

CHRONIC HEART FAILURE -PHARMACOLOGICAL TREATMENT GUIDELINE



TARGET AUDIENCE	Board-wide
PATIENT GROUP	Adults (≥ 18 yr) diagnosed with Chronic Heart Failure (CHF)

Clinical Guidelines Summary

Update to NHSL CHF pharmacologic treatment guideline:

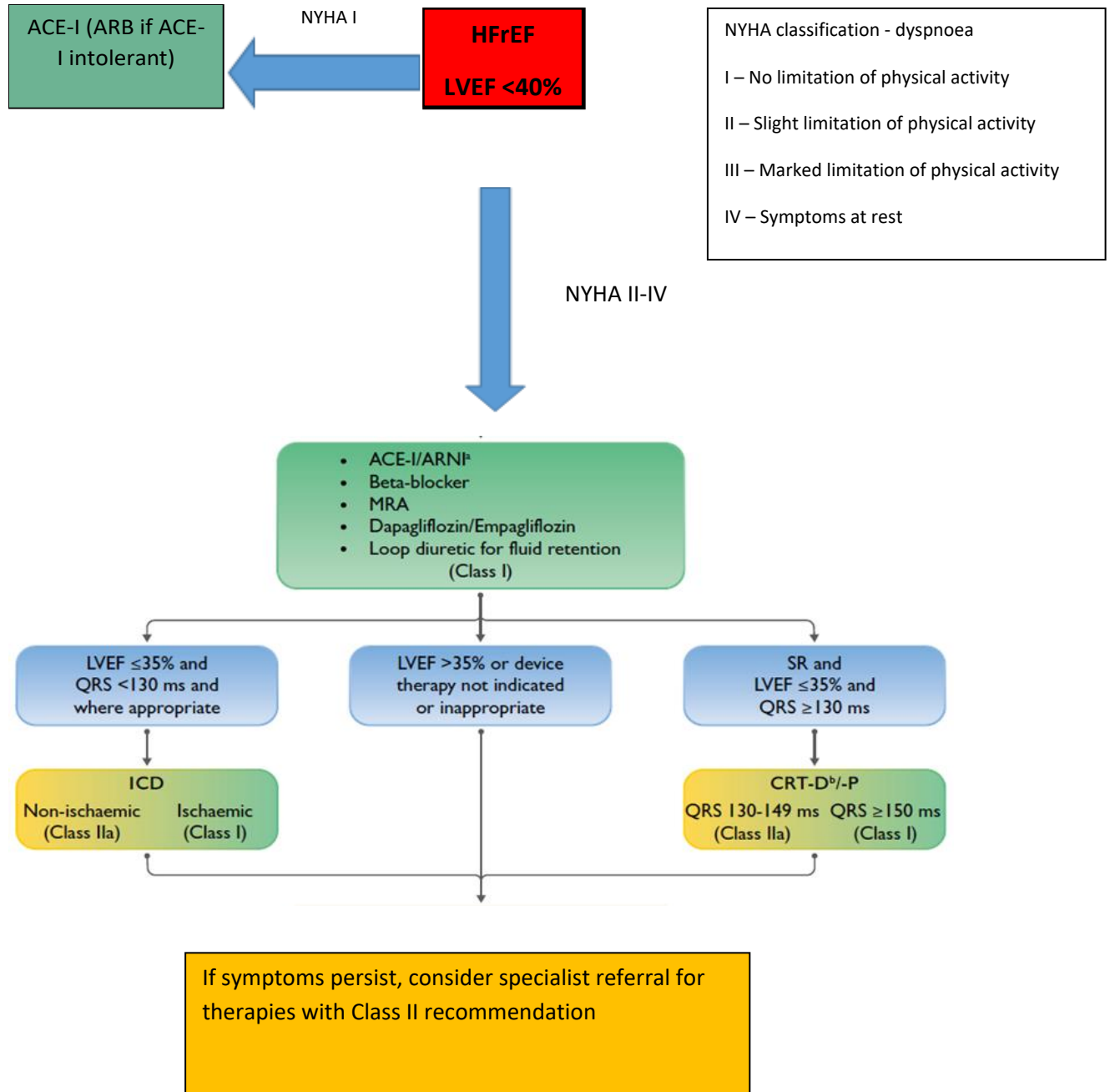
The submitted adjustment to the existing NHSL CHF guideline pertains to the pharmacologic management of heart failure with preserved ejection fraction (HFpEF) and heart failure with mildly reduced ejection fraction (HFmrEF). There is no change to the heart failure with reduced ejection fraction (HFrEF) component.

