Clinical Guideline

# MANAGEMENT OF COMMUNITY BASED PARKINSON'S PATIENTS UNABLE TO SWALLOW MEDICATIONS

**SETTING** Community

**FOR STAFF** Doctors, Nurse Practitioners, Pharmacists

**PATIENTS** Adult patients with Parkinson's

## GUIDANCE

These guidelines are aimed at healthcare staff, including non-specialist doctors, caring for patients in the community with Parkinson's to enable optimal management when patients are acutely unable to swallow medications.
Where it is a chronic problem, seek specialist advice from the patient's PD physician and community speech and language therapists.

### Background

People with Parkinson's are at risk of developing problems with their swallow - either in the context of acute illness or as part of the condition.

### Points to consider:

It is important to rule out other additional pathology if a patient presents with swallowing difficulty for the first time.
**It is imperative that people with Parkinson's continue to receive their medications at all times to prevent complications from medication withdrawal and disease deterioration.**

Where possible, seek specialist input from the consultant or nurse specialist caring for the patient:

- Consultant physicians (via secretaries or email)
  - Dr Stratton – emma.stratton@uhbw.nhs.uk; secretary 0117 342 1427
  - Dr Ward – rachael.ward@uhbw.nhs.uk; secretary 0117 342 1427
  - Dr Richfield – edward.richfield@nbt.nhs.uk secretary 01174146433
  - Dr Thornton - daniel.thornton@nbt.nhs.uk secretary 01174146433
  - Dr Mitchell – emma.mitchell2@nbt.nhs.uk secretary 01174146433
  - Dr Szewczyk-Krolikowski - Konrad.Szewczyk-Krolikowski@nbt.nhs.uk; secretary 0117 414 7984
  - Dr Boca – mihaela.boca@nbt.nhs.uk; secretary 0117 414 4437

- Parkinson's CNS
  - Bristol - North, West (Lisa Farell), East and Inner (Kate Golding): 01173532240, sirona.pnsbristolnorth@nhs.net
  - Bristol – South (Emma Marchant): 0117 919 0289, southbristolpns@nhs.uk
  - South Gloucester (Kathryn Prout): 0300 125 6182, southglospns@nhs.uk
  - North Somerset (Melanie Falk, Emily Morrison): 0127 588 5428, ns.psn@nhs.net
  - Weston (Sarah Barber, WGH based): ext 3702, bleep 329; sarah.barber@uhbw.nhs.uk

- Out-of-hours
  - Neurology on-call registrar at NBT – via switchboard

- Specialist pharmacist
  - Hippolyte Fraser – mobile 07810751327; hippolyte.fraser@uhbw.nhs.uk
- Speech and Language therapy
  - Current therapist – if one involved
  - UHBW SLT- 0117 342 4060; NBT SLT- 0117 414 4011; NSCP SLT -01275546561
- Specialist community neuro service (SCNS) – Bristol: 0117 9617182 (professional referrals via CDCC); NSCP: 01275546561
- Urgent professional referrals: Bristol (BCH SPA)for community nursing, rapid response, urgent therapy, admission avoidance – 01179030202; alternative non-urgent number (CDCC) 01173426667; South Glos: 0300 125 6789; sirch.sironaspa@nhs.net; NSCP: Care Connect 01275888801/ 01454615165 (OOH/emergency)

## Consequences of missed doses:

- Aspiration pneumonia
- Increased dependency
- Increased falls and fracture risk
- Neuroleptic-like malignant syndrome

All these complications may cause irreversible harm and are potentially fatal

## Key Messages

- **Actively look for and treat: infection, constipation, urinary retention, electrolyte abnormalities**
- **Do not alter treatment regimes or timings**
- **If the patient is struggling to swallow food and fluids, as well as medication, urgent speech and language assessment should be sought**
- **Seek early advice from the patient's Parkinson's team**
- **Avoid the abrupt withdrawal of Parkinson's medications and missed doses**
- **NEVER prescribe contra-indicated medications (see below) – record them on the patients' medical record as allergies.**
- **Caution with diagnosing dying – the "off" state may look like dying and be brought about by something like constipation-associated non-absorption of medication.**
- **Dysphagia is often a feature of advanced Parkinson's and choking may be a terminal event in patients who are eating and drinking at risk. For support regarding this, please contact the relevant PD specialist to highlight at the PD palliative care MDT.**

