SUPPLEMENTAL STATISTICAL ANALYSIS PLAN KTE-C19-106
TRANSLATIONAL ANALYSIS

Sponsor:	Kite Pharma, Inc. 2400 Broadway Santa Monica, CA 90404 United States of America
Product Name:	KTE-C19
Protocol:	A Phase 1-2 Multi-Center Study Evaluating the Safety and Efficacy of KTE-C19 in Combination with Atezolizumab in Subjects with Refractory Diffuse Large B-Cell Lymphoma (DLBCL)
NCT Number	NCT02926833
Version Number:	Version 2.0
Release Date:	20 Feb 2020
Replaces Previous Version(s):	Version 1.0; 04 March 2019

CONFIDENTIALITY NOTICE

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LIST OF ABBREVIATIONS

Atezo	Atezolizumab
AE	Adverse event
ASCT	Autologous stem cell transplant
ATA	Anti-tumor activity
AUC	Area under the curve
Axicabtagene ciloleucel / KTE-C19	Autologous T cells transduced with retroviral vector containing anti-CD19 CD28/CD3 zeta chimeric antigen receptor
CAR	Chimeric antigen receptor
CR	Complete response / Complete remission
CRS	Cytokine release syndrome
CSF	Cerebrospinal fluid
DLBCL	Diffuse large B cell lymphoma
IHC	Immunohistochemistry
LYMLE	Lymphocytes/Leukocytes (%)
mITT	Modified intent-to-treat
MONOLE	Monocytes/Leukocytes (%)
NE	Neurotoxicity event
NHL	Non-Hodgkin Lymphoma
PBMC	Peripheral blood mononuclear cells
PD	Progressive disease
PK/PD	Pharmacokinetic / Pharmacodynamic
PMBCL	Primary mediastinal B cell lymphoma
PR	Partial response / Partial remission
RCR	Replication competent retrovirus
SAE	Serious adverse event
SD	Stable disease
SOA	Schedule of assessments
Study day 0	The first day that axicabtagene ciloleucel is administered to the subject
WBC	White Blood Cell or Leukocytes

1. INTRODUCTION

This supplemental statistical analysis plan outlines the analyses of PK/PD, product characteristics, and other biomarkers in support of the regulatory filling for KTE-C19 in combination with Atezolizumab in subjects with refractory DLBCL. The analysis will be conducted for biomarker data within protocol KTE-C19-106 (ZUMA-6), amendment 1 dated 21 Sep 2017.

2. OBJECTIVES

2.1. Objectives

- Characterize the anti-CD19 CAR T cell expansion (PK) and serum cytokine (PD) profile
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- Characterize the expression of CD19 target and PD-L1 expression in tumor biopsies at baseline, post treatment and at relapse; comparative analysis between Zuma 6 and Zuma 1

2.2. Hypothesis

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3. ENDPOINTS, SUBGROUPS AND COVARIATES

3.1. Biomarker datasets

Table 3-1. Data overview on assay methods and biomarker lists

Data type	Assay method/Sample type	Biomarker set
PK data (CAR T)	qPCR/PBMC	number of CAR T cells (/μL), %PBMC
PK data (Atezo)	Immunoassays/serum samples	• Anti-Atezo Antibody • Atezo concentrations (ng/mL)
PD data (cytokines)	Cytokine assay/serum sample	• Pro-inflammatory and immune modulating cytokines: IL-6 (pg/mL), TNFα (pg/mL), IL-10 (pg/mL), IL-2 (pg/mL), GM-CSF (pg/mL), IL 15 (pg/mL), IL-17 (pg/mL), IFNγ (pg/mL), IL-12p40/p70 (pg/mL); • Immune effector molecules: Granzyme A (pg/mL), B (pg/mL), Perforin (pg/mL) • Correlates of acute phase response: CRP (mg/mL), Ferritin (pg/mL), sIL-2Ra (pg/mL) • Chemokines: MIP-1α (pg/mL), MIP-1β (pg/mL), IP-10 (pg/mL), MCP-4 (pg/mL)
CSF cytokines	Cytokine assay/CSF sample	Biomarker list are the same with those in the PD cytokines
CSF T-cell	PCR complemented by Flow cytometry/CSF sample	Analytes are listed in Appendix 8.5
PD-L1 and CD19 IHC, in addition to other B cell markers (CD20, PAX5, CAR T cell presence)	Immunohistochemistry (IHC) and gene expression profiling / Fresh tumor biopsies (NeoGenomics)	• PD-L1: H Score • CD 19

