

## **STATISTICAL ANALYSIS PLAN**

A multicenter, randomized, open-label, 2-arm, 2-period crossover trial to investigate the effects of food on the pharmacokinetics of a single dose of brexpiprazole once-weekly (QW) formulation in patients with schizophrenia

A food effects trial of the pharmacokinetics of brexpiprazole once-weekly (QW) formulation in patients with schizophrenia

NCT Number: NCT06036108  
Protocol No. 331-102-00151  
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Otsuka Pharmaceutical Co., Ltd.

Investigational New Drug Brexpiprazole (OPC-34712)

Protocol No. 331-102-00151

A multicenter, randomized, open-label, 2-arm, 2-period crossover trial to investigate the effects of food on the pharmacokinetics of a single dose of brexpiprazole once-weekly (QW) formulation in patients with schizophrenia

Statistical Analysis Plan

Version: 1.0

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## List of Appendices

[REDACTED]	[REDACTED]

## List of Abbreviations and Definition of Terms

<b><u>Abbreviation</u></b>	<b><u>Definition</u></b>
AE	Adverse event
BMI	Body mass index
CGI-I	Clinical Global Impression - Global Improvement
CGI-S	Clinical Global Impression - Severity of Illness
CRF	Case report form
C-SSRS	Columbia-Suicide Severity Rating Scale
CYP2D6	Cytochrome P450 2D6
DIEPSS	Drug Induced Extra-Pyramidal Symptoms Scale
DSM-5®	Diagnostic and Statistical Manual of Mental Disorders Fifth Edition
ICH	The International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use
MedDRA	Medical Dictionary for Regulatory Activities
OD	Orally disintegrating
PT	Preferred Term
QTc	QT corrected for heart rate
QTcF	QT interval as corrected by Fridericia's formula
QW	Quaque (Once) Weekly
SOC	System Organ Class
TEAE	Treatment-emergent adverse event
WHODD	World Health Organization Drug Dictionary

## 1 Introduction

This statistical analysis plan documents in detail the statistical analysis methods planned for Trial 331-102-00151.

## 2 Trial Objectives

To investigate the effect of food on the pharmacokinetics (PK) of a single dose of brexpiprazole once-weekly (QW) formulation at 48 mg in patients with schizophrenia and to confirm safety under those conditions.

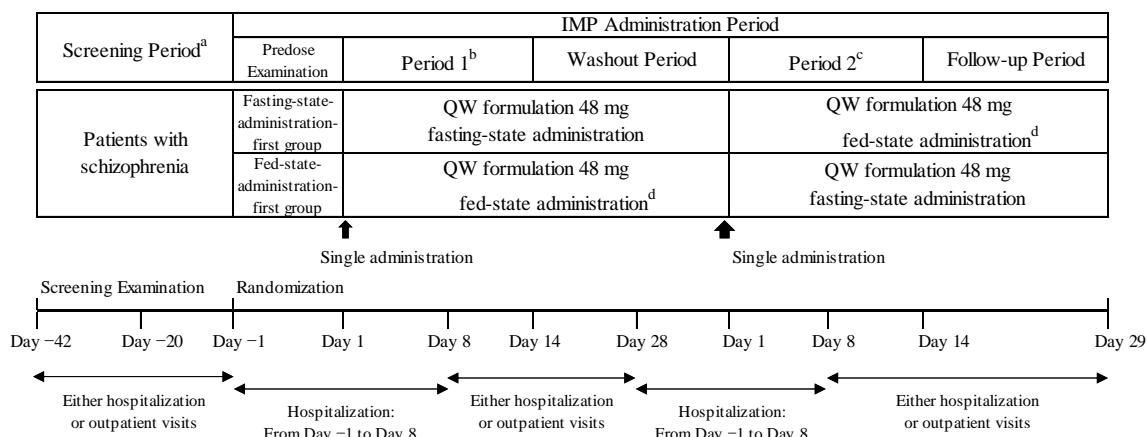
<b>Table 2-1 Trial Objectives and Endpoints</b>	
<b>Objectives</b>	<b>Endpoints</b>
Primary objective: To investigate the effect of food on PK of a single dose of brexpiprazole QW formulation at 48 mg in patients with schizophrenia	Primary pharmacokinetic endpoint: Geometric mean ratio and two-sided 90% confidence interval of $C_{max}$ , $AUC_{\infty}$ , and $AUC_t$ of brexpiprazole in plasma after administration in a fed state versus administration in a fasting state  Secondary pharmacokinetic endpoints: <ul style="list-style-type: none"> <li>Plasma concentrations of brexpiprazole and metabolite [REDACTED]</li> <li>Pharmacokinetic parameters of brexpiprazole and metabolite [REDACTED] in plasma</li> </ul>
Secondary objective: To confirm safety of the brexpiprazole QW formulation in patients with schizophrenia	Safety endpoints: <ul style="list-style-type: none"> <li>Adverse events (AEs)</li> <li>Clinical laboratory tests</li> <li>Vital signs (body temperature, blood pressure, and pulse rate)</li> <li>Physical examination findings</li> <li>Body weight</li> <li>Body mass index (BMI)</li> <li>12-Lead electrocardiography (ECG)</li> <li>Drug Induced Extrapyramidal Symptoms Scale (DIEPSS)</li> <li>Columbia-Suicide Severity Rating Scale (C-SSRS)</li> </ul> Other endpoints: <ul style="list-style-type: none"> <li>Clinical Global Impression - Severity of Illness (CGI-S)</li> <li>Clinical Global Impression - Global Improvement (CGI-I)</li> <li>Bowel-movement investigation</li> </ul>

### 3 Trial Design

### 3.1 Type/Design of Trial

The trial design schematic is shown in Figure 3-1.

