

## PARKINSON'S DISEASE (PD) IN THE ADVANCED STAGE

Parkinson's disease affects the central nervous system. Parkinson's disease is a degenerative disease and with progression the beneficial effects of oral medication become increasingly unpredictable.

In the advanced stage the disease affects motor function. Patients may experience the loss of control in movements or frequent motor fluctuations. In addition further difficulties might occur:

- Experience in "off" periods when the effect of oral medication is not satisfying and disables movements
  - Morning Akinesia (before medication begins to take effect)
  - After Meals
  - During stressful situations
- Painful muscle cramps
- · Walking and balance problems
- · Impaired performance of activities of daily living



### WHAT IS DACEPTON<sup>®</sup>?

Dacepton° helps to reduce the amount of time spent in an 'off' or immobile state in people who have previously been treated for Parkinson's disease with levodopa (another treatment for Parkinson's disease) and/or other dopamine agonists. The active ingredient of Dacepton° is apomorphine hydrochloride hemihydrate.

Some patients have taken dopamine agonists as oral medication before. The onset of the efficacy of Dacepton° is faster due to subcutaneous administration. Dacepton° is a strong and direct-acting dopamine-receptor agonist. Given subcutaneously, it has a rapid onset of antiparkinsonian effect qualitatively faster compared to levodopa.

Under consultation with the PD specialist, patients may have tried to optimize or adjust oral medication. Many affected PD patients have experienced that this achieves very little improvement, or the problems they have had remained unchanged.

# WHAT DOES INTERMITTENT DACEPTON° THERAPY ON DEMAND MEAN?

Parkinson's disease is a degenerative disease and with progression the beneficial effects of oral medication become increasingly unpredictable. The side effects such as "wearing off" or "peak of dose" dyskinesias (involuntary movements) and "off" periods become more prevalent and patients may find that they:

- Become progressively less mobile
- Experience increasing or longer "off" periods
- Have dyskinesias which may include:
  - Involuntary movements
  - Increased muscle tone
  - Uncontrollable movements of arms or legs
- Are suffering from "on" and "off" periods



Such symptoms may cause to put off some activities, leaving patients feel increasingly dependent on others. Maybe patients do not want to leave their home any more because they feel unable to cope with symptoms. Doing simple things of daily activities by oneself become challenging and affect patients and their family. All of this may have a strong impact on quality of life.

The PD specialist will talk with patients about options to improve their situation. The Apomorphine therapy with intermittens injections might be suitable for many patients, even if they haven't responded to oral dopamine agonists in the past.

Given subcutaneously, Dacepton<sup>®</sup> has a rapid onset of antiparkinsonian effect qualitatively faster compared to levodopa.

### WHY DO SYMPTOMS INCREASE?

Risk factors for motor complications include disease severity, longer disease duration and higher levodopa dosage. Motoric problems are often addressed with levodopa adjustments and the addition of other oral medication. As disease progresses the number of dopamine cells in the brain deteriorates and the formation of dopamine in the brain is limited. The ability of the body to absorb oral medication decreases with progression of age and the disease.

Especially the gut might be unable to absorb oral medication. This phase is characterized by the need to diminish the interval between intake of oral medication. As a result plasma levels may fluctuate and cause side effects such as involuntary movements.

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### WHY MIGHT DACEPTON® THERAPY ON DEMAND WORK?

Dacepton<sup>®</sup> offers improved disease management when oral medication is failing to control motor fluctuations. Dacepton<sup>®</sup> intermittent therapy on demand works well in patients who:

- Have had a positive response to levodopa in the past
- Have clear "on" and "off" periods
- Can notice "wearing-off" effect
- Are well motivated



The primary treatment goal is to reduce the frequency and duration of "off" periods. The Pen therapy on demand is an adjunctive therapeutic strategy that provides rapid control of PD symptoms. The Pen can be used to better control PD symptoms because it works quickly and is short-acting.

The rapid acting of the subcutaneous administration with Dacepton<sup>®</sup> helps to overcome gaps of oral therapy such as

- Morning akinesia (delayed "on" before oral medication shows effect)
- Delay in gastic emptying
- In stressful situations

The Dacepton injection with the D-mine Pen is

- Discreet and convenient
- Simple to use on demand

# WHAT DOES SUBCUTANEOUS ADMINISTRATION MEAN?

The multidose and reusable D-mine® Pen device is used with 3 ml cartridges containing 10 mg/ml of Dacepton®. The medication is injected via a short and extremely fine needle (similar to those used to inject insulin), into the subcutaneous fatty tissue of the belly or into the outer thighs just under the skin.



By subcutaneous injection almost 100% of the drug is absorbed into the blood stream. Because of the high absorption of apomorphine, the therapy can help to have maximum control of initiating an "on" period in Parkinson's disease.

