The following survey was used to gather expert consensus for the CCS Heart Failure Companion, and was obtained by polling all members of the primary and secondary Heart Failure panels.

CCS 2014 Practical Papers

(Completion rate: 86.11%)

What is an appropriate time for routine outpatient titration of BB?

Response	Chart	Percentage	Count
less than 1 month		13%	4
1-2 months		50%	15
3-4 months		20%	6
5-6 months		17%	5
longer than 6 months		0%	0
	Total Responses		30

What is an appropriate time for duration for titration of ACEi/ARB?

Response	Chart	Percentage	Count
1-2 months		63%	19
2-3 months		23%	7
4-5 months		13%	4
longer than 5 months		0%	0
	Total Responses		30

What is an appropriate time for duration for titration for Standard Triple therapy (ACE/BB/MRA)?

Response	Chart	Percentage	Count
1-2 months		7%	2
3-4 months		48%	14
5-6 months		38%	11
longer than 6 months		7%	2
	Total Responses		29

Is there a specific order for medication use between ACE/BB/MRA for otherwise stable patients?

Response	Chart	Percentage	Count
Yes		57%	17
No		30%	9
Other, please specify		13%	4
	Total Responses		30

Is there a specific order for medication use between ACE/BB/MRA for otherwise stable patients? (Yes)

#	Response
1.	bb+MRA then--ace depends on situation
2.	ACE and BB first (depends on individual patient situation to determine the order)
3.	ACE or BBL then MRA
4.	As above
5.	MRA and ACEI then BB then ?ARB also -my usual practice
6.	ACE, BB then MRA, as done in trials
7.	preference for titration of ACEi/bblockers as tolerated to target dose, followed by introduction of MRA
8.	ACE first followed by BB and then MRA
9.	If no signs of low output, beta blocker uptitration first. If clinically low output, get to a higher dose ACE first.
10.	ACE or BB first. Then MRA if NYHA II-III
11.	ACE/BB first then MRA
12.	ACE/BB than MRA
13.	BB first then ACE then MRA (but do all three together)
14.	ACE/BB/MRA
15.	ACEI, BB, MRA
16.	ACE or BB, then MRA
17.	ACE/BB/MRA

Is there a specific order for medication use between ACE/BB/MRA for otherwise stable patients? (No)

#	Response
1.	will depend on heart rate/ BP, etc.
2.	Depends on hemodynamics and fluid status

Is there a specific order for medication use between ACE/BB/MRA for otherwise stable patients? (Other, please specify)

#	Response
1.	ACEInh and BB first
2.	MRA

3. AA
4. MRA

How long after BEGINNING therapy do you wait to re-measure EF?

Response	Chart	Percentage	Count
3 months		7%	2
6 months		46%	13
9 months		18%	5
12 months		4%	1
About 6-9 months, but longer for Non-Ischemic CM		25%	7
	Total Responses		28

How often do you recommend that 'low risk' or stable HF patients visit the heart function clinic?

#	Response
1.	yearly to every 2nd year
2.	once a year
3.	They do not need to come to tertiary HF clinic- but if community, less intense, every 6 months
4.	on optimal GBMT - 1 year
5.	Once per year
6.	Most of the time unless they have a known excellent internest / 'specialist' GP
7.	Every 2 to 3 weeks for education, dose titration.
8.	Every 4-6 months
9.	q 6-9 months
10.	every 6 months
11.	I don't. discharge back to primary care is NYHA 2 low risk medically and device optimized, re refer or self refer if change in status.
12.	every 6 months or longer
13.	6 months
14.	might not need it at all
15.	3 months
16.	every 3-4 months
17.	Most of the time
18.	2 times per year
19.	6-9 months
20.	6 monhts
21.	6 months
22.	12 months
23.	6 months
24.	If on appropriate therapy: yearly
25.	twice a year
26.	Yearly
27.	rarely
28.	6 months for some, 12 months for some needing surveillance and discharge from HFC for others
29.	every 3 mo
30.	yearly

Please list 4- 5 clinical characteristics which features qualify a HF patient as LOW RISK?

