Sevenfact® (coagulation factor VIIa [recombinant]-jncw) – New drug approval

- On April 1, 2020, the FDA announced the approval of LFB S.A's Sevenfact (coagulation factor VIIa [recombinant]-jncw), for the treatment and control of bleeding episodes occurring in adults and adolescents (12 years of age and older) with hemophilia A or B with inhibitors.
    - Sevenfact is not indicated for the treatment of patients with congenital Factor VII deficiency.
- Hemophilia A or B is a congenital bleeding disorder caused by a dysfunction or deficiency of Coagulation Factor (F) VIII or IX, respectively. Bleeding episodes in these individuals are managed by either on-demand treatment or prophylaxis using products containing FVIII or FIX. However, when inhibitors to FVIII or FIX develop in these individuals, treatment of bleeding episodes with FVIII or FIX products may no longer be effective.
- Sevenfact is a recombinant analog of human Factor VIIa, a vitamin K-dependent coagulation factor. Factor VIIa activates Factor X to Factor Xa, directly bypassing the reactions that require Factor VIII or Factor IX.
    - Sevenfact contains an active ingredient expressed in genetically engineered rabbits.
- The efficacy of Sevenfact was established in a study of 27 patients with hemophilia A or B with inhibitors, which included treatment of 465 mild or moderate, and three severe bleeding episodes. Patients with mild to moderate bleeds received 75 mcg/kg followed by subsequent doses of 75 mcg/kg every 3 hours as necessary to achieve hemostatic efficacy or 225 mcg/kg dose followed 9 hours later with 75 mcg/kg doses every 3 hours as necessary. The primary endpoint was successful treatment of mild or moderate bleeding episode at 12 hours after initial Sevenfact dose administration.
    - The proportion of mild or moderate bleeding events with hemostatic efficacy at 12 hours was 82% (95% CI: 72, 91) in the 75 mcg/kg dose regimen group and 91% (95% CI: 84, 98) in the 225 mcg/kg dose regimen group.
    - The median and mean (standard deviation [SD]) numbers of administrations per mild or moderate bleeding episode were 2.0 and 2.5 (1.75) for the 75 mcg/kg dose regimen and 1.0 and 1.4 (0.96) for the 225 mcg/kg dose regimen.
    - The study also included three severe bleeding episodes that were treated successfully with the higher dose.
- Sevenfact carries a boxed warning for thrombosis.
- Sevenfact is contraindicated in patients with known allergy to rabbits or rabbit proteins and patients with severe hypersensitivity reaction to Sevenfact or any of its components.
- Additional warnings and precautions for Sevenfact include hypersensitivity reactions, neutralizing antibodies, and laboratory tests.
- The most common adverse reactions (≥ 1%) with Sevenfact use were headache, dizziness, infusion-site discomfort, infusion-site hematoma, infusion-related reaction and fever.

Continued . . .

- The recommended intravenous dose and duration of treatment for Sevenfact depend on the location and severity of the bleeding, need for urgent hemostasis, frequency of administration, and known patient responsiveness to FVIIa-containing bypassing agents during prior bleeding events.

    — For mild or moderate bleeds, the recommended regimen is either: (1) 75 mcg/kg repeated every 3 hours until hemostasis is achieved or (2) an initial dose of 225 mcg/kg; if hemostasis is not achieved within 9 hours, additional 75 mcg/kg doses may be administered every 3 hours as needed to achieve hemostasis.
    — For severe bleeds, the recommended regimen is 225 mcg/kg, followed if necessary 6 hours later with 75 mcg/kg every 2 hours.

- LFB S.A's launch plans for Sevenfact are pending. Sevenfact will be available as a lyophilized powder in single-use vials containing 1 or 5 mg of coagulation factor VIIa (recombinant)-jncw.