Dysphagia/NPO Protocol

If a patient is NPO or has dysphagia, continue PD medications with a small sip of water. If swallow function is severely impaired, consult with the Speech Language Pathologist and consider one of the following options as appropriate:

If any of these options are in the hospital formulary, consider their use:				
Medication (product brand name in parentheses)	Dosages in Milligrams (mg)	Typical Treatment Regimens	Common Side Effects	Indications for Usage
carbidopa/ levodopa orally disintegrating tablets (Parcopa)	10/100, 25/100, 25/250 tablet	150-1000 mg of levodopa total daily dose (divided 3-4 times)	Low blood pressure, nausea, confusion, dyskinesia	Monotherapy or combination therapy for slowness, stiffness, and tremor; need for dissolvable medication in mouth especially if swallowing is impaired
rotigotine transdermal patch (Neupro)	1, 2, 3, 4, 6, 8 patch	4-8 mg once/day	Low blood pressure, nausea, leg swelling and iscoloration, confusion, sleep attacks, compulsive behaviors like gambling, skin rashes	Monotherapy or combination therapy for slowness, stiffness and tremor; skin patch delivery an advantage for some

If the patient is already using any of the following rescue options, they can be considered for use:				
apomorphine subcutaneous injections (Apokyn)	30 mg/3 ml vial	0.2-0.6 ml up to 5 times a day as needed	Low blood pressure, nausea, leg swelling and discoloration, confusion, sleep attacks, compulsive behaviors like gambling; for nausea, may receive anti-nausea medication daily for 3 days before starting medication	Adjunct therapy as needed for "off" periods; the only injectable, fast-acting dopaminergic drug, starts working in 10 minutes and lasts for up to 90 minutes
levodopa inhalation (Inbrija) via inhaler	42 per capsule	84 mg (2 capsules) inhaled by mouth up to 5 times a day as needed	Low blood pressure, nausea, confusion, dyskinesia, cough	As needed for "off" periods; starts working in 10-30 minutes and lasts for up to 60 minutes; regularly scheduled oral carbidopa/ levodopa doses should be continued.

If the patient is already using any of the following rescue options, they can be considered for use:				
carbidopa/ levodopa enteral suspension (Duopa) via surgically implanted tube between the stomach and small intestine	4.86 mg/20 ml casette	Up to 2000 mg of levodopa over 16 hours	Low blood pressure, nausea, confusion, dyskinesia	For the treatment of motor fluctuations in patients with advanced PD

If swallowing is completely compromised and the above options are not available or appropriate, consider the use of Liquid Sinemet:

Formula for Liquid Sinemet

1 mg levodopa per 1 ml solution

- Sinemet 25/100 tablets 10 tablets (1000 mg levodopa) (do not use Sinemet CR)
- Ascorbic acid (Vitamin C) crystals ½ tsp. (approximately 2 grams)
- Tap water or distilled water 1 liter or 1 quart

1. Mix the above ingredients in a liter/quart plastic container with lid (do not use metal).
2. Rotate or shake gently until tablets dissolve (no need to crush tablets). Tablets may not go completely into solution.
3. Formula will maintain full strength and purity for 24 to 48 hours in refrigerator.

Optimal dosing can vary tremendously from one person to another.

Dosing Recommendations

(Always establish a dosing plan the Primary PD Care Provider whenever possible)

1. **Morning ("Jump Start") dose:**

- 60 ml of the formula (60 mg or a little more than ½ of a 25/100 tablet of carbidopa/levodopa) or may use amount comparable to usual tablet dose.
- Adjust dose 5-10 ml up or down every three to five days until you achieve the best "on" response with the least dyskinesia.

2. **Hourly dosing:**

- 30 ml of the formula on the hour while awake, or hourly proportion of usual tablet dose. (For instance, a person with PD taking one carbidopa/levodopa 25/100 tablet every two hours might try 50 ml per hour of the liquid.)
- Adjust dose 5-10 ml up or down every three to five days until "on" periods are smoother.

For the best overall result, it is strongly recommended that you adjust the morning jump start dose prior to adjusting the hourly doses. Accuracy of the dose and exact hourly timing between doses is critical for optimal benefit.

If use of a nasogastric (NG) tube is indicated, carbidopa/levodopa (Sinemet) 25/100 mg immediate release tablets can be crushed and administered via the tube.