Appendix 2A

Bisoprolol in the Treatment of Heart Failure

Applicable to:

- All patients diagnosed with heart failure and commenced on bisoprolol.

Patients not discharged on bisoprolol or an alternative beta-blocker:

- Confirm that there is a contraindication to beta-blocker therapy
- If no contraindication refer to the PCT heart failure specialist service for assessment.

Patients discharged on a beta-blocker other than bisoprolol:

- If discharged on carvedilol, or nebivolol, ensure that they are on the appropriate, or maximum tolerated dose for heart failure.
  - Carvedilol 25-50mg Twice daily
  - Nebivolol 10mg Daily

- Patients initiated on a beta-blocker prior to developing heart failure, may be continued on their original beta-blocker even if it is not specifically indicated for heart failure. If concerned contact the PCT heart failure specialist service for advice.

- Maintain discharge medication and refer to the PCT heart failure specialist service if patient’s symptoms are uncontrolled.
Bisoprolol in the Treatment of Heart Failure

Initiation dose 1.25mg once a day (Patients may be discharged on higher doses)

Treatment dose = 10mg once a day

Patients should be have their dose titrated to 10mg daily or to the maximum tolerated dose.

The patient is taking Bisoprolol Dose = 1.25mg daily

Has the patient been on this dose for at least one week?

Yes

Check
- BP
- Pulse for bradycardia; seek advice if pulse below 55 beats/min
- Enquire about side effects

No problems

Increase dose to 2.5mg once a day

Review a week

No

Review in one week

If causing concern

Refer to GP or heart failure specialist nurse before increasing the dose

See page on monitoring of Bisoprolol

Review date August 2013
The patient is taking Bisoprolol Dose = 2.5mg daily

Has the patient been on this dose for at least one week?

- Yes
- Review in a week
- Check:
  - BP
  - Pulse for bradycardia; seek advice if pulse below 55 beats/min
  - Enquire about side effects
- No problems
- Increase dose to 3.75mg once a day
- Review in a week

If causing concern
- Refer to GP or heart failure specialist nurse before increasing the dose
- Query decreasing the dose to 1.25mg once a day

See page on monitoring of Bisoprolol
The patient is taking Bisoprolol Dose = 3.75mg daily

Has the patient been on this dose for at least one week?

Yes

No

Review in a week

See page on monitoring of Bisoprolol

Check
- BP
- Pulse for bradycardia; seek advice if pulse below 55 beats/min
- Enquire about side effects

If causing concern

Refer to GP or heart failure specialist nurse before increasing the dose. Query decreasing the dose to 2.5mg once a day

No problems

Increase dose to 5mg once a day

Review in four weeks

Review date August 2013
The patient is taking Bisoprolol Dose = 5mg daily

Has the patient been on this dose for **four** weeks or more?

- **Yes**
  - See page on monitoring of Bisoprolol
  - Check
    - BP
    - Pulse for bradycardia; seek advice if pulse below 55 beats/min
    - Enquire about side effects
  - No problems
  - Increase dose to 7.5mg once a day
  - Review in four weeks

- **No**
  - Review after 4 weeks
  - If causing concern
    - Refer to GP or heart failure specialist nurse before increasing the dose. Query decreasing the dose to 3.75mg once a day
  - No problems

Review date August 2013
The patient is taking Bisoprolol Dose = 7.5mg daily

Has the patient been on this dose for four weeks or more?

- **Yes**
  - See page on monitoring of Bisoprolol
  - Check
    - BP
    - Pulse for bradycardia; seek advice if pulse below 55 beats/min
    - Enquire about side effects
  - No problems
  - Increase dose to 10mg once a day
  - Review in four weeks

- **No**
  - Review after four weeks
  - If causing concern
    - Refer to GP or heart failure specialist nurse before increasing the dose.
    - Query decreasing the dose to 5mg once a day

- **Review date August 2013**

  - If no problems
    - Refer to GP or heart failure specialist nurse before increasing the dose
    - Query decreasing the dose to 7.5mg once a day

  - Maintain on dose and review in 6 months
Monitoring of Bisoprolol prior to increasing dose.

*The information given here is incomplete please refer to the current BNF for comprehensive details.*

1. BP

- < 120/80 Do not increase bisoprolol dose refer to GP or heart failure specialist nurse.
- > 160/100 Refer to doctor for advice
- For hypertensive patients continue to monitor blood pressure until the patient is stabilised at the maintenance dose 5 – 10mg daily or the maximum tolerated dose.
- If the patient remains hypertensive at this dose refer for advice or consult the Rotherham PCT Hypertension Guidelines.

2. Side Effects

- **Bradycardia**
  
  Seek advice if pulse below 55 beats/min

- **Respiratory**
  
  Enquire about any respiratory symptoms; review/seek advice if the patient reports any respiratory problems (shortness of breath/ wheezing).

- **Pain in hands/fingers etc**
  
  Beta-blockers can cause a peripheral vasoconstriction; review/seek advice if the patient reports pain in fingers hands etc.

- **Other Side Effects**
  
  - Fatigue
  - Nausea, vomiting, , headache, diarrhoea these are rarely a problem
  - See BNF

3. Drug Interactions

- **NSAIDS**
  
  - Avoid if possible. Confirm with GP that it is necessary to continue this treatment. NSAID use in heart failure patients results in a deterioration of symptom control and higher admissions rate.

Review date August 2013
- **Anti-arrhythmics**
  - Avoid will cause increased myocardial depression.
  - Seek further advice before increasing the dose if the patients is also taking an anti-arrhythmic.

- **Calcium-channel blockers**
  - Avoid diltiazem and verapamil due to increased risk of severe bradycardia heart block and possibility of worsening of heart failure.

- **Thiazide diuretics**
  - Avoid can precipitate diabetes when used in conjunction with a beta-blocker.

- **Respiratory medication**
  - Confirm beta-blocker has not caused or exacerbated symptoms.