

MAIC

Jornada entre expertos



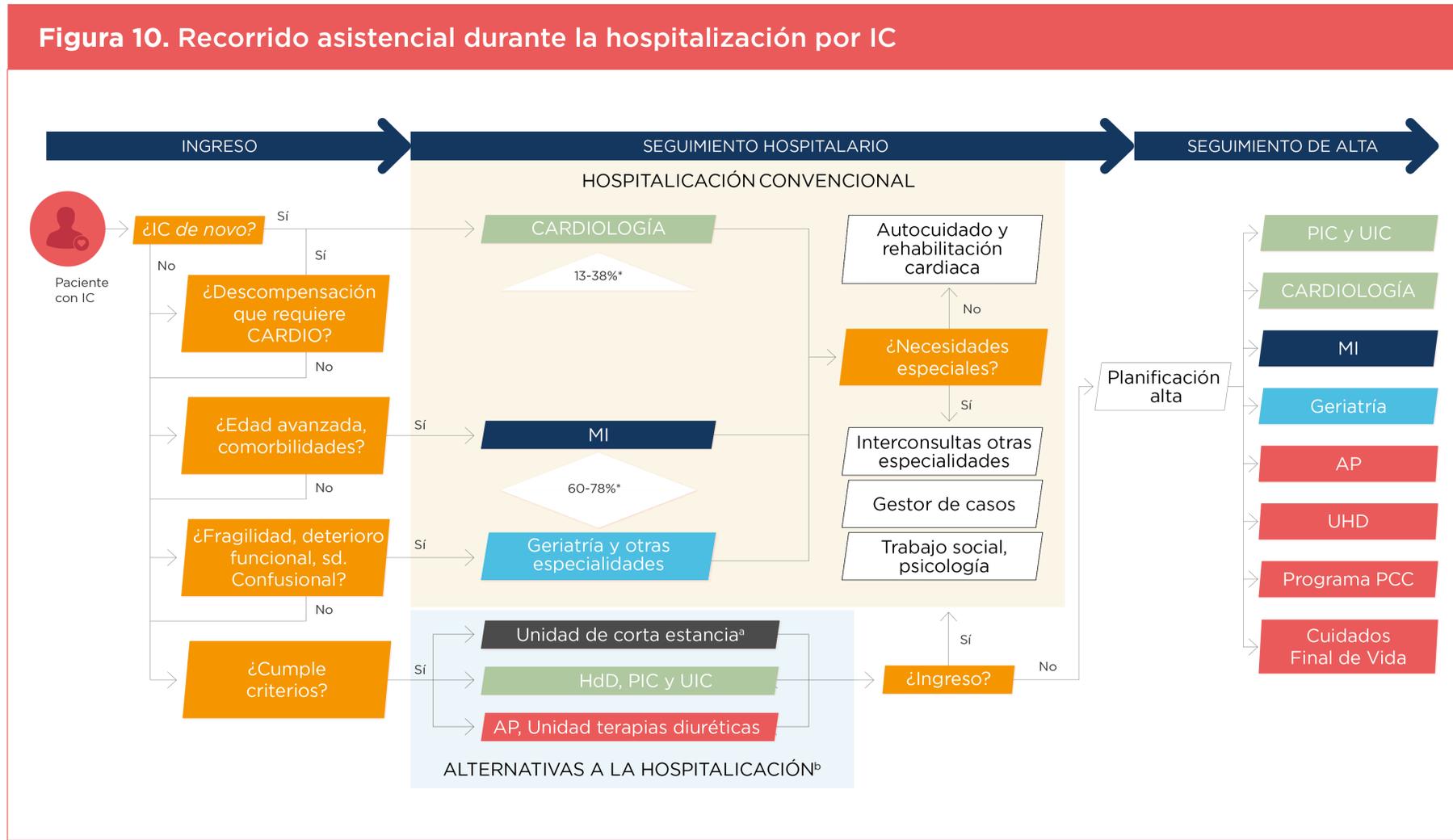
Boehringer
Ingelheim

Optimización de la atención al paciente hospitalizado

Pau Llàcer Iborra

#JornadaMAIC

Figura 10. Recorrido asistencial durante la hospitalización por IC



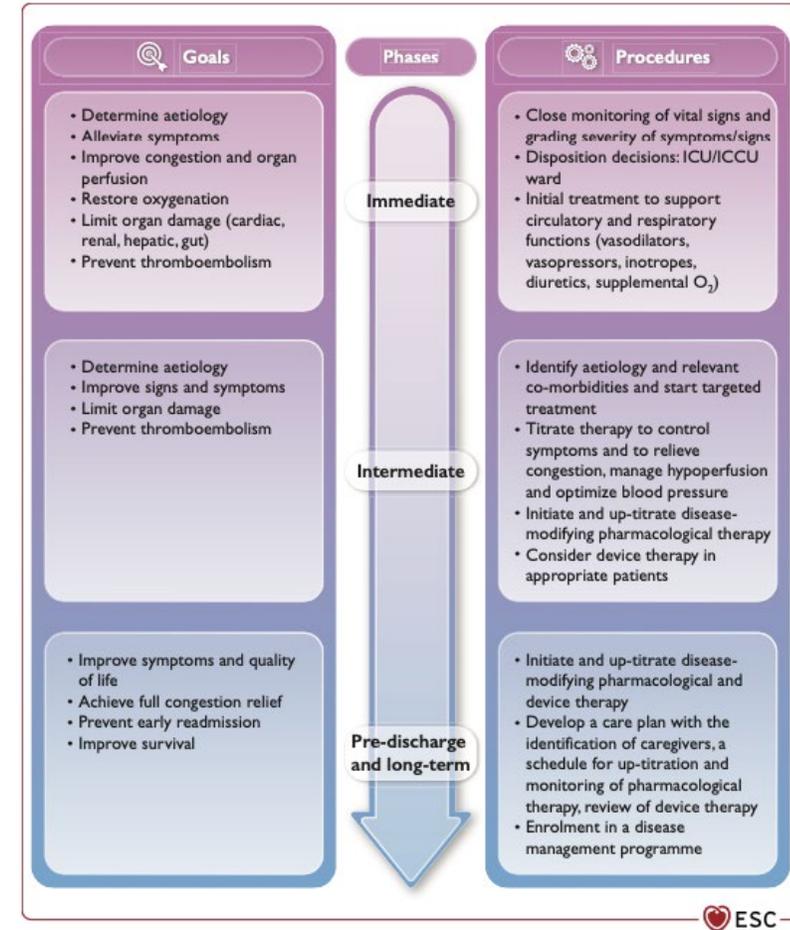
PROTOCOLO DE MANEJO DE LA INSUFICIENCIA CARDÍACA AGUDA

