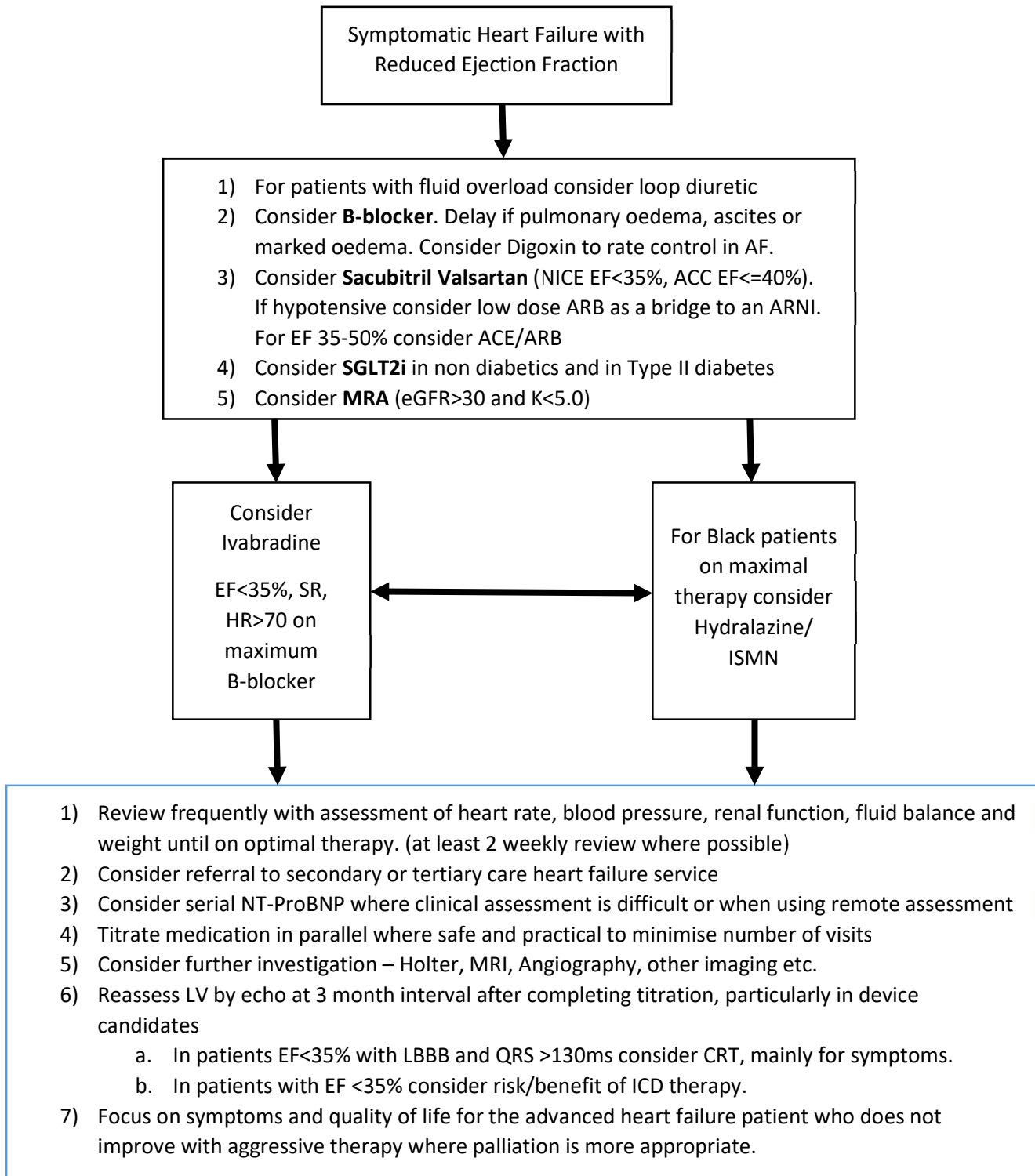




Heart Failure in Wales in 2021– a Parallel Approach

Produced by the Welsh Heart Failure Expert Reference Group

“If you want your Heart Failure patients to do well get them on these four medications as quickly as possible and to the highest doses possible”