## Parkinson's medications


- Should always be given on time (a 20-30min delay is the maximum acceptable delay).
- Never crush/split modified release preparation
- Co-careldopa (Sinemet) tablets are soluble in water or converted to the equivalent dose of Co-beneldopa (Madopar) dispersible tablets *e.g. Co-careldopa 25mg/100mg ≡ dispersible Co- beneldopa 25mg/100mg*

- Contra-indicated medications include:

| Indications | Contra-indicated medications | Alternatives |
|---|---|---|
| Agitation | Haloperidol,<br>Chlorpromazine | Lorazepam (starting dose: 0.5-1mg)<br>Midazolam (for end of life situations) |
| Nausea & vomiting | Metoclopramide (Maxalon),<br>Prochlorperazine (Stemetil),<br>Promethazine (Phenergan) | Domperidone (only po and short term – see MHRA guidance),<br>Ondansetron,<br>Cyclizine (use with caution)<br>Levomepromazine (end of life care) |

- If swallow compromised, consider giving tablets one at a time on a teaspoon of yoghurt, or crushed (see table below)
- Dispersible tablets will have a faster and shorter duration of action so monitor patient for loss of disease control, as dose frequency may need adjustment
- For patients on PEG feeding, absorption may be affected by proteins in enteral feed. To reduce fluctuations in effect, doses should be given at the same time every day and where possible 30 minutes before or after the feed (proteins).
- Many Parkinson's medications can be changed to soluble, crushable or dispersible alternatives and given by mouth, Nasogastric (NG), Percutaneous Endoscopic Gastrostomy (PEG). Pill crushers are available from the community pharmacy.

