



For the attention of Accredited Medical Writers Only

Post hoc analysis from RECOVER study examined effects of Neupro® (rotigotine) on surrogate markers of mood and anhedonia in Parkinson's disease

Brussels (Belgium), 9th June 2011, 0700 CET – A post hoc analysis from the RECOVER study (Randomized Evaluation of the 24-hour Coverage: Efficacy of Rotigotine) suggested that patients with Parkinson's disease who used Neupro® (rotigotine) may experience improvements in key markers of mood/cognition, such as taking interest in surroundings and getting pleasure out of life ¹.

Additional data presented from a one year open label follow-up of RECOVER supported the continuing benefits of rotigotine on motor, sleep and nocturnal symptoms^{2,3}.

These data were presented at the 15th International Congress of Parkinson's disease and Movement disorders in Toronto, Canada (June 5-9, 2011).

Effects of rotigotine on mood and anhedonia

A post hoc analysis of the RECOVER study suggested that rotigotine may be associated with improvements compared with placebo on 4 of the 7 individual items in the mood/cognition domain of the Parkinson's Disease Non-Motor Symptom Scale (PDNMSS). These were loss of interest in surroundings ($p < 0.0001$), loss of interest in doing things ($p < 0.0001$), appearance of sadness or depression ($p = 0.005$) and difficulty experiencing pleasure ($p = 0.0235$)¹.

"While further study is needed to confirm, this post hoc exploratory analysis from a randomized double blind placebo controlled study suggested beneficial effects of rotigotine on markers of mood and anhedonia in Parkinson's disease," commented Professor K. Ray Chaudhuri, King's College Hospital, London, UK



Continued effects of rotigotine on motor function, sleep and nocturnal symptoms

In this open-label extension study the beneficial effects of rotigotine on early morning motor function and sleep disturbances that were seen in the RECOVER study were maintained for a further year of treatment, and rotigotine was generally well tolerated^{2,3}.

The most common treatment-emergent adverse events (TEAEs) during the open label phase (n=84) were application and instillation site reactions (24%), somnolence and hallucination (13% each) and nausea and fall (12% each)². Most were mild or moderate in intensity and had resolved at the end of the trial. 13% of subjects withdrew due to a TEAE, most commonly application site reactions (6.0%) and peripheral oedema (2.4%)².

The RECOVER study was a double-blind, placebo-controlled trial (n=287) that reported significant benefits with rotigotine for both early morning motor function (Unified Parkinson's Disease Rating Scale; UPDRS Part III) and nocturnal sleep disturbances (Parkinson's Disease Sleep Scale; PDSS-2) compared with placebo (p=0.0002 and p<0.0001, respectively)⁴.

About Neupro[®] in the European Union

Neupro[®] (rotigotine) is approved in the European Union for the treatment of the signs and symptoms of early-stage idiopathic Parkinson's disease, as monotherapy (i.e. without levodopa) or in combination with levodopa, i.e. over the course of the disease, through to late stages when the effect of levodopa wears off or becomes inconsistent and fluctuations of the therapeutic effect occurs. Neupro[®] is also approved in the European Union for the symptomatic treatment of moderate to severe idiopathic restless legs syndrome in adults.

Neupro[®] in the European Union Important Safety Information

Neupro[®] is contraindicated in case of hypersensitivity to the active substance or to any of its excipients, and in case of magnetic resonance imaging (MRI) or cardioversion. Neupro[®] should be removed if the patient has to undergo MRI or cardioversion.

It is recommended to monitor blood pressure, especially at the beginning of treatment, due to the general risk of orthostatic hypotension associated with dopaminergic therapy.

Neupro[®] has been associated with somnolence episodes of sudden sleep onset episodes. Patients treated with dopamine agonists including Neupro[®], have been reported as exhibiting signs of pathological gambling, increased libido and hypersexuality.

Symptoms suggestive of neuroleptic malignant syndrome have been reported with abrupt withdrawal of dopaminergic therapy. Therefore it is recommended to taper treatment.

Neupro[®] contains sodium metabisulphite, a sulphite that may cause allergic-type reactions including anaphylactic symptoms and life threatening or less severe asthmatic episodes in certain susceptible people.

Hallucinations have been reported, and patients should be informed that hallucinations can occur.

Cases of cardiopulmonary fibrotic complications have been reported in some patients treated with ergot-derived dopaminergic agents. Neuroleptics given as antiemetic should not be given to patients taking dopamine agonists. Ophthalmologic monitoring is recommended at regular intervals or if vision abnormalities occur.



External heat, from any source should not be applied to the area of the patch. Exposure of a skin rash or irritation to direct sunlight could lead to changes in the skin color. If a generalized skin reaction (e.g. allergic rash) associated with the use of Neupro[®] is observed, Neupro[®] should be discontinued.

Caution is advised when treating patients with severe hepatic impairment or acute worsening of renal function, a dose reduction might be needed.

The incidence of some dopaminergic adverse events, such as hallucinations, dyskinesia, and peripheral oedema generally is higher when given in combination with L-dopa. This should be considered when prescribing Neupro[®].

Neupro[®] should not be used during pregnancy. Breast-feeding should be discontinued.

Augmentation may occur in Restless Legs Syndrome patients. Augmentation refers to the earlier onset of symptoms in the evening (or early afternoon), increase in severity of symptoms, and spread of symptoms to involve other body parts.

