

# Ciltacabtagene Autoleucel (Cilta-cel) vs Standard of Care (SOC) in Patients (Pts) with Relapsed/Refractory Multiple Myeloma (MM): CARTITUDE-4 Survival Subgroup Analyses

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### Key Takeaway


Cilta-cel improved PFS and OS vs SOC across subgroups in CARTITUDE-4, including patients with standard- and high-risk cytogenetics, EMD, and 1 pLOT and beyond

### Conclusions

ITT analysis showed that cilta-cel improved PFS and OS vs SOC across subgroups, including patients with EMD and 1 pLOT and beyond

Compared with SOC, cilta-cel improved PFS and OS in patients with high-risk cytogenetics, suggesting it may overcome the poor prognosis associated with these high-risk features

These data continue to support a positive benefit-risk ratio for cilta-cel in patients with lenalidomide-refractory MM as early as after first relapse



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## Introduction

- In CARTITUDE-4 (NCT04181827), a single cilta-cel infusion significantly prolonged progression-free survival (PFS) and overall survival (OS) in patients with lenalidomide-refractory MM after 1–3 prior lines of therapy (pLOT)<sup>1</sup>
  - At median follow up of 33.6 months, PFS (hazard ratio [HR] weighted, 0.29 [95% CI, 0.22–0.39]) and OS (HR, 0.55 [0.39–0.79];  $P=0.0009$ ) were significantly improved vs SOC<sup>1</sup>
  - Overall minimal residual disease (MRD)-negative complete response (CR) or better rates (82.1% vs 25.2%) as well as sustained ( $\geq 12$  months) MRD-negative  $\geq$ CR (51.7% vs 9.7%) rates in evaluable patients were higher in the cilta-cel arm vs SOC<sup>2</sup>
- Here, we report PFS and OS from subgroups of patients with standard-/high-risk cytogenetics, with/without extramedullary disease (EMD), and with 1, 2, or 3 pLOT

## Results

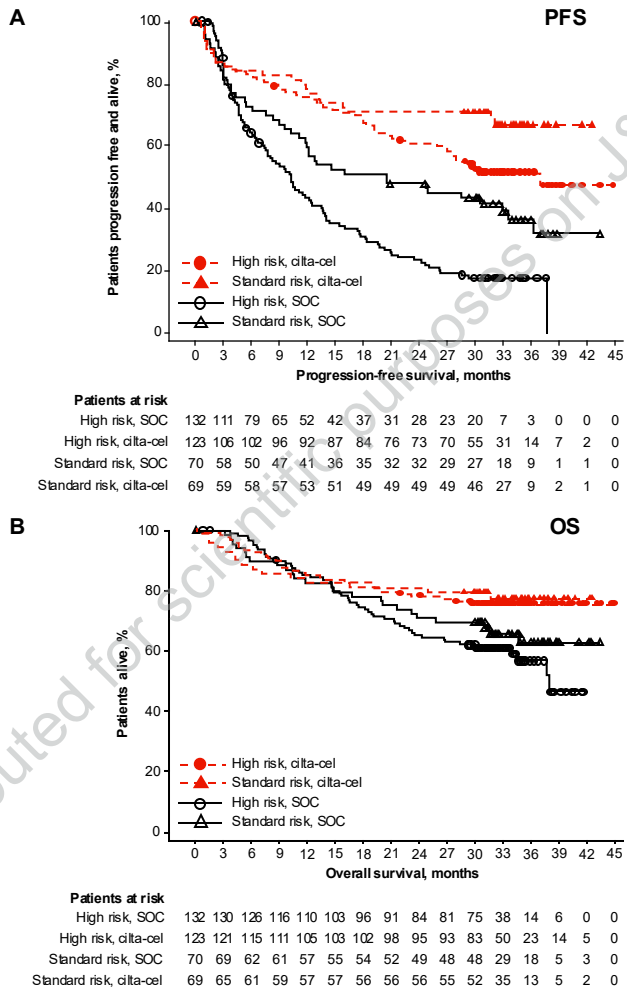
### Study population

- As of May 1, 2024, the median follow-up was 33.6 months (range, 0.1–45.0)

### Cilta-cel vs SOC by cytogenetic risk

- Cilta-cel consistently improved PFS and OS compared with SOC in patients with standard risk and high risk (Figures 2 and 3)
  - High-risk cytogenetics was defined as del(17p), t(4;14), t(14;16), or gain/amp(1q) by fluorescence in situ hybridization

Figure 2: Kaplan-Meier analysis of patients with standard-risk and high-risk cytogenetics



## Methods

### Treatment and data analysis

- CARTITUDE-4 study design has been described previously<sup>3</sup>
- Patients (n=208) randomized to the cilta-cel arm underwent apheresis, bridging treatment, lymphodepletion, and then a single cilta-cel infusion (n=176; Figure 1)
- Bridging treatment consisted of either:
  - Pomalidomide, bortezomib, and dexamethasone (PVd) or
  - Daratumumab, pomalidomide, and dexamethasone (DPd)