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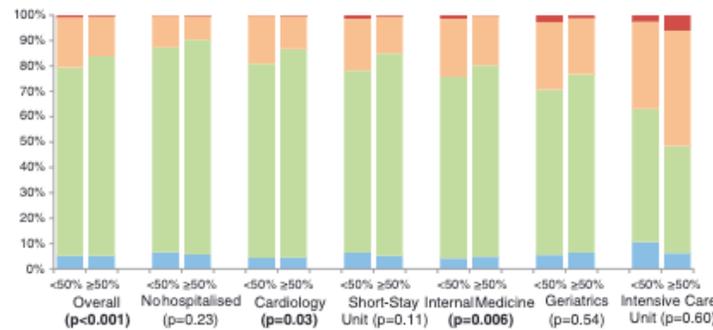
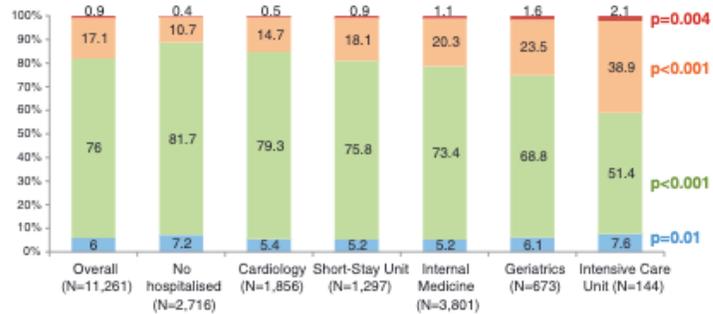
1. Consideraciones al ingreso
2. Manejo de la fase congestiva
3. Manejo de la fase estable
4. Consideraciones al alta

Fernández Rodríguez JM, et al. Rev Clin Esp. 2020 Mar 2



McDonagh TA, et al. Eur Heart J. 2021 Sep 21;42(36):3599-3726.