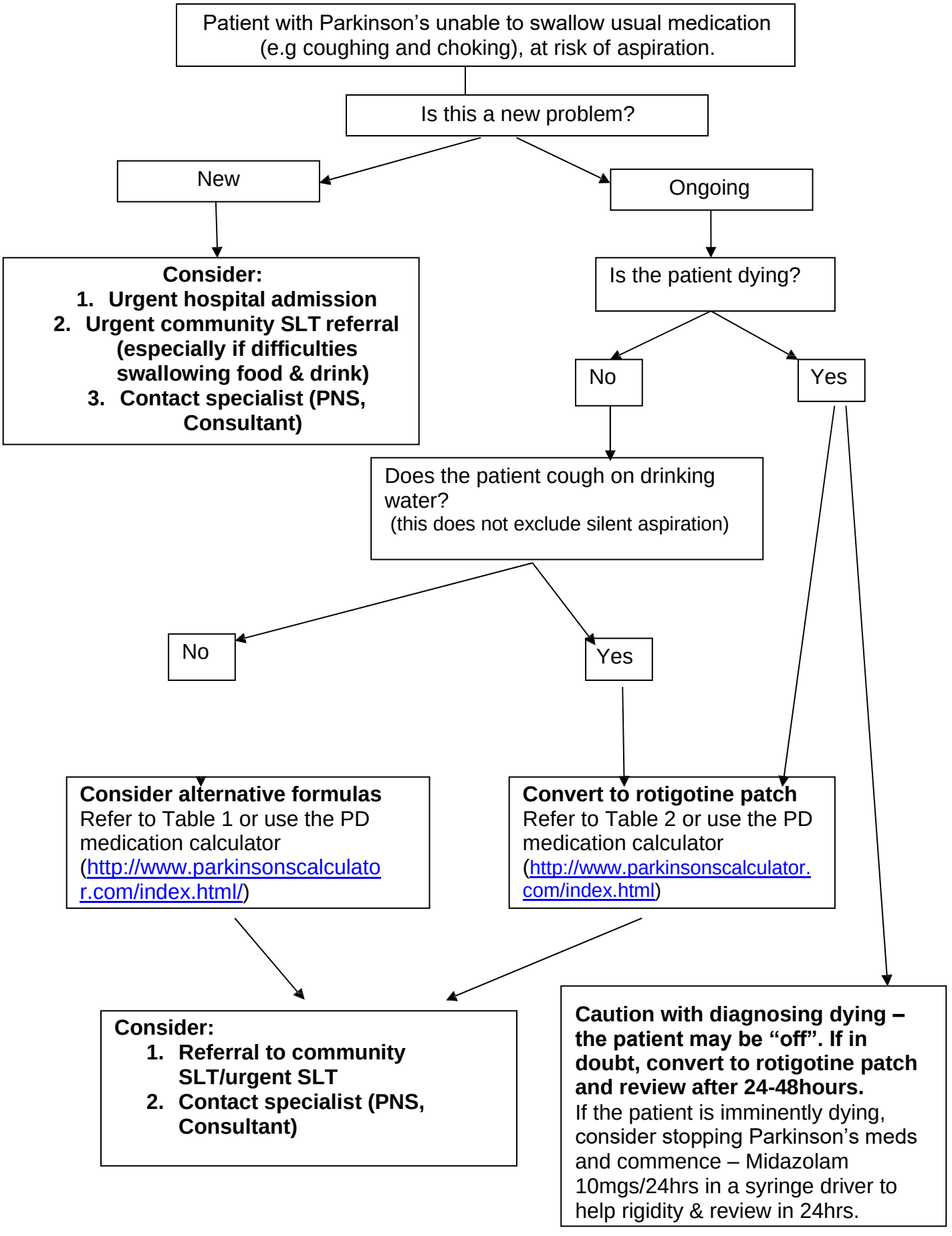
## Duodopa per jejunal infusion - Duodopa

- Duodopa contains levodopa and carbidopa in gel form. 1ml duodopa = 20mg levodopa + 5mg carbidopa
- The commonest complications are due to the device (PEG-J displacement or pump failure) or PEG-J related (infection, pressure sore, abdominal pain, peritonitis). Treatment related side effects include confusion, hallucinations, weight loss and B12 deficiency related peripheral neuropathy.
- If a patient is experiencing tube dysfunction or pump failure, please switch them onto the emergency oral regime (clarify with patient/Connecting Care) and contact:
    - Duodopa 24hr Helpline 0800 458 4410
    - Duodopa nurses: duodopa.nursing@bionical.com
    - Healthnet (delivery service for pumps, Duodopa, spare PEGJ's, purple connectors etc, as well as pharmacy advise based on Duodopa): 0800 083 3060; healthnet.homecare@nhs.net

## Apomorphine

- Apomorphine is a potent dopamine agonist which should be reserved for patients with very high dopaminergic requirements which cannot be covered by other means, or for people already taking apomorphine at home.
- It can cause confusion, hallucinations, drowsiness and postural hypotension. It is also highly emetogenic.
- It is taken as either a continuous subcutaneous infusion (via a pump), as the primary treatment, or as a stat subcutaneous injection on a PRN basis (from a disposable pen) as a rescue treatment for wearing off.
- Apo-Go 24hr helpline: 0808 196 4242
- Apo nurse: Kate Adams: 07917 610552; kate.adams-britannia2@nhs.net
- Apo-go contact (for staff training): Karen McIntyre: 07766 421934;Karen.McIntyre@britannia-pharm.com

# Difficulty administering medication?




Version 10; From April 2022 to April 2026
Author (this version): Dr M Sritharan (consultant geriatrician)

