Waitemata District Health Board

Best Care for Everyone

Guide for initiation and up-titration of beta blockers for patients with heart failure

Background

Before starting on beta blockers patients should ideally be assessed as having:

- Chronic heart failure
- Left ventricular systolic dysfunction less than 40% (diagnosed via ECHO)
- Mild to moderate symptoms (NYHA II – III)
- No hypotensive symptoms
- No second or third degree heart block*
- No asthma (requiring salbutamol)
- No severe liver disease

* If they have first degree heart block (PR interval greater than 0.2seconds) an ECG is necessary before each dose increase. If you do not have ECG access, discuss with cardiology.

If initiating beta blocker…

- Start only if:
  - Heart failure has stabilised and there are no symptoms of worsening heart failure such as paroxysmal nocturnal dyspnoea
  - No symptomatic bradycardia, hypotension or heart block
- Start with low dose

  metoprolol 23.75mg daily or **carvedilol 3.125mg twice daily** or **bisoprolol 1.25mg daily** (see over)
- Provide a Heart Failure Action Plan (see www.saferx.co.nz)

When up-titrating dose…

- The dose may be doubled every two weeks (some people may require a slower titration)
- Aim for target dose **metoprolol 190mg daily** or **carvedilol 25mg twice daily** or **bisoprolol 10mg daily** (or the maximum tolerated dose)

Ask about:

- Any problems they have been experiencing (If symptomatic bradycardia, hypotension or heart block has occurred **do not increase** the beta blocker)
- Any symptoms of worsening heart failure (occasionally the frusemide dose may have to be increased)
- Dizziness - this is common with carvedilol, but often decreases as treatment continues

Examination:

- Weight
- Pulse
- JVP
- Blood pressure
- Chest auscultation

Important: *This is a general guide provided to assist clinicians with the management of heart failure. Users of this guide must always consider current best practice and use their clinical judgement with each patient.This guide is not a substitute for individual clinical decision making.*

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Up-titrate only if:

- No symptomatic bradycardia
- No signs of overt congestion
- No symptomatic hypotension
  - **Note:** They may have systolic blood pressure below 100mmHg and be asymptomatic
- Euvolaemic ie no recent severe diuresis
- Repeat ECG every visit if they have first degree heart block at the initiation of a beta blocker

Increase dose:

	Metoprolol	Carvedilol	Bisoprolol**
Start dose	**23.75mg daily**	**3.125mg twice daily**	**1.25mg daily**
1st titration	47.5mg daily	6.25mg twice daily	2.5mg daily
2nd titration	95mg daily	12.5mg twice daily	5mg daily
Target dose	**190mg daily**	**25mg twice daily***	**10mg daily**

*May increase up to 50mg twice daily for those over 85kg

**Some people may require a more gradual titration (eg 1.25mg, 2.5mg, 3.75mg, 5mg, 7.5mg then 10mg daily)

Explain:

- The benefits of beta blockers – mortality (30-35% reduction), admissions (28% reduction), promotes wellness
- The beta blocker must not be stopped suddenly
- Some side effects are common (tiredness, shortness of breath) but improve with time; it may take a while to feel better
- If they are worried about symptoms from increasing doses, advise them to start the new dose on a Monday, rather than just before or during the weekend when you may not be available
- How to respond to any symptoms experienced with the new dose (eg tiredness, shortness of breath)
- Where to go for more information; patient resources are available on www.healthnavigator.org.nz

If they…..	then advise to…
feel good	**keep going**
have mild symptoms	keep going and see if symptoms improve
have moderate symptoms	drop back to previous dose
have severe symptoms	**drop back to previous dose and call doctor**

Arrange:

- Another GP appointment at least 2 weeks after a dose increase

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