Carvedilol in the Treatment of Heart Failure

Applicable to:

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

Patients not discharged on carvedilol 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 carvedilol:

- If discharged on bisoprolol, or nebivolol, ensure that they are on the appropriate, or maximum tolerated dose for heart failure.
  - Bisoprolol 10mg 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.
Carvedilol in the Treatment of Heart Failure

Initiation dose 3.125mg twice a day (Patients may be discharged on higher doses)

Treatment dose = 25mg twice a day / 50mg twice a day if patient over 85kg

Patients should be have their dose titrated to 25mg twice a day / 50mg twice a day if patient over 85kg or to the maximum tolerated dose.

The patient is taking Carvedilol Dose = 3.125mg twice a day

Has the patient been on this dose for at least two weeks?

- Yes
- No

Review in two weeks

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

No problems

Increase dose to 6.25mg twice a day

Review in two weeks

See page on monitoring of Carvedilol

Review date August 2013
The patient is taking Carvedilol Dose = 6.25mg twice a day

Has the patient been on this dose for at least two weeks?

Yes

No

Review in two weeks

See page on monitoring of Carvedilol

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 3.125mg twice a day

No problems

Increase dose to 12.5mg twice a day

Review in 2 weeks

No problems

Increase dose to 12.5mg twice a day

Review in 2 weeks
The patient is taking Carvedilol Dose = 12.5mg twice a day

Has the patient been on this dose for at least two weeks or more?

Yes

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

- No problems

- Increase dose to 25mg twice a day

- Review in two weeks

No

- Review in two weeks

If causing concern

- Refer to GP or heart failure specialist nurse before increasing the dose. Query decreasing the dose to 6.25mg twice a day

See page on monitoring of carvedilol

Review date August 2013
The patient is taking Carvedilol Dose = 25mg twice a day

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

- **Yes**
  - Check
    - BP
    - Pulse for bradycardia; seek advice if pulse below 55 beats/min
    - Enquire about side effects
  - No problems
  - If patient under 85kg
    - Maintain on dose and review in 6 months

- **No**
  - Review in 2 weeks
  - If causing concern
    - Refer to GP or heart failure specialist nurse before increasing the dose. Query decreasing the dose to 12.5mg twice a day
  - No
  - Over 85 Kg
    - Review in two weeks consider increasing dose to 50mg twice a day

See page on monitoring of carvedilol

Review date August 2013
The patient is taking Carvedilol Dose = 25mg twice a day

Has the patient been on this dose for at least two weeks or more?

- The patient is over 85kg
  - Yes
  - No
  - The patient has not been on this dose for at least two weeks
    - Review in 2 weeks
  - No

- The patient is under 85kg
  - No
    - Dose to remain at 25mg twice a day

See page on monitoring of carvedilol

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 12.5mg twice a day

No problems

Increase dose to 50mg twice a day

Review in two weeks

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 25mg twice a day

No problems

Maintain on dose and review in 6 months

Monitoring of Carvedilol prior to increasing dose.

Review date August 2013
The information given here is incomplete please refer to the current BNF for comprehensive details.

1. BP

- **< 120/80** Do not increase carvedilol 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 25mg twice a day (50mg twice a day in over 85kg) 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.
  - Headache, GI disturbances, dry mouth, dry eyes, eye irritation, disturbed vision, allergic skin reactions.
  - See BNF

Review date August 2013
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.

- **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 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.