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VALOIS PHARMA'S PROHALER® DRY POWDER INHALER SECURES DOSE DELIVERY FOR ASTHMA SUFFERERS

For World Asthma Day, Valois Pharma is unveiling the results of a clinical study with patients suffering from asthma and chronic obstructive pulmonary disease (COPD) using its proprietary Dry Powder Inhaler Prohaler®.

The dry powder inhaler, an innovative drug delivery device contributing to the treatment of asthma

According to the WHO, there are 300 million asthma sufferers worldwide. Asthma is a serious global health problem, and is still under-diagnosed and under-treated. Today, the majority of respiratory treatments are via the pulmonary route, using either Metered Dose Inhalers (MDIs) or more recent Dry Powder Inhalers (DPIs). Patients find DPIs easier to use because they eliminate the problem of synchronization between actuation and inhalation. And as DPIs do not contain propellant, they are more environmentally-friendly.

Prohaler® technology, a patient-centric design approach

To make sure Prohaler® would be intuitive and easy-to-use, Valois Pharma placed the patient at the centre of the development process from the start of the project in 2004. An initial set of studies was carried out with a focus on patient handling of the device. Results publicized in June 2008 confirmed that Prohaler® was easy to handle and intuitive to use. Three simple steps are all it takes for a patient to use Prohaler®: open the device, inhale, and close it. Inhaling triggers the release of a dose of medication. A dose counter reminds the patient how many doses are left in the device.

The next step was to take these investigations further by understanding the patient/device interface during inhalation and verifying that all the necessary conditions were met for the correct dose of medication to be administered. A major hospital-based study was carried out from December 2007 to April 2009 at the CHRU in Tours, France, led by Professor Patrice Diot, an eminent respiratory physician and President of ISAM *(the International Society for Aerosols in Medicine)*, and Dr. Steve Newman, an expert in inhaled dosage forms, founder of Pharmaceutical Profiles Ltd and a consultant with a worldwide reputation. 60 patients suffering from asthma or COPD took part in the two-phase study. Some of these patients had very poor lung capacity, as low as 30% of that of a normal healthy person. The results of the study showed that all the patients, regardless of how ill they were, were able to trigger the device and inhale enough air for the medication to reach their lungs. This excellent result validated the effectiveness of the Prohaler® technology and showed that most patients would be able to correctly inhale a dose of medication.

Results from the first phase of the study were presented by Dr. Steve Newman at the Drug Delivery to the Lungs scientific conference held in Scotland last December. Final results from the study will be published in the coming months in an internationally scientific journal.

With Prohaler®, Valois Pharma, the world leader in nasal and pulmonary drug delivery devices, and partner of major pharmaceutical companies, is contributing to the enhancement of patient compliance, which will lead to improved drug effectiveness, especially in the treatment of asthma and COPD.

Valois Pharma, a division of Valois S.A.S, specializes in nasal and pulmonary drug delivery technologies with a broad product range that also provides solutions for other drug delivery routes such as buccal/sub-lingual, throat and dermal/transdermal.

Valois S.A.S., founded in 1947, is a world leader in the design, development and manufacture of proprietary spray, aerosol and alternative dispensing systems for the Pharmaceutical, Perfumery and Cosmetics markets. Valois S.A.S. is a wholly owned subsidiary of AptarGroup, Inc., a publicly traded company listed on the New York Stock Exchange (NYSE: ATR).

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