By Devon Schuyler

Rucaparib Approved for Maintenance Treatment in Recurrent Ovarian Cancer

On April 6, the US Food and Drug Administration (FDA) approved rucaparib (Rubraca, Clovis Oncology) for maintenance treatment in patients with recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who are in a complete or partial response to platinum-based chemotherapy. Rucaparib, a poly(ADP-ribose) polymerase (PARP) inhibitor, first received approval in December 2016 for the treatment of advanced *BRCA*-mutated ovarian cancer.

The new indication for rucaparib is based on the results of ARIEL3, a randomized, double-blind, placebo-controlled trial in 561 patients with recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who had received at least 2 prior regimens of platinum-based chemotherapy and were in a complete or partial response (NCT01968213). Patients were randomly assigned in a 2:1 ratio either to oral rucaparib at 600 mg twice daily or to placebo and were treated until disease progression or unacceptable toxicity.

The estimated median progression-free survival (PFS) was significantly longer in the rucaparib arm than in the placebo arm for all patients (10.8 vs 5.4 months; hazard ratio [HR], 0.36; 95% CI, 0.30-0.45; *P*<.0001), those in a homologous recombination deficiency subgroup (13.6 vs 5.4 months; HR, 0.32; 95% CI, 0.24-0.42; *P*<.0001), and those in a BRCA mutation subgroup (16.6 vs 5.4 months; HR, 0.23; 95% CI, 0.16-0.34; *P*<.0001).

The most common adverse reactions to rucaparib were nausea, fatigue (including asthenia), abdominal pain/distension, rash, dysgeusia, anemia, aspartate/alanine transaminase elevation, constipation, vomiting, diarrhea, thrombocytopenia, nasopharyngitis/upper respiratory infection, stomatitis, decreased appetite, and neutropenia. Myelodysplastic syndrome and/or acute myeloid leukemia occurred in 1.9% of patients treated with rucaparib and 0.5% of patients assigned to placebo. A total of 15% of patients receiving rucaparib and 2% of those assigned to placebo discontinued treatment owing to adverse reactions.

FDA Approves Nivolumab Plus Ipilimumab in Advanced Renal Cell Carcinoma

On April 16, the FDA approved the combination of nivolumab (Opdivo, Bristol-Myers Squibb) and ipilimumab (Yervoy, Bristol-Myers Squibb) for use in patients with intermediate- or poor-risk, previously untreated advanced renal cell carcinoma (RCC).

Approval was based on the results of CheckMate 214, a randomized, open-label trial in which patients with previously untreated advanced RCC received either of the following: (1) nivolumab at 3 mg/kg plus ipilimumab at 1 mg/kg every 3 weeks for 4 doses, followed by nivolumab alone at 3 mg/kg every 2 weeks, or (2) sunitinib (Sutent, Pfizer) at 50 mg daily for 4 weeks, followed by 2 weeks off (NCT02231749).

Among 847 patients with intermediate- or poor-risk disease, the estimated median overall survival (OS) and objective response rate were significantly better with the combination than with sunitinib: not estimable vs 25.9 months (HR, 0.63; 95% CI, 0.44-0.89; *P*<.0001) and 41.6% vs 26.5% (*P*<.0001), respectively.

The most common adverse reactions were fatigue, rash, diarrhea, musculoskeletal pain, pruritus, nausea, cough, pyrexia, arthralgia, and decreased appetite.

Addition of Pembrolizumab to Chemotherapy Improves Survival in Metastatic Non–Small Cell Lung Cancer

The addition of pembrolizumab (Keytruda, Merck) to chemotherapy improves survival in patients with previously untreated metastatic non–small cell lung cancer (NSCLC) who do not have mutations in *EGFR* or *ALK*, according to a new study. Survival was improved with the addition of pembrolizumab even in patients who had a programmed death ligand 1 (PD-L1) tumor proportion score of less than 1%.

For the phase 3 KEYNOTE-189 trial, which appeared in the April 16 online version of the *New England Journal of Medicine*, Gandhi and colleagues studied 616 patients with metastatic nonsquamous NSCLC and no sensitizing *EGFR* or *ALK* mutations who had not been treated for metastatic disease. Patients were randomly assigned in a 2:1 ratio to either 200 mg of pembrolizumab or placebo every 3 weeks for up to 45 cycles, in addition to pemetrexed (Alimta, Lilly) and a platinum-based drug for the first 4 of these cycles.

After a median follow-up of 10.5 months, the estimated 12-month OS rate was higher in the pembrolizumab group than in the placebo group, at 69.2% vs 49.4% (HR for death, 0.49; 95% CI, 0.38-0.64; *P*<.001). The survival benefit with pembrolizumab occurred "across all categories of PD-L1 expression," wrote the authors. The median PFS also was longer in the pembrolizumab group than in the placebo group, at 8.8 vs 4.9 months (HR for disease progression or death, 0.52; 95% CI, 0.43-0.64; *P*<.001). The rate of grade 3 or higher adverse events was 67.2% in the pembrolizumab group and 65.8% in the placebo group.