On behalf of Spectrum Pharmaceuticals Inc., I respectfully request the NCCN Guideline Panel for Non-Hodgkin’s Lymphomas (NHL) review the enclosed data in consideration of incorporating ibritumomab tiuxetan (ZEVALIN®) into the current treatment guidelines for diffuse large B-cell lymphoma (DLBCL).

Specific Changes: Request to include ibritumomab tiuxetan as an option for first-line consolidation in the treatment of DLBCL.

FDA Clearance: Ibritumomab tiuxetan (ZEVALIN®) is a CD20-directed radiotherapeutic antibody administered as part of the Zevalin therapeutic regimen indicated for the treatment of patients with relapsed or refractory, low-grade or follicular B-cell NHL, and previously untreated follicular NHL who achieve a partial or complete response to first-line chemotherapy. The therapeutic regimen includes rituximab and Yttrium-90 (Y-90) ZEVALIN®.

Rationale: The only current treatment option listed for first-line consolidation of DLBCL is CHOP±R followed by autotransplant which is not a feasible option for all patients. Ibritumomab tiuxetan is already indicated for use in certain sub-types of NHL including as consolidation therapy following response to front-line treatment for follicular lymphoma and has further demonstrated efficacy and tolerability in multiple formal studies as first-line consolidation following CHOP-based chemotherapy in DLBCL.1–7

The following articles are submitted in support of this proposed change:

   • A prospective, multicenter pilot trial was conducted to evaluate ibritumomab tiuxetan consolidation therapy following 6 cycles of R-CHOP chemotherapy in patients with limited-stage, bulky DLBCL (N=21). Overall response rate (ORR) following consolidation treatment was 80.9% with 28.8 month median follow-up. Three year overall and progression-free survival (PFS) rates were 85.0±8% and 75.0±9.7%, respectively. Grade ≥3 adverse events were mainly hematologic toxicities, such as thrombocytopenia (35%) and neutropenia (60%).

   • In a single-arm, non-randomized phase 2 trial, 55 high-risk elderly patients with previously untreated DLBCL were treated with 4 cycles of R-CHOP chemotherapy followed by ibritumomab tiuxetan consolidation. ORR to the entire treatment regimen was 80% (73% CR + 7% PR). With a median follow-up of 18 months, 2-year PFS was estimated to be 85% with an overall survival (OS) of 86%. Adverse events following ibritumomab tiuxetan administration were primarily hematologic and transient; no patient discontinued treatment because of an adverse event. Grade ≥3 thrombocytopenia and neutropenia occurred in 19 patients (39.5%) and 23 patients (48%), respectively.
   - A single-arm phase 2 trial was conducted to evaluate CHOP chemotherapy followed by consolidation with ibritumomab tiuxetan in elderly patients with previously untreated DLBCL (N=20). ORR for the entire treatment regimen was 100% (95% CR + 5% PR). With a median follow-up of 15 months, 2-year PFS was estimated to be 75% with an OS of 95%. Adverse events included grade ≥3 hematologic toxicity in 12/20 patients; the most common grade ≥3 toxic effects were neutropenia (n=12) & thrombocytopenia (n=7).

   - In a phase 2, open-label study, investigators evaluated the safety and efficacy of R-CHOP followed by consolidation with the ZEVALYN therapeutic regimen as first-line treatment of elderly patients with DLBCL (N=65). For the 44 patients treated with Ibrutinixomab tiuxetan consolidation, ORR was 88% and CR/CRu was 86% with 7 patients (16%) upgrading response post RIT. With a median follow-up of 42 months, Median OS and PFS were not reached. Authors conclude efficacy and tolerability results were favorable compared to historic controls.

   - A phase 2 clinical trial was conducted to evaluate induction with R-CHOP-14 followed by ibritumomab tiuxetan consolidation in patients with previously untreated DLBCL (N=20). Following ibritumomab tiuxetan consolidation, 3 patients converted from PR to CR, maintaining an ORR of 100% (n=20) with an improved CR of 90% and a PR of 10%. At a median follow-up of 42.4 months, median PFS and OS were not reached. The most common grade ≥3 toxicity observed was neutropenia in 8 patients.

   - In an international, open-label, phase 2 study, patients with DLBCL received 3 cycles of R-CHOP-14 and, in cases of complete response, ibritumomab tiuxetan (N=30). Following ibritumomab tiuxetan consolidation and a median follow-up time of 29.5 months, the estimated 3-year PFS was 90% and the estimated 3-year OS was 100%. Among patients treated with ibritumomab tiuxetan, only 3 relapses were recorded. The authors concluded this regimen was a safe and effective treatment option.

   - A phase 2 trial was conducted to evaluate response to R-CHOP followed by ibritumomab tiuxetan in patients with early stage DLBCL (N=62). Of 48 patients who received radioimmuno-therapy, 87% were in CR/CRu and 89% were in functional CR. At 4 years, 88% of patients remained progression free and 98% remained alive.

Sincerely,

Dennis Kim, MD, MPH