#	Response
1.	young, nyha 1, normal cr/hb, non-ischemic, tolerating max rx
2.	EF 40-50%, FC=1,no diabetes , no reisduel ischemia , no AF
3.	NYHA I-II, no hospitalizations for at least a year, medications optimized, few co-morbidities, good social support, no cognitive impairment
4.	FC, VO2, BNP, EF, creatinine
5.	EF above 35, no admission in the last year, FC 1, no changes to the dose of Lasix for one year
6.	I don't understand the "english" so I don't understand the question??
7.	Good compliance to sodium restriction, normal renal function, no other co-morbities, easy initial control of symptoms, not hypotensive ,normal potassium on therapy
8.	No hospitalisation in the previous year, NYHA 1 or 2, no previous history of VT or VF, no severe CKD, no history of severe right heart failure
9.	no recent (
10.	stable doses of medications,no symptoms,very minimal doses of diuretics,good compliance
11.	NYHA 2 or less, LVEDD
12.	stable functional 2-3, optimum medical therapy, device optimized, no hospitalization for acute decompensation for about 1 year, no recent increase in diuretic requirements.
13.	No ER visits or admissions. Stable weights. NYHA FC 1-2. Stable LVEF. No ICD shocks.
14.	stable med doses, no clinical decompensations, no admissions in 1 year, NYHA I/II, no other comorbidities
15.	NYHA FC I or II, normal or near normal craetinine, no hospitalization in past year, HR 100
16.	NYHA I-II, few co-morbidities, normal renal function, medications optimized, no hospitalization for a year
17.	NYHA I, non-ischemic, narrow QRS, Normal Kidney function
18.	No fluid overload in last year, BP systolic >90, no ICD appropriate therapy for VT x 1 year at least, no significant ischemia
19.	NSR, No side effects to meds, SBP > 90 , Normal renal function,
20.	no symptoms, No arrthythmias,
21.	Low BNP, no hospitalizations, NYHA I, "high" LVEF,
22.	optimal treatment, normal CReatinine, sinus rhythm and a systolic bp>100
23.	Ex more than 10 METS - Working full time - BP in the upper limit of normal -
24.	Appropriate therapy, stable renal function, no recent hospitalisation or visit for IV diuretics for HF, FC 1-2,
25.	stable on optimal medication ,no recent hospitalisation ,no arrythmia ,stable or normal renal function ,no anemia
26.	stable fluid status, no admissions, no ER visits,NYHA I-II
27.	asymptomatic (Class I), no hospitalizations, on target therapy without any issues, not a candidate for device therapy
28.	NYHA 2 or better, Maximal tolerated cardioprotective medications, Plateau in EF measured on Echo or MUGA, Etiologic stability (ie ischemic symptoms), Device decision made and if implanted, electrical stability

29.	stable wrt wt. energy, orthopnea/sleep, stable peripheral edema
30.	medications optimized, stable signs symptoms, follows low Na+ diet, daily wts, med compliance, exercises daily and aware when to call for help

Please list 4- 5 clinical characteristics which features qualify a HF patient as HIGH RISK?