3.2. Endpoints

All definitions are generally applied to PK/PD.

- **Analyte baseline** is defined as the last value measured prior to conditioning chemotherapy.

  Other analytes at baseline include CD-19 H score and Baseline Tumor Burden.

- **Change from baseline at Day X** is defined as the difference of the value at Day X and at the baseline. i.e. Analyte level at Day X – Analyte level at Baseline

- **Fold change from baseline at Day X** is defined as:

$$\frac{\text{Analyte level at Day X}}{\text{Analyte level at Baseline}}$$

- **Peak of analyte post KTE-C19 infusion** is defined as the maximum level measured post infusion.

- **Time to peak post KTE-C19 infusion** is defined as "Peak Date – Dosing Date + 1".

- **Area-Under-Curve (AUC)** measures the total level of analyte overtime and is defined as the area under the curve in an analyte profile plot against scheduled visits as specified for each analyte.

- **PD-L1 expression** {Bot 2015, Chen 2013} is an expression level of PD-L1 on tumor tissue evaluated using a continuous value of H score derived by % cells expressing PD-L1 times intensity of expression.

3.3. Outcomes, Subgroups, and Covariates

- Responder (PR/CR) vs Non-responder (Others)
- The worst neurotoxicity grade was "Grade 3 or higher (NEG3+)" vs. Others (NEG2)
- The worst neurotoxicity grade was "Grade 2 or higher (NEG2+)" vs. Others (NEG1)
- The worst CRS grade was "Grade 3 or higher"(CRSG3+) vs. Others (CRSG2)
- The worst CRS grade was "Grade 2 or higher"(CRSG2+) vs. Others (CRSG1)
- Best response: Complete Response (CR) vs. Partial Response (PR) vs. Non-responders
- Baseline covariates will be utilized if appropriate (list of baseline covariates refer to clinical SAP)

4. DEFINITIONS

4.1. General

Study day 0 is defined as the day the subject received the first KTE-C19 infusion. The day prior to study day 0 will be study day -1. Any days after enrollment and prior to study day -1 will be sequential and negative integer-valued.

Baseline is defined as the last non-missing value measured on or prior to conditioning chemotherapy.

Baseline of retreatment is the last record on or prior to conditioning chemotherapy retreatment if the subject is eligible for retreatment with axicabtagene ciloleucel.

KTE-C19 treatment period begins on the day of the first KTE-C19 infusion up through and including 30 days after the KTE-C19 infusion.

4.2. Key Measurements of PD: Anti-CD19 CAR+ T-Cell

The expansion and persistence of anti-CD19 CAR T cells in peripheral blood will be monitored by qPCR analysis.

Scheduled blood draw for anti-CD19 CAR T cell

This SSAP will focus on the anti-CD19 CAR T cell data collected as per planned assessment. The schedule of assessments and the analytic visit windows are defined in Appendix 8.1.

Number of CAR T (cells/ µL blood) is defined as:

White Blood Cell counts × (Monocytes (%) + Lymphocytes (%)) × CAR^{+}PBMCs (%)

Peak of CAR T cell (cells/ µL blood) is defined as the maximum absolute number of CAR T cells in serum attained after Day 0.

Time-to-Peak of CAR T cell (days) is defined as "Peak Date – Dosing Date + 1".

