Protocol for Titration of Beta Blockers for Heart Failure

<table>
<thead>
<tr>
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<th>Start Dose</th>
<th>Target Dose</th>
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<tbody>
<tr>
<td>Bisoprolol</td>
<td>1.25 mg od</td>
<td>10 mg od</td>
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<tr>
<td>Carvedilol</td>
<td>3.125 mg bd</td>
<td>25-50 mg bd*</td>
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*If severe HF max dose 25mg bd. If mild to mod HF max dose 50mg bd if weight >85kg otherwise max dose 25mg bd

How to use:
- Ensure patient has stable mild to moderate HF (NYHA Class 1-3)
- Start with low dose & double dose at not less than 2 weekly intervals
- Aim for target dose or highest tolerated dose (some BB is better than none)
- Monitor HR, BP, & clinical status (symptoms, signs, especially signs of congestion, body weight)
- Check U&Es 1-2 weeks after initiation & 1-2 weeks after final dose titration

Advice to patients:
- Explain benefits - given as much to prevent worsening HF as to improve symptoms & increase survival
- Temporary symptomatic deterioration may occur during initiation/up titration phase
- If symptomatic improvement occurs it may develop slowly over 3-6 months or longer
- Advise patient to report increasing dyspnoea, fatigue, oedema or weight gain but stress that it can usually be managed by adjustment of other medication; patients should be advised not to stop BBs without consulting clinician
- Encourage daily weights after waking & to consult clinician if have persistent weight gain

Worsening symptoms:
- If increasing congestion - double dose of diuretic &/or ½ dose of BB (if increasing diuretic doesn’t help) & review in 1-2 weeks
- If marked fatigue - ½ dose of BB & review in 1-2 weeks
- If HR <50 & worsening symptoms - ½ dose BB or if severe deterioration stop BB; consider need to stop other drugs that slow HR (eg digoxin, amiodorone, diltiazem) & check ECG to exclude heart block
- If low BP causes dizziness, light-headedness or confusion, consider discontinuing nitrates, CCBs & other vasodilators, &/or reducing diuretic dose if no signs/symptoms of congestion
- Asymptomatic hypotension does not usually require any change in therapy
- If serious deterioration - ½ dose or stop BB & seek specialist advice
- If no improvement with all above measures seek specialist advice

NB: BBs should not be stopped suddenly unless absolutely necessary as there is a risk of ‘rebound’ increase in myocardial ischaemia/infarction & arrhythmias; ideally seek specialist advice before treatment discontinuation

Protocol name: Titration of Beta Blockers
Owner: Chris Letham          Version 1.0          Last update: April 19, 2006