Abstract: PB2811

Title: COMPARATIVE EFFICACY OF TECLISTAMAB VERSUS POMALIDOMIDE PLUS DEXAMETHASONE FOR PATIENTS WITH TRIPLE-CLASS EXPOSED RELAPSED REFRACTORY MULTIPLE MYELOMA IN ENGLAND

Abstract Type: Publication Only

Topic: Myeloma and other monoclonal gammopathies - Clinical

Background:

Relapsed/refractory multiple myeloma (RRMM) is an incurable disease, marked by frequent relapses and the need for multiple treatment cycles. Triple-class exposed (TCE) patients, having progressed after being treated with the standard treatment classes including proteasome inhibitors (PIs), immunomodulatory drugs (IMiDs) and anti-CD38 monoclonal antibodies, face poor prognoses and limited treatment options in the UK. Urgent development of more efficacious therapies with novel mechanisms of action is essential to delay progression, extend survival, and improve quality of life for this patient population. Teclistamab, a first-in-class B-cell maturation antigen (BCMA) x CD3 bispecific antibody was evaluated in the MajesTEC-1 trial in patients with TCE RRMM who had received ≥3 lines of therapy (LOT). As MajesTEC-1 is a phase 1/2 single arm trial, an indirect treatment comparison (ITC) was required to assess the comparative efficacy of teclistamab versus pomalidomide plus dexamethasone (Pom+Dex), the most frequently used, routinely commissioned regimen in a real-world cohort of TCE RRMM patients in England.

Aims:

To assess the comparative efficacy of teclistamab versus Pom+Dex in a real-world cohort of TCE RRMM patients.

Methods:

Individual patient data from the single-arm MajesTEC-1 trial (n=165) (median follow-up of 30.4 months; data cutoff August 2023) were used to inform the teclistamab cohort whereas an external control arm for Pom+Dex was created using real-world data from the National Cancer Registration and Analysis Service (NCRAS) in England (n=645) (median follow up of 26.0 months; data cutoff March 2023). The Inverse Probability of Treatment Weighting (IPTW) method with Average Treatment effect in the Control (ATC) was used to adjust for imbalances in the available baseline covariates of prognostic significance: refractory status, the number prior lines of therapy received, the number of months since diagnosis, age and Eastern Cooperative Oncology Group (ECOG) performance status. Selection of covariates was informed by the availability of data collected in the NCRAS data set in conjunction with consultations with UK clinical experts. Time to next treatment (TTNT) as a proxy for progression free survival (PFS) and overall survival (OS) were assessed. A weighted Cox proportional hazards model was used to compute hazard ratios (HRs) and 95% Confidence Intervals (CIs). Several sensitivity analyses using alternative statistical approaches were conducted.

Results:

After IPTW, baseline characteristics were well balanced (most SMD values < 0.10 and all <0.15) between the two cohorts. Teclistamab significantly reduced the risk of progression or death versus Pom+Dex by 44% (HR: 0.56; 95% CI: 0.40-0.79; p<0.001) and extended median TTNT (proxy for PFS) by 5.36 months (12.39 versus 7.03 months; representing a 1.76-fold increase) (Figure 1A). This gain in TTNT translated to a significant improvement in OS, where teclistamab reduced the risk of death by 48% (HR of 0.52; 95% CI 0.36-0.74; p<0.001) and extended median OS by 12.43 months (22.21 versus 9.78 months; 2.27-fold increase) (Figure 1B). Results were consistent across all sensitivity analyses.

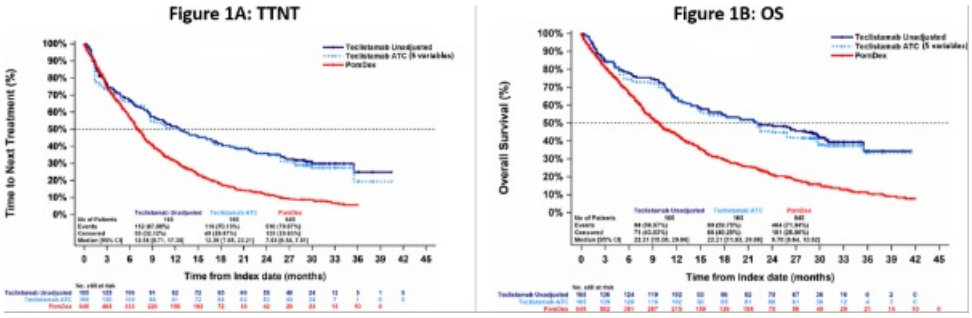

Figure 1: Pre- and post-weighting (ATC) Kaplan–Meier curves for TTNT (A) and OS (B): MajesTEC-1 vs Pom+Dex (NCRAS dataset)

Summary/Conclusion:

Teclistamab demonstrated statistically significant and clinically meaningful improvements in TTNT (as proxy for PFS) and OS versus Pom+Dex in TCE RRMM patients, representing a step-change in outcomes for this heavily pre-treated patient population.

Keywords: Clinical outcome, relapsed/refractory, Multiple myeloma, Bispecific