The update is entirely in keeping with the European Society of Cardiology 2023 update.(1) Clinical trials investigating dapagliflozin (2) and empagliflozin (2) – both sodium glucose co-transporter-2 receptor (SGLT2) inhibitors – have shown significant reductions in cardiovascular morbidity and mortality in patients with HFpEF and HFmrEF. Dapagliflozin reduced a primary end-point of worsening heart failure or cardiovascular death in patients with CHF and left ventricular ejection fraction (LVEF) $>40\%$, while in a separate trial empagliflozin reduced a similar end-point of cardiovascular death or heart failure.

This guidance should be used in conjunction with the NHSL HF diagnostic pathway which can be accessed via the webpage link below:

<https://rightdecisions.scot.nhs.uk/m/2078/primary-care-heart-failure-assessment-using-nt-probnp-20220509-v1.pdf>

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a ARB if ACE-I intolerant

b CRT-D dependent on specialist opinion

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Glossary:

LVEF – left ventricular ejection fraction

ACE-I – angiotensin converting enzyme inhibitor

ARB – angiotensin receptor blocker

ARNI – angiotensin receptor neprilysin inhibitor

MRA – mineralocorticoid receptor antagonist

ICD – implanted cardioverter defibrillator

CRT – cardiac resynchronisation therapy with (D) defibrillator, (P) pacemaker

HFmrEF – heart failure, mildly reduced ejection fraction

Note: Order in which HFrEF medications added may vary from this guideline under care of cardiologists or heart failure nurses only

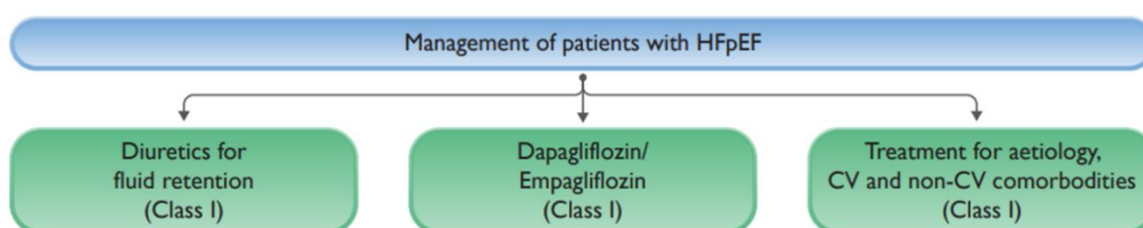
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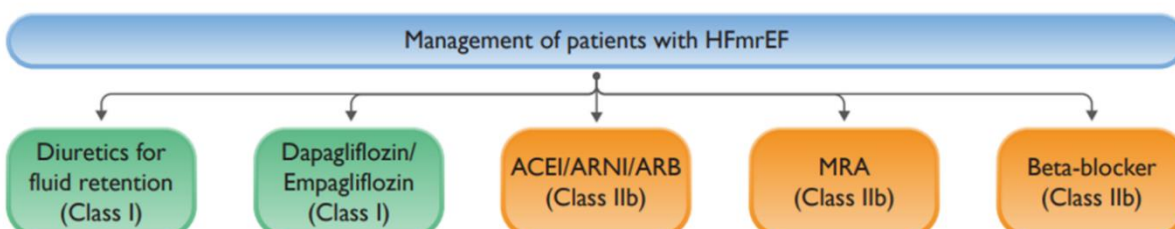
Patients with heart failure (NYHA II-IV) and LVEF \geq 50% (HFpEF) should be prescribed an SGLT2 inhibitor. Symptoms should additionally be treated with diuretics, and comorbidities managed aggressively.



A new category – heart failure with mildly reduced ejection fraction (LVmrEF) – is recognised when heart failure symptoms and/or signs are associated with LVEF in the range 41-49%.