#	Response
1.	old, nyha 3, recent admit, fatigue, cad, high cr
2.	EF below 30, FC 3 or more, resideul ischemia, AFib, having COP or strok
3.	NYHA III-IV, frailty/multiple co-morbidities, hospitalization
4.	FC III-IV, low VO2, high BNP, High creatinine, hospitlaization, low BP
5.	EF below 30, admission in the last 3 month, HIstory of VT, FCIII and VI
6.	I don't understand the "english" so I don't understand the question??
7.	Absence of low risk features, electrical instability, cognitive impairment, lack of social support, alcohol use
8.	Hospitalisation within the previous year or 6 months, NYHA III-IV, severe CKD, recent history of VT or VF, recurrent right heart failure
9.	recent hospitalization; escalating diuretic requirements; hypotension; worsening functional class
10.	high doses of diuretics,symptoms with minimal exertion,low doses of ACE/ARB,Renal dysfunction
11.	NYHA 3-4, Admission or ER visit in past 6 months, Recent ATP or shock from ICD, on list for heart transplant or being worked up, cardiorenal syndrome, need for reduction in meds due to intolerance (Ace Bblocker), lasix dose 120 mg po BID or higher or combination diuretics required
12.	recent rehospitalization for ADHF, medically not optimized, reduced ability for self-care, FC 3-4,
13.	Recurrent admissions for ADHF. Worsening renal function, FC3-4. ICD shocks.
14.	Frequent hospitalizations, frequent med changes, sensitive kidney function, NYHA III/IIIB, multiple comordities
15.	Recetn hospitalization, HR > 90, NYHA III or IV, abnormal renal function, other end organ damagge, difficulty titrrating medications, freuqent calls, non-complicance, elevated JVP
16.	NYHA III-IV, impaired renal function, frailty,hospitalization in last 6 months
17.	NYHA III/IV, EF
18.	Recurrent admission (more than 1 per year?) for heart failure, declining NYHA FC, intolerance to HF medication/need to decrease the dose of bb or acei/mra, ventricular arrhythmia
19.	atrial fib or arrhytmia's, side effects to meds, SBP
20.	rising creat; rising BUN. more more ICD shocks, CHF admissions
21.	high BNP, recurrent hospitalizations, NYHA III-IV, low CPX, "low" LVEF, cardiorenal syndrome
22.	recent acute HF,abnormal renal function,multiple comorbid conditions(DM,COPD) intolerance to medications, inability to follow instructions,living alone, lower socioeconomic level
23.	Persistent class III-IV symptoms - unable to work - Ex to no more than 3 METS -
24.	Difficult/ slow titration of meds, poor/ unstable renal function, ventricular arrhythmia, FC3-4, frequent IV diuretics or ER visits, recent hospitalization for CHF (less than 6 months)
25.	recent hospitalization ,anemia,renal failure ,unable to tolerate meds titration , arrythmia
26.	multiple ER visits, frequent diuretic adjustments,NYHA III-IV symptoms (PND, orthopnea, edema,dyspnea worsening +JVP)
27.	multiple hospitalizations, difficultly on EBM medications, difficult to manage symptoms such as fluid overload, need for device therapy, need for education and close follow-up to promote self-care

28.	NYHA 3 or worse, intolerance to cardioprotective meds (postural symptoms), diuretic instability, poor understanding of self management, recent HF hospitalization, arrhythmias
29.	increasing edma, increasing SOBOE, orthopnea, insomnia, WT
30.	NYHA III or IV, labile fluid status, labile signs symptoms, lack of comprehension or support, non-complaint with meds or other treatment, inablilty to afford medications,

What features would generate a discharge from heart function clinic?

#	Response
1.	healed myocarditis
2.	normal EF and FC 1
3.	treatment optimized, no anticipated changes for over 6 months, able to self-care or have support for self-care
4.	LV recovery
5.	EF above 40 for more than one year, FC I
6.	Excellent local internist with interest in HF OR patient stable on optimized meds
7.	Stable symptoms,(usually class 1 or 2), optimal (for individual) dose titration, good understanding and compliance,often with significant improvement of LVEF, attainment of treatment goalsrovement
8.	Stable NYHA I or II for 1 year, with no changes in medications and no HF hospitalisation
9.	improved and stable LV function; no diuretic requirements or very stable on current dose; reliable primary care f/u
10.	asymptomatic patient on max medical therapy and no change in the medications in last 6 months
11.	NYHA 2, euvolemic, medically and device optimized
12.	Medical and device optimized. No hospitalization for over a year, self-care aptitude/ good support, Stable for 1-2 years.
13.	Recovered LV function. Stable medications.
14.	non compliance, recovered EF, target doses achieved, clinical stability
15.	missed appointments, NYHA I , meds fully titrated, likes to travel, stable for > 1 year
16.	treatment optimized with no anticipated changes in next 6 months, NYHA I-II, no hospitalization for the last year
17.	max tolerated medical and device therapy, no recent HF hospitalization (past 6 mo)
18.	Reversible cause completely addressed such as ischemic cardiomyopathy completely revascularized with normalization of LVEF
19.	normal LV function after 1 yr
20.	NYHA class one over two years
21.	recovered LVEF, on optimal medical and device therapy, appropriate community follow-up
22.	end of life,doing wellm and with an excellent support system, not adhering to instructions, more pressing medical condition (cancer)
23.	asymptomatic foe > 1 year + normal LV function.
24.	Stable/ maximal meds, recuperation of systolic function, non compliance to recommendations,
25.	very stable patient with recovery or stabilization of ventricular function,no significant MR, on optimal medication, and no significant comorbidities
26.	Medication at target risk factors addressed stable cardiac status, demonstreted self management skills
27.	Stable x 2 years - no hospitalizations, no changes in medications, care can be transferred to a primary care provider (eg. has a family MD)
28.	stable HF symptoms, good understanding of self management, maximal medication, improved EF and stable, reliable primary care and/or additional specialist involved for surveillance