La congestión es la responsable de la mayoría de las reagudizaciones



- Cold and Dry (hypoperfusion, no congestion)
- Cold and Wet (hypoperfusion, congestion)
- Warm and Wet (no hypoperfusion, congestion)
- Warm and Dry (no hypoperfusion, no congestion)

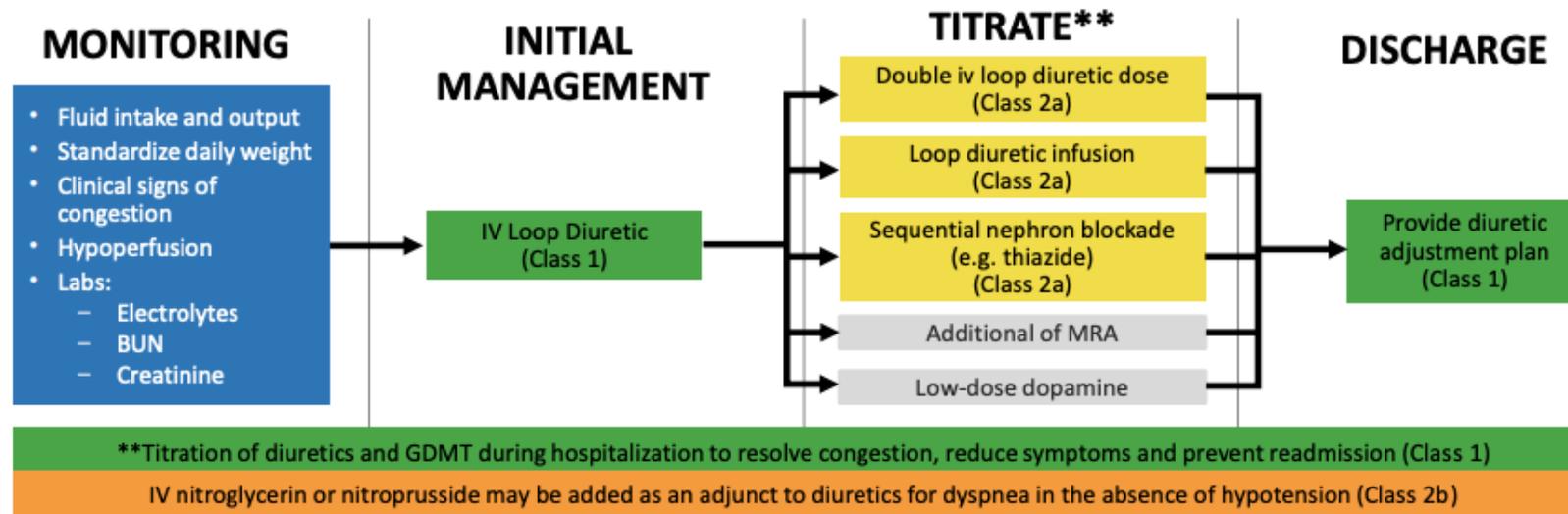
Importancia de la valoración multiparamétrica de la congestión

Medicina de precisión

Assessing and grading congestion in acute heart failure: a scientific statement from the Acute Heart Failure Committee of the Heart Failure Association of the European Society of Cardiology and endorsed by the European Society of Intensive Care Medicine

Variable		CONGESTED				
		EUVOLEMIA				
Clinical congestion	Orthopnea	None		Mild	Moderate	Severe/worst
	JVP (cm)	<8 and no HJR	<8	8-10 or HJR+	11-15	>16
	Hepatomegaly		Absent	Liver edge	Moderate pulsatile enlargement	Massive enlargement and tender
	Edema		None	+1	+2	+3/+4
	6MWT	>400m	300-400m	200-300m	100-200m	<100m
	NP (one of both): -BNP -NT-proBNP		<100 <400*	100-299 400-1500	300-500 1500-3000	>500 >3000
Technical evaluation	Ca125	< 35		35-100	>100	
	Chest X-ray	clear	clear	cardiomegaly	venous congestion* - small pleural effusions*	alveolar edema
	Vena Cava imaging ⁴⁵	none of two: - Max diameter >2.2 cm - collapsibility <50%		One of two: - Max diameter >2.2 cm - collapsibility <50%		Both: - Max diameter >2.2 cm - collapsibility <50%
	Lung Ultrasound ⁴⁴	<15 B-lines when scanning 28-sites		15-30 B-lines when scanning 28-sites		>30 B-lines when scanning 28-sites
Doppler venoso renal	Flujo continuo		Flujo bifásico		Flujo monofásico	