Area-Under-Curve (AUC) of level of CAR T cell (cells/ µL ▪ days) is defined as the area under the curve in a plot of levels of CAR T cells against scheduled visits. For Zuma 6 Cohort 1: From Day 0 to Day 28, For Zuma 6 Cohort 2 and 3: From Day 0 to Day 35. This AUC measures the total levels of CAR T cells overtime. Given the CAR+ T cell are measured at certain discrete time points, the trapezoidal rule will be used to estimate the AUCs.

CAR T PEAK/Tumor burden: ratio of CAR T Peak and baseline tumor burden local (investigator's assessment) will be assessed.

$$\frac{\text{PK anlaytes (nCART, nCAR T Peak, or nCAR T AUC)}}{\text{Baseline Tumor Burden (SPD) (mm^2) from local lab}}$$

4.3. Key Measurements of PD: Serum Cytokines

Scheduled blood draw for cytokines: Within approximately 5 days of eligibility confirmation (Enrollment/Leukapheresis) as baseline, Day 0, Day 3, Day 7, and on day of discharge of hospitalization, Week 2 (Day 14) (± 2 days), and Week 4 (Day 28) (± 2 days). This SSAP will focus on the cytokine data collected from baseline to Day 28. The SOA and analytic visit window is defined in Appendix 8.2.

Baseline of cytokines is defined as the last value measured prior to conditioning chemotherapy.

Fold change from baseline at Day X is defined as

$$\frac{\text{Cytokine level at Day X} - \text{Cytokine level at Baseline}}{\text{Cytokine level at Baseline}}$$

Peak of cytokine post baseline is defined as the maximum level of cytokine in serum attained after baseline up to Day 28.

Time to peak of cytokine post KTE-C19 infusion is defined as "Peak Date – Dosing Date + 1".

Area-Under-Curve (AUC) of cytokine levels from baseline to Day 28: is defined as the area under the curve in a plot of levels of cytokine against scheduled visits from baseline to Day 28. This AUC measures the total levels of cytokine overtime. Given the cytokine and CAR+ T cell are measured at certain discrete time points, the trapezoidal rule will be used to estimate the AUCs.

4.4. Key Measurements of CSF T-cells

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4.5. Key Measurements of CSF Cytokines

CSF cytokines are similar to those in the PD cytokines.

CSF sample collection has no scheduled assessment visits. Peak and AUC analysis are not applied to CSF cytokines.

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- Serum Atezolizumab concentration (ng/mL)

Serum samples will be assayed for atezolizumab concentrations using validated immunoassay {Fehrenbacher 2016}.

Scheduled blood draw for Atezolizumab: Refer to Appendix 8.3 for detailed information.

4.8. Key Measurements of Prognostic Marker PD-L1

PD-1 is an activation/exhaustion marker of cytolytic T cells and its expression is upregulated on the surface of CAR T cells beginning prior to infusion and is further enhanced during in vitro exposure to CD19-expressing target cells {Bot 2015, Herbst 2014}. PD-1 surface expression is also increased following CAR T cell infusion {Perez 2015}. The following key measurements will be analyzed for PD-L1 marker:

H score = % cell expressing PD-L1 x intensity of expression

5. ANALYSIS SETS

5.1. Modified Intent-to-treat Set (definition from Z6 clinical SAP 6.2)

The mITT set will consist of all subjects enrolled and treated with the target dose of axicabtagene ciloleucel at 2 x 10^6 CAR T cells/kg (1.0 x 10^6 anti-CD19 CAR T cells/kg to 2.4 x 10^6 anti-CD19 CAR T cells/kg) and at least 1 dose of atezolizumab as determined upon completion of Phase 1 and Phase 2 portions of the study.

5.2. Safety Analysis Set (definition from clinical SAP 6.3)

The safety analysis set (SAS) is defined as all subjects treated with any dose of axicabtagene ciloleucel.

6. STATISTICAL ANALYSIS

6.1. General Methods

The following methods will be applied to the data analysis when applicable.

