Repatha® (evolocumab) – New and expanded indications

- On December 1, 2017, Amgen announced the FDA approval of Repatha (evolocumab) to reduce the risk of myocardial infarction (MI), stroke, and coronary revascularization in adults with established cardiovascular disease (CVD).

- Furthermore, Repatha's indication for primary hyperlipidemia, which includes heterozygous familial hypercholesterolemia (HeFH), was updated to state that it can be used as an adjunct to diet, alone or in combination with other lipid-lowering therapies (eg, statins, ezetimibe), for the treatment of adults with primary hyperlipidemia to reduce low-density lipoprotein cholesterol (LDL-C).

    - Previously, Repatha was approved for use as an adjunct to diet and maximally tolerated statin therapy for the treatment of adults with HeFH or clinical atherosclerotic CVD, who require additional lowering of LDL-C.
    - Repatha is also indicated as an adjunct to diet and other LDL-lowering therapies (eg, statins, ezetimibe, LDL apheresis) for the treatment of patients with homozygous familial hypercholesterolemia (HoFH) who require additional lowering of LDL-C.

- Repatha's new indication is based on data from the FOURIER CV outcomes study. FOURIER was a clinical study of 27,564 patients with atherosclerotic CVD and LDL-C levels ≥ 70 mg/dL who were receiving statin therapy. Patients received Repatha or placebo as subcutaneous injections. The primary efficacy end point was the composite of CV death, MI, stroke, hospitalization for unstable angina, or coronary revascularization. The key secondary efficacy end point was the composite of CV death, MI, or stroke. The median duration of follow-up was 2.2 years.

    - Relative to placebo, Repatha significantly reduced the risk of the primary end point (9.8% vs. 11.3%; HR = 0.85 [95% CI: 0.79, 0.92]; $p < 0.001$) and the key secondary end point (5.9% vs. 7.4%; HR = 0.80 [95% CI: 0.73, 0.88]; $p < 0.001$).
    - The magnitude of the risk reduction for the primary end point tended to increase over time, from 12% (95% CI: 3, 20) in the first year to 19% (95% CI: 11, 27) beyond the first year. The risk reduction for the secondary end point increased from 16% (95% CI: 4, 26) in the first year to 25% (95% CI: 15, 34) beyond the first year.
    - In terms of individual outcomes, Repatha had no observed effect on CV mortality, hospitalization for unstable angina, CV death or hospitalization for worsening heart failure, or death from any cause.

- Repatha's expanded indication for primary hyperlipidemia (including HeFH) was based on several clinical studies evaluating Repatha as an adjunct to diet, alone or in combination with other lipid-lowering therapies (eg, statins, ezetimibe). In the clinical studies, the Repatha treatment groups demonstrated statistically significant reductions in LDL-C vs. the comparator groups.

- The recommended dosage of Repatha in adults with established CV disease or primary hyperlipidemia (including HeFH) is either 140 mg subcutaneously (SC) every 2 weeks or 420 mg SC once monthly, based on patient preference for dosing frequency and injection volume.

- The recommended dosage of Repatha in HoFH is 420 mg SC once monthly.