# Table 1: PD medications as liquids and via PEG

| Medicine | Formulation | Recommendation |
|---|---|---|
| **Co-beneldopa (Madopar ®)**<br><br>(levodopa therapy) | Dispersible tablets **(In 10mls water)** | Continue, no change required |
| | Capsules **(immediate release)** | Use dispersible tablets, same dose |
| | Modified/Controlled Release capsules **MR/CR** | Convert to dispersible tablets (alter dose as below) (MR Levodopa content is = to 75% of IR preparation, but in conversion may have equivalent dose, as practically not possible to reduce doses by 25%) and may need to alter frequency |
| **Co-careldopa**<br><br>(levodopa therapy) | Tablets (immediate release) *(Sinemet®)* | Continue, tablets are soluble (10mls water) |
| | Modified/Controlled release tablets **MR/CR** ***(****Caramet® CR, Sinemet® CR Half Sinemet® CR)* | Convert to immediate release tablets– alter dose (*****as below); may need to alter frequency<br>NB: If MR is a pre-bed dose, suggest giving half the dose as IR/dispersible at the usual time and the other half dose 3-4 hours later.<br>*Calculation Example:*<br>*50mg/200mg MR x1 capsule at 22:00hrs*<br>*= to 25mg/100mg x2 IR capsules at 22:00hr OR switch to 2 x25mg/100mg dispersible tablets and give separately at 4 hourly intervals e.g 25mg/100mg dispersible one tablet at 22:00hr & one tablet at 02:00hr* |
| **Levodopa/carbidopa/entacapone combination tablet *(Stalevo®, Sastravi®, Stanek®)*** (levodopa therapy) | Tablets | Crush tablet and disperse in 10mls water |
| **Ropinirole**<br><br>(dopamine agonist therapy) | Tablets (immediate release) *(Requip®, Ardtrel®)* | Continue current regime, tablets will disperse |
| | Modified release tablets *(Requip® XL, Ralnea XL®, Repinex XL®, Spiroco XL®, Aimpart XL® , Ropilynz XL®, Ropiqual XL®, Raponer XL®, Ipinnia XL®)* | Convert to immediate release tablets (see table 2); divide total daily dose into TDS regimen |
| **Pramipexole** *(Mirapexin®, Oprymea®)*<br><br>(dopamine agonist therapy) | Tablets (immediate release) | Continue current regime, tablets will disperse |
| | Modified release tablets | Convert to immediate release tablets; divide total daily dose into TDS regimen |
| **Rasagiline** *(Azilect ®)* | Tablets | Continue current regimen; tablets can be crushed and mixed with water (10ml). May safely be omitted if acutely unwell |
| **Selegiline** *(Eldepryl®, Zelapar®)* | Tablets | Tablets will disperse in water. May safely be omitted if acutely unwell |
| | Oro-dispersible tablets | No change required if buccal route remains safe; if not, convert to standard tablet (1.25mg oro-dispersible tablet = 10mg standard tablet) |
| **Safinamide** **(***Xadago ®)* | Film coated tablets | Cannot crush; no guidance from manufacturer regarding alternative modes of administration |
| **Entacapone** | Tablets | Continue current regimen; tablets will disperse; caution as powder is a dye. May be safely omitted when acutely unwell |
| **Opicapone** | Tablets | Hard capsule – cannot crush or open. May be safely omitted when acutely unwell |
| **Tolcapone** | Tablets | Continue current regimen; tablets will disperse; caution as powder is a dye. May be safely omitted when acutely unwell |
| **Amantadine** | Capsules | Continue current regimen –use liquid preparation as first line; if not available, open and dissolve contents of capsules in 10ml water |

# Table 2: Conversion to rotigotine patch

Important points:

