CLINICAL GUIDELINE

Duodopa Monograph for maintaining Co-Careldopa (Duodopa®) intestinal infusion treatment in patients admitted to hospital

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Approval Group:	GGC Parkinson's Excellence Group

Important Note:

The Intranet version of this document is the only version that is maintained.

Any printed copies should therefore be viewed as ‘Uncontrolled’ and as such, may not necessarily contain the latest updates and amendments.

NHS Greater Glasgow and Clyde
Rehabilitation and Assessment Directorate, Regional Neurology and Pharmacy and Prescribing Support Unit

Monograph for maintaining Co-Careldopa (Duodopa®) intestinal infusion treatment in patients admitted to hospital

Introduction

This monograph describes how to continue pre-existing co-careldopa (Duodopa®) intestinal administration treatment during hospital admission. It does not discuss initiation of treatment in new patients.

All patients admitted to hospital on Co-careldopa (Duodopa®) should be referred to the Parkinson's nurse specialist (PDNS), movement disorders team or pharmacist for advice as soon as possible. See contacts on page 3

Key facts about Co-Careldopa Duodopa®

- All patients (including their carers) who have been started on Duodopa® will already have received training and information on how to use the pump and will have been supplied with an information package along with details of who to contact in the event of problems arising with the pump.
- **Healthnet** supply patients with their Duodopa® (a four-week supply is normally issued at a time) therefore patients should always have a supply at home which should be brought in during an emergency admission to hospital.
- Co-Careldopa (Duodopa®) is a combination of levodopa/carbidopa in 100ml cassettes: Each 1ml contains 20mg levodopa and 5mg carbidopa monohydrate.
- The Duodopa® cassette is connected to a battery powered portable pump system and infused continuously throughout the day (16 hours – normally between 6am and 10pm). Duodopa is delivered through a PEG/J tube (percutaneous endoscopic gastrostomy with jejunal extension).
- **PLEASE NOTE THE PEG/J IS FOR ADMINISTRATION OF DUODOPA ONLY**. Most patients using Duodopa® have good swallow function and can take food and medication orally.
- Prior to use the Duodopa® cassettes need to be stored in the **fridge.**

Supply of Co-careldopa (Duodopa®).

Don't delay administering treatment – even a delay of a few hours can have potentially very serious effects on the patient's condition, and can result in Parkinsonism-hyperpyrexia syndrome (similar to neuroleptic malignant syndrome).
The following information allows staff to ensure treatment is continued without delay

How to continue a Co-Careldopa (Duodopa®) infusion during a patient's hospital admission.
STEP ONE. Check the prescription is accurate.

The daily dose of Duodopa varies widely between patients. The total daily dose of Duodopa is composed of three individually adjusted doses; the morning bolus dose, the continuous maintenance dose and the extra bolus doses, which the pump administers separately.

The morning dose is administered by the pump to rapidly achieve a therapeutic dose level within 10 – 30 minutes and is usually equivalent to 100-200mg (5-10ml) levodopa and should not exceed 300mg (15ml) levodopa.

The maintenance dose is adjustable in steps of 2mg/hour (0.1ml/hour) and should be kept within a range of 20-200mg levodopa/hour (1-10ml/hour) and is usually 40-120mg levodopa/hour (2-6ml/hour), although in exceptional cases a higher dose may be needed. Usually treatment is for 16 hours during the day, but if medically justified may also be administered at night.

Extra bolus doses may be given during the day if the patient becomes hypokinetic and is usually 10-40mg levodopa (0.5-2.0ml). If the need for extra bolus doses exceeds 5 per day the maintenance dose should be increased.

Patients may also require additional medicinal products for Parkinson's disease.

