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Alexion Reaches Funding Agreement with NICE and NHS England for Strensiq® (asfotase alfa) for Patients with Pediatric-onset Hypophosphatasia (HPP)

NEW HAVEN, Conn.--(BUSINESS WIRE)-- Alexion Pharmaceuticals, Inc. (NASDAQ: ALXN) today announced that it has reached a national funding agreement with the National Institute for Health and Care Excellence (NICE) and the National Health Service (NHS) England based on a Managed Access Agreement (MAA), which provides access to Strensiq® (asfotase alfa) for patients in England with pediatric-onset hypophosphatasia (HPP), regardless of their current age. The funding agreement was announced today in a positive final evaluation determination (FED) issued by the NICE Highly Specialised Technologies (HST) Evaluation Committee to recommend Strensiq according to the MAA.

The MAA has been developed in collaboration between physician thought-leaders, patient groups, NHS England, and Alexion. The MAA ensures access to Strensiq for infants, children and adult patients with pediatric-onset HPP who experience the most disabling symptoms and are expected to benefit most from therapy.

"It is a success that patients with HPP in England who meet the criteria of the Managed Access Agreement will have access to Strensiq, which is the only treatment for this severely debilitating and often life-threatening disease," said Lindsay Weaver, Chief Executive, Children Living with Inherited Metabolic Diseases (CLIMB). "We are relieved that NICE, NHS England and Alexion have reached an agreement that benefits patients with pediatric-onset HPP most in need of treatment. We will be following the progress of the agreement, which involves the collection of robust data, to ensure continued access for patients."

HPP is an ultra-rare metabolic disease characterized by defective bone formation that can lead to weakness and deformity of bones, fractures and other skeletal abnormalities, as well as complications such as profound muscle weakness, severe pain, seizures in perinatal/infantile forms of HPP, and respiratory failure potentially leading to premature death in infants.¹⁻⁵

"We worked diligently and constructively with NICE, NHS England, advocates and physicians, and are extremely pleased that we were able to reach an agreement to make Strensiq available to patients with pediatric-onset HPP in England who are most in need of treatment," said Ludwig Hantson, Chief Executive Officer of Alexion. "The decision to provide access to Strensiq is an important milestone for patients and their families."

Strensiq is approved in the European Union as a long-term enzyme replacement therapy in patients with pediatric-onset HPP. Strensiq is also approved in the United States for the treatment of patients with perinatal-, infantile- and juvenile-onset HPP, as well as in Japan and other countries. Alexion is currently progressing local funding processes for Strensiq in additional countries worldwide.

About Hypophosphatasia (HPP)

HPP is a genetic, chronic, progressive, and potentially life-threatening ultra-rare metabolic disease that can affect people of all ages. HPP is characterized by defective bone mineralization that can lead to weakness and deformity of bones, fractures and other skeletal abnormalities, as well as systemic complications such as profound muscle weakness, muscle, bone and joint pain, seizures in perinatal/infantile forms of HPP, and respiratory failure leading to premature death in infants. The signs, symptoms and severity of HPP can vary from patient to patient, and because of the progressive nature of the disease, new symptoms can appear at any age and symptoms can worsen over time, causing significant disability.¹⁻⁵ HPP is traditionally classified by the age of the patient at the onset of symptoms of the disease, with perinatal-, infantile- and juvenile-onset HPP (also known as pediatric-onset HPP) defined by the onset of the first symptom prior to 18 years of age.¹

HPP can have devastating consequences for patients at any stage of life.¹ In a natural history study, infants who had their first symptom of HPP within the first 6 months of life had high mortality, with an overall mortality rate of 73 percent at 5 years.⁷ In these patients, mortality was primarily due to respiratory failure.^{1,7} In patients surviving and those with juvenile-onset HPP, long-term clinical sequelae include recurrent and non-healing fractures, profound muscle weakness, debilitating pain, and the requirement for ambulatory assistive devices such as wheelchairs, wheeled walkers, and canes.^{1,4}

HPP is caused by mutations in the gene encoding an enzyme known as tissue non-specific alkaline phosphatase (TNSALP). This enzyme plays a critical role in the proper mineralization of bones.^{1,2}

About Strensiq® (asfotase alfa)

Strensiq (asfotase alfa) is a highly innovative bone-targeted enzyme replacement therapy that treats the underlying cause of HPP by replacing the missing TNSALP enzyme. In clinical studies of patients with HPP who had their first symptom prior to the age of 18, treatment with Strensiq improved overall survival in infants, enhanced bone mineralization and improved height, weight, and mobility.^{6,8}

