HEM/ONC News

By Devon Schuyler

Ixazomib Approved for Use in Myeloma

The US Food and Drug Administration (FDA) approved ixazomib (Ninlaro, Takeda/Millennium) on November 20 for use in patients with multiple myeloma who have received at least 1 prior treatment. Ixazomib, which is the first oral proteasome inhibitor, is approved for use in combination with lenalidomide (Revlimid, Celgene) and dexamethasone.

Approval of ixazomib was based on the results of an international, double-blind clinical trial of 722 patients with relapsed or refractory multiple myeloma. Patients were randomly assigned to receive lenalidomide/dexamethasone plus either placebo or ixazomib. Median progression-free survival was significantly longer in the ixazomib group (20.6 months) than in the placebo group (14.7 months).

The most common side effects of ixazomib are diarrhea, constipation, thrombocytopenia, peripheral neuropathy, nausea, peripheral edema, vomiting, and back pain.

Ixazomib received priority review and orphan drug status from the FDA.

FDA Approves Daratumumab for Myeloma

The FDA approved daratumumab (Darzalex, Janssen) on November 16 for use in patients with multiple myeloma who have received at least 3 prior treatments. Daratumumab is the first monoclonal antibody approved to treat multiple myeloma.

Approval of daratumumab was based on 2 open-label studies. In the first study, in which 106 patients received daratumumab, 29% of participants experienced a complete or partial response to treatment; responses lasted an average of 7.4 months. In the second study, in which 42 patients received daratumumab, 36% of participants experienced a complete or partial response to treatment.

The most common side effects of daratumumab in these studies were infusion-related reactions, fatigue, nausea, back pain, fever, and cough. Daratumumab also may cause lymphopenia, neutropenia, leukopenia, anemia, and thrombocytopenia.

If a patient taking daratumumab requires a blood transfusion, the blood bank should be informed that the patient is taking a drug that may interfere with antibody screening and other tests.

FDA Approves Elotuzumab for Myeloma

The FDA approved elotuzumab (Empliciti, Bristol-Myers Squibb) on November 30 for the treatment of patients with multiple myeloma who have received 1 to 3 prior medications. The agent is for use in combination with lenalidomide and dexamethasone.

Approval of elotuzumab was based on an open-label trial of 646 patients with relapsed or refractory multiple myeloma. Patients were randomly assigned to receive lenalidomide/dexamethasone either with or without elotuzumab. Median progression-free survival was significantly longer in the group taking elotuzumab (19.4 months) than in the group not taking elotuzumab (14.9 months). In addition, the rate of complete or partial response was 78.5% with elotuzumab and 65.5% without elotuzumab.

The most common side effects of elotuzumab are fatigue, diarrhea, pyrexia, constipation, cough, peripheral neuropathy, nasopharyngitis, upper respiratory tract infection, decreased appetite, and pneumonia.

Elotuzumab received breakthrough therapy, priority review, and orphan drug designations from the FDA.

Necitumumab Approved for Metastatic Squamous Cell NSCLC

The FDA approved necitumumab (Portrazza, Lilly) on November 24 to treat patients with metastatic squamous cell non–small cell lung cancer (NSCLC) who have not received medication for advanced lung cancer. Necitumumab, a monoclonal antibody that blocks the activity of epidermal growth factor receptor, is approved for use in combination with 2 forms of chemotherapy.

Approval of necitumumab was based on a multicenter, open-label clinical study of 1093 people with metastatic squamous cell NSCLC. Patients were randomly assigned to receive gemcitabine and cisplatin either with or without necitumumab. Median overall survival was significantly longer in patients taking necitumumab (11.5 months) than in those not taking necitumumab (9.9 months).

In a different trial, which used cisplatin/pemetrexed (Alimta, Lilly), adding necitumumab did not improve overall survival in patients with nonsquamous cell NSCLC.

The most common side effects of necitumumab are skin rash and hypomagnesemia, which can lead to muscle weakness, seizures, irregular heartbeat, and death. A black box warning alerts health care providers to the possibility of cardiac arrest, sudden death, and hypomagnesemia.

FDA Approves Cooling Cap to Reduce Hair Loss From Chemotherapy

The FDA has cleared for marketing a scalp-cooling system to reduce chemotherapy-induced hair loss in women with breast cancer. The cooling system (DigniCap, Dignitana), which was cleared on December 8, is the first product of its type to receive approval.

The computer-controlled system works by circulating cooled liquid throughout a silicone cap that the patient wears during chemotherapy. The silicone cap is covered by a second cap, made of neoprene, that holds the cooling cap in place and provides insulation. The device is designed to cause vasoconstriction in the scalp, limiting the amount of chemotherapy drug that reaches cells in the hair follicles. It also may reduce the effect of chemotherapy on the hair follicles by slowing cell division.

Approval of the system was based on a study of 122 women with stage I or II breast cancer who were undergoing treatment of breast cancer with chemotherapy regimens that have been associated with hair loss, such as those containing paclitaxel or docetaxel. Women were asked to evaluate their own hair loss based on photographs taken 3 to 6 months after the final chemotherapy cycle. More than 66% of the patients who used the cooling system reported losing less than half their hair.

The most common side effects of the cooling system were headaches, neck and shoulder discomfort, chills, and pain associated with wearing the system for an extended period. There is a theoretical risk of the chemotherapy drug missing an isolated group of breast cancer cells in the scalp because of cooling cap use.

The device was evaluated through the de novo classification process.

Nivolumab Approved for Advanced Renal Cell Carcinoma

Nivolumab (Opdivo, Bristol-Myers Squibb) received an expanded indication on November 23 to treat advanced renal cell carcinoma in patients who have received prior antiangiogenic therapy. Nivolumab, an inhibitor of the programmed death 1/programmed death ligand 1 checkpoint, previously was approved for use in melanoma and NSCLC.

Approval was based on an open-label study of 821 patients with advanced renal cell carcinoma whose disease was refractory to treatment with an antiangiogenic agent. Patients were randomly assigned to receive nivolumab or everolimus (Afinitor, Novartis). Median overall survival was significantly longer for patients taking nivolumab (25 months) than for those taking everolimus (19.6 months). The complete or partial response rate also was higher among patients taking nivolumab (21.5%) than among those taking everolimus (3.9%).

The most common side effects of nivolumab in advanced renal cell carcinoma are asthenic conditions, cough, nausea, rash, dyspnea, diarrhea, constipation, decreased appetite, back pain, and arthralgia. Nivolumab also may cause severe immune-mediated side effects.

Nivolumab received FDA breakthrough therapy designation, fast track designation, and priority review status.

FDA Approves von Willebrand Factor to Treat Episodes of Bleeding

The FDA approved recombinant von Willebrand factor (Vonvendi, Baxalta) on December 8 to treat episodes of bleeding in adults with von Willebrand disease. This is the first recombinant von Willebrand factor to receive FDA approval.

Approval was based on 2 clinical trials that included 69 adults with von Willebrand disease. The trials demonstrated the safety and efficacy of recombinant von Willebrand factor for on-demand treatment and control of bleeding episodes from a variety of sites in the body.

The most common adverse reaction in these trials was generalized pruritus. Other possible adverse effects include thromboembolic reactions, hypersensitivity reactions, and the formation of neutralizing antibodies (inhibitors) to von Willebrand factor and/or factor VIII.

The agent was approved by the FDA as an orphan product.