### HOW DOES THE PEN LOOK LIKE?

The reusable and discreet Pen for the intermittent administration of Dacepton<sup>®</sup> on demand has been especially designed for people with PD. The pen-like design supports discreet application.



# WHAT ARE THE POSSIBLE SIDE EFFECTS OF DACEPTON° PEN THERAPY?

In the beginning of the therapy Dacepton<sup>®</sup> injectins can cause nausea and vomiting. Nausea doesn't affect everyone, is very temporary and usually only occurs in the beginning when the Dacepton<sup>®</sup> therapy is initiated. An antiemetic medication has to be given just in the beginning of the therapy.

Although apomorphine is rapidly absorbed from subcutaneous tissue, it can pool in the skin causing nodules. Nodule formation is usually not a significant problem and can be improved with strict rotation of the injection site used and skin hygiene.

In general symptoms like low blood pressure, vivid dreams, hallucinations, confusion and sedation may occur under dopaminergic therapy.

Please refer to the complete patient information leaflet for furher information.

#### HOW COMPLICATED IS THE PEN HANDLING?

The Pen is intuitive and easy to operate. In addition the handling of the system will be shown by Healthcare Professionals. Patients may get on with their daily activities. The therapy offers improved disease management when oral medication is failing and no longer controlling motor fluctuations.



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# HOW WILL BE EVALUATED IF INTERMITTENT DACEPTON° INJECTION THERAPY ON DEMAND IS SUITABLE?

In advance the patients will have to do a response test with the PD specialist. If the patient is suitable for intermittent Dacepton<sup>°</sup> therapy with the D-mine<sup>°</sup> Pen, the PD specialist will discuss the options with him/her and an extended support team (GP, carer, district nurse etc).

#### APOMORPHINE RESPONSE TEST

The response test confirms that the patient responds to apomorphine. The test involves a series of subcutaneous injections and movement assessments. Each injection will be a slightly higher dose than the previous one, and will be administered every 45 minutes to establish the individual and right dose for the patient.

#### • BEFORE THE TEST

Three days prior to the test and as directed by ther PD specialist, the patient will be asked to take an anti-emetic (anti-sickness medication). This is very important as Dacepton<sup>®</sup> (like levodopa), may make patients feel sick, although this is very temporary and does not affect everyone.

#### THE TEST

The test will be done with small injection needles. They are short and extremely fine and are injected into the subcutaneous tissue (just under the skin). Some patients report that they do not notice they are being injected. At each dose level the patient will be asked to attempt a number of motor assessments, including standing, walking or finger tapping. On rare occasions, Dacepton\* can cause a drop in blood pressure. The PD nurse/specialist will monitor the blood pressure, throughout the test using a blood pressure cuff. The patients will be asked about condition an wellbeing during the testing period.

# WHY MIGHT INTERMITTENT DACEPTON° INJECTION THERAPY NOT WORK?

The response to PD therapies varies. Optimal effect from Dacepton<sup>®</sup> therapy is seen in patients with idiopathic Parkinson's disease. Some syndromes very similar to PD do not respond well to anti-parkinsonian medications, including Dacepton<sup>®</sup>. If patients have had no response to levodopa in the past they might be not suitable for the Dacepton<sup>®</sup> therapy. In some cases patients are suffering from additional diseases which might prevent their PD specialist from recommending the Dacepton<sup>®</sup> therapy (like kidney, lung or cardiovascular diseases).

## FREQUENTLY ASKED QUESTIONS

#### DOESN'T APOMORPHINE MAKE DEPENDENT?

Apomorphine is not morphine and has no narcotic effect which could make dependent. Apomorphine is specifically used to treat Parkinson's disease.

### WHY IS A NEEDLE REQUIRED FOR APPLICATION?

Subcutaneous injection of medication is the most rapid and efficient way of delivering a drug and ensures consistent control. Absorption issues seen with oral medication are avoided. When Dacepton® is applied a very small, fine needle is used that only goes into the subcutaneous fatty layer of the skin. Dacepton® application does not need long needles like those for intravenous treatment.

#### IS IT POSSIBLE TO TRAVEL AROUND?

Patients travelling will need to take a doctors letter detailing that it is necessary for Parkinson's disease patients to carry supplies of apomorphine hydrochloride, needles and injectable pens with them at all times. The letter should also note that this Parkinson's medication must be stored at room temperature (25 degrees centigrade). Dacepton<sup>®</sup> should be taken onboard as hand luggage.

## ANY OTHER QUESTIONS?

- For medical information, please contact a PD specialist or PD Nurse.
- For any further questions concerning the Pen and disposables, please call your local distributor.

Our Vision is to
improve the quality
of your life.
Each and every day,
step by step.



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