

US Food and Drug Administration Approves Teduglutide for Pediatric Patients With Short Bowel Syndrome

On May 17, 2019, the US Food and Drug Administration (FDA) expanded the indication for the glucagon-like peptide-2 analog teduglutide (Gattex, Takeda) for injection in patients 1 year of age and older with short bowel syndrome (SBS) who require additional intravenous parenteral support. Teduglutide was approved for adults with SBS in 2012.

Teduglutide was studied in 59 patients with SBS (ages 1-17 years) over a 24-week period. Patients chose to receive either the drug (n=50) or standard of care (n=9). Among the teduglutide cohort, patients were randomly assigned to 0.025 mg/kg daily (n=24) or 0.05 mg/kg daily (n=26), the latter of which is the recommended dosage. Randomization to the 2 dosage groups was stratified by age.

By week 24, 69% of patients (18/26) who took teduglutide 0.05 mg/kg daily had a reduction in the volume of parenteral support by at least 20%. According to data from patient diaries, patients who received this dose experienced a 42% mean reduction in parenteral support volume (mL/kg/day) from baseline (-23 mL/kg/day from baseline). Ten patients (38%) were able to reduce parenteral support infusion by a minimum of 1 day per week. Parenteral support infusion time decreased by an average of 3 hours per day compared to baseline. Three patients (12%) receiving this dose completely weaned off parenteral support.

Teduglutide has a safety profile that is comparable between adult and pediatric patients. The most common adverse reactions ($\geq 10\%$) among adult patients treated with teduglutide in clinical trials were abdominal pain and/or distension, fluid overload, hypersensitivity, injection site reaction, nausea, upper respiratory tract infection, and vomiting. In pediatric patients, fecal occult blood testing prior to initiating treatment and annually is advised, as teduglutide carries a risk for acceleration of neoplastic growth.

Ramucirumab Receives US Food and Drug Administration Approval for Treatment of Patients With Hepatocellular Carcinoma

On May 13, 2019, the FDA approved the vascular endothelial growth factor receptor-2 antagonist ramucirumab (Cyramza, Lilly) as monotherapy for the treatment of patients with hepatocellular carcinoma

(HCC) who have an α -fetoprotein level of 400 ng/mL or greater and have been treated with sorafenib (Nexavar, Bayer). Ramucirumab is the first biomarker-driven therapy to receive approval for HCC and has previously been approved for gastric cancer, colorectal cancer, and nonsmall cell lung cancer.

The latest approval is based on results from the REACH-2 trial, a randomized, placebo-controlled, phase 3 study comparing ramucirumab (n=197) to placebo (n=95) in patients with HCC who had been treated with sorafenib and had high levels of α -fetoprotein. Patients received either ramucirumab 8 mg/kg or placebo intravenously every 2 weeks. Patients received a median of 6 doses of ramucirumab, and the median duration of exposure was 12 weeks. The primary endpoint was median overall survival.

Compared with placebo, the ramucirumab cohort had a greater median overall survival (8.5 months vs 7.3 months; $P=.02$), median progression-free survival (2.8 months vs 1.6 months; $P<.001$), and overall response rate (4.6% vs 1.1%). The most common serious adverse reactions among patients taking ramucirumab were ascites and pneumonia (both 3%). The most common adverse reactions ($\geq 15\%$) were abdominal pain, ascites, decreased appetite, fatigue, hypertension, nausea, peripheral edema, and proteinuria. Eighteen percent of patients in the ramucirumab cohort discontinued treatment due to adverse reactions, the most common being proteinuria (2%).

The ramucirumab label has been updated to remove the boxed warning pertaining to gastrointestinal perforation, hemorrhage, and impaired wound healing but continues to provide information on these specific risks.

In Brief

Compared with nonregular use, daily use of aspirin in patients with biopsy-confirmed nonalcoholic fatty liver disease (NAFLD) was associated with less severe histologic features of NAFLD and nonalcoholic steatohepatitis and significantly lower odds of progression to advanced fibrosis with time. Results of a prospective cohort study reported that the greatest benefit was found with 4 years or more of aspirin use. *Clin Gastroenterol Hepatol.* 2019 May 8. Epub ahead of print. doi:10.1016/j.cgh.2019.04.061.