MedicinesUpdateExtra

NHS Greater Glasgow and Clyde

PARKINSON'S DISEASE – PATIENT SCENARIOS

No.9, Aug 2018 ◆ Produced by NHS Greater Glasgow and Clyde Medicines Information Service ◆

Scenario one

- Patient with Parkinson's disease (PD) presents with symptoms of confusion and is diagnosed with community acquired pneumonia.
- The patient is unable to swallow and is not able to tolerate an NG tube.
- PD medications on admission include:

Co-careldopa 25/100 at 7am, 11am, 3pm, 7pm and 11pm
Ropinirole m/r 8mg each morning

Issues to consider?

- Risk of missed doses
- Total daily dose of levodopa is 500mg
- Patient is already on a dopamine agonist
- Intercurrent infection/risk of hallucinations and/or psychosis

What would be the initial management plan for this patient?

- Confirm if the patient can still not tolerate an NG tube.
- If NG tube is not appropriate, discuss with PD specialist regarding appropriateness of a rotigotine patch.
- If specialist advice is unavailable refer to the NHSGGC PD NBM guidance on StaffNet for information on what strength of rotigotine patch may be suitable to prescribe until specialist advice is available. Consider all contraindications. Refer to the main bulletin for information on issues to consider prior to prescribing rotigotine.
- Patient is on regular dopamine agonist and levodopa therapy. Initial rotigotine patch dose should be determined using the current dose of dopamine agonist only. Ropinirole m/r 8mg once a day is roughly equivalent to 8mg/24hr rotigotine patch (see NHSGGC PD NBM guidance on StaffNet - conversion table 2).
- As the patient is also normally on 500mg daily dose levodopa, monitor patient to see if further increase in rotigotine patch is required. The maximum daily dose of rotigotine patch is 16mg/24hrs.
- Monitor for side-effects or lack of benefit and adjust under specialist advice.
- Regular review of possible NG tube is required. Transfer back to patient's usual medication should be discussed with PD specialist.

Scenario two

- Patient with PD admitted with aspiration pneumonia.
- Patient has swallowing difficulties but can manage soluble/liquid preparations.
- PD medications on admission include:

Co-beneldopa 50/200 capsules at 7am, 12pm and 7pm

Issues to consider?

- Risk of missed doses
- Total daily dose of levodopa is 600mg
- Patient is not on a dopamine agonist – investigate if patient has ever been prescribed a dopamine agonist and background for this being unsuitable
- Intercurrent infection/risk of hallucinations and/or psychosis

What would be the initial management plan for this patient?

- Discuss with PD specialist.
- Change co-beneldopa capsules to co-beneldopa dispersible tablets – refer to BNF for detail (e.g. dispersible co-beneldopa 25/100 – two tablets at 7am, 12pm and 7pm).
- The patient should be monitored for any change in effect due to altered bioavailability. It may be appropriate to prescribe a small "when required" dose to cover any unexpected "on-off" effects. This should only be done by a PD specialist as there may be a detrimental effect of increasing total daily dose.

A few days later, the patient is unable to swallow and is unable to tolerate an NG tube. How should the patient be managed?

- Seek urgent advice from PD specialist regarding alternative options.
- Consider any contraindications to rotigotine. Has the patient been given a dopamine agonist at any time previously?
- If specialist advice is unavailable (e.g. out of hours), consider rotigotine 4mg/24hr patch. See NHSGGC PD NBM guidance on StaffNet for further information.
- Refer to the main bulletin for information on issues to consider prior to prescribing rotigotine.

Scenario three

- Patient with PD admitted over the weekend with a UTI.
- PD medications on admission include:

Pramipexole M/R 3mg (2.1 mg base) at 7am

- Patient did not bring in her own medicines and only the standard release preparation of pramipexole is available within the hospital.

What should be done to ensure patient does not miss a dose or have a dose delay?

- The patient should be switched to the same daily dose of pramipexole given as the standard release preparation three times a day. In this case, the patient should receive pramipexole 1 mg (700 micrograms base) three times a day.

Scenario four

- Patient with PD admitted for elective surgery
- PD medications on admission include:

Co-careldopa 25/100 at 7am, 12pm and 7pm

- Prior to surgery patient received 7am dose of co-careldopa
- Post surgery patient is experiencing severe nausea and vomiting and is unable to take medications orally

Issues to consider?

- Advance planning
- Anti-emetics in PD
- Risk of missed doses
- Total daily levodopa dose is 300mg

What would be the initial management plan for this patient?

- Refer to PD specialists. In the case of elective surgery, patients should be referred to PD specialists in advance of surgery to decide whether the patient's PD medications need to be altered for the period around their surgery and to consider any other issues in their management.
- Regular cover should be prescribed with an appropriate anti-emetic (avoid metoclopramide and prochlorperazine). Refer to the Adult Therapeutics Handbook "Parkinson's Disease in Acute Care" for further information on anti-emetics used in PD.
- If PD specialist is unavailable consider rotigotine 4mg/24hr patch. Ensure there are no contraindications to rotigotine patch. See NHSGGC PD NBM guidance on StaffNet for further information.
- Refer to the main bulletin for information on issues to consider prior to prescribing rotigotine.
- Regularly review patient. Discuss with PD specialist the switch to patient's usual medication.

Scenario five

- Patient with PD admitted to medical ward
- The patient is on Duodopa® intestinal gel, however, the pump has stopped working.
- The patient's current Duodopa® intestinal regimen is as follows:

Morning bolus dose: 7ml (excluding the volume to fill the intestinal tube)
Continuous maintenance dose: 2ml/hour over 16 hours
Extra bolus doses: 1ml daily (used as required if patient becomes hypokinetic during the day)

What should be done to ensure the patient does not miss a dose or have a dose delay?

- Check that PEG/J and connections are patent.
- Refer to PD specialist immediately
- If PD specialist is not available contact the Duodopa® support helpline on 0800 458 4410.
- If the pump is still not functioning and PD specialist unavailable, refer to NHSGGC Clinical Portal for instructions on oral co-careldopa replacement dose in the event of Duodopa® pump not functioning/tube displaced. This should be detailed in clinic letters. If the patient is unable to swallow, refer to NHSGGC PD NBM guidance on StaffNet.
- If an oral co-careldopa replacement dose cannot be found in clinic letters and PD specialist unavailable, replace the total daily dose of Duodopa® by four or five doses of oral co-careldopa ensuring the equivalent levodopa dose. Refer to NHSGGC guidance "Duodopa Monograph for maintaining co-careldopa (Duodopa®) intestinal infusion treatment in patients admitted to hospital" on StaffNet. In this scenario this would be calculated as follows:
- 1ml of Duodopa® intestinal gel contains 20mg levodopa and 5mg carbidopa. Therefore, total intake of levodopa per day:
- **Morning bolus dose:** 140mg of levodopa
- **Continuous maintenance dose**: 640mg of levodopa per day (40mg per hour of levodopa over 16 hours)
- **Extra bolus dose:** Extra bolus doses of Duodopa® are not usually included when replacing with oral co-careldopa. If extra bolus doses are being used routinely, consider prescribing as required dispersible levodopa (this is available as dispersible co-beneldopa)
- **Total daily levodopa dose**:780mg of levodopa per day (140mg+640mg)
- Divided into five doses= Average 156mg levodopa per dose which is approximately equivalent to:
    - Co-careldopa (25/100): One tablet 5 times per day at the following times: 8am, 11am, 2pm, 5pm and 8pm.

  In addition to:
    - Co-careldopa (12.5/50): One tablet 5 times per day at the following times: 8am, 11am, 2pm, 5pm and 8pm.