

PHARMACOTHERAPY DECISION TREE FOR CHRONIC HEART FAILURE WITH EJECTION FRACTION < 50%*

AUTHORS (in alfabetic order)

Adán Gil F⁺, Aranbarri Osoro I⁺, Barrot de la Puente J⁺, Cebrián-Cuenca A⁺, Franch-Nadal J⁺, Gracia García O⁺⁺, Pardo Franco J⁺, Ruiz Quintero M⁺, Valle Muñoz A⁺⁺⁺.

+ redGDPS-Primary Health Care Diabetes Study Groups Net.

++ Nephrology Service. Miguel Servet University Hospital. Zaragoza.

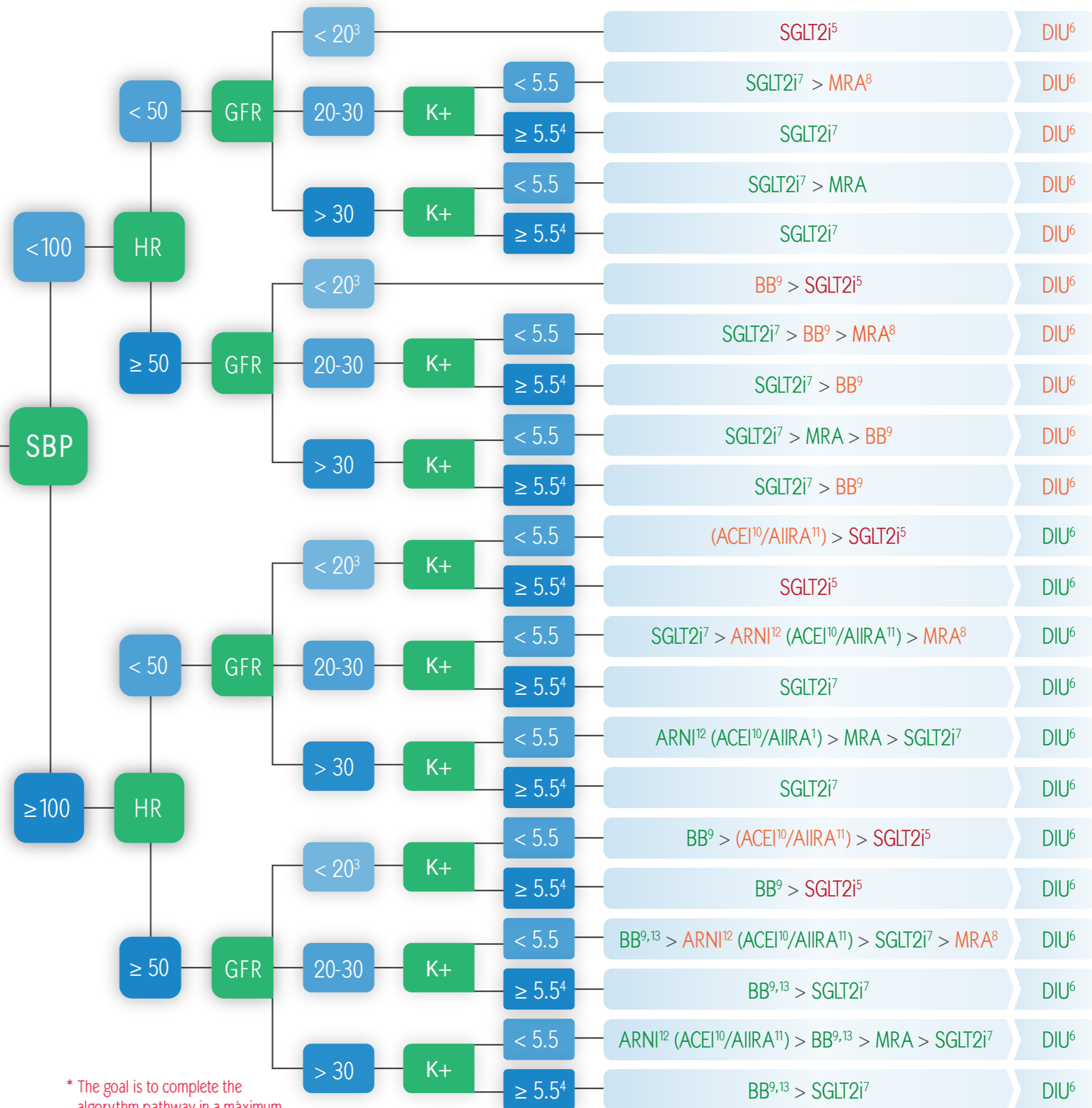
+++ Cardiology Service. Marina Salud Hospital. Dénia (Alicante).



- Comorbidity prioritizes the election of each treatment. See Heart failure in type 2 diabetes: therapeutic algorithm. redGDPS.
- In LVEF values between 41 and 49 the lack of studies leads to a lower level of evidence in recommendations, compared with LVEF values ≤ 40%.
- Due to lack of evidence available in patients with GFR < 20, nephrologist advice should be considered.
- New potassium chelators (sodium zirconium cyclosilicate and calcium patyromer) are useful to reduce levels of K⁺ and allows a treatment optimization associating suitable drugs. Possible causes of hyperkalemia should be previously corrected.
- Don't start. Dapagliflozin could be continued only if previously taken.
- Furosemide or Torasemide. Only if needed for congestion control at the lower necessary dose, monitoring hypotension.
- Only dapagliflozin and empagliflozin. Initiate empagliflozin with GFR ≥ 20 and dapagliflozin with GFR ≥ 25.
- If GFR < 30, with extreme K⁺ level monitoring, at a maximum dose of 12,5mg/24h.
- Only bisoprolol, carvedilol, metoprolol succinate and nebivolol in elderly people, monitoring hypotension and heart rate. If HR > 75 bpm at a maximum tolerated dose, assess ivabradine 5mg/12h.
- Monitoring K⁺ level in the first weeks and GFR.
- In case of ARNI or ACEi intolerance.
- First choice in LVEF ≤ 40%. Dose adjustment and hypotension, K⁺ levels and GFR monitoring is necessary (not indicated in end stage CKD).
- First choice drug only in euvoletic patients; if not, delay its use until hemodynamic stability.

ACRONYMS:

ACEi: angiotensin-converting enzyme inhibitor; AIIRA: angiotensin II receptor antagonists; ARNI: angiotensin receptor neprilysin inhibitor; BB: beta blockers; CKD: chronic kidney disease; DIU: Loop diuretics; EF: Ejection fraction; GFR: glomerular filtration rate; HF: heart failure; HR: heart rate; K⁺: potassium; LVEF: left ventricular ejection fraction; MRA: mineralocorticoid receptors antagonists; SBP: systolic blood pressure; SGLT2i: sodium-glucose cotransporter 2 inhibitors.



* The goal is to complete the algorithm pathway in a maximum period of 8 weeks with the introduction of all indicated drugs in each clinical setting.

■ Specially indicated ■ Admitted with special surveillance ■ Extreme caution