This is a multicenter, randomized, open-label, 2-arm, 2-period crossover trial to investigate the effects of food on the PK of brexpiprazole QW formulation in patients with a diagnosis of schizophrenia (295.90) based on the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5<sup>®</sup>). The trial consists of 2 periods, namely, the screening period and the investigational medicinal product (IMP) administration period (including washout period and follow-up period). The IMP administration period comprises Period 1 and Period 2 to investigate the effects of food on the PK of brexpiprazole QW formulation 48 mg, in which a single oral dose of brexpiprazole QW formulation will be administered at 48 mg in a fasting state or within 10 minutes of finishing a high-fat meal employing a 2-arm, 2-period crossover design. The sample size necessary for the trial assessment is a total of 36 subjects as trial completers.



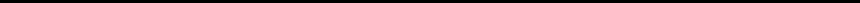
## Figure 3-1 Trial Design Schematic

<sup>a</sup>Brexipiprazole-naïve subjects will undergo and complete oral administration of brexipiprazole conventional tablet 1 mg (1 mg × 1 tablet) or OD tablet 1 mg (1 mg × 1 tablet or 0.5 mg × 2 tablets) for 2 consecutive days no later than 20 days prior to commencement of brexipiprazole QW formulation administration in Period 1, to verify that they have no allergic reaction or hypersensitivity.

b [REDACTED]

For more information, contact the Office of the Vice President for Research and Economic Development at 319-273-2500 or [research@uiowa.edu](mailto:research@uiowa.edu).

[REDACTED]

9 

For more information, contact the Office of the Vice President for Research and Economic Development at 515-294-6450 or [research@iastate.edu](mailto:research@iastate.edu).

<sup>d</sup>The meal will be a high-fat meal (approximately 900 kcal or more containing approximately 35% or more lipid content). For administration after a meal in Period 1 or Period 2, if the high-fat meal cannot be eaten completely during the period specified in Section 5.3.1 Meals and Dietary Restrictions of the protocol, the date of IMP administration may be postponed once only. The date of IMP administration in Period 1 can be adjusted within a period of 42 days from the start date of screening and, with the date of IMP administration in Period 1 counted as Day 1, the date of IMP administration in Period 2 can be adjusted between Day 30 and Day 36.

### 3.2 Trial Treatments

A single oral dose of two 24 mg tablets of brexpiprazole QW formulation (48 mg as brexpiprazole) will be administered with approximately 150 mL of water in a fasting state (following at least 10 hours of fasting) or within 10 minutes after the completion of a high-fat meal consumed over 20 minutes or less following at least 10 hours of fasting.

### 3.3 Trial Population

Patients at least 18 years of age and below the age of 65 with a diagnosis of schizophrenia based on the diagnostic criteria proposed in the DSM-5®

### 3.4 Trial Visit Window

Data at each time point will be summarized using data at the time point recorded in the case report form (these data will not be summarized at the time of withdrawal or follow-up examination). Unscheduled visit data will not be used. For the criteria of potentially clinically significant laboratory test values, vital signs, body weight, and ECG and the categorical analysis of QT interval as corrected by Fridericia's formula (QTcF) interval to be summarized at any time other than the time points, withdrawal and unscheduled visit data will also be used.

## 4 Sample Size

Country	Percentage (%)
Argentina	95
Australia	95
Austria	95
Belgium	95
Brazil	95
Chile	60
Costa Rica	60
France	95
Germany	95
Greece	95
Hungary	95
Italy	95
Japan	95
Mexico	95
New Zealand	95
Norway	95
Portugal	95
Spain	95
Switzerland	95

## 5 Statistical Analysis Sets

## 5.1 Food Effect Analysis Set

The food effect analysis set includes all subjects for whom  $C_{max}$ ,  $AUC_{\infty}$  or  $AUC_t$  could be calculated throughout Period 1 and Period 2.

## 5.2 Safety Analysis Set

The safety analysis set includes all subjects who were administered at least one dose of IMP.

## 5.3 Handling of Missing Data

No imputation procedures will be applied for missing data.

## 6 Primary and Secondary Outcome Variables

For the primary pharmacokinetic endpoint and secondary pharmacokinetic endpoints, refer to Table 2-1.

## 7 Disposition and Demographic Analysis

### 7.1 Subject Disposition

The number of subjects from whom informed consent is obtained and that of screen failures will be provided. The number and proportion of randomized subjects, and of those who received trial treatment, those who completed treatment after the start of IMP administration, those who discontinued treatment after the start of IMP administration, those who discontinued treatment by reason for discontinuation, and those included in each analysis set will be provided overall and by group (using the number of randomized subjects as a denominator for the proportion of subjects).

The number of subjects who received trial treatment during each period will be provided overall and by group. The number and proportion of subjects who discontinued treatment after IMP administration in each period up to before IMP administration in the next period (if the IMP is to be administered in the next period) and of those who discontinued treatment by reason for discontinuation will be determined overall and by group (using the number of subjects who received trial treatment in each period as a denominator for the proportion of subjects). The number of subjects who received trial treatment under each meal condition will be provided. The number and proportion of subjects who discontinued treatment and of those who discontinued treatment by reason for discontinuation will be determined by meal condition (using the number of subjects who received trial treatment under each meal condition as a denominator for the proportion of subjects).

### 7.2 Demographic and Baseline Characteristics

In each analysis set, descriptive statistics (the number of subjects, mean, standard deviation, minimum, median, and maximum; hereinafter the same applies) of age (years), body weight (kg), height (cm), and BMI ( $\text{kg}/\text{m}^2$ ), and frequency distribution (the number and proportion of subjects) of sex at birth, race, ethnicity, country where the trial is conducted, medical history (yes or no), complications (yes or no), and cytochrome P450 2D6 (CYP2D6) phenotypes (using classification for analysis indicated in Table-2; hereinafter the same applies) will be determined overall and by group. For body weight and BMI, screening values will be used.

