Zeposia® (ozanimod) – New drug approval

- On March 26, 2020, Bristol-Myers Squibb announced the FDA approval of Zeposia (ozanimod), for the treatment of relapsing forms of multiple sclerosis (MS), to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults.

- MS is a disease in which the immune system attacks the protective myelin sheath that covers the nerves. These damaged lesions make it harder for signals to travel between nerve cells, which can lead to symptoms and relapses.

- Zeposia is the only approved sphingosine 1-phosphate receptor modulator that allows initiation without requiring genetic testing or a first-dose observation.

- The efficacy of Zeposia was established in two randomized, double-blind, active comparator-controlled studies in patients with relapsing forms of MS. In both studies, patients were randomized to receive either Zeposia or Avonex® (interferon beta-1a). The primary endpoint of both study 1 and study 2 was the annualized relapse rate (ARR) over the treatment period (study 1; N = 895) and 24 months (study 2; N = 874).

    - In study 1, the ARR was 0.181 and 0.350 for the Zeposia and Avonex groups, respectively (relative reduction: 48%; $p < 0.0001$).
    - In study 2, the ARR was 0.172 and 0.276 for the Zeposia and Avonex groups, respectively (relative reduction: 38%; $p < 0.0001$).
    - There was no statistically significant difference in confirmed disability progression between Zeposia and Avonex patients over 2 years.

- Zeposia is contraindicated in patients who:

    - In the last 6 months, have experienced a myocardial infarction, unstable angina, stroke, transient ischemic attack, decompensated heart failure requiring hospitalization, or Class II or IV heart failure
    - Have the presence of Mobitz type II second-degree or third-degree atrioventricular block, sick sinus syndrome, or sinoatrial block, unless the patient has a functioning pacemaker
    - Have severe untreated sleep apnea
    - Are taking a monoamine oxidase inhibitor

- Warnings and precautions for Zeposia include infections, bradyarrhythmia and atrioventricular conduction delays, liver injury, fetal risk, increased blood pressure, respiratory effects, macular edema, posterior reversible encephalopathy syndrome, unintended additive immunosuppressive effects from prior treatment with immunosuppressive or immune-modulating drugs, severe increase in disability after stopping Zeposia, and immune system effects after stopping Zeposia.

- The most common adverse reactions (≥ 4%) with Zeposia use were upper respiratory infection, hepatic transaminase elevation, orthostatic hypotension, urinary tract infection, back pain, and hypertension.

- The starting dosage for Zeposia is 0.23 mg once daily orally for days 1 to 4 and 0.46 mg once daily orally for days 5 to 7. After the initiation phase, the dosage should be increased to the maintenance dosage of 0.92 mg once daily orally.

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- Bristol Myers Squibb launch plans for Zeposia are pending due to the ongoing effect of the COVID-19 pandemic. Zeposia will be available as 0.23 mg, 0.46 mg, and 0.92 mg capsules.