Estrategia de descongestión

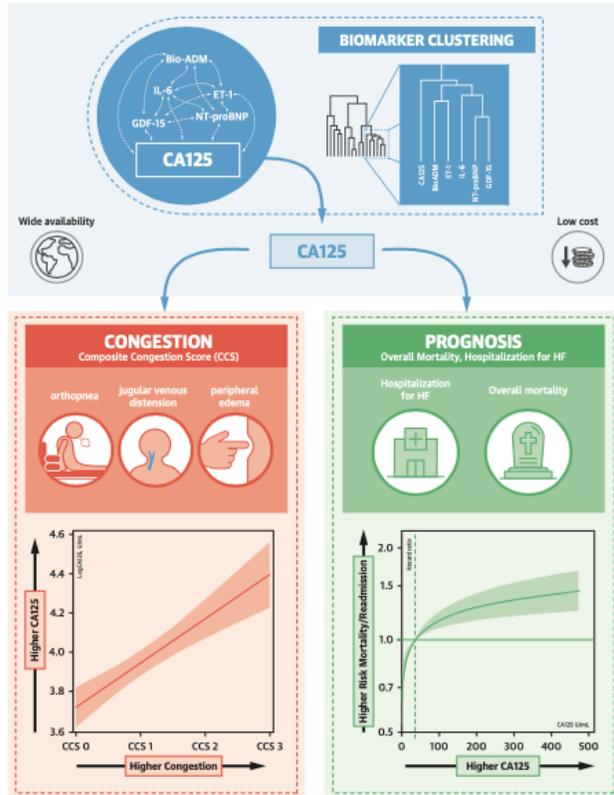


Diuretics		
Intravenous loop diuretics are recommended for all patients with AHF admitted with signs/symptoms of fluid overload to improve symptoms. ¹⁴⁵	I	C
Combination of a loop diuretic with thiazide-type diuretic should be considered in patients with resistant oedema who do not respond to an increase in loop diuretic doses. ¹⁴⁵	IIa	B

Heidenreich PA, et al. J Am Coll Cardiol. 2022 Mar 24;S0735-1097(21)08395-9.
McDonagh TA, et al. Eur Heart J. 2021 Sep 21;42(36):3599-3726.

Importancia del CA125

CENTRAL ILLUSTRATION CA125 as a Biomarker in Patients With Worsening Heart Failure



Núñez, J. et al. J Am Coll Cardiol HF. 2020;8(5):386-97.



**Worsening HF/
Hospitalization for AHF**

Low CA125 values*

- Consider a more conservative diuretic approach.

High CA125 values*

- Consider a thoroughful evaluation of congestion and a more intensive depletive treatment.
- Close monitoring



**Ambulatory visits
(first weeks/
months after discharge)**

Decrease to low CA125*

- Consider reducing diuretics dose, especially in those receiving high doses.
- Relax the intensity of monitoring.

Decrease but CA125 remains high*

- Consider mantaining diuretic dose or increasing if the patient is on low doses.
- Reassess clinical and analytical situation in 1-4 weeks.

Increase

- Consider intensify diuretic approach (ambulatory parenteral administration of diuretics and /or intensify oral diuretic dose).
- Reassess clinical and analytical situation within the first week.

