Abstract: P1159

Title: ZUMA-24 PRELIMINARY ANALYSIS: A PHASE 2 STUDY OF AXICABTAGENE CILOLEUCEL IN THE OUTPATIENT SETTING WITH PROPHYLACTIC CORTICOSTEROIDS IN PATIENTS WITH RELAPSED/REFRACTORY LARGE B-CELL LYMPHOMA

Abstract Type: Poster Presentation

Topic: Aggressive Non-Hodgkin lymphoma - Clinical

Background:

Axicabtagene ciloleucel (axi-cel) is an autologous CAR T-cell therapy approved for adults with relapsed/refractory large B-cell lymphoma (R/R LBCL). In ZUMA-1 Cohort 6, prophylactic corticosteroids and early corticosteroids and/or tocilizumab use post–axi-cel in the inpatient setting was associated with no Grade (Gr) ≥3 cytokine release syndrome (CRS), 18% Gr ≥3 neurologic events (NEs), delayed median onset of CRS, and durable responses with ≥2 years median follow-up (Oluwole et al. *BMT.* 2024).

Aims:

To evaluate the safety and efficacy of axi-cel with prophylactic corticosteroid use in patients (pts) with R/R LBCL after ≥1 prior line of therapy in the outpatient setting (ZUMA-24; NCT05459571).

Methods:

Eligible pts had histologically confirmed R/R LBCL and received prior anti-CD20 mAb and anthracycline-containing regimen. Pts underwent leukapheresis, optional bridging therapy, lymphodepleting chemotherapy, and a single axi-cel infusion (2×106 CAR T cells/kg) on Day 0. Prior to axi-cel and post-infusion on Days 1 and 2, pts received prophylactic oral dexamethasone (10 mg). Daily monitoring for adverse events (AEs) and serious AEs (SAEs) at a healthcare facility occurred for ≥7 days after axi-cel per institutional outpatient monitoring programs. The primary endpoint was incidence and severity of CRS and NEs. Secondary endpoints included time to onset and duration of CRS and NEs, rate and duration of hospitalization after axi-cel due to AEs/SAEs, objective response rate (ORR), complete response (CR) rate, and blood CAR T-cell levels.

Results:

As of November 2, 2023, 23 pts were enrolled and 20 received axi-cel. Median age was 59 years (range, 24-76); 70% of pts were male, 25% had ECOG 1, and 48% received bridging therapy, including chemotherapy. Most pts (90%) had 1 prior line of chemotherapy. At baseline, median LDH level was 196 U/L and median tumor burden (sum of product diameters) was 2348 mm2. Median follow-up was 5 months (range, 1-13). Any-grade CRS and NEs occurred in 85% and 75% of pts, respectively; 5% and 25% of pts experienced Gr ≥3 CRS and NEs. Median time to CRS and NE onset was 4 days (95% CI, 3-4) and 7.5 days (95% CI, 6-38), respectively. Median CRS duration was 5 days (95% CI, 3-7) and median NE duration was 8 days (95% CI, 3-32). Any-grade AEs occurred in all pts; 80% of pts experienced SAEs. Overall, 90% of pts were hospitalized at any time post axi-cel infusion (**Figure**). Median time to first hospitalization was 4 days (range, 2-9) and median duration of first hospitalization was 8 days (range, 2-44). Of 2 pts admitted to the intensive care unit (ICU), 1 had Gr 3 arrhythmia (Day 1 after axi-cel, 2-day stay) and large intestine perforation (Day 9 after axi-cel, 8-day stay) and 1 had Gr 3 CRS (Day 2 after axi-cel, 7-day stay). There were no Gr 5 AEs.

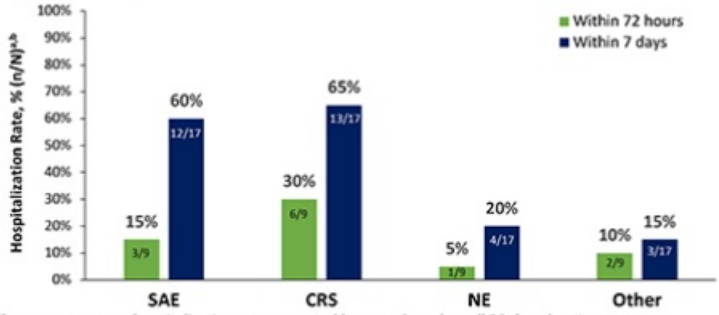
ORR was 90% (95% CI, 68.3-98.8), with a CR rate of 70% (95% CI, 45.7-88.1). Median peak and area under the curve of CAR T-cell expansion were 44.74 cells/μL and 298.78 cells/μL×days, respectively.

Summary/Conclusion:

Outpatient administration of axi-cel with prophylactic corticosteroids and early management strategies was associated with a relatively low rate of severe CRS and NEs, comparable to prior assessments of axi-cel in

ZUMA-1 Cohort 6 and real-world studies (Jacobson et al. *TCT.* 2024). Responses and CAR T-cell expansion were also similar to prior studies. Safety was also consistent, with shorter duration of first hospitalization and lower rates of ICU admission vs prior axi-cel clinical trials, suggesting that outpatient administration of axi-cel may be safe and feasible. Outcomes in 30 pts are planned to be presented.

Figure. Reasons for Hospitalization for 20 Dosed Patients After Axi-Cel Infusion in the Outpatient Setting.



[a] The percentages on hospitalization rates reported here are based on all 20 dosed patients.
[b] The n/N below the percentages reflect the number of patients hospitalized due to an SAE, CRS, NE, or other reason over the total number of patients hospitalized within that timeframe (72 hours or 7 days).
Axi-cel, axicabtagene ciloleucel; CRS, cytokine release syndrome; NE, neurologic event; SAE, serious adverse event.

Keywords: relapsed/refractory, Corticosteroids, CAR-T, DLBCL