

Clozaril® (clozapine)

NDA 19-758/S-047

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1 Potential Bias in the Referral of Information to the SMB

1.1 FDA Issue No. 4:

The FDA reviewed data from the Clinical Global Impression of Change in Severity of Suicidality (CGI-SS) and found that "for both versions of the CGI-SS, the p-values for the between-treatment contrast using the ratings of the unblinded investigators were lower (in favor of clozapine) than those for the between-treatment contrast using the ratings of the blinded psychiatrist. While clearly not proof of bias in the unblinded investigators, these findings raise a concern about the possibility of bias. Furthermore, it is our (FDA) impression that the vast majority of events reviewed by the SMB were referred to the SMB by the unblinded investigators. The numbers of referrals and proportions of those referred who were judged to represent Type 1 events can be summarized as follows:"

	Clozaril	Zyprexa	Difference
Number of patients referred to SMB	122	157	35
Number patients with a SMB-determined Type 1 event	84% (102/122)	90% (141/157)	39

"It might be argued that, since the unblinded investigators had primary responsibility for deciding which events would be forwarded to the SMB, they may have, due to their bias for clozapine, forwarded more olanzapine events than clozapine events. Since there is clearly a high correlation between the number of referrals and the ultimate number of events judged to be Type 1, any bias in favor of clozapine in deciding which events to refer might have biased the overall results of this study in favor of clozapine."

Please fully clarify the source of referrals to the SMB. It is also critical to describe whether or not the medical monitor was blinded, and, if not, how this affected the referral rate. Finally, please provide a listing of the events referred by Ingenix staff to the unblinded investigators and for which the unblinded investigators decided not to send them on to the SMB.

1.2 Novartis Response to Issue No. 4:

The protocol required the principal investigator (PI) to assess and provide documentation concerning clinical events that might be considered a Type 1 event. To ensure that all potential Type 1 events were identified and subsequently reviewed by the SMB, the following procedures contributed to identification of potential Type 1 events (See Section 3.5.3 of the Clinical Study Report):

1. During scheduled site visits, the Clinical Research Associates (CRAs) reviewed source documents for any unreported potential Type 1 events. If any such cases were identified, the CRA informed the Medical Monitor. The Medical Monitor reviewed these cases and requested the site to send additional documentation and/or a Potential Endpoint Package (PEP).

2. Independently of the CRA site visits, the Medical Monitor reviewed the Serious Adverse Event Forms. If there was evidence of an unreported potential Type 1 event, the Medical Monitor asked the site whether the unreported event might be a potential Type 1 event. Based on the site response, the Medical Monitor requested via a telephone call or documented query that a PEP be prepared and submitted to the SMB, unless the PI provided documentation explicitly noting that this event did not involve suicidal behavior.

If, following the query, the PI's opinion was that an event was not related to suicidal behavior then a PEP was not completed. Because the unblinded PI ultimately decided what constituted suicidal behavior the potential for bias did exist. To investigate whether such referral bias was actually present during the study, Novartis performed the following retrospective review.

1.2.1 Methods

In the following, "patient" refers to all data in the InterSePT database for a particular patient.

Step 1: Identification of Non-PEP Patients

The database was divided into PEP and non-PEP patients, as it was assumed that the referral bias would have occurred in the non-PEP patients (i.e., patients without a potential Type 1 events during the study).

Step 2: Review of Non-PEP Patients

The following databases were used to identify all events potentially related to suicidal behavior:

- 1) Adverse Event (AE) database: Verbatim AE terms from the case report form (CRF) AE page.
- 2) Query database: Database of documented queries generated during the study.
- 3) Comments database: Comments of site staff recorded on the CRF Comments page.

On the basis of these three databases a search term dictionary was developed, which included all terms related to suicidal behavior (Appendix 1). The search term dictionary was embedded in a program that searched for matches between a dictionary term and the same term in a particular patient's data. The search term dictionary was validated by applying the dictionary terms to a random selection of PEP patients (Appendix 2). All of these PEP patients were successfully identified by the search program.

The search term dictionary was then applied to all non-PEP patients. Each search term match yielded the following patient profile (Appendix 3):

- Patient ID
- Patient's randomization date
- Patient's end of study date

- Retrieved dropout (RDO) index if the patient was a RDO patient
- Last date of follow-up, if RDO patient
- AE matches that included PI's AE term, AE start date, AE end date
- Query matches that included query CRF page, query panel, query text
- Comment matches that included comment record number, CRF identifier of comment, verbatim comment

Appendix 3 contains two types of lists. The first list contains patients who had at least one match with the AE database, and the second list contains a patients who did not have an AE match but at least one match with the Query and/or the Comments database(s).

The CRFs of patients from both lists were reviewed to identify unreported potential Type 1 events. This review encompassed not only AEs/SAEs, comments and queries but also all of the relevant clinical material within the CRF. The review focussed specifically on the following:

- Whether or not the PI was queried with respect to the occurrence of suicidal behavior
- If the PI was queried, the PI verbatim response to the query
- Whether or not the AE was potentially related to suicidal behavior
- If the AE was potentially related to suicidal behavior, whether or not it met the criteria for a PEP

The findings of the review are documented in the "Non-PEP Data Review Summary" (Appendix 4). Each summary concludes with the Novartis reviewer's assessment of whether or not the reviewed event met the criteria for a PEP. If the Novartis reviewer concluded that the event met the criteria for a PEP, then a Novartis physician reviewed the data to confirm that the event was a PEP.

