**Supplementary Tables**

**Supplementary Table 1:** Overview of Major Clinical Trials for CD19 CAR-T Cell Therapies in R/R DLBCL in patients after second line.

**Supplementary Table 2:** Overview of Major Clinical Trials for CD19 CAR-T Cell Therapies in R/R FL in patients after second line.

**Supplementary Table 3:** Overview of Major Clinical Trials for CD19 CAR-T Cell Therapies in R/R MCL in patients after second line.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author | Trial name | Trial phase | Line of therapy | Sample size  (Infused patients) | ORR | Median PFS | Median OS | % Grade 3-4 CRS and ICANS |
| Neelapu et al., 2017 [14] & Neelapu et al. 2023 [15] | ZUMA-1 | II | 3L+ | 101 | 83% | 5.9 months | 25.8 months | CRS: 13%  ICANS: 28% |
| Schuster et al., 2019 [16] & Schuster et al., 2021 [17] | JULIET | II | 3L+ | 93 | 52% | 2.9 months | 11.1  months | CRS: 22%  ICANS 12% |
| Abramson et al., 2020[19] & Abramson et al., 2024[20] | TRANSCEND-NHL-001 | I/II | 3L+ | 91 | 73% | 6.8 months | 27.3 | CRS: 2%  ICANS: 10% |

Table 1

Abbreviations: CAR: Chimeric Antigen Receptor; CR: Complete Response; CRS: Cytokine Release Syndrome; ICANS: Immune Effector Cell-Associated Neurotoxicity Syndrome; MCL: ORR: Overall Response Rate; OS: Overall Survival; PFS: Progression-Free Survival

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author | Trial name | Trial phase | CAR T-cell used | Line of therapy | Sample size  (Infused patients) | ORR | Median PFS | Median OS | % Grade 3-4 CRS and ICANS |
| Jacobson et al. 2022 [29] & Neelapu et al. 2024 [30] | ZUMA 5 | Phase 2 | Axi-cel | 3L+ | 124 | 94% | 40.2 | Not reached | CRS: 6%  ICANS:15% |
| Fowler et al. 2021 [31] & Dreyling et al. 2024 [32] | ELARA | Phase 2 | Tisa-cel | 3L+ | 97 | 86% | Not reached | Not reached | CRS: 0%  ICANS: 1% |
| Morschhauser et al. 2024 [34] | TRANSCEND | Phase 2 | Liso-cel | 3L+ & high risk 2L | 130 | 97% | Not reached | Not reached | CRS: 1%  ICANS: 2% |

Table 2

Abbreviations: CAR: Chimeric Antigen Receptor; CR: Complete Response; CRS: Cytokine Release Syndrome; ICANS: Immune Effector Cell-Associated Neurotoxicity Syndrome; MCL: ORR: Overall Response Rate; OS: Overall Survival; PFS: Progression-Free Survival

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author | Trial name | CAR T-cell used | Trial phase | Line of therapy | Sample size (Infused patients) | ORR (CR rate) | Median PFS  In mons | Median OS | % Grade 3-4 CRS and ICANS |
| Wang et al. 2020 [36] | ZUMA-2 | Brexu-cel | Phase 2 | 2+\* | 68 | 91% (68%) | 25.8 months | 46.6 months | CRS: 15%  ICANS: 31% |
| Wang et al. 2023 [37] | TRANSCEND MCL | Liso-cel | Phase 1 | 3+ | 88 | 83% (72%) | 15.3 months | 18.2 months | CRS: 1%  ICANS: 9% |

Table 3

Abbreviations: CAR: Chimeric Antigen Receptor; CR: Complete Response; CRS: Cytokine Release Syndrome; ICANS: Immune Effector Cell-Associated Neurotoxicity Syndrome; MCL: Mantle Cell Lymphoma; NHL: Non-Hodgkin Lymphoma; ORR: Overall Response Rate; OS: Overall Survival; PFS: Progression-Free Survival

\*81% of the treated patient used it as 4th line or more.