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Vaprisol Dose Comparison Published Supporting Its Efficacy, Safety And Pharmacokinetics

Vaprisol demonstrates favorable efficacy and safety profile with over 70% of patients reaching treatment goal

NASHVILLE, Tenn., Feb. 10, 2016 /PRNewswire/ -- Cumberland Pharmaceuticals Inc. (NASDAQ: CPIX) today announced the publication of an open label multicenter study adding to the growing body of literature that supports Vaprisol[®] (*conivaptan*) Injection. The study evaluated both 20 and 40 mg/day doses of conivaptan in hyponatremic patients. The new publication is currently available as open access articles in the journal *Drug Design, Development and Therapy*.



Hyponatremia is an electrolyte disturbance in which sodium ion concentration in blood plasma is lower than normal. This can be associated with a variety of critical care conditions including congestive heart failure, liver failure, kidney failure and pneumonia. This study was conducted at 26 U.S. and 2 international centers. A total of 251 patients were enrolled in the study.

Both doses of conivaptan were efficacious in increasing the patients' sodium concentrations over 4 days of treatment with no observed increase in the frequency of adverse events using the higher dose. The majority of patients obtained a clinically significant increase in their sodium concentration by 24 hours after initiation of conivaptan therapy. Patients receiving the higher dose had a faster rate of increase, absolute increase and longer duration of effect. The pharmacokinetic parameters of both doses were similar to what has been reported previously, exhibiting greater-than-dose-proportional plasma concentrations.

About Vaprisol[®]

Vaprisol an intravenous treatment for hyponatremia used in the critical care setting. Hyponatremia is an electrolyte disturbance in which sodium ion concentration in blood plasma is lower than normal. This can be associated with a variety of critical care conditions including congestive heart failure, liver failure, kidney failure and pneumonia. The product is a vasopressin receptor antagonist that raises serum sodium levels and promotes free water secretion. Vaprisol does not require dilution and has a well-defined daily dose of 10 mg, 20 mg, or 40 mg. Vaprisol was approved by the U.S. Food and Drug Administration in 2005 for euvolemic hyponatremia and in 2007 for hypervolemic hyponatremia. For full prescribing information, visit www.vaprisol.com.

About Cumberland Pharmaceuticals

Cumberland Pharmaceuticals Inc. is a Tennessee-based specialty pharmaceutical company focused on the acquisition, development and commercialization of branded prescription products. The Company's primary target markets include hospital acute care and gastroenterology. Cumberland's marketed products include Acetadote[®] (*acetylcysteine*) Injection for the treatment of acetaminophen poisoning, Caldolor[®] (*ibuprofen*) Injection, the first injectable treatment for pain and fever approved in the United States, Kristalose[®] (*lactulose*) for Oral Solution, a prescription laxative, Vaprisol[®] (*conivaptan*) Injection, for the treatment of hyponatremia and Omeclamox-Pak[®] for the treatment of *H. pylori* and duodenal ulcer disease. Cumberland is dedicated to providing innovative products that improve quality of care for patients. For more information on Cumberland Pharmaceuticals Inc., please visit www.cumberlandpharma.com.

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