PAN MERSEY APC

NHS Pan Mersey Area Prescribing Committee

# Prescribing Support Information

## Apomorphine

This medicine has been categorised as Amber Patient Retained by the Pan-Mersey Area Prescribing Committee

Your patient has been identified as being suitable to receive apomorphine in accordance with the indication detailed below. He/she has been started on treatment and has been reviewed to assess the efficacy and adverse effects of the treatment by the specialist team.

This medicine has been considered as appropriate for prescribing in primary care and the information contained in this document has been provided to support you to prescribe the medicine for your patient in the community.

Your patient will remain under the care of the specialist team whilst receiving this medicine.

### Apomorphine

Apomorphine is a direct dopamine agonist with no opiate or addictive properties. The rapid onset of action is an advantage when patients are experiencing frequent or severe "off" periods that are not controlled by levodopa or other dopamine agonists. It can be administered at the onset of an "off" period and has a rapid onset of effect (4-12 minutes) and duration of action of about 1 hour. Where overall control remains unsatisfactory, or for patients who require frequent injections, continuous subcutaneous infusion may be considered.

### Indication

Apomorphine is licensed for the treatment of disabling motor fluctuations ("on-off" phenomena) in patients with Parkinson's disease which persist despite treatment with levodopa and/or other dopamine agonists.

### Drug, Form and Dose

Apomorphine is given by subcutaneous route only, via intermittent injection or continuous infusion.

## Available Preparations

Pre-filled Pen 30mg/3ml - for intermittent injection, pen to be discarded no later than 48 hours from first use.

Pre-filled Syringe 50mg/10ml - for immediate single use for infusion, remainder of solution should be discarded.

Ampoules 20mg/2ml and 50mg/5ml - for infusion. Immediate use after first opening, after dilution can be stored for 24 hours in fridge. Ampoules not routinely used first line.

Optimum dose is established by specialist and varies widely between individual patients.

**By subcutaneous injection, adult over 18 years**
Usual range 3–30 mg daily in divided doses, subcutaneous infusion may be preferable in those requiring division of injections into more than 4-6 doses daily; maximum single dose is 10 mg.

**By continuous subcutaneous infusion, adult over 18 years**
Standard rate 1-4 mg/hour (15-60 micrograms/kg/hour), some patients may require 8-10mg/hour. Intermittent boluses via the pump maybe needed. The infusion site should be changed every 12 hours.

The total licensed daily dose of apomorphine is 100mg. Higher doses are prescribed and informed consent will be gained from the patient by the specialist when using doses above the licensed maximum. This will be communicated to the GP.
The hours of use of the apomorphine pump will be determined on an individual patient basis by the specialist team.

The dose, infusion rate and hours of use may be altered by the specialist nurse or the consultant; this change will be communicated via letter to the GP.

## Does Apomorphine require monitoring?

Biochemical monitoring is not required by the GP. See comments on ECG below.

## How long should Apomorphine be prescribed for?

Treatment with apomorphine will continue whilst the specialist deems there to be benefit to the patient.

## Contra-indications

Contraindications will be assessed by the specialist team. Please refer to the Summary of Product Characteristics (SPC) for the complete list.

## Adverse effects

Local indurations and nodule formation at injection site, particularly with continuous use.
Nausea and vomiting – prevented by treatment with domperidone, see below.
Transient sedation and yawning.
Confusion and postural hypotension.
Somnolence.
Neuropsychiatric disturbances.
Development of impulse control disorders
Please note this list is not exhaustive – refer to SPC for the complete list.

### Domperidone to prevent nausea and vomiting

To avoid nausea and vomiting, domperidone 10mg tds should be started 48 hours prior to first treatment with apomorphine, this will be supplied by the initiating hospital. Thereafter, the dose is 10mg tds for as short a time as possible – which will be determined by the specialist team.

**MHRA guidance on use of domperidone with apomorphine has a special exception for PD patients who may need domperidone for longer periods or at a higher dose than for non-PD indications**.

If nausea is severe despite a dose of 10mg tds, the dose may be increased to 20mg tds but only if absolutely necessary and an ECG shows no QTc prolongation. Subsequently, the domperidone dose should be reviewed with the aim to reduce and possibly stop. However, some patients may require ongoing treatment with domperidone, preferably at 10mg tds where discontinuation of apomorphine is not considered possible by the specialist team and the patient has made an informed decision.

### ECG investigation

Both apomorphine and domperidone have a slight tendency to prolong QTc interval and although the cardiac risk is very small, an ECG to check the QTc interval (normal <0.44sec) is required prior to use of apomorphine or domperidone. The hospital will arrange this.

Patients with prolonged QTc on ECG or taking other drugs known to cause QT prolongation should not start domperidone or apomorphine without careful re-evaluation of the risks and benefits. This will be determined by the specialist team. GPs can contact the specialist team if they have any concerns/queries. A second ECG is required during the first month of therapy and the hospital / specialist nurse will arrange for this to be undertaken in the hospital.

An ECG should be repeated to check QTc if there are symptoms of arrhythmia (syncope / loss of consciousness / palpitation) or if other QT prolonging drugs are added to the patient's prescription.

## Interaction with other medicines

Neuroleptics and methyldopa may antagonise the effect of apomorphine.
Memantine may enhance the effect of apomorphine.
Apomorphine may potentiate the hypotensive effects of other drugs; take caution in patients with pre-existing cardiac disease or postural hypotension.
It is recommended to avoid the administration of apomorphine with other drugs known to prolong the QT interval, see above section.
Please refer to SPC for full list of drug interactions.

## When to seek specialist advice

Consider seeking specialist advice if any adverse effects are reported by the patient. Any deterioration in symptoms should be reported e.g. decline in motor performance, hallucinations, confusional states, psychosis, depression or an inability to administer apomorphine. Development of impulse control disorders will be monitored by the specialist team, but if this is noted in the community please seek specialist advice urgently.

## Other information

The GP may be required to arrange district nurse support for patients where necessary. Training on administration of the branded product *APO-go*® can be provided to district nurse teams by the manufacturer, Britannia Pharmaceuticals. It may also be necessary to arrange for the supply and collection of sharps bins, this will be subject to local arrangements in your area. The GP will be contacted by the specialist nurses to prescribe infusion lines for pump therapy. The details of which are:

neria infusion lines, 10 mm needle 27 gauge, 110cm tubing (packs of 10);
Supplier code 78-110-2731, NPC code FSN128, Pip code 353 0946.

Occasionally alternative lines are recommended for particularly frail patients, these will be specified in the hospital letter.

## Contact details for advice

Please refer to the contact details included in the clinic letter issued by the specialist.