Cimduo™ (lamivudine/tenofovir disoproxil fumarate) – New drug approval

- On March 2, 2018, Mylan announced the FDA approval of Cimduo (lamivudine/tenofovir disoproxil fumarate), to be used in combination with other antiretroviral agents for the treatment of human immunodeficiency virus type 1 (HIV-1) infection in adult and pediatric patients weighing at least 35 kg.

- Lamivudine (3TC) and tenofovir disoproxil fumarate (TDF) are both nucleo(t)side reverse transcriptase inhibitors, and are available as individual products approved for the treatment of HIV-1 infection in combination with other anti-retroviral agents.

- The approval of Cimduo was based on data from a double-blind, active-controlled multicenter clinical trial comparing efavirenz [EFV] 600 mg + 3TC 300 mg + TDF 300 mg vs. EFV 600 mg + 3TC 300 mg + stavudine (d4T) 40 mg in 600 antiretroviral-naïve adult patients with HIV-1 infection.

    — Seventy-nine percent of patients were responders (HIV-1 RNA < 400 copies/mL) in the EFV/3TC/TDF group vs. 82% in the EFV/3TC/d4T group at week 48, and 68% of patients were responders in the EFV/3TC/TDF group vs. 62% in the EFV/3TC/d4T group at week 144.
    — Through 144 weeks of therapy, 62% and 58% of patients in the TDF and d4T groups, respectively, achieved and maintained confirmed HIV-1 RNA < 50 copies/mL.

- Cimduo carries a boxed warning for post-treatment acute exacerbations of hepatitis B.

- Other warnings and precautions include lactic acidosis and severe hepatomegaly with steatosis, new onset or worsening renal impairment, risk of hepatic decompensation when used with interferon- and ribavirin-based regimens, pancreatitis, bone effects, immune reconstitution syndrome, fat redistribution, and early virologic failure.

- The most common adverse reactions (> 10%) with Cimduo use were headache, pain, depression, diarrhea, and rash.

- The recommended dose of Cimduo is one tablet taken orally once daily with or without food.

    — Prior to initiation of Cimduo, patients should be tested for hepatitis B virus infection.
    — Serum creatinine, serum phosphorous, estimated creatinine clearance (CrCL), urine glucose, and urine protein should be assessed before initiating Cimduo and during therapy in all patients as clinically appropriate.
    — Use is not recommended in patients with CrCL less than 50 mL/min or patients with end-stage renal disease requiring hemodialysis.

- Mylan plans to launch Cimduo in the second quarter of 2018. Cimduo will be available in a fixed-dose combination tablet containing 300 mg 3TC and 300 mg TDF (equivalent to 245 mg of tenofovir disoproxil).