### 7.3 Treatment Compliance

A listing of compliance with trial treatment will be provided.

#### **7.4 Prior and Concomitant Medication**

In the safety analysis set, the number and proportion of subjects who used medications from the day of IMP administration up to Day 14 in each period by drug class and preferred term of the World Health Organization Drug Dictionary (WHODD) Global B3 format version 01 Sep 2023 will be determined by meal condition (in subjects who received trial treatment under each meal condition).

#### **7.5 Protocol Deviations**

The number and proportion of randomized subjects with major deviations from the protocol for each deviation category (IMP administration, eligibility criteria, failure to discontinue the trial even when the subject meets the withdrawal criteria, procedures that affect evaluation of the primary endpoint, and use of prohibited concomitant medications) at each trial site will be determined overall and by group.

### **8 Efficacy Analyses**

Not applicable.

### **9 Safety Analyses**

The safety analysis set will be used for analysis by meal condition (in subjects who receive trial treatment under each meal condition). The baseline value will be the last measurement prior to IMP administration in each period.

#### **9.1 Extent of Exposure**

The number and proportion of subjects who received trial treatment will be determined.

#### **9.2 Adverse Events**

Adverse events will be coded using Medical Dictionary for Regulatory Activities (MedDRA) Ver. 27.1. The incidence of the following events will be summarized by system organ class (SOC) and preferred term (PT). If an AE occurs more than once in the same subject in the same period, the most severe event will be used in summarization.

- Treatment-emergent AEs (TEAEs)
- TEAEs by severity
- TEAEs with an outcome of death
- Serious TEAEs

A TEAE in each period is defined as a TEAE that occurs after IMP administration in each period up to before IMP administration in the next period (if the IMP is to be administered in the next period).

Similarly, IMP-related TEAEs will also be summarized.

### **9.3 Clinical Laboratory Data**

For each quantitative laboratory parameter, descriptive statistics of actual measurements and changes from baseline at each time point will be calculated.

For each quantitative laboratory parameter, measured values will be classified as “lower than the lower limit of the reference range,” “within the reference range,” and “higher than the upper limit of the reference range” using the reference ranges specified by the central laboratory, and a shift table from baseline in each period will be produced.

For each qualitative laboratory parameter, a shift table from baseline in each period will be produced.

The number and proportion of subjects in whom any measurement after IMP administration in each period up to before IMP administration in the next period (if the IMP is to be administered in the next period) meets the criteria for potentially clinically significant laboratory test values (Appendix 1) will be determined. A listing of subjects who meet the criteria will be provided.

The number and proportion of subjects in whom alanine aminotransferase (ALT), aspartate aminotransferase (AST), and total bilirubin (TBL) after IMP administration in each period up to before IMP administration in the next period (if the IMP is to be administered in the next period) meet Hy’s Law criteria ( $ALT \text{ or } AST \geq 3 \times \text{upper limit of normal [ULN]}$  and  $TBL \geq 2 \times \text{ULN}$ ) will be determined. A listing of subjects who meet the criteria will be provided.

### **9.4 Vital Sign Data**

For each vital sign parameter, descriptive statistics of actual measurements and changes from baseline at each time point will be calculated. Blood pressure and pulse rate measured in a sitting position will be used.

The number and proportion of subjects in whom any measurement after IMP administration in each period up to before IMP administration in the next period (if the IMP is to be administered in the next period) meets the criteria for potentially clinically significant vital signs (Appendix 2) will be determined. A listing of subjects who meet the criteria will be provided.

### **9.5 Physical Examination Data**

Listings of physical examination findings will be provided.

## **9.6      *Electrocardiogram Data***

For each ECG parameter, descriptive statistics of actual measurements and changes from baseline at each time point will be calculated.

A shift table from baseline for normal/abnormal judgment on ECG (judged by the investigator) in each period will be produced.

The numbers and proportions of subjects with actual measurements of QTcF interval of > 450 milliseconds, > 480 milliseconds, and > 500 milliseconds after IMP administration in each period up to before IMP administration in the next period (if the IMP is to be administered in the next period) will be determined. The numbers and proportions of subjects with changes from baseline of > 30 milliseconds and > 60 milliseconds will be determined.

The number and proportion of subjects in whom any measurement after IMP administration in each period up to before IMP administration in the next period (if the IMP is to be administered in the next period) meets the criteria for potentially clinically significant ECG values (Appendix 3) will be determined. A listing of subjects who meet the criteria will be provided.

## **9.7      *Other Safety Data***

### **9.7.1      *Body Weight and Body Mass Index***

For body weight and BMI, descriptive statistics of actual measurements and changes from baseline at each time point will be calculated.

The number and proportion of subjects in whom any measurement after IMP administration in each period up to before IMP administration in the next period (if the IMP is to be administered in the next period) meets the criteria for potentially clinically significant body weight (Appendix 2) will be determined. A listing of subjects who meet the criteria will be provided.

### **9.7.2      *Drug Induced Extrapyramidal Symptoms Scale***

For the DIEPSS total score (total of scores for items 1 through 8) and a score for each DIEPSS item, descriptive statistics of actual measurements and changes from baseline at each time point will be calculated.

### **9.7.3      *Columbia-Suicide Severity Rating Scale***

The number and proportion of subjects with each C-SSRS item (suicidality, suicidal ideation, suicidal behavior, completed suicide, emergence of suicidal ideation, emergence

of serious suicidal ideation, worsening of suicidal ideation, and emergence of suicidal behavior) at each time point will be determined.