- **Use tables below or** http://www.parkinsonscalculator.com/index.html/
- **Reduce the dose by 2mg in confused, hallucinating or dopamine agonist-naive patients**
- Maximum dose: 16mg in 24hours
- Patches are available in 2mg/4mg/6mg/8mg strengths
- Do not cut patches to achieve correct dose. Maximum of two patches at a time.
- Do not use the same site for 14 days – use patch placement chart (appendix 1) to monitor
- CR levodopa preparations are approximately equivalent to 2mg/24hours of rotigotine.
  *e.g. A patient is on co-beneldopa 12.5mg/50mg tds and co-beneldopa CR 25mg/100mg nocte, the correct dose is 6mg/24hrs*

| Current levodopa regime | Rotigotine patch equivalent |
|---|---|
| Co-beneldopa or Co-careldopa 12.5mg/50mg BD | 2mg/24 hours |
| Co-beneldopa or Co-careldopa 12.5mg/50mg TDS | 4mg /24 hours |
| Co-beneldopa or Co-careldopa 12.5mg/50mg QDS | 6 mg /24 hours |
| Co-beneldopa or Co-careldopa 25mg/100mg TDS | 8 mg /24 hours |
| Co-beneldopa or Co-careldopa 25mg/100mg QDS | 10 mg /24 hours |
| Co-beneldopa or Co-careldopa 37.5mg/150mg TDS | 12 mg /24 hours |
| Co-beneldopa or Co-careldopa 37.5mg/150mg QDS | 16 mg /24 hours |
| Co-beneldopa or Co-careldopa 50mg/200mg TDS or QDS | 16 mg /24 hours |
| Co-beneldopa or Co-careldopa 25mg/250mg TDS or QDS | 16 mg /24 hours |

| Current levodopa regime (Stalevo/Sastravi/Stanek) | Rotigotine patch equivalent |
|---|---|
| Levodopa/Carbidopa/Entacapone 50/12.5/200 TDS | 6 mg/ 24 hours |
| Levodopa/Carbidopa/Entacapone 100/25/200 TDS | 10mg/ 24 hours |
| Levodopa/Carbidopa/Entacapone 100/25/200 QDS | 14mg/ 24 hours |
| Levodopa/Carbidopa/Entacapone 150/37.5/200 TDS | 16mg/24 hours |
| Levodopa/Carbidopa/Entacapone 200/50/200 TDS | 16mg/24 hours |