- **Summary statistics** will summarize data in frequency (N, %) and quartile range (Minimum, 1 quartile (Q1), Median, 3 quartile (Q3), Maximum) in overall and by appropriate subgroups and covariates (Section 3.3).
- CCI
- **Logistic Regression for binary outcomes**
  Binary outcome implies there are only two possible outcomes to a certain situation. Logistic regression will be conducted to describe and explain the relationship between an explanatory variable (predictor) and an outcome variable {Hosmer 2013}. Number of evaluable subjects for each group, Odds Ratio with 95% Confidence Interval, and raw unadjusted p value will be reported. Predictive probability will be plotted.
- **Nominal Logistic Regression for categorical outcomes**
  The categorical outcome has a limited number of possible outcomes. Nominal logistic regression {Hosmer 2013} will be used to describe and explain the relationship between an
- CCI
- comparison followed by pairwise comparisons using Dunn's test with Holm's adjustment method {Dunn 1964} implemented in the 'dunn.test' package for R {Dinno 2015}.

6.2. Analysis

6.2.1. Characterize the anti-CD19 CAR T cell expansion (PK) and serum cytokine (PD) profile

- Safety analysis set will be used for an overall PK/PD profile
- PK/PD profile overtime will be analyzed using summary statistics described in Section 6.1
- Comparison of PK/PD by subgroups will be conducted for special population, subgroups by baseline covariates (in Section 3.3) and safety and efficacy
  - — Wilcoxon rank sum test will be used to compare the PK/PD profiles among the subgroups. See Table 6-1 for details.
  - — For comparisons among CR vs PR vs Non-responders, Kruskal-Wallis test will be conducted. Further pairwise comparisons among these three groups, following a significant Kruskal-Wallis test, will be using Dunn's test with Holm's adjustment method.
- The Median Line plot with interquartile range (IQR) will be produced for overall cohort or by subgroups.