1.2.2 Summary of Findings

There were 701 patients in the study that did not have a PEP. Matches to at least one term in the search term dictionary occurred in 279 (40%) of these patients. The review of the data for these 279 non-PEP patients indicates that 5 (0.01%) of these patients experienced an event that may have warranted the submission of a PEP to the SMB (Table 1). Clinical summaries including a Novartis conculsion for these five cases are provided in Appendix 5.

Table 1 Summary of Non-PEP Patients

Category	N
Total Non-PEP Patients	701
Total Non-PEP Patients with at least one match to search term dictionary (Appendicies 3 and 4)	279
Total Non-PEP Patients who experienced an event that may have warranted a PEP	5 (3 Clozaril, 2 Zyprexa)

(Appendix 5)	

1.2.3 Conclusion

The review of the non-PEP patients shows that, for 3 Clozaril and 2 Zyprexa patients, there were potential Type 1 events that were not referred to the SMB. On the basis of these findings it appears unlikely that a bias toward either treatment group existed during the conduct of InterSePT. The results of this review also suggest that, although the InterSePT study design did not completely exclude the potential for bias by the PIs, the PIs themselves acted without bias.

Appendix 1: Search Term Dictionary

Search Terms for Adv	erse Event Database
Meddra System	PI's AE Term
Organ Class	
GI disorders	ABDOMINAL EVENTRATION(SUBSEQUENT TO
	SUICIDE ATTEMPT PRIOR STUDY START)
	,
Injury and poisoning	ABRASION LEAFT HAND
	ABRASION ON LEFT-HAND
	ABRASION ON RIGHT SHIN/ACCIDENT
	ABRASION ON RIGHT SHIN/ACCIDENTAL
	ABRASION TO RGT. KNEE
	ACCIDENTAL FALL
	ACCIDENTAL OVERDOSE OF STUDY MEDICATION
	ACCIDENTAL PARIETAL INJURY
	ACCIDENTAL SUPERFICIAL BURN TO LEFT HAND
	ACCIDENTLY CUTTING OF HER FEET
	ACCIDENTLY CUTTING OF HER FEET CRACKED RIBS
	ALCOHOL BINGE
	ALCOHOL BINGES
	ANKLE INJURY-RIGHT (ACCIDENTAL INJURY)
	BLISTERS LEFT HAND
	BLISTERS ON FOOT (LEFT)
	BLISTERS ON HER BACK
	BROKEN ARM (LEFT) - ACCIDENTAL
	BROKEN LEG (RIGHT) (ACCIDENTAL)
	BRUISED RIGHT KNEE (ACCIDENTAL INJURY, DUE TO
	FALL)
	BRUISING TO BOTH KNEES (ACCIDENTAL)
	BURN LEFT MIDDLE FINGER (ACCIDENTAL)
	BURN ON CALF, ACCIDENTAL
	BURN TO RIGHT SHOULDER (ACCIDENTAL)
	COMA DUE TO OVERDOSE (OVERDOSE INTENTIONAL
	BUT NOT SUICIDE ATTEMPT)
	CONTUSION ON SCALP - ACCIDENTAL INJURY
	CRACK COCAINE OVERDOSE (ACCIDENTAL)
	CUT ON ARM (ACCIDENTAL)
	CUT ON HEAD (ACCIDENTAL)
	CUT RIGHT HAND SECONDARY TO ASSAULT
	DRUG INTOXICATION
	DRUG TOXICITY
	DRUNKENNESS
	ETOA (ALCOHOL) INTOXICATION
	FRACTURE IN ANKLE (NO ASSOCIATED SUICIDALITY)

FRACTURE LEFT FOOT-ACCIDENTAL
FRACTURE LEFT WRIST (ACCIDENTALFRACTURE OF
LEFT ARM (ACCIDENTAL INJURY)
FRACTURE OF LEFT LOWER EXTREMITY-
ACCIDENTAL
FRACTURE RIGHT ANKLE-ACCIDENTAL
FRACTURE RIGHT WRIST-ACCIDENTAL FRACTURED
RIGHT ARM
FRACTURED SHOULDER
FRONTAL INJURY(NOT RELATED TO SUICIDE
·
ATTEMPT)
GRAZES TO FOREHEAD (ACCIDENT FOLLOWING
OVERDOSE)
HAEMATOMA RIGHT HAND (DUE TO
VENEPUNCTURE)
HAND FRACTURE (ACCIDENTAL)
HAND FRACTURE (NOT ASSOCIATED WITH SUICIDE
ATTEMPT)
 HEAD ABRASION-ACCIDENTAL
HEAD BRUISE IN PARIETAL REGION (ACCIDENTAL)
HEAD INJURY
INADVERTENT OVERDOSE
INCISION (INJURY OF THE RIGHT HAND BY AN
ACCIDENT)
INJURED LEFT SHOULDER IN FALL (ACCIDENTAL)
INJURED RIGHT ANKLE (ACCIDENTAL)
INJURY OF LEFT ARM (ACCIDENTAL)
INJURY OF LEFT KNEE (ACCIDENTAL INJURY)
,
INJURY OF LEFT WRIST (ACCIDENTAL INJURY)
INTENTIONAL OVERDOSE (NOT SUICIDE ATTEMPT)
MINITHIN (OTC DIET AID) OVERDOSE - ACCIDENTAL
MORPHINE OVERDOSE, INTENTIONAL (NOT RELATED
TO A SUICIDE ATTEMPT)
OVERDOSE
OVERDOSE (CLEARLY NOT SUICