

Part VI: Summary of the Risk Management Plan

Summary of risk management plan for LCIG

This is a summary of the risk management plan (RMP) for LCIG. The RMP details important risks of LCIG, how these risks can be minimized, and how more information will be obtained about LCIG risks and uncertainties (missing information).

The LCIG SmPC and its package leaflet (PL) give essential information to HCPs and patients on how LCIG should be used.

I The Medicine and What it Is Used For

LCIG is authorized for treatment of advanced levodopa-responsive Parkinson's disease (PD) with severe motor fluctuations and hyper/dyskinesia when available combinations of Parkinson medicinal products have not given satisfactory results (see SmPC for the full indication). It contains intestinal gel of 20 mg/mL levodopa + 5 mg/mL carbidopa as the active substance and it is given through a tube into the gut (the small intestine). The gel is pumped into the gut continuously.

II Risks Associated with the Medicine and Activities to Minimize or Further Characterize the Risks

Important risks of LCIG, together with measures to minimize such risks and the proposed studies for learning more about LCIG's risks, are outlined below.

Measures to minimize the risks identified for medicinal products can be:

- Specific information, such as warnings, precautions, and advice on correct use, in the PL and SmPC addressed to patients and HCPs;
- Important advice on the medicine's packaging;
- The authorized pack size – the amount of medicine in a pack is chosen so to ensure that the medicine is used correctly;
- The medicine's legal status – the way a medicine is supplied to the patient (e.g., with or without prescription) can help to minimize its risks.

Together, these measures constitute routine risk minimization measures.

In the case of LCIG, these measures are supplemented with additional risk minimization measures mentioned under relevant important risks below.

In addition to these measures, information about adverse reactions is collected continuously and regularly analyzed, including quarterly aggregate review of ADRs received, PSUR

assessment, so that immediate action can be taken as necessary. These measures constitute routine PV activities.

II.A List of Important Risks and Missing Information

Important risks of LCIG are risks that need special risk management activities to further investigate or minimize the risk, so that the medicinal product can be safely administered. Important risks can be regarded as identified or potential. Identified risks are concerns for which there is sufficient proof of a link with the use of LCIG. Potential risks are concerns for which an association with the use of this medicine is possible based on available data, but this association has not been established yet and needs further evaluation. Missing information refers to information on the safety of the medicinal product that is currently missing and needs to be collected (e.g., on the long-term use of the medicine).

List of Important Risks and Missing Information	
Important identified risks	<ul style="list-style-type: none"> Gastrointestinal, gastrointestinal device, and gastrointestinal procedure related events Impulse control disorders (ICDs) Polyneuropathy
Important potential risks	<ul style="list-style-type: none"> None
Missing information	<ul style="list-style-type: none"> None

II.B Summary of Important Risks

Important Identified Risk 1: Gastrointestinal, gastrointestinal device, and gastrointestinal procedure-related events	
Evidence for linking the risk to the medicine	Clinical trial data, spontaneous reports from the market, and literature
Risk factors and risk groups	<p>Perforations/injury: All patients, especially those with difficult anatomical findings.</p> <p>Infections: Those undergoing PEG tube placement are often vulnerable to the risk of infection because of a number of factors including those listed below:</p> <ul style="list-style-type: none"> All patients with PEG, especially those with severe underlying disorders and co-morbidities (diabetes mellitus, renal impairment, alcoholism) Older age Impaired general condition and mobility Compromised nutritional intake High gastric acid secretion Poor aftercare Agitation

	<ul style="list-style-type: none"> Rough handling or manipulation of the tubes <p>Infection is also a potential complication if perforation or injury of internal organs occurs.</p> <p>For GI irritations and ulcers, risk factors may include <i>H. pylori</i> infection, with mucosal inflammation and altered defenses. Excessive acid secretion may play a secondary role. Other risk factors may include difficult anatomy, concomitant medication (steroids), and rough handling of a tube in order to replace tube. Bezoars occur most commonly in patients with impaired gastrointestinal motility or with a history of gastric surgery. A risk factor for bezoar formation may be consumption of fibrous-type foods: In 2 patients from whom bezoar was reported, the patients' diet included asparagus fibers.</p>
Risk minimization measures	<p>Routine risk minimization measures:</p> <ul style="list-style-type: none"> SmPC section 4.4, Special warnings and precautions for use SmPC section 4.8, Undesirable effects Patient Information Leaflet <p>Additional risk minimization measures:</p> <ul style="list-style-type: none"> PowerPoint slides or video on "Critical aspects of PEG-J preparation, placement, and aftercare." PEG-J Aftercare Guideline. Best Practice Patient Aftercare. PowerPoint slides presentation on Duodopa safety, PEG-J insertion, and aftercare and LCIG system use and pump operations; Patient Pump Pocket Guide.
Additional pharmacovigilance activities	Study S187.3.005
Important Identified Risk 2: Impulse control disorders (ICDs)	
Evidence for linking the risk to the medicine	Clinical trial data, spontaneous reports from the market, and literature.
Risk factors and risk groups	Dopamine agonists are associated with 2- to 3.5-fold increased odds of having an ICD. However, younger age (≤ 65 years), current cigarette smoking, being unmarried, premorbid history of substance abuse or behavioral addictions, pre-morbid sensation-seeking personality, impulsiveness, family history of gambling problems, prior history of depression or anxiety requiring treatment, and obsessive-compulsive symptoms are also associated with ICD and suggest a multifactorial complex of factors contributing to ICD behavior.
Risk minimization measures	<p>Routine risk minimization measures:</p> <ul style="list-style-type: none"> SmPC section 4.4, Special warnings and precautions for use SmPC section 4.8, Undesirable effects Patient Information Leaflet

	Additional risk minimization measures: None
Additional pharmacovigilance activities	Study S187.3.005
Important Identified Risk 3: Polyneuropathy	
Evidence for linking the risk to the medicine	Clinical trial data, spontaneous reports from the market, and literature
Risk factors and risk groups	Numerous causes/risk groups, including older age, diabetes mellitus, alcoholism, chronic renal failure, nutritional deficiencies (e.g., thiamine, vitamin B6, B12, E), metabolic diseases (e.g., hypothyroidism, porphyria, amyloidosis, sarcoidosis), infections (e.g., Lyme disease), drugs (e.g., vinca alkaloids), toxins (e.g., lead, mercury), paraneoplastic disease.
Risk minimization measures	Routine risk minimization measures: <ul style="list-style-type: none"> • SmPC section 4.8, Undesirable effects. • Patient Information Leaflet. Additional risk minimization measures: None
Additional pharmacovigilance activities	Study S187.3.005

II.C Post-Authorization Development Plan

II.C.1 Studies Which are Conditions of the Marketing Authorization

No studies were a condition of the marketing authorization.

II.C.2 Other Studies in Post-Authorization Development Plan

Study S187.3.005

Study Objectives

Primary Objective: to provide, under well-controlled conditions, continued access to LCIG treatment to subjects who have already participated in an open-label efficacy and safety trial with the same treatment (Study S187.3.003 or Study S187.3.004), and in whom the need for such continuation is indicated, as confirmed by periodic evaluation, until the product is commercially available.

Secondary Objective: to assess the long-term safety and tolerability of the LCIG therapeutic system, and to assess the maintenance of efficacy using data collected from US subjects.

Safety Concerns

- Gastrointestinal, gastrointestinal device, and gastrointestinal procedure-related events
- Impulse control disorders (ICDs)
- Polyneuropathy