### Figure 1: Randomization and treatment

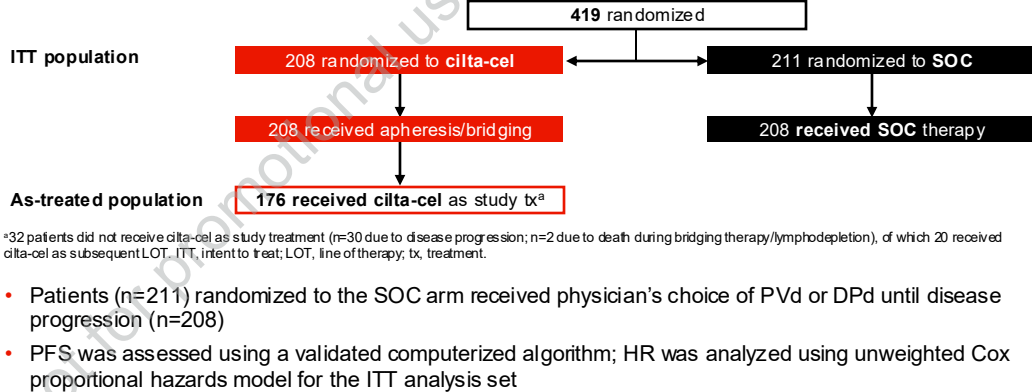
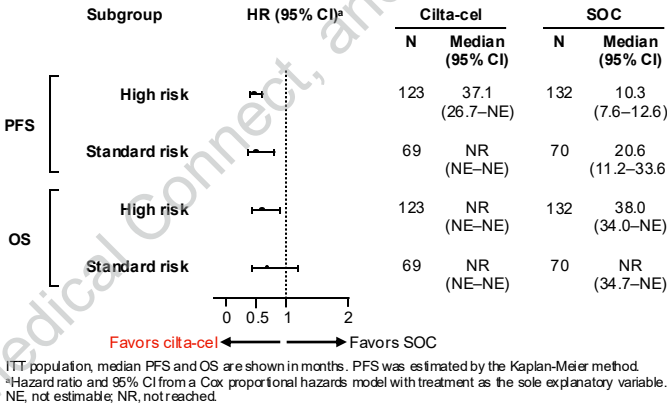
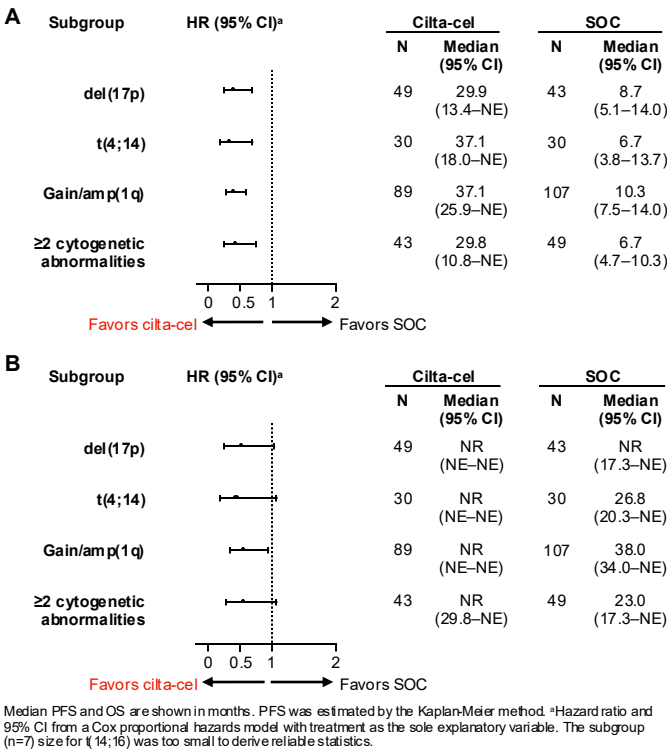


Figure 3: PFS and OS in patients with high-risk and standard-risk cytogenetics



- Cilta-cel improved PFS and OS compared with SOC in patients with del(17p), t(4;14), gain/amp(1q), and  $\geq 2$  cytogenetic abnormalities from the ITT population (Figure 4)

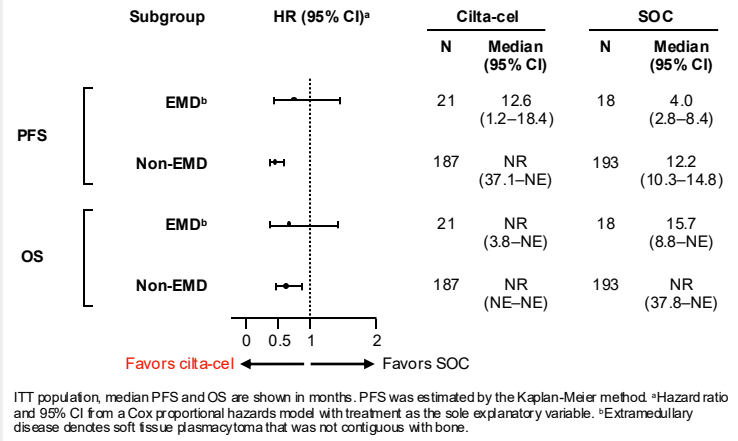
Figure 4: (A) PFS and (B) OS in cytogenetic high-risk MM



### Cilta-cel for patients with EMD

- Cilta-cel improved median PFS and OS compared with SOC in patients with EMD (Figure 5)
- Of 21 patients with EMD randomized to cilta-cel, 13 received cilta-cel as study treatment
  - In the as-treated population with EMD (N=13), median PFS (95% CI) was 18.4 (12.6–NE) and median OS (95% CI) was NR (NE–NE)

Figure 5: PFS and OS in patients with EMD and non-EMD



### Cilta-cel for patients with 1–3 pLOT

- Cilta-cel significantly improved PFS and OS compared with SOC in patients with MM in each subgroup of pLOT (Figure 6)

Figure 6: PFS and OS in patients with pLOT