The definition for each C-SSRS item other than completed suicide is provided as follows:

- Suicidality: “Yes” to any question of suicidal ideation or suicidal behavior
- Suicidal ideation: “Yes” to any question of suicidal ideation
- Suicidal behavior: “Yes” to any question of suicidal behavior
- Emergence of suicidal ideation: Suicidal ideation is absent at baseline and present after baseline.
- Emergence of serious suicidal ideation: Suicidal ideation is absent at baseline and present with an intensity of 4 or 5 after baseline.
- Worsening of suicidal ideation: Increase in the intensity of suicidal ideation after baseline
- Emergence of suicidal behavior: Suicidal behavior is absent at baseline and present after baseline.

The baseline in this section is the baseline specified in [Section 9](#), not the assessment performed using the “Baseline/Screening Version.” If the response to all the questions on suicidal ideation is negative, the intensity of suicidal ideation will be 0.

The categories of suicidal ideation and suicidal behavior are indicated below.

Suicidal ideation:

1. Wish to be dead
2. Non-specific active suicidal thoughts
3. Active suicidal ideation with any methods (not plan) without intent to act
4. Active suicidal ideation with some intent to act, without specific plan
5. Active suicidal ideation with specific plan and intent

Suicidal behavior:

Actual attempt, interrupted attempt, aborted attempt, preparatory acts or behavior, suicidal behavior

## 10 Pharmacokinetic Analyses

Pharmacokinetic parameters will be calculated in subjects who received at least one dose of the brexpiprazole QW formulation and had at least one plasma drug concentration measurement. The analyses described in [Section 10.1 2\)](#) and [Section 10.2 2\)](#) will be performed on the food effect analysis set.

## 10.1 Statistical Analyses of Primary Pharmacokinetic Endpoints

### 1) Endpoint

Geometric mean ratio and two-sided 90% confidence interval of  $C_{max}$ ,  $AUC_{\infty}$ , and  $AUC_t$  of brexpiprazole in plasma after administration in a fed state versus administration in a fasting state

### 2) Statistical Analysis Methods

The natural log-transformed  $C_{max}$ ,  $AUC_{\infty}$ , and  $AUC_t$  of brexpiprazole in plasma will be analyzed using a linear mixed-effects model with group (fasting-state-administration-first group or fed-state-administration-first group), meal condition (fasting or fed), and period (Period 1, Period 2) as fixed effects, and within-group subjects as a random effect, and the differences in means of natural log-transformed values between meal conditions (fed-state administration – fasting-state administration) and their two-sided 90% confidence intervals will be calculated. The differences in the mean natural log-transformed values (fed-state administration – fasting-state administration) and their two-sided 90% confidence intervals will be inverse-transformed to calculate the ratio of geometric mean values (fed-state administration/fasting-state administration) and two-sided 90% confidence interval. The Kenward-Roger method will be used for approximation of the degrees of freedom.

## 10.2 Statistical Analyses of Secondary Pharmacokinetic Endpoints

### 1) Endpoints

- a) Plasma concentrations of brexpiprazole and metabolite [REDACTED]
- b)  $C_{max}$ ,  $AUC_{\infty}$ ,  $AUC_t$ ,  $t_{max}$ ,  $t_{1/2,z}$ ,  $CL/F$ ,<sup>a</sup>  $CL/F/BW$ ,<sup>a</sup>  $t_{last}$ ,  $AUC\%_{Extrap}$ , and  $\lambda_z$  of brexpiprazole and metabolite [REDACTED] in plasma
- c) Ratios of the AUC ( $AUC_{\infty}$  and  $AUC_t$ ) of metabolite [REDACTED] to that of brexpiprazole

### 2) Statistical Analysis Methods

Descriptive statistics will be calculated as described below. However, if more than half of the subjects in an analysis set are excluded from summarization due to missing values, not calculable, or rejected data, descriptive statistics to be calculated for that parameter will include only the number of subjects in the analysis set and the number of subjects tabulated.

- a) Plasma drug concentration
  - For 1) a), descriptive statistics will be calculated at each blood sampling time point excluding the withdrawal and unscheduled time points by meal condition and compound.
  - The descriptive statistics to be calculated will include the number of subjects in the analysis set, the number of subjects tabulated, arithmetic mean, standard deviation, coefficient of variation, minimum, median, and maximum.
- b) Plasma PK parameters (except for  $\lambda_z$ )
  - For 1) b), descriptive statistics will be calculated by meal condition and compound.
  - For 1) c), descriptive statistics will be calculated by meal condition.
  - The descriptive statistics to be calculated will include the number of subjects in the analysis set, the number of subjects tabulated, arithmetic mean, standard deviation, coefficient of variation, geometric mean, minimum, median, and maximum. However, descriptive statistics to be calculated for  $t_{max}$  and  $t_{last}$  will be the number of subjects in the analysis set, the number of subjects tabulated, minimum, median, and maximum.

## 10.3 Technical Details for Pharmacokinetic Statistical Analysis

### 1) Exclusion of Data

The following data will be rejected and excluded from pharmacokinetic analyses:

- [REDACTED]
- Plasma drug concentrations after use of prohibited concomitant medications or foods that may affect the PK of brexpiprazole, and pharmacokinetic parameters calculated using rejected concentrations
- Plasma drug concentrations after failure to receive the IMP according to the conditions specified in the protocol (Section 5.3.1 and Section 6.1.2), and pharmacokinetic parameters calculated using rejected concentrations
- Plasma drug concentrations in samples collected outside the protocol-specified acceptable window (Table 1.3-2) of blood sampling time points. These data will be excluded from the calculation of descriptive statistics of concentrations at the time points, but will be used for the calculation of pharmacokinetic parameters.
- Plasma drug concentrations and pharmacokinetic parameters in a period for compounds for which the predose plasma drug concentrations exceed 5% of  $C_{max}$  during that period
- Plasma drug concentrations or pharmacokinetic parameters judged to be inappropriate by the clinical pharmacologist for other reasons than the above. In this case, the reason for judging them to be inappropriate will be recorded.