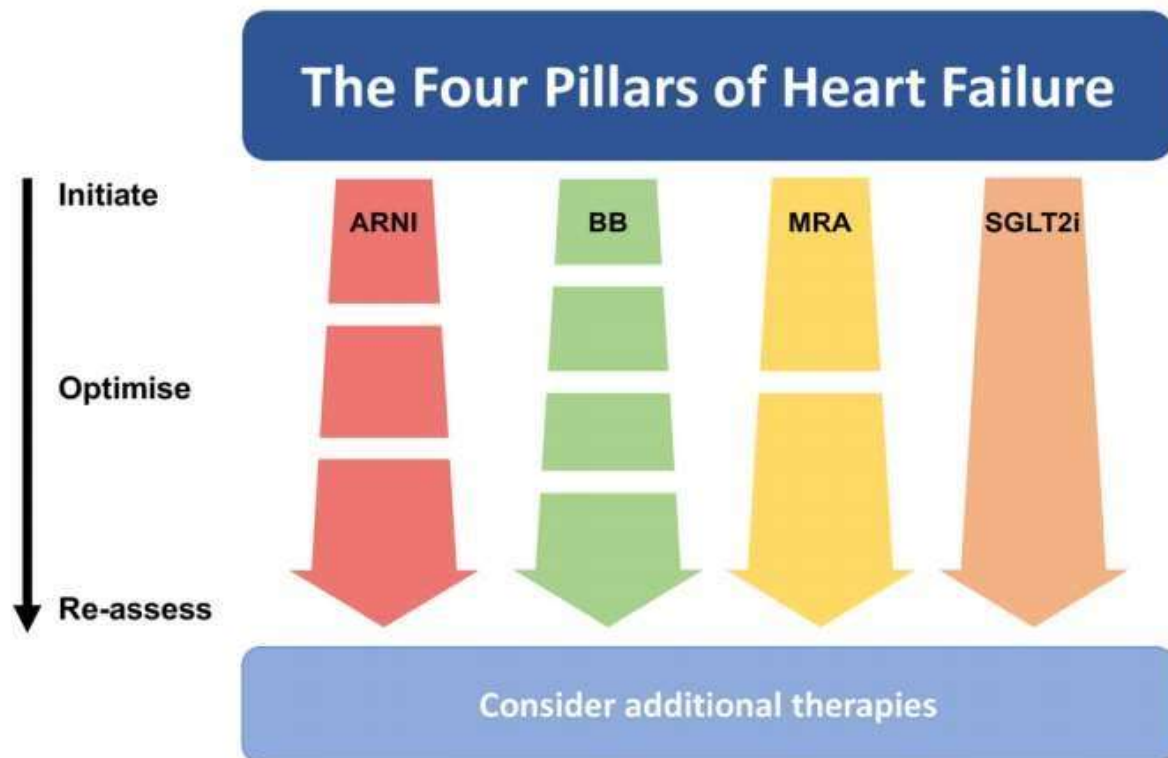


Adapt drug initiation and titration to the individual patient based on fluid status, heart rate, blood pressure and renal function.

1. Plan parallel initiation and titration of the four most effective disease modifying drugs.
2. Reduce the number of steps to optimal care.
3. Limit reassessments by echocardiography.

Improve symptoms
Reduce hospitalisation
Reduce mortality
Protect renal function

Early relative risk reduction		Initiation and optimization of medication dosing					
Outcomes	Change, %	CDMMT	Day 1	Days 7-14	Days 14-28	Days 21-42	After day 42
CV death or HF hospitalization	-42	ARNI	Initiate at low dose	Continue	Titrate, as tolerated	Titrate, as tolerated	Maintenance or additional titration of the 4 foundational therapies
Death	-25	β-Blocker	Initiate at low dose	Titrate, as tolerated	Titrate, as tolerated	Titrate, as tolerated	Consideration of EP device therapies or transcatheter mitral valve repair
CV death or HF hospitalization	-37	MRA	Initiate at low dose	Continue	Titrate, as tolerated	Continue	Consideration of add-on medications or advanced therapies, if refractory
Death, HF hospitalization, or emergency/urgent visit for worsening HF	-58	SGLT2i	Initiate	Continue	Continue	Continue	Manage comorbidities



Safe, Effective, Efficient, Timely, Equitable and Person Centred
in line with the
Welsh Government Quality Statement for Heart Conditions

Notes

- Historical guidelines for heart failure management adopt a stepwise linear approach to heart failure treatment based on the chronology of clinical trial publication and assumes that the most effective drugs were developed first.
- Traditional optimisation involved sequentially initiation and titration of up to 10 drugs, which was extremely expensive in terms of resource, time and repeat echocardiography and could take up to 6 months.
- Significant benefits of the newer drugs occur within 30 days of initiation therefore the historical model may result in delay, harm and hospitalisations.
- B-blockers, ARNI, SGLT2i and MRA act as disease-modifying agents, which when combined represent foundation therapy for HFrEF.
- B-blockers are probably the single most effective drug to start early when tolerated, but should be delayed in patients in pulmonary oedema, ascites and severe oedema, and started when there is only mild oedema. B-Blockers are particularly helpful in patients with ischaemic heart disease and arrhythmias.
- SGLT2is have a striking effect in preventing hospitalisation and might be used early, particularly in outpatients.
- If patients are hypotensive, initiating Sacubitril valsartan may be problematic, in which case a low dose of an ARB may be considered as a first step. Hypotension usually resolves after a few days and a switch to Sacubitril Valsartan may be appropriate.
- Sequencing drugs specifically for a patient profile may result in improved outcomes, for example early initiation of an ARNI and SGLT2i could reduce the risk of renal insufficiency or hyperkalaemia seen later with an MRA.
- The addition of a new class at low dose can exert meaningful effect of mortality or hospitalisation that may be greater than that seen by titrating first line drugs.
- In outpatients, drug initiation should be considered after individual assessment with checks of fluid balance, heart rate, blood pressure, renal function and weight. Titration should occur on an appropriate timescale, usually 1-2 weekly.
- In inpatients where all parameters including renal function are assessed frequently, drug titration should be reviewed daily as soon as renal function results are available. All four drug classes should ideally be initiated pre discharge.

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Swansea Bay University Health Board

Authorisation Form for Publication onto COIN

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COIN ID.	CID3926
Title.	Heart Failure in Wales in 2021 – A Parallel Approach
Name and Signature of Author/Chair of Group or Committee.	Wales Cardiac Network & Welsh Cardiovascular Society
Name and Signature of Lead Pharmacist.	N/A
Please specify whether the document is New, Revised or Supersedes a previous version.	Reviewed no changes
Please specify the section on COIN where you wish the document to be published.	Cardiac Services - Heart Failure
Please sign to confirm that the document has been authorised by an approved governance process in a specialty or delivery unit.	Dr. Geraint Jenkins, Consultant Cardiologist (Custodian of document on COIN)
Has NICE guidance been considered/referenced when producing this guidance? If yes, please state the title or reference number.	Yes
Is the document relevant to the GP Portal?	No
Equality Statement (Mandatory for Policies). ⁽¹⁾	N/A
Please specify keywords to assist with searching. ⁽²⁾	Heart Failure, Four Pillars.
Published.	July 2021
Last Review.	March 2023
Next Review/Expiry Date.	March 2026

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