(current<br>practice) | 104           | n/a                | 75                                      | 3                           | 125                  | 307                      | -                           |
| Year 1                          | 120           | 1                  | 69                                      | 3                           | 128                  | 321                      | 14                          |
| Year 2                          | 136           | 1                  | 65                                      | 2                           | 130                  | 334                      | 27                          |
| Year 3                          | 152           | 1                  | 60                                      | 2                           | 132                  | 347                      | 40                          |
| Year 4                          | 167           | 1                  | 55                                      | 2                           | 134                  | 359                      | 52                          |
| Year 5                          | 184           | 1                  | 49                                      | 2                           | 137                  | 373                      | 66                          |

The table above does not include any potential financial impact of recommendation 1.5.3, to consider an MRA and an SGLT2 inhibitor for treating HFpEF. The impact is expected to relate to MRA only, this is not expected to be significant. The template enables users to assess this.

Titration costs include GP appointment time to initiate treatment and subsequent nurse visits for treatment titration for people switching to 4 pillars of treatment. The capacity impact tab within the template enables users to assess titration costs.

# Capacity impact

Capacity impacts that may result from implementation of the updated recommendations are:

- a reduction in heart failure hospitalisations
- a reduction in A&E attendances
- an increase in drug-related adverse events such as acute kidney injury, hepatic injury, fractures
- a reduction in mortality
- increase in GP appointments to initiate treatments and nurse visits for treatment titration for people switching to 4 pillars.

# Population covered

Table 2 shows the number of adults with heart failure per 100,000 total adult population and the subgroups covered by the guideline. We have determined resource impact estimates based on a figure of 51.7% of heart failure patients having HFrEF. This was based on a scaled calculation from the number of patients determined to have HFrEF estimated by Seghezzo et al. 2025. The figure approximates the proportion of heart failure that is HFrEF from the most recent National Heart Failure audit (NHFA) 2025 of 49.4%. However other estimates of the proportion of total patients who have HFrEF are higher such as 70.1% by Bellanca et al. 2023.

<u>Volterrani et al. 2024</u> reported that the proportion of HFrEF, HFmrEF and HFpEF based on the European Society of Cardiology (ESC) HF Long-Term registry was 55%, 24% and 21% respectively. These figures have been used to adjust the proportions of HFmrEF and HFpEF in the resource impact template to align with the 51.7% from <u>Seghezzo et al. 2025</u>. Users can amend the figures to reflect local population.

Table 2 Prevalence of heart failure per 100,000 total population

| Details                      | Percentage (%) | Number of people |
|------------------------------|----------------|------------------|
| Per total population         | n/a            | 100,000          |
| With heart failure           | 1.3            | 1,077            |
| Proportion of HF with HFrEF  | 51.7           | 557              |
| Proportion of HF with HFmrEF | 22.5           | 242              |

| Proportion of HF with HFpEF | 25.8 | 278 |
|-----------------------------|------|-----|

Prevalence of heart failure is based on <u>Quality and Outcomes Framework</u>, 2023 to 24. (QOF prevalence 1.06% of full population adjusted to give prevalence in adults of 1.33%.)

The proportions of HFrEF are based on <u>Seghezzo et al. 2025, Impact of the COVID-19</u>

<u>Pandemic on Treatment and Outcomes Among Patients with Heart Failure with Reduced:</u>

<u>Nationwide Studies.</u>

### Current pharmacological treatments

The previous NICE guideline recommended a stepwise approach for pharmacological treatment of heart failure with reduced ejection fraction (HFrEF) that adds additional types of drugs to treatments in an incremental way over time to optimise therapeutic impact. However, clinical practice over the timing of pharmacological treatments of HFrEF is changing.

The four-pillars of heart failure treatment is being recommended to be used earlier and without the need to optimise the dose of any one medicine before introducing another. The guideline also recommends that GPs based on their experience and expertise, can prescribe SGLT2 inhibitors to avoid unnecessary delays to treatment. They can also initiate ARNI on the advice of a heart failure specialist.

### Treatment uptake assumptions

The uptake assumptions were based on the pillars of treatment considered in the health economic model. The model focused on the most common combinations of treatment of people on 2 to 4 pillars. This increases the total number of people on 4 pillar treatments from around 15% (81) to around 45% (248) of the total number of people with HFrEF per 100,000 total population.

The economic modelling did not include all treatment combinations. The resource impact template includes them all to evaluate the cost of treatment but only includes those included in the economic model to evaluate the switch to 4 pillars.

#### Other considerations

The recommendations discussed below have not been included in the resource impact template as they are not considered to have a significant resource impact. However, because they are a change in practice, organisations may need to review and assess resource impact locally.

Recommendations 1.4.6 to consider intravenous (IV) iron therapy is new and may increase drug costs. However, clinical experts suggest that the use of IV iron therapy to treat iron deficiency is already common in people with HFrEF, but it could be a change in practice in some areas. Evidence showed IV iron improved exercise tolerance and quality of life in the first year for people with HFrEF and iron deficiency. Any potential increase in drug costs could be partly or wholly offset by benefits such as a reduction in hospitalisation.

Recommendation 1.5.1 to consider an angiotensin-converting enzyme (ACE) inhibitor, a beta-14 blocker, a mineralocorticoid receptor antagonist (MRA) and a sodium-15 glucose cotransporter-2 (SGLT2) inhibitor for treating heart failure with mildly reduced ejection fraction is a new recommendation. It may increase drug costs. However, any potential costs are unlikely to be significant. Clinical experts suggest ACEi, BB, and MRA are unlikely to replace the already recommended SGLT2 inhibitors. Also, currently treatment costs with ACEi, BB, and MRA are low compared to SGLT2 inhibitors. However, dapagliflozin (an SGLT2 inhibitor) is now off patent and the potential availability of generic products may reduce the costs of SGLT2 inhibitors.

#### **Key information**

#### Table 3 Key information

| Speciality                   | Cardiology   |
|------------------------------|--|
| Disease area                 | Heart failure  |
| Programme budgeting category | 10X - Problems of circulation                                  |
| Commissioner(s)              | ICBs   |
| Provider(s)                  | Primary care, Community health care and Secondary care - acute |

## About this resource impact summary report

This resource impact summary report accompanies the <u>NICE guideline on chronic heart</u> failure in adults: diagnosis and management and should be read with it.