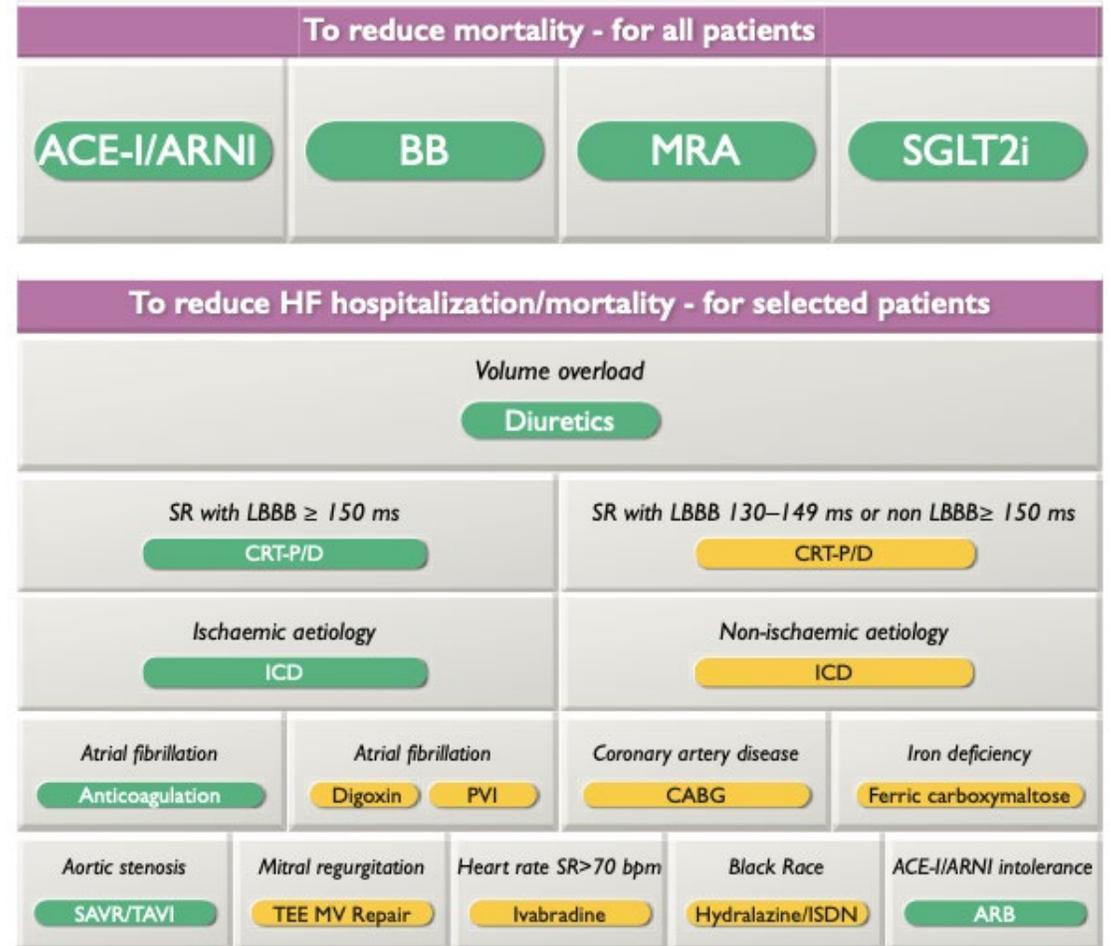
Núñez J, et al. JACC Heart Fail. 2016;4:833-843.
Núñez et al. Am J Med 2020; 133(3): 370-380.

Fase estable

Continuar y optimizar GDMT

COR	LOE	RECOMMENDATIONS
1	B-NR	1. In patients with HFrEF requiring hospitalization, preexisting GDMT should be continued and optimized to improve outcomes, unless contraindicated (1-5).
1	B-NR	2. In patients experiencing mild decrease of renal function or asymptomatic reduction of blood pressure during HF hospitalization, diuresis and other GDMT should not routinely be discontinued (6-11).
1	B-NR	3. In patients with HFrEF, GDMT should be initiated during hospitalization after clinical stability is achieved (2,3,5,12-18).
1	B-NR	4. In patients with HFrEF, if discontinuation of GDMT is necessary during hospitalization, it should be reinitiated and further optimized as soon as possible (19-22).