Table 6-1. Non-parametric comparisons

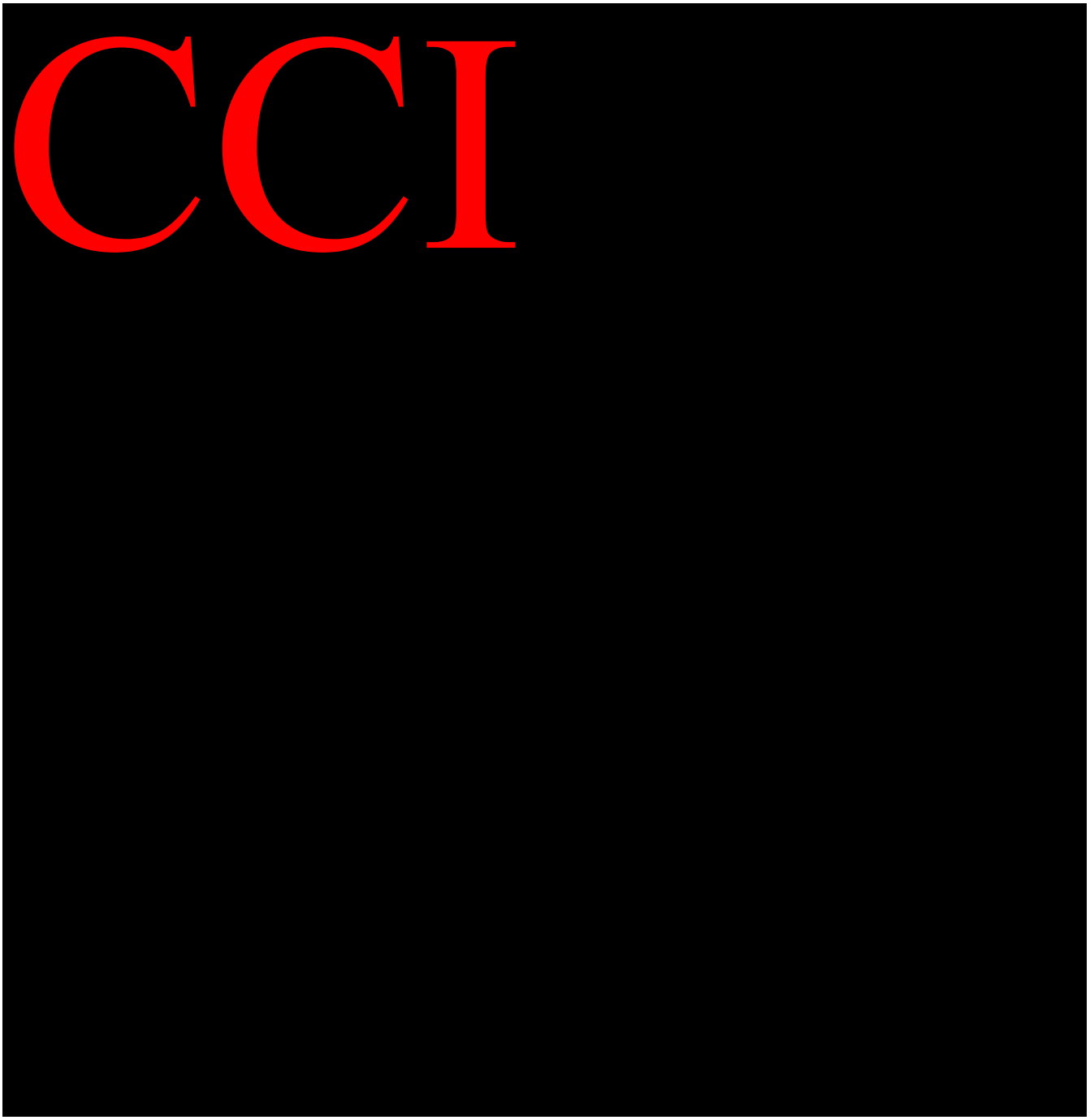
Covariate	Subgroups	Method	Key Measurements	
			CAR T Cell Expansion in Blood	Cytokine Levels in Serum
Response	Responder vs Non-responder	Wilcoxon rank sum test	• AUC • Peak	• AUC • Peak
Worst Neurotoxicity	Grade 3 or higher vs. grade 2 or lower	Wilcoxon rank sum test		
Worst Neurotoxicity	Grade 2 or higher vs. grade 1 or lower	Wilcoxon rank sum test		
Worst CRS	Grade 3 or higher vs. grade 2 or lower	Wilcoxon rank sum test		
Worst CRS	Grade 2 or higher vs. grade 1 or lower	Wilcoxon rank sum test		
Best response	Complete Response vs. Partial Response vs. Non-responders	Kruskal-Wallis test		

subjects

- Atezo PK will be summarized with summary statistics (Section 6.1) overtime and compared at selected Atezo dosing time
- Comparison of Atezo PK will be conducted for special population or subgroups by baseline covariates (in Section 3.3)
- Comparison of Atezo PK will be conducted by safety and efficacy subgroups

6.2.5. Characterize the products

- Safety analysis set will be used for analysis



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8. APPENDIX

8.1. Analytic Visit Windows for CAR T Cells in Blood

Table 8-1. Cohort 1 visit window of PBMC in blood

Analytic Visit	Baseline	Day 0	Day 7	Day 14	Day 21	Day 28	Day 42	Day 49	Day 63	Day 70	Day 84	Day 91	Day 114	Month 6 Day180	Month 9 Day 270	MONTH 12 Day 360	MONTH 15 Day 450	MONTH 18 Day 540	MONTH 24 Day 720
Target Day	Baseline	0	1 - 7	14 ± 2	21 ± 2	28 ± 2	42 ± 2	49 ± 2	63 ± 2	70 ± 2	84 ± 2	91 ± 2	114 ± 7						
Lab Window	< = -5	[,]	[1, 10]	[11, 17]	[18, 24]	[25, 35]	[36, 45]	[46, 56]	[57, 66]	[67, 77]	[78, 87]	[88, 102]	[103, 147]	[148, 225]	[226, 315]	[316, 405]	[406, 495]	[496, 585]	[> 586]