Adverse drug reactions reported in more than 10% of Parkinson's patients treated with Neupro[®] are nausea, vomiting, application site reactions, somnolence, dizziness and headache.

Adverse drug reactions reported in more than 10% of RLS patients treated with Neupro[®] are nausea, application site reactions, asthenic conditions and headache.

All Neupro[®] supply should be stored in a refrigerator. There is no need for patients to transport Neupro[®] patches in special containers and they must not be stored in a freezer compartment.

Please refer to the European Summary of Product Characteristics for full prescribing information (Approved February 2011): <http://ec.europa.eu/health/documents/community-register/html/alfregister.htm>

About Neupro[®] in the U.S.

Neupro[®] (Rotigotine Transdermal System) is indicated in the U.S. for the treatment of the signs and symptoms of early-stage idiopathic Parkinson's disease.

In April 2008, UCB recalled Neupro[®] from the U.S. market after ongoing monitoring revealed that specific batches of Neupro[®] had deviated from their approved specification. Neupro[®] is currently not available in the U.S. UCB is working with the U.S. FDA so that Neupro[®] can be available to patients with early-stage Parkinson's disease as soon as possible.

Neupro[®] in the U.S. - Important Safety Information

Some patients treated with Neupro[®] reported falling asleep while engaged in activities of daily living, including operation of motor vehicles, which sometimes resulted in accidents. Some patients perceived no warning signs, such as excessive drowsiness. Hallucinations were reported in 2.0% of patients treated with Neupro[®] compared to 0.7% of patients on placebo. Neupro[®] contains metabisulfite. Neupro[®] should be used with caution in patients, especially those at risk for cardiovascular disease, because of the potential for symptomatic hypotension, syncope, elevated heart rate, elevated blood pressure, fluid retention, and/or weight gain. All Parkinson's disease patients are at a higher risk for melanoma and should be monitored regularly. The most commonly reported side effects in clinical trials were nausea, application site reactions, somnolence, dizziness, headache, vomiting, and insomnia. Some subjects who received Neupro[®] experienced a decline in blood hemoglobin levels (about 2% relative to subjects who received placebo). It is not known whether this change is readily reversible with discontinuation of Neupro[®]. Please go to http://www.neupro.com/documents/Neupro_PI_071207.pdf for US Full Prescribing Information.

Neupro[®] is a registered trademark of the UCB Group of companies.



About rotigotine transdermal system in Canada

Rotigotine transdermal system is not authorised for sale in Canada.

References

1. Chaudhuri KR, Friedman JH, Surmann E, Ghys L, Trenkwalder C on behalf of the RECOVER study group. The effects of transdermal rotigotine on mood/cognition: interpretations from a post-hoc analysis of the RECOVER study using the Parkinson's Disease Non-Motor Symptom Scale. Presented at the 15th International Congress of Parkinson's disease and Movement disorders, Toronto, Canada, June 5-9 2011
2. Trenkwalder C, Kies B, Dioszeghy P, Hill D, Surmann E, Boroojerdi B, Whitesides J, Chaudhuri KR on behalf of the SP915 study group. The effects of rotigotine on motor function and sleep over a 1-year period in patients with idiopathic Parkinson's disease: results from an open-label extension study of RECOVER. Presented at the 15th International Congress of Parkinson's disease and Movement disorders, Toronto, Canada, June 5-9 2011
3. Trenkwalder C, Zucconi M, Tolosa E, Friedman JH, Surmann E, Whitesides J, Boroojerdi B, Chaudhuri KR on behalf of the SP915 study group. Effects of transdermal rotigotine on sleep and nocturnal symptoms over a 1-year period in Parkinson's disease: an open-label extension of the RECOVER study. Presented at the 15th International Congress of Parkinson's disease and Movement disorders, Toronto, Canada, June 5-9 2011
4. Trenkwalder C, Kies B, Rudzinska M, Fine J, Nikl J, Honczarenko K, Dioszeghy P, Hill D, Anderson T, Myllyla V, Kassubek J, Steiger M, Zucconi M, Tolosa E, Poewe W, Surmann E, Whitesides J, Boroojerdi B, Chaudhuri KR, and the RECOVER study group. Rotigotine Effects on Early Morning Motor Function and Sleep in Parkinson's Disease: A Double-Blind, Randomized, Placebo-Controlled Study (RECOVER). *Movement Disorders*, 2011; 26(1): 90-99.
5. Neupro® European Summary of Product Characteristics (Approved February 2011)
http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/000626/WC500026397.pdf

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About UCB

UCB, Brussels, Belgium (www.ucb.com) is a global biopharmaceutical company focused on the discovery and development of innovative medicines and solutions to transform the lives of people living with severe diseases of the immune system or of the central nervous system. With more than 8 500 people in about 40 countries, the company generated revenue of EUR 3.2 billion in 2010. UCB is listed on Euronext Brussels (symbol: UCB).

Forward looking statement

This press release contains forward-looking statements based on current plans, estimates and beliefs of management. Such statements are subject to risks and uncertainties that may cause actual results to be materially different from those that may be implied by such forward-looking



statements contained in this press release. Important factors that could result in such differences include: changes in general economic, business and competitive conditions, effects of future judicial decisions, changes in regulation, exchange rate fluctuations and hiring and retention of its employees.