## **2) Handling of Data below the Lower Limit of Quantification**

- Plasma drug concentrations below the lower limit of quantification will be regarded as 0 ng/mL when they occur prior to the first measurable concentration in each period and as missing when they occur after the measurable concentration.

## **3) Handling of Plasma Drug Concentrations at Withdrawal and Unscheduled Visits**

- If blood sampling for measuring plasma drug concentrations at withdrawal or unscheduled visits is performed outside the acceptable window of scheduled visits, the data will be handled as withdrawal or unscheduled visit data. In accordance with [Section 10.2 2\) a\)](#), descriptive statistics will not be calculated for plasma drug concentrations at withdrawal or unscheduled visits.
- If blood sampling for measuring plasma drug concentrations at withdrawal or unscheduled visits is performed within the acceptable window of scheduled visits and no data are available at the scheduled visits, the data obtained at the withdrawal or unscheduled visits will be handled as scheduled visit data.

## **11 Pharmacodynamic Analyses**

No pharmacodynamic analysis is planned.

## **12 Pharmacogenomic Analyses**

Listings of data on CYP2D6 phenotypes will be provided. The frequency distribution will be determined as described in [Section 7.2](#).

## **13 Other Endpoint Analyses**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## **14 Interim Analysis**

Not applicable.

## **15 Changes in Planned Analysis**

None.

## **16 References**

None.

## Appendix 1 Criteria for Identifying Laboratory Values of Potential Clinical Relevance

Laboratory Tests	Criteria
<b>Chemistry</b>	
AST (SGOT)	$\geq 3 \times$ upper limit of normal (ULN)
ALT (SGPT)	$\geq 3 \times$ ULN
Alkaline phosphatase	$\geq 3 \times$ ULN
LDH	$\geq 3 \times$ ULN
BUN	$\geq 30$ mg/dL
Creatinine	$\geq 2.0$ mg/dL
Uric Acid	
Men	$\geq 10.5$ mg/dL
Women	$\geq 8.5$ mg/dL
Bilirubin (total)	$\geq 2.0$ mg/dL
CPK	$\geq 3 \times$ ULN
Prolactin	$>$ ULN
<b>Hematology</b>	
Hematocrit	
Men	$\leq 37\%$ and decrease of $\geq 3$ percentage points from Baseline
Women	$\leq 32\%$ and decrease of $\geq 3$ percentage points from Baseline
Hemoglobin	
Men	$\leq 11.5$ g/dL
Women	$\leq 9.5$ g/dL
White blood count	$\leq 2,800/\text{mm}^3$ or $\geq 16,000/\text{mm}^3$
Eosinophils	$\geq 10\%$
Neutrophils	$\leq 15\%$
Absolute neutrophil count	$\leq 1,000/\text{mm}^3$
Platelet count	$\leq 75,000/\text{mm}^3$ or $\geq 700,000/\text{mm}^3$
<b>Additional Criteria</b>	
Chloride	$\leq 90$ mEq/L or $\geq 118$ mEq/L
Potassium	$\leq 2.5$ mEq/L or $\geq 6.5$ mEq/L
Sodium	$\leq 126$ mEq/L or $\geq 156$ mEq/L
Calcium	$\leq 8.2$ mg/dL or $\geq 12$ mg/dL
Glucose	
Fasting	$\geq 100$ mg/dL
Non-Fasting	$\geq 200$ mg/dL
Total Cholesterol, Fasting	$\geq 240$ mg/dL
Triglycerides, Fasting	$\geq 150$ mg/dL

## Appendix 2 Criteria for Identifying Vital Signs and Weight of Potential Clinical Relevance

Variable	Criterion Value <sup>a</sup>	Change Relative to Baseline <sup>a</sup>
Pulse Rate	> 120 bpm < 50 bpm	$\geq 15$ bpm increase $\geq 15$ bpm decrease
Systolic Blood Pressure	> 180 mmHg < 90 mmHg	$\geq 20$ mmHg increase $\geq 20$ mmHg decrease
Diastolic Blood Pressure	> 105 mmHg < 50 mmHg	$\geq 15$ mmHg increase $\geq 15$ mmHg decrease
Weight	-	$\geq 7\%$ increase $\geq 7\%$ decrease

<sup>a</sup>In order to be identified as potentially clinically relevant, an on-treatment value must meet the “Criterion Value” and also represent a change from the subject’s baseline value of at least the magnitude shown in the “Change Relative to Baseline” column.

**Appendix 3 Criteria for Identifying ECG Measurements of Potential Clinical Relevance**

<b>Variable</b>	<b>Criterion Value<sup>a</sup></b>	<b>Change Relative to Baseline<sup>a</sup></b>
Heart Rate	$\geq 120$ bpm $\leq 50$ bpm	increase of $\geq 15$ bpm decrease of $\geq 15$ bpm
PR	$\geq 200$ msec	increase of $\geq 50$ msec
QRS	$\geq 120$ msec	increase of $\geq 20$ msec
QTcF	$> 450$ msec (males and females)	

<sup>a</sup>In order to be identified as potentially clinically relevant, an on-treatment value must meet the “Criterion Value” and also represent a change from the subject’s baseline value of at least the magnitude shown in the “Change Relative to Baseline” column.