Table 8-2. Cohort 2 visit window of PBMC in blood

Analytic Visit	Baseline	Day 0	Day 7	Day 14	Day 17	Day 21	Day 35	Day 42	Day 56	Day 63	Day 77	Day 84	Day 107	Month 6 Day 180	Month 9 Day 270	MONTH 12 Day 360	MONTH 15 Day 450	MONTH 18 Day 540	MONTH 24 Day 720
Target Day	Baseline	0	7	14 ± 2	17 ± 2	21 ± 2	35 ± 2	42 ± 2	56 ± 2	63 ± 2	77 ± 2	84 ± 2	107 ± 7						
Lab Window	< = -5	[,]	[1, 10]	[11, 15]	[16, 18]	[19, 28]	[29, 38]	[39, 49]	[50, 59]	[60, 70]	[71, 80]	[81, 95]	[96, 143]	[144, 225]	[226, 315]	[316, 405]	[406, 495]	[496, 585]	[> 586]

Table 8-3. Cohort 3 visit window of PBMC in blood

Analytic Visit	Baseline	Day 0	Day 7	Day 14	Day 22	Day 35	Day 43	Day 49	Day 64	Day 69	Day 94	Month 6 Day 180	Month 9 Day 270	MONTH 12 Day 360	MONTH 15 Day 450	MONTH 18 Day 540	MONTH 24 Day 720
Target Day	Baseline	0	1 - 7	14 ± 2	22 ± 2	35 ± 2	43 ± 2	49 ± 2	64 ± 2	69 ± 2	94 ± 7						
Lab Window	< = -5	[,]	[1, 10]	[11, 17]	[18, 28]	[29, 38]	[39, 45]	[46, 56]	[57, 66]	[67, 77]	[78, 143]	[144, 225]	[226, 315]	[316, 405]	[406, 495]	[496, 585]	[> 586]

Table 8-4. Phase 2 visit window of PBMC in blood

Analytic Visit	Baseline	Day 0	Day 3	Day 7	W2 Day 14	Day 21	Day 28	Day 42	Day 49	Day 63	Day 70	Day 94	Month 6 Day 180	Month 9 Day 270	Month 12 Day 360	Month 15 Day 450	Month 18 Day 540	Month 24 Day 720	Month 36 Day 1080	Month 48 Day 1440	Month 60 Day 1800
Target Day	Baseline	0			14 ± 2	22 ± 2	28 ± 2	43 ± 2	49 ± 2	64 ± 2	69 ± 2	94 ± 2									
Lab Window	< = -5	[,]	[2, 4]	[5, 10]	[11, 17]	[18, 25]	[26, 35]	[36, 45]	[46, 56]	[57, 66]	[67, 77]	[78, 143]	[144, 225]	[226, 315]	[316, 405]	[406, 495]	[496, 585]	[586,900]	[901, 1260]	[1261, 1620]	[>1621,]

- PBMCs Blood draw for PBMCs include the analysis of lymphocytes prior to axicabtagene ciloleucel infusion and lymphocytes, anti KTE-C19 CAR T cells, and RCR after CAR T infusion.

- Baseline is at enrollment and before leukapheresis.