STEP TWO. Set up appropriate infusion device

- A specially designed pump - the CADD-Legacy Duodopa portable pump is used to administer the Co-Careldopa (Duodopa®) gel through a permanent, specially designed tube.
- The CADD-Legacy Duodopa pump is indicated solely for enteral delivery of the drug.
- Duodopa is contained in a reservoir attached to the bottom of the pump.
- The CADD-Legacy Duodopa pump and Duodopa reservoir are programmed to deliver a morning dose, a continuous maintenance dose and extra bolus doses if required.
- They are NOT intended for intravenous or other parenteral routes of infusion.
- Store the Duodopa® cassettes in refrigerator (2ºC-8ºC). Keep the cassette in the outer carton to protect from light. Once opened use immediately and discard any unused portion. **Cassettes are for single use only and should not be used for longer than one day (up to 16 hours).**
- By the end of the storage time the gel might become slightly yellow, this does not influence the treatment with Duodopa. Opened cassettes should not be re-used. Empty/used cassettes can be picked up by **Healthnet** or returned to pharmacy for destruction in appropriate CIN bin.

The patient's family and / or carers are familiar and competent in using the CADD-Legacy Duodopa pump, staff should encourage them to maintain the patient on the pump using the "What to do Guide" which provided when the patient was commenced on the pump.

STEP THREE. Monitor the patient.

- A sudden deterioration in treatment response with recurring motor fluctuations may be due to the distal part of the tube becoming displaced from the duodenum into the stomach.
- The location of the tube should be determined by X-ray and the end of the tube repositioned to the duodenum under radiological control.
- Complications with the device are common (>1/10), e.g. connector leakage, dislocation of the intestinal tube.
- As with all levodopa combinations patients should be carefully observed if Duodopa is abruptly reduced or discontinued, due to the risk of Neuroleptic Malignant Syndrome (NMS).
- Further information regarding drug interactions, adverse effects, and contra-indications of Duodopa can be found in the Summary of Product Characteristics (SPC) (access via Electronic Medicines Compendium http://emc.medicines.org.uk or the British National Formulary (BNF).

If the pump is not functioning or the tube has been displaced.

The total daily dose of Duodopa by infusion should be replaced by four or five doses of oral co-careldopa.

For example: Patient on 2.5ml/hour (50mg) of levodopa/hour over 16 hours equates to 50 x 16mg = 800mg of levodopa/day. (If the patient is on any additional doses these should also be added.)

Divided into four doses = 200mg levodopa/dose = approximately 250mg (200/50) of co-careldopa dose.

If the patient is unable to swallow, refer to the NHSGGC nil by mouth policy on staffnet.
http://www.staffnet.ggc.scot.nhs.uk/Info%20Centre/PoliciesProcedures/GGCClinicalGuidelines/GGC%20Clinical%20Guidelines%20Electronic%20Resource%20Direct/Nil%20by%20Mouth%20Medicines%20for%20Parkinsons%20Disease%20in%20Acute%20Setting.pdf

Contacts for further advice

Name	Designation	Acute Site	Department phone number
Carol Vennard	Parkinson's Nurse Specialist	South	07958702902
Paul Lochrin	Parkinson's Nurse Specialist	West	07855102326
Elizabeth Craig	Parkinson's Nurse Specialist	South East	07855105109
Jacqui Kerr	Parkinson's Nurse Specialist	North East	0141 211 1522 / 07949982628
Kay Hood / Ainsley McNicol	Parkinson's Nurse Specialist	North	0141 355 1480
Shona Scott	Parkinson's Nurse Specialist	Clyde	0141 314 6833
Tracy Murphy	Parkinson's Nurse Specialist	Neurology	0141 201 2590

Out of hours the emergency duty pharmacist can be contacted for support in using this monograph

Manufacturer: **AbbVie Limited** emergency contact / helpline number 0800 458 4410

Supplier: **Healthnet** is the new supplier of Duodopa and all products relating to Duodopa Healthnet.homecare@Nhs.net Telephone No 08000 833060
They can arrange supply of product to patient's own home and pick up any unused product and waste material.

Where to find this document
The latest version of this document will be held on Staffnet (click on clinical info, clinical guidelines, alphabetical directory of clinical guidelines on specific medicines).

Comments
Please forward any comments on this document to pamela.seenan@ggc.scot.nhs.uk

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