STRENSIQ IMPORTANT SAFETY INFORMATION

Hypersensitivity reactions, including anaphylaxis, have been reported in STRENSIQ-treated patients. Signs and symptoms consistent with anaphylaxis included difficulty breathing, choking sensation, nausea, periorbital edema, and dizziness. These reactions have occurred within minutes after subcutaneous administration of STRENSIQ and can occur in patients on treatment for more than one year. Other hypersensitivity reactions have also been reported in STRENSIQ-treated patients, including vomiting, fever, headache, flushing, irritability, chills, skin erythema, rash, pruritus and oral hypoesthesia. If a severe hypersensitivity reaction occurs, discontinue STRENSIQ treatment and initiate appropriate medical treatment. Consider the risks and benefits of re-administering STRENSIQ to individual patients following a severe reaction. If the decision is made to re-administer the product, monitor patients for a reoccurrence of signs and symptoms of a severe hypersensitivity reaction.

Localized lipodystrophy, including lipoatrophy and lipohypertrophy, has been reported at injection sites after several months in patients treated with STRENSIQ. Advise patients to follow proper injection technique and to rotate injection sites.

Patients with HPP are at increased risk for developing ectopic calcifications. In clinical trials, 14 cases (14%) of ectopic calcification of the eye, including the cornea and conjunctiva, and the kidneys (nephrocalcinosis) were reported. There was insufficient information to determine whether or not the reported events were consistent with the disease or due to STRENSIQ. No visual changes or changes in renal function were reported. Ophthalmology examinations and renal ultrasounds are recommended at baseline and periodically during treatment with STRENSIQ to monitor for signs and symptoms of ophthalmic and renal ectopic calcifications and for changes in vision or renal function. The most common adverse reactions ($\geq 10\%$) are injection site reactions, lipodystrophy, ectopic calcifications and hypersensitivity reactions.

Please click [here](#) for the full Prescribing Information.

About Alexion

Alexion is a global biopharmaceutical company focused on developing and delivering life-transforming therapies for patients with devastating and rare disorders. Alexion is the global leader in complement inhibition and has developed and commercializes the first and only approved complement inhibitor to treat patients with paroxysmal nocturnal hemoglobinuria (PNH) and atypical hemolytic uremic syndrome (aHUS), two life-threatening ultra-rare disorders. In addition, Alexion's metabolic franchise includes two highly innovative enzyme replacement therapies for patients with life-threatening and ultra-rare disorders, hypophosphatasia (HPP) and lysosomal acid lipase deficiency (LAL-D). Alexion is advancing its rare disease pipeline with highly innovative product candidates in multiple therapeutic areas. This press release and further information about Alexion can be found at: www.alexion.com

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Forward-Looking Statements

This news release contains forward-looking statements, including statements related to potential medical benefits of Strensiq® (asfotase alfa) for hypophosphatasia (HPP). Forward-looking statements are subject to factors that may cause Alexion's results and plans to differ from those expected, including, for example, risks and uncertainties of drug development, decisions of regulatory authorities regarding the adequacy of our research, marketing approval or material limitations on the marketing of Strensiq for HPP, delays, interruptions or failures in the manufacture and supply of our products and our product candidates, delays in establishing commercial infrastructure for Strensiq for HPP, the possibility that results of clinical trials are not predictive of safety and efficacy results of Strensiq in broader or different patient populations, the possibility that clinical trials of our product candidates could be delayed, the adequacy of our pharmacovigilance and drug safety reporting processes, the risk that third party payers (including governmental agencies) will not reimburse or continue to reimburse for the use of our products at acceptable rates or at all, risks regarding government investigations, including investigations of Alexion by the SEC and DOJ, the risk that anticipated regulatory filings are delayed, the risk that estimates regarding the number of patients with Strensiq and observations regarding the natural history of patients with Strensiq are inaccurate, risks related to potential disruptions to our business as a result of leadership changes, and a variety of other risks set forth from time to time in Alexion's filings with the Securities and

Exchange Commission, including but not limited to the risks discussed in Alexion's Quarterly Report on Form 10-Q for the period ended March 31, 2017 and in Alexion's other filings with the SEC. Alexion does not intend to update any of these forward-looking statements to reflect events or circumstances after the date hereof, except when a duty arises under law.

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