Patients with HFmrEF should be treated with an SGLT2 inhibitor.

There is weak (class IIb) evidence only for the use of other HF-REF treatments in this HFmrEF group; specialist advice recommended:



Additional guidance on the use of SGLT2 inhibitors in CHF are provided below.

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Exclusion criteria for initiation of SGLT2 inhibitors in CHF

1. Type 1 diabetes mellitus
2. eGFR <30mL/min (see chart below)
3. Previous intolerance of SGLT2 inhibitors
4. Systolic BP <95mmHg

CKD Stage (ml/min/1.73m ²)	Stages G1 & G2 eGFR>60	Stage G3a eGFR 45- 59	Stage G3b eGFR 30- 44	Stage G4 eGFR 15- 30	Stage G5 eGFR<15	Severe hepatic impairment
Dapagliflozin – Heart Failure across entire range of LVEF	Initiate 10mg in those with HFrEF, HFmrEF or HFpEF with or without T2D		No dose adjustment required based on renal function. Limited experience in CHF in patients with eGFR <30. Consider discussion with secondary care			Start dose 5mg daily

Biochemical monitoring after commencement of SGLT2 inhibitors

U&Es check 4 weeks after commencement, then as per standard monitoring for CHF patients as per local GP practice guidelines.

Sick day Guidance - to be reiterated to patients at every opportunity

When unwell (acute illness: fevers, sweats, rigors, vomiting, diarrhoea, fasting etc.) **Omit SGLT2 inhibitors (caution also with renin-angiotensin-aldosterone system blockers and diuretics)**. All diabetic patients should undertake ketone monitoring if acutely unwell as is standard practise.

Patients should be provided with a sick day rules card. Electronic versions of the Medicine Sick Day Rules card and leaflets are available via the link below:

<https://ihub.scot/improvement-programmes/scottish-patient-safety-programme-spsp/spsp-programmes-of-work/spsp-medicines-collaborative/high-risk-situations-involving-medicines/medicines-sick-day-rules-card/>

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References/Evidence

1. Theresa A McDonagh, Marco Metra, et al, ESC Scientific Document Group , 2023 Focused Update of the 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: Developed by the task force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC) With the special contribution of the Heart Failure Association (HFA) of the ESC, European Heart Journal, Volume 44, Issue 37, 1 October 2023, Pages 3627–3639, <https://doi.org/10.1093/eurheartj/ehad195>
2. Solomon SD, McMurray JJV, Claggett B, et al; DELIVER Trial Committees and Investigators. Dapagliflozin in Heart Failure with Mildly Reduced or Preserved Ejection Fraction. N Engl J Med. 2022 Sep 22;387(12):1089-1098.
3. Anker SD, Butler J, Filippatos G, et al; EMPEROR-Preserved Trial Investigators. Empagliflozin in Heart Failure with a Preserved Ejection Fraction. N Engl J Med. 2021 Oct 14;385(16):1451-1461. doi: 10.1056/NEJMoa2107038.

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1. Governance information for Guidance document

Lead Author(s):	Robin Weir
Endorsing Body:	ADTC
Version Number:	2
Approval date	18/09/2024
Review Date:	15/09/2027
Responsible Person (if different from lead author)	

CONSULTATION AND DISTRIBUTION RECORD	
Contributing Author / Authors	Robin Weir David Carrick
Consultation Process / Stakeholders:	Cardiology Consultants, NHSL Heart failure nurses, UHH Note – this is adapted from ESC chronic heart failure 2023 guideline update with identical recommendations as in guideline.

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Distribution	Primary and secondary care physicians, heart failure nurses and staff managing patients with heart failure across the spectrum of left ventricular ejection fraction across NHSL.
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CHANGE RECORD

Date	Lead Author	Change	Version
12.7.24	Robin Weir	<i>International heart failure guidelines were updated in 2023, with a focus on use of SGLT2 inhibitors, and updates in management of HFpEF and a new category – HFmrEF (heart failure with mildly reduced ejection fraction). Current update reflects these changes.</i>	1
			2
			3
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2. You can include additional appendices with complimentary information that doesn't fit into the main text of your guideline, but is crucial and supports its understanding.

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