Management of HFrEF



CENTRAL ILLUSTRATION Introducing Quadruple Therapy in Patients With HFrEF

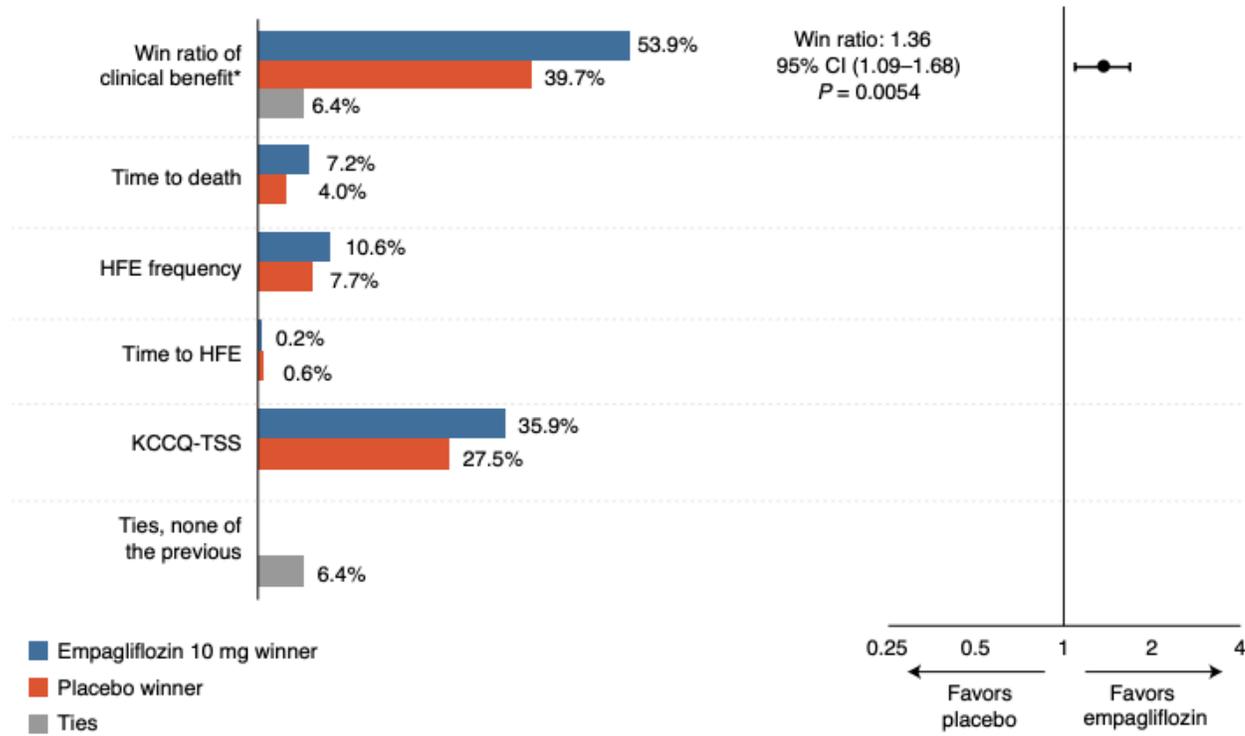
4 Therapies on Board in 4 Weeks					
Acute HF		Chronic HF		De Novo HF	
STOP	ACEI • ARB	STOP	ACEI • ARB	INITIATE	ARNI • β -blocker
CONTINUE	β -blocker	CONTINUE	β -blocker	INITIATE in 2-4 weeks	SGLT2i • MRA
INITIATE in hospital	ARNI • SGLT2i	INITIATE	ARNI • SGLT2i		
INITIATE at discharge	MRA	INITIATE in 2 weeks	MRA		

Start low dose ARNI/BB - Uptitrate over time to guideline-directed or maximally-tolerated doses after all 4 foundational therapies have been introduced

Anticipate potential side effects		
Hypotension	Declining eGFR	Hyperkalemia
<ul style="list-style-type: none"> a. Assess volume status and diuretic dose b. Consider spacing medications during the day c. Discontinue therapies that do not offer CV benefits (e.g. CCBs) 	Anticipate an early decline in eGFR (~20%) that will recover and stabilize with time	Consider K ⁺ binders (e.g. patiromer and sodium zirconium cylosilicate)

Sharma A, et al. J Am Coll Cardiol Basic Trans Science. Mar 02, 2022.