## Appendix 4 List of Summary Tables

CT-1.1	Subject Disposition (All Subjects)
CT-1.2	Analysis Set (Randomized Subjects)
CT-2.1	Reasons for Discontinuation (Randomized Subjects)
CT-2.2	Reasons for Discontinuation by Period (IMP Administered Subjects)
CT-2.3	Reasons for Discontinuation by Food Condition (IMP Administered Subjects)
CT-3.1	Demographic and Baseline Characteristics (Food Effect Analysis Set)
CT-3.2	Demographic and Baseline Characteristics (Safety Analysis Set)
CT-4.1	Concomitant Medications Taken during IMP Administration Period (Safety Analysis Set)
CT-4.2	Summary of Major Protocol Deviations by Center and Type of Deviation (Randomized Subjects)
CT-7	Extent of Exposure (Safety Analysis Set)
CT-8.1	Overall Summary of Adverse Event (Safety Analysis Set)
CT-8.2.1	Incidence of TEAEs by System Organ Class and MedDRA Preferred Term (Safety Analysis Set)
CT-8.2.2	Incidence of Drug-related TEAEs by System Organ Class and MedDRA Preferred Term (Safety Analysis Set)
CT-8.3.1	Incidence of TEAEs by Severity by System Organ Class and MedDRA Preferred Term (Safety Analysis Set)
CT-8.3.2	Incidence of Drug-related TEAEs by Severity by System Organ Class and MedDRA Preferred Term (Safety Analysis Set)
CT-8.4.1	Incidence of TEAEs with an Outcome of Death by MedDRA System Organ Class and Preferred Term (Safety Analysis Set)
CT-8.4.2	Incidence of Drug-related TEAEs with an Outcome of Death by MedDRA System Organ Class and Preferred Term (Safety Analysis Set)
CT-8.5.1	Incidence of Serious TEAEs by System Organ Class and MedDRA Preferred Term (Safety Analysis Set)
CT-8.5.2	Incidence of Drug-related Serious TEAEs by System Organ Class and MedDRA Preferred Term (Safety Analysis Set)
CT-9.1	Listing of Deaths (Safety Analysis Set)
CT-9.2	Listing of Serious Adverse Events Other Than Death (Safety Analysis Set)
CT-10.1.1	Descriptive Statistics for Clinical Laboratory Test Results - Serum Chemistry (Safety Analysis Set)
CT-10.1.2	Descriptive Statistics for Clinical Laboratory Test Results - Hematology (Safety Analysis Set)
CT-10.1.3	Descriptive Statistics for Clinical Laboratory Test Results - Urinalysis (Safety Analysis Set)
CT-10.2.1	Shift Tables of Clinical Laboratory Test Results - Serum Chemistry (Safety Analysis Set)
CT-10.2.2	Shift Tables of Clinical Laboratory Test Results - Hematology (Safety Analysis Set)
CT-10.2.3	Shift Tables of Clinical Laboratory Test Results - Urinalysis (Safety Analysis Set)
CT-10.3	Shift Tables of Clinical Laboratory Test Results - Qualitative Urinalysis (Safety Analysis Set)
CT-10.4.1	Incidence of Potentially Clinically Significant Abnormalities in Laboratory Tests (Safety Analysis Set)
CT-10.4.2	Listing of Potentially Clinically Significant Abnormalities in Laboratory Tests (Safety Analysis Set)
CT-10.5.1	Incidence of Hy's Law Cases (Safety Analysis Set)
CT-10.5.2	Listing of Hy's Law Cases (Safety Analysis Set)
CT-11.1	Descriptive Statistics for Vital Signs (Safety Analysis Set)
CT-11.2.1	Incidence of Potentially Clinically Significant Abnormalities in Vital Signs (Safety Analysis Set)

