Vizimpro® (dacomitinib) – New orphan drug approval

- On September 27, 2018, Pfizer announced the FDA approval of Vizimpro (dacomitinib) for the first-line treatment of patients with metastatic non-small cell lung cancer (NSCLC) with epidermal growth factor receptor (EGFR) exon 19 deletion or exon 21 L858R substitution mutations as detected by an FDA-approved test.

- Lung cancer is the leading cause of cancer death worldwide. NSCLC accounts for about 85% of lung cancer cases and remains difficult to treat, particularly in the metastatic setting. Approximately 75% of NSCLC patients are diagnosed late with metastatic or advanced disease where the five-year survival rate is only 5%.

- Dacomitinib is an irreversible inhibitor of the kinase activity of the human EGFR family (EGFR/HER1, HER2, and HER4) and certain EGFR activating mutations.

- The efficacy and safety of Vizimpro were demonstrated in an open-label clinical study of 452 patients with unresectable, metastatic NSCLC. Patients were randomized to Vizimpro or Iressa® (gefitinib) until disease progression or unacceptable toxicity. The primary efficacy outcome measure was progression-free survival (PFS). Other measures included overall response rate (ORR) and duration of response (DoR).

    — The Vizimpro group demonstrated a significantly greater PFS vs. the Iressa group (Hazard ratio = 0.59, 95% CI: 0.47, 0.74; $p < 0.0001$). The median PFS was 14.7 months (95% CI: 11.1, 16.6) with Vizimpro vs. 9.2 months (95% CI: 9.1, 11.0) with Iressa.
    — The ORR was 75% (95% CI: 69, 80) with Vizimpro vs. 72% (95% CI: 65, 77) with Iressa ($p = 0.39$).
    — The median DoR was greater with Vizimpro vs. Iressa [14.8 months (95% CI: 12.0, 17.4) vs. 8.3 months (95 % CI: 7.4, 9.2), respectively].
    — An overall survival analysis was not conducted since the comparison of ORR was not statistically significant.

- Warnings and precautions of Vizimpro include interstitial lung disease, diarrhea, dermatologic adverse reactions, and embryo-fetal toxicity.

- The most common adverse reactions (> 20%) with Vizimpro use were diarrhea, rash, paronychia, stomatitis, decreased appetite, dry skin, decreased weight, alopecia, cough, and pruritus.

- The recommended dosage of Vizimpro is 45 mg taken orally once daily, until disease progression or unacceptable toxicity occurs.

    — Refer to the Vizimpro drug label for dose reduction and modification recommendations for adverse reactions.

- Pfizer's launch date for Vizimpro is pending. Vizimpro will be available as 15 mg, 30 mg, and 45 mg tablets.