Novedades en ICA



ARTICLES

<https://doi.org/10.1038/s41591-021-01659-1>

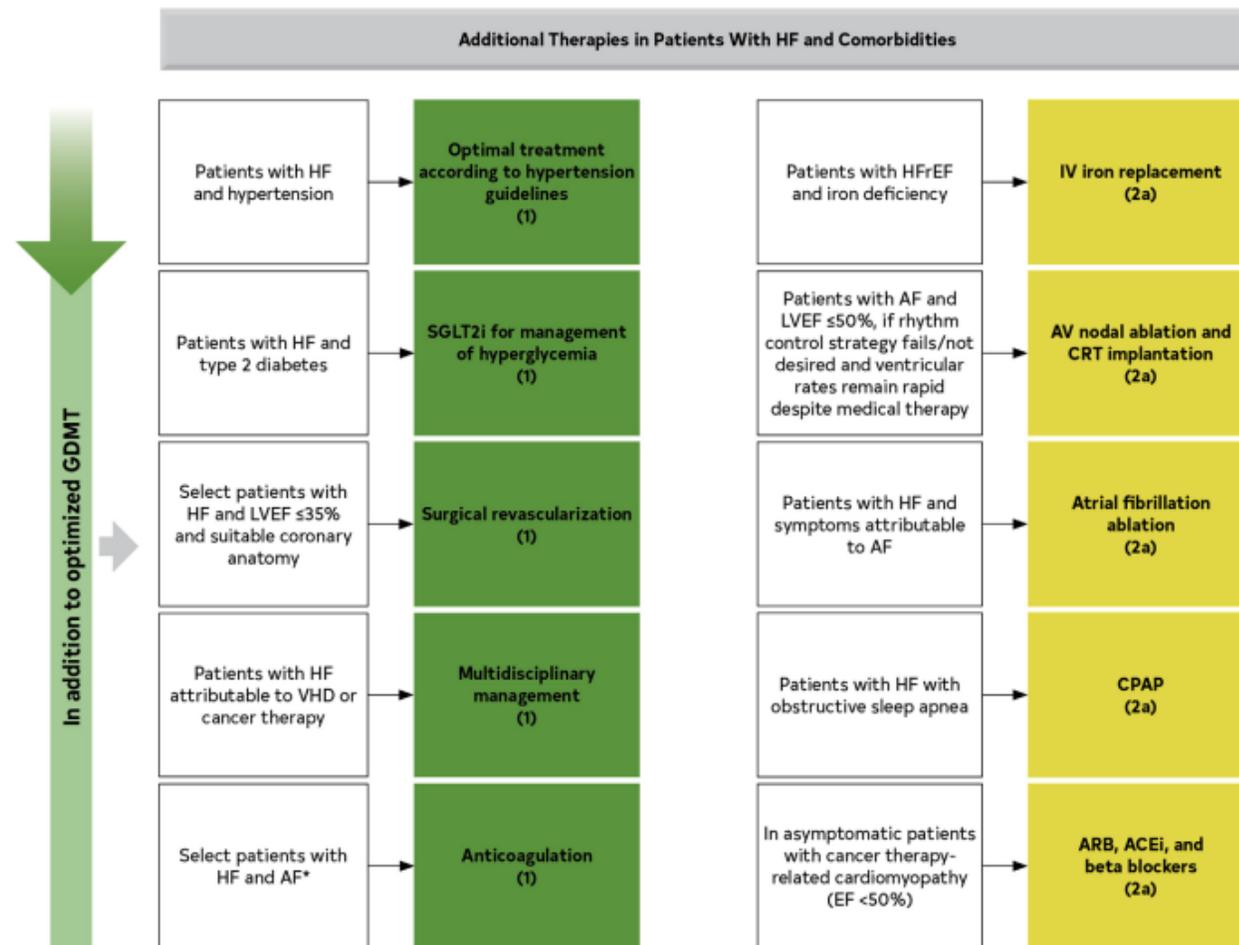


Check for updates

OPEN
The SGLT2 inhibitor empagliflozin in patients hospitalized for acute heart failure: a multinational randomized trial

Voors AA, et al. Nat Med (N Y) 2022; 28(3): 568-574

Revisar las comorbilidades



CONSIDERACIONES ANTES DEL ALTA

1. ¿Se han identificado y controlado los factores precipitantes?
2. ¿Se han evaluado las comorbilidades?
3. ¿Está el paciente des congestionado?
4. ¿Se conoce la FEVI?
5. Si la FEVI es <40% (*valorar si <50%*), ¿se ha iniciado o considerado el tratamiento con
 - ✓ Sacubitrilo/valsartán o (En caso de que no pueda usarse sustituir por IECA/ARA II)
 - ✓ BB
 - ✓ ARM
 - ✓ iSGLT2 (*Dapa/Empa si <40%, Empa si FEVI≥40%*)?
6. ¿Se ha revisado el resto de medicación?
7. Se han valorado la función renal y los iones?
8. ¿Se conoce la PAS, el ritmo, la FC, y la duración del QRS
9. ¿Se ha educado sobre la enfermedad al paciente/cuidador y se han proporcionado recomendaciones?
10. ¿El paciente tiene programada una cita precoz en atención primaria y/o especializada?*

Posible nueva actualización de Fernández Rodríguez JM, et al. Rev Clin Esp. 2020 Mar



PACIENTE HOSPITALIZADO POR IC
CONSIDERACIONES ANTES DEL ALTA

Gracias