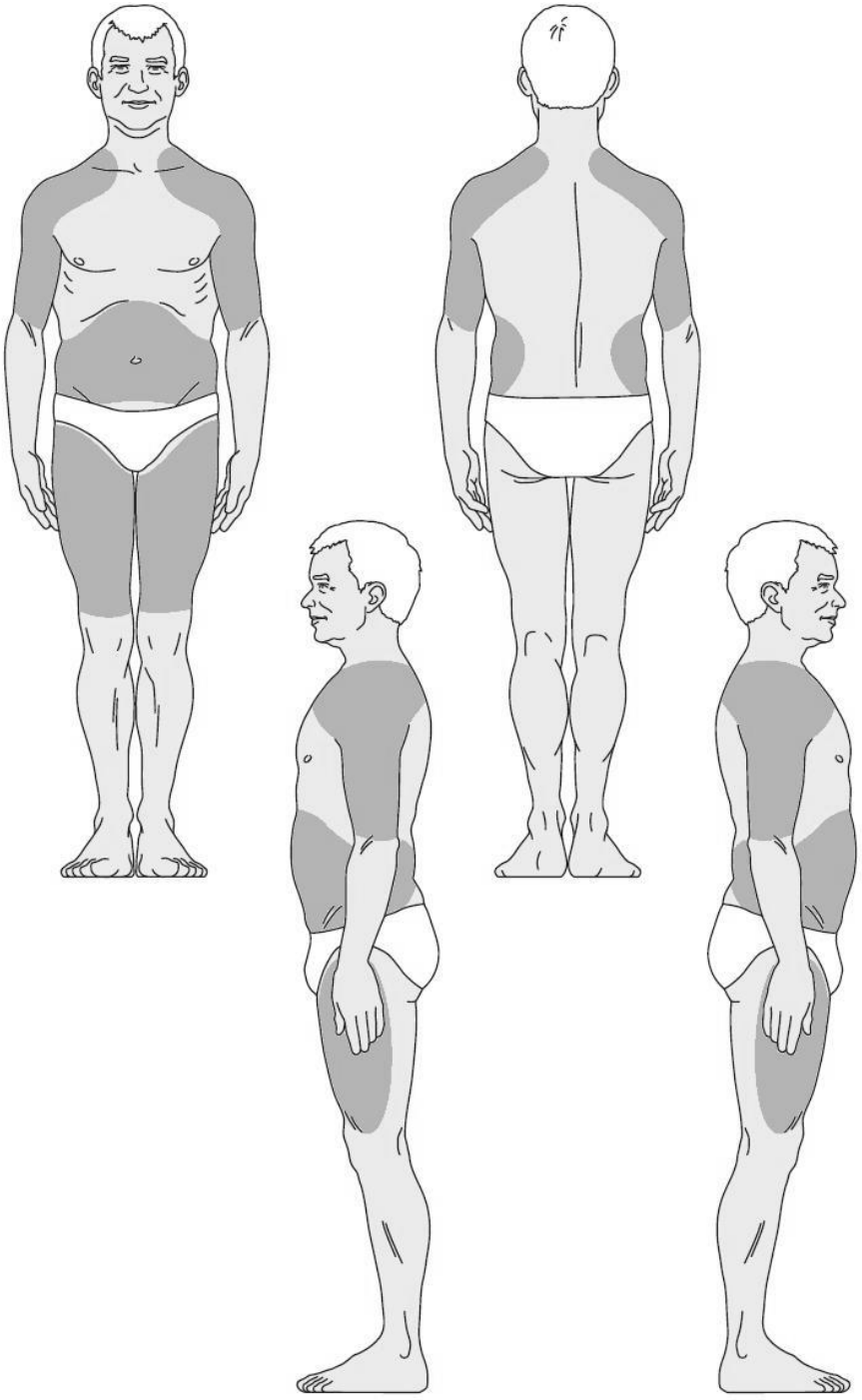
| | Current dopamine agonist regime | | | Rotigotine |
|---|---|---|---|---|
| Pramipexole Standard release (salt content) | Pramipexole Modified release (salt content) | Ropinirole Standard release | Ropinirole Modified release | |
| 0.125 mg TDS | 375 micrograms | NA | NA | 2 mg/24 hours |
| 0.25 mg TDS | 750 micrograms | 1 mg TDS | 4 mg/day | 4 mg/24 hours |
| 0.5mg TDS | 1.5 mg | 2 mg TDS | 6 mg/day | 6 mg/24 hours |
| 0.75 mg TDS | 2.25 mg | 3 mg TDS | 8 mg/day | 8 mg/24 hours |
| 1 mg TDS | 3 mg | 4 mg TDS | 12 mg/day | 10-12 mg/24 hours |
| 1.25 mg TDS | 3.75 mg | 6 mg TDS | 16 mg/day | 14 mg/24 hours |
| 1.5 mg TDS | 4.5 mg | 8 mg TDS | 24 mg/day | 16 mg/24 hours |

*Be aware that Pramipexole dosing can be described as Salt or Base values. Ensure you know the correct strength and dosing and that this corresponds to the salt value when converting the dose

# Appendix 1: Patch placement chart

Name:
Date of Birth:
NHS number:

START DATE /



Patch to be applied at the same time daily to a non-hairy, non-sweaty area (dark areas on the body map). Do not use the same spot for 14 days. Do not stick on broken/damaged skin. See rotigotine instructions for placement and care.

## RELATED DOCUMENTS

1. Tomlinson CL, Stowe R, Patel S, Rick C, Gray R, Clarke CE. Systematic review of levodopa dose equivalency reporting in Parkinson's Disease. Mov Disord 2010; 25 (15): 2649-53
2. Brennan KA, Genever RW. Managing Parkinson's disease in surgery. BMJ 2010; 341:c5718

**AUTHORISING BODY** BNSSG (September 2018)

**QUERIES** Contact details listed on page 1