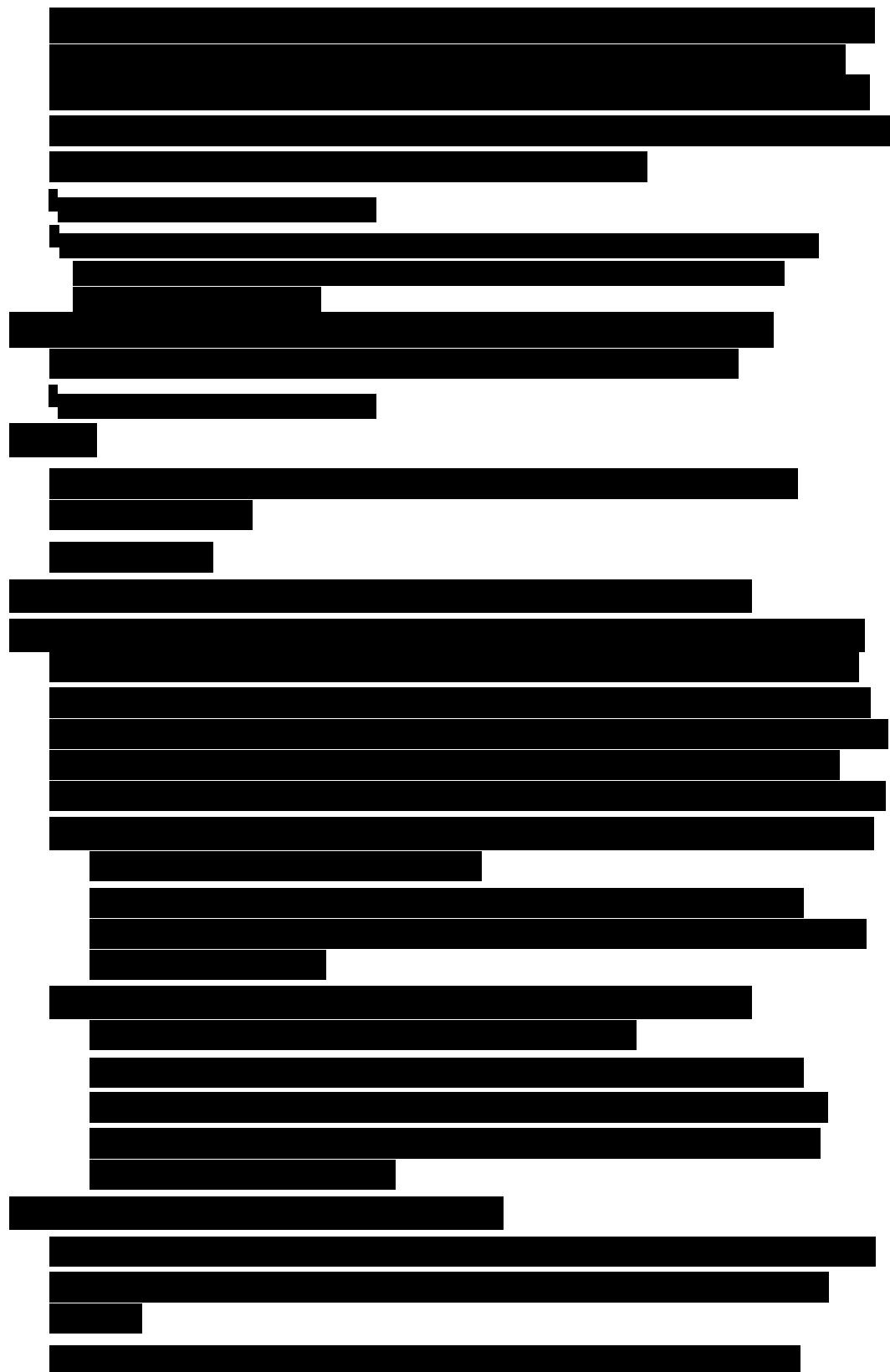
CT-11.2.2	Listing of Potentially Clinically Significant Abnormalities in Vital Signs (Safety Analysis Set)
CT-12.1	Descriptive Statistics for 12-Lead ECG Parameters (Safety Analysis Set)
CT-12.2	Shift Table of 12-Lead ECG Findings (Safety Analysis Set)
CT-12.3	Incidence of Categorical Changes in 12-Lead ECG - QTcF (Safety Analysis Set)
CT-12.4.1	Incidence of Potentially Clinically Significant Abnormalities in ECG Evaluations (Safety Analysis Set)
CT-12.4.2	Listing of Potentially Clinically Significant Abnormalities in ECG Evaluations (Safety Analysis Set)
CT-13.1	Descriptive Statistics for Body Weight and BMI (Safety Analysis Set)
CT-13.2.1	Incidence of Potentially Clinically Significant Abnormalities in Body Weight (Safety Analysis Set)
CT-13.2.2	Listing of Potentially Clinically Significant Abnormalities in Body Weight (Safety Analysis Set)
CT-14	Descriptive Statistics for DIEPSS (Safety Analysis Set)
CT-15	Summary of Suicidality in C-SSRS (Safety Analysis Set)
CT-16.1	Listing of Subjects whose CGI-S has Worsened (Safety Analysis Set)
CT-16.2	Listing of Subjects whose CGI-I has Worsened (Safety Analysis Set)
PKT-1.1	Individual and Summarized Brexpiprazole Plasma Concentrations Following Single Oral Administration of Brexpiprazole QW Formulation (Food Effect Analysis Set)
PKT-1.2	[REDACTED]
PKT-2.1	Individual and Summarized Brexpiprazole Plasma Pharmacokinetic Parameters Following Single Oral Administration of Brexpiprazole QW Formulation (Food Effect Analysis Set)
PKT-2.2	[REDACTED]
PKT-3	Summary of Geometric Mean Ratio with Two-sided 90%CI for Brexpiprazole Pharmacokinetic Parameters (Food Effect Analysis Set)
PKF-1.1	Mean Brexpiprazole Plasma Concentrations Following Single Oral Administration of Brexpiprazole QW Formulation (Food Effect Analysis Set)
PKF-1.2	[REDACTED]
PKF-2.1	Median Brexpiprazole Plasma Concentrations Following Single Oral Administration of Brexpiprazole QW Formulation (Food Effect Analysis Set)
PKF-2.2	[REDACTED]
PKF-3.1	Individual Brexpiprazole Plasma Concentrations Following Single Oral Administration of Brexpiprazole QW Formulation (Food Effect Analysis Set)
PKF-3.2	[REDACTED]
PKF-4.1	Individual Brexpiprazole Plasma Concentrations Following Single Oral Administration of Brexpiprazole QW Formulation for Test Group in Comparison to Reference Group
PKF-4.2	[REDACTED]