29.	> 6 mo stable CHF sx
30.	risk factors addressed, meds optimized, Stable NYHA for greater than 1 year, demonstrated self managment skills, pt admitted to LTC or Hospice, pt unwillingness to participate in HFC, unable to overcome bariers with communication/compliance

Which non-invasive test is preferred for measurement of LVEF?

Response	Chart	Percentage	Count
ECHO		63%	19
MRI		7%	2
MUGA/ Radionuclide Angiography		23%	7
Cardiac catheterization		0%	0
Nuclear Perfusion Study		0%	0
It does not matter		7%	2
	Total Responses		30

How should LVEF be described?

Response	Chart	Percentage	Count
By grade of LV		0%	0
By actual EF number		97%	29
Other, please specify		3%	1
	Total Responses		30

How should LVEF be described? (Other, please specify)

#	Response
1.	LV volume,EF and presence of MR

We should wait longer to re-measure LVEF for Non-ischemic CM than we should for Ischemic CM

Response	Chart	Percentage	Count
yes		47%	14
no		53%	16
	Total Responses		30

How long is an appropriate wait time for a new stable patient to be seen in the HF Clinic (from receipt of referral)?

Response	Chart	Percentage	Count
<1 week		0%	0
<2 weeks		16%	5
<4 weeks		71%	22
It does not matter		3%	1
Other time		10%	3
	Total Responses		31

How long should evidence-based therapy be continued if LV function has improved?

#	Response
1.	eternity as per the trials
2.	for ever
3.	ACE and BB indefinitely
4.	there is no easy answer- this depends on pt risk, etiology, associated risk factors, LGE on MRI, is improved normal? are chamber dimensions normal?
5.	No idea but my practice to wait at least one year to be sure EF continues to be above 50 before trying to wean off
6.	Continue unless there is a very specific reversible cause identified
7.	There is no data. ? need for randomized trial. Likely indefinitely.
8.	A minimum of one year, then re-evaluate based on etiology and history
9.	variable; usually indefinitely if no clear reversible cause identified; consider withdrawl >12 months if reversible treated cause
10.	in very few patients evidence-based therapy can be discontinued
11.	in the majority of cases indefinitely
12.	Continued as long as it does not cause adverse effect, also will depend on LV dimension , symptoms, other co-morbidities, etc.
13.	12 months
14.	Indefinately
15.	indefinitely unless reversible cause such as HR related HF, drug toxicity or myocarditis
16.	indefinitely
17.	indefinite for ACE/BB, wean MRA
18.	It depends on the cause but in general I would say: lifelong (except for digoxin and diuretics)
19.	1 yr
20.	indefinitely
21.	indefinately.
22.	usually forever
23.	few years
24.	Uncertain! At least two years then maybe keep BB or ACEI If clear cut acute event that is resolved: 1 year?
25.	lifelong
26.	indefinately - assuming improve and not reversed
27.	Most patients, indefinite for Bblocker and ACEI/ARB. Some flexibility for MRAs in patients with improved EF and symptoms
28.	at all times
29.	life long

I am:

Response	Chart	Percentage	Count
CCS HF primary panel member		40%	12
CCS HF secondary panel member		23%	7
CHFS member		37%	11
	Total Responses		30