Prevymis™ (letermovir) – New orphan drug approval

- On November 9, 2017, Merck announced the FDA approval of Prevymis (letermovir), for the prophylaxis of cytomegalovirus (CMV) infection and disease in adult CMV-seropositive recipients [R+] of an allogeneic hematopoietic stem cell transplant (HSCT).

- There are approximately 8,500 allogeneic HSCTs per year in the U.S. An estimated 65 – 80% of recipients have been previously exposed to CMV and are at high risk for CMV infection. CMV disease can lead to end-organ damage, including gastrointestinal tract disease, pneumonia or retinitis. Transplant recipients who develop CMV infection post-transplant are at increased risk for transplant failure and death.

- Prevymis is a member of a new class of non-nucleoside CMV inhibitors (3,4 dihydro-quinazolines) and inhibits viral replication by specifically targeting the viral terminase complex.

- The efficacy of Prevymis has been demonstrated in a placebo-controlled study of 495 adults who were R+ of an allogeneic HSCT. The primary efficacy endpoint was the incidence of clinically significant CMV infection through week 24 post-transplant (prophylaxis failure).

    — Significantly fewer patients in the Prevymis group vs. the placebo group developed clinically significant CMV infection, discontinued treatment, or had missing data through week 24 post-HSCT (38% vs. 61%, respectively; treatment difference: -23.5 [95% CI: - 32.5, -14.6], $p < 0.0001$).

- Prevymis is contraindicated in patients taking pimozide or ergot alkaloids, and in patients taking Livalo® (pitavastatin) and simvastatin when co-administered with cyclosporine.

- Warnings and precautions of Prevymis include risk of adverse reactions or reduced therapeutic effect due to drug interactions.

- The most common adverse reactions (occurring in ≥ 10% of subjects and at a frequency ≥ 2% than placebo) with Prevymis use were nausea, diarrhea, vomiting, peripheral edema, cough, headache, fatigue, and abdominal pain.

- The recommended dose of Prevymis is 480 mg administered orally or intravenously once daily.

    — Prevymis should be initiated between day 0 and day 28 post-transplantation (before or after engraftment), and continued through day 100 post-transplantation.
    — Prevymis injection should be used only in patients unable to take oral therapy. Patients using the injection should be switched to oral Prevymis as soon as they are able to take oral medications.
    — Prevymis tablet and injection may be used interchangeably at the discretion of the physician, and no dosage adjustment is necessary when switching formulations.

- The wholesale acquisition cost per day for Prevymis tablets is $195.00 and for Prevymis injection is $270.00.

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- Merck plans to launch Prevymis in December of 2017. Prevymis will be available as 240 mg and 480 mg tablets, and as 240 mg/12 mL and 480 mg/24 mL injectable solutions.