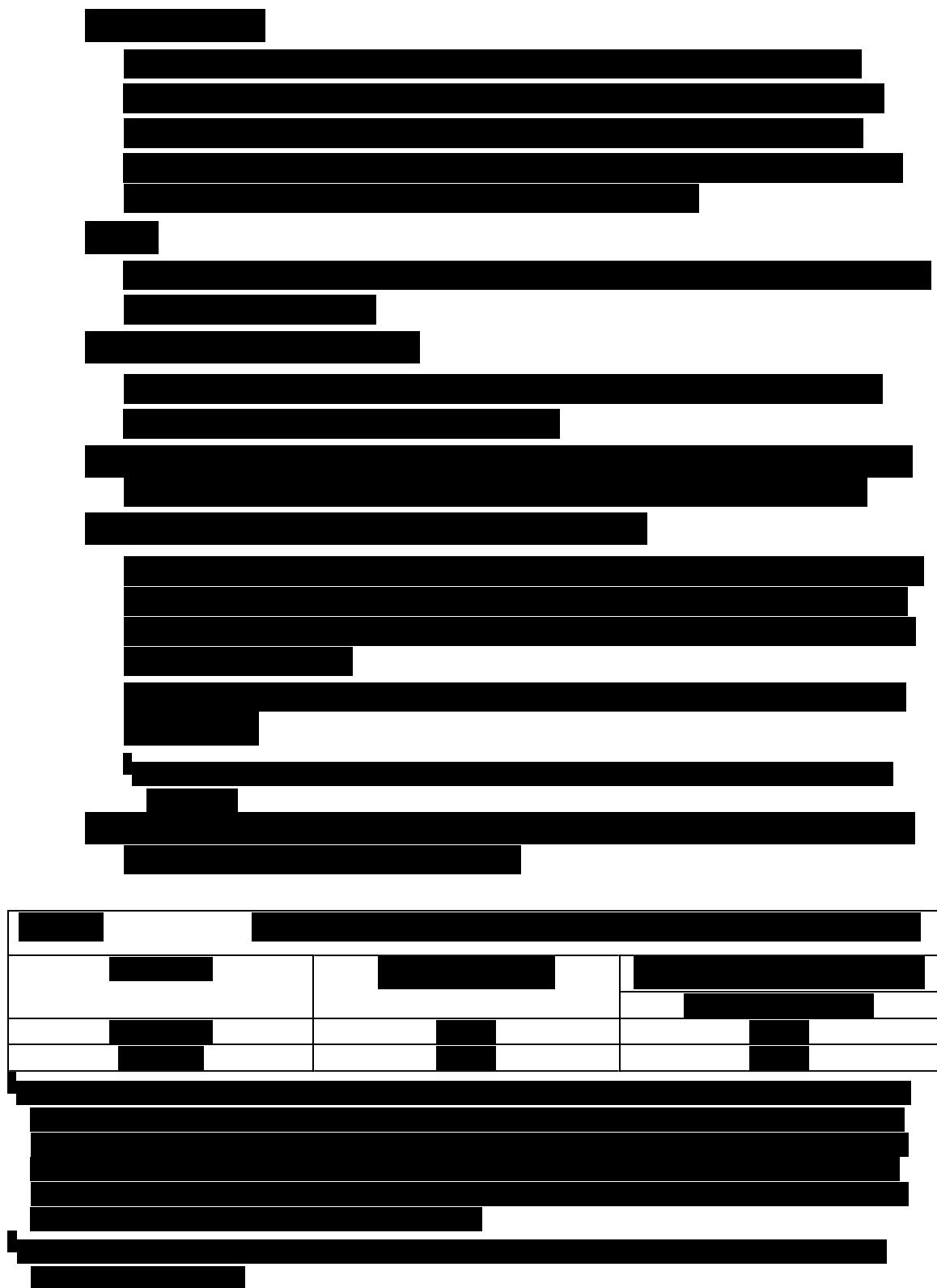
## Appendix 5 List of Subject Data Listings

DREAS-1	Discontinued Subjects and Reason for Discontinuation (All Subjects)
SUBEX-1	Subjects Excluded from Analysis Set (All Subjects)
DEMOG-1	Demographic and Baseline Characteristics (All Subjects)
SMED-1	Investigational Medicinal Product Administration (All Subjects)
SMED-2	Predosing (All Subjects)
PDEV-1	Major Protocol Deviations (All Subjects)
AE-1	Adverse Events (All Subjects)
LAB-1	Laboratory Test Results by Subject - Serum Chemistry (All Subjects)
LAB-2	Laboratory Test Results by Subject - Hematology (All Subjects)
LAB-3	Laboratory Test Results by Subject - Urinalysis (All Subjects)
LAB-4	Laboratory Test Results by Subject - Other (All Subjects)
PDATA-1	Inclusion Criteria or Exclusion Criteria Not Met (All Subjects)
PDATA-2	Subject Randomization List (All Subjects)
PDATA-3	Study Completion Status and Reason for Discontinuation (All Subjects)
PDATA-4	Medical History and Complications (All Subjects)
PDATA-5.1	Prior and Concomitant Medications (All Subjects)
PDATA-5.2	Prior and Concomitant Therapy Other Than Medication (All Subjects)
PDATA-6	Physical Examination (All Subjects)
PDATA-7	Vital Signs (All Subjects)
PDATA-8	Weight (All Subjects)
PDATA-9	Electrocardiogram Results (All Subjects)
PDATA-10	Drug-Induced Extrapyramidal Symptoms Scale (DIEPSS) (All Subjects)
PDATA-11.1	Columbia-Suicide Severity Rating Scale (C-SSRS) - Suicidal Ideation and Intensity (All Subjects)
PDATA-11.2	Columbia-Suicide Severity Rating Scale (C-SSRS) - Suicidal Behavior (All Subjects)
PDATA-11.3	Columbia-Suicide Severity Rating Scale (C-SSRS) - Actual Attempts (All Subjects)
PDATA-12	Clinical Global Impression - Severity (CGI-S) (All Subjects)
PDATA-13	Clinical Global Impression - Improvement (CGI-I) (All Subjects)
PDATA-14	Pharmacokinetic Blood Draw Time (All Subjects)
PDATA-15	DNA Storage (All Subjects)
PDATA-16	CYP2D6 Genetic Test (All Subjects)
PDATA-17	Meal (All Subjects)
PDATA-18	Bowel-movement Investigation (All Subjects)
PDATA-19	Post-treatment Follow-up (All Subjects)
PDATA-20	Screen Failures (All Subjects)
PDATA-21	Hospitalization (All Subjects)

A horizontal bar chart illustrating the percentage of the population aged 65 and older across various US entities. The x-axis represents the percentage, ranging from 0% to 25% in 5% increments. The y-axis lists the entities. The bars are dark gray, with the length of each bar corresponding to the percentage value for that entity.

Entity	Percentage (%)
Mississippi	~14
Alabama	~16
Arkansas	~17
Florida	~18
Illinois	~19
Michigan	~20
North Carolina	~21
South Carolina	~22
Washington	~23
Wyoming	~24
District of Columbia	~24
Alaska	~25
Guam	~25
Hawaii	~25
Missouri	~25
Puerto Rico	~25
Virginia	~25
West Virginia	~25





Category	Approx. Sample Count
1	850
2	120
3	120
4	120
5	120
6	120
7	120
8	120
9	120
10	120

This horizontal bar chart displays 10 data series, each consisting of two bars. The first 9 series are set against a light gray background, while the last series is set against a dark gray background. Each bar is black and represents a different data value for each of the 10 series.

