

## Appendix 3: HF medications and adjustments in renal dysfunction

Medication/medication class	Dose adjustment for renal dysfunction
ACEi and ARBs	Used throughout all stages of CKD.
Beta-blockers: Bisoprolol	Starting dose remains the same for GFR<60 ml/min but closer monitoring HR and BP may be warranted if titrating up dose or if renal function significantly worsens.
MRAs: spironolactone and eplerenone	GFR 30-49 ml/min, consider lower dose of 25 mg daily. Avoid if GFR<30 ml/min.
Sacubitril-valsartan	Caution if eGFR <30 ml/min/m <sup>2</sup> , use lower initial dose
Ivabradine	Not studied in CrCl <15 ml/min.
Digoxin	Avoid if GFR <30 ml/min If stable renal insufficiency with GFR> 30 ml/min, digoxin should be used judiciously at a low dose. Monitor renal function closely.
Hydralazine	If GFR<10 ml/min, may need to increase interval (ex. TID changed to BID).

Beique LC, et al. 2017 Guidelines for the management of heart failure by pharmacists. *Can Pharm J* (Ott) 2019;152(5).  
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