8.2. Analytic Visit Windows for PD Cytokines Key Measurement

Table 8-5. Cohort 1 visit window of PD cytokines

Analytic Visit	Baseline	Day 0	Day 1	Day 4	Day 7	Day 14	Day 21	Day 28	Day 42	Day 49	Day 70	Day 91	Day 114	Month 6 Day180	Month 9 Day 270	MONTH 12 Day 360	MONTH 15 Day 450	MONTH 18 Day 540	MONTH 24 Day 720
Target Day	Baseline	0	1	4	7	14 ± 2	21 ± 2	28 ± 2	42 ± 2	49 ± 2	70 ± 2	91 ± 2	114 ± 7						
Lab Window	< = -5	[0,0]	[1,2]	[3,5]	[6, 10]	[11, 17]	[18, 24]	[25, 35]	[36, 45]	[46, 63]	[64, 84]	[85, 102]	[103, 147]	[148, 225]	[226, 315]	[316, 405]	[406, 495]	[496, 585]	[> 586]

Table 8-6. Cohort 2 visit window of PD cytokines

Analytic Visit	Baseline	Day 0	Day 1	Day 4	Day 7	Day 14	Day 21	Day 35	Day 42	Day 63	Day 84	Day 107	Month 6 Day 180	Month 9 Day 270	MONTH 12 Day 360	MONTH 15 Day 450	MONTH 18 Day 540	MONTH 24 Day 720
Target Day	Baseline	0	1	4	7	17 ± 2	21 ± 2	35 ± 2	42 ± 2	63 ± 2	84 ± 2	107 ± 7						
Lab Window	< = -5	[0, 0]	[1, 2]	[3, 5]	[6, 10]	[11, 17]	[18, 28]	[29, 38]	[39, 56]	[57, 77]	[78, 95]	[96, 147]	[148, 225]	[226, 315]	[316, 405]	[406, 495]	[496, 585]	[> 586]

Table 8-7. Cohort 3 visit window of PD cytokines

Analytic Visit	Baseline	Day 0	Day 1	Day 4	Day 7	Day 14	Day 22	Day 35	Day 49	Day 69	Day 94	Month 6 Day 180	Month 9 Day 270	MONTH 12 Day 360	MONTH 15 Day 450	MONTH 18 Day 540	MONTH 24 Day 720
Target Day	Baseline	0	1	4	7	14 ± 2	22 ± 2	35 ± 2	49 ± 2	69 ± 2	94 ± 7						
Lab Window	< = -5	[0, 0]	[1, 2]	[3, 5]	[6, 10]	[11, 17]	[18, 28]	[29, 38]	[46, 56]	[67, 77]	[78, 143]	[144, 225]	[226, 315]	[316, 405]	[406, 495]	[496, 585]	[> 586]

- Baseline is at enrollment and before leukapheresis.

8.3. Analytic Visit Windows for Atezolizumab PK

Table 8-8. Atezo PK visit window

	Analytic Visit	Day21 Pre	Day 21 Post	Day 42	Day 63	Day 84	Day 174
Phase1 Cohort1	Target Day	21 ± 2	21 ± 2	42 ± 2	63 ± 2	84 ± 2	
	Proposed Window	[17, 31]	[17, 31]	[32, 52]	[53,73]	[74, 94]	[95,]
Phase1 Cohort2	Analytic Visit	Day 14 Pre	Day 14 Post	Day 35	Day 56	Day 77	Day 167
	Target Day	14 ± 2	14 ± 2	35 ± 2	56 ± 2	77 ± 2	
	Proposed Window	[10, 24]	[10, 24]	[25, 45]	[46, 66]	[67, 87]	[88,]
Phase1 Cohort3 & Phase 2	Analytic Visit	Day 1 Pre	Day 1 Post	Day 22	Day 43	Day 64	Day 154
	Target Day	1	1	22 ± 2	43 ± 2	64 ± 2	
	Proposed Window	[1, 10]	[1, 10]	[11, 32]	[33, 53]	[54, 74]	[75,]

Table 8-9. Atezo ATA visit window

Cohort 1	Analytic Visit	Day 21[B]	Day 42[A]	Day 63[A]	Day 84[B]
	Target Day	21 ± 2	42 ± 2	63 ± 2	84 ± 2
	Lab Window	[,]	[,]	[,]	[,]
Cohort 2	Analytic Visit	Day 14[B]	Day 35[A]	Day 56[A]	Day 77[B]
	Target Day	14 ± 2	35 ± 2	56 ± 2	77 ± 2
	Lab Window	[,]	[,]	[,]	[,]
Cohort 3	Analytic Visit	Day 1[B]	Day 22[A]	Day 43[A]	Day 64[B]
	Target Day	1	22 ± 2	43 ± 2	64 ± 2
	Lab Window	[,]	[,]	[,]	[,]

Notes:
A. Take sample prior to the atezolizumab infusion, NOT required during the retreatment period.
B. Take sample prior to the atezolizumab infusion and during the retreatment period.

Long-term follow-up period: Take a single time point sample ≥ 90 days after the last atezolizumab infusion for the initial course of therapy and another single time point sample after the retreatment period (if applicable).

Take a sample prior to the atezolizumab infusion for the initial course of treatment and during the retreatment period (if applicable). For the initial course of treatment only, take a sample at 30 min +/- 10 min after the end of the atezolizumab infusion

Take sample prior to the atezolizumab infusion. This sample is NOT required during the retreatment period.

Take sample prior to the atezolizumab infusion for the initial course of treatment and during the retreatment period (if applicable).

8.4. Analytic Visit Windows for Anti-KTE-C19 Antibody

Table 8-10. Anti-KTE-C19 antibody visit window

Cohort 1	**Analytic Visit**	**Baseline**	**Day 114**
	Target Day	Baseline	114 ± 7
	Lab Window	< = -5	[103, 147]
Cohort 2	**Analytic Visit**	**Baseline**	**Day 107**
	Target Day	Baseline	107 ± 7
	Lab Window	< = -5	[96, 143]
Cohort 3	**Analytic Visit**	**Baseline**	**Day 94**
	Target Day	Baseline	94 ± 7
	Lab Window	< = -5	[78, 143]

- Baseline antibody samples to be collected prior to start of leukapheresis.

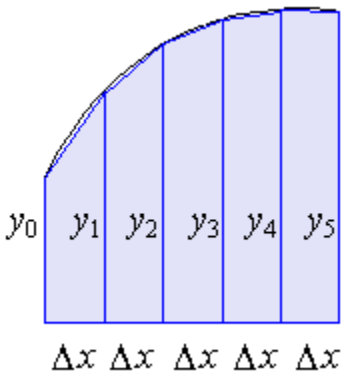
8.5. CSF T-cell Analytes

Visits: Screening CSF, Post-CSF, Baseline CSF, Unscheduled CSF

Table 8-11. CSF T-cell analytes

Number	**Name of the analyte (cells/Volume unit)**
1	CD14 (#, gated on CD45+)
2	CD19 (#, gated on CD45+/66b/14-)
3	CD3 (#, gated on CD45+/66b/14-)
4	CD3 CAR+ (#, gated on CD 45+/66b/14-/3+)
5	CD4 (#, gated of CD45+/66b/14-/3+)
6	CD4 CAR+ (#, gated on CD45+/66b/14-/3+/4+)
7	CD45 (#, gated on viable singlets cells)
8	CD56+CD3- (#, gated on CD45+/66b/14-)
9	CD56+CD3+(#, gated onCD45+/66b/14-)
10	CD66b (#, gated on CD45+)
11	CD8 (#, gated on CD45+/66b/14-/3+)
12	CD8 CAR+ (#, gated on CD45+/66b/14-/3+/8+)
13	CSF Volume
14	Viability (# Total Cells, Gated on Singlets)
15	Viability (# Viable Cells, Gated on Singlets)

8.6. Using Trapezoidal Rule to Approximate the AUC



$$\text{AUC} \approx \frac{1}{2}(y_0 + y_1) \cdot \Delta x + \frac{1}{2}(y_1 + y_2) \cdot \Delta x + \frac{1}{2}(y_2 + y_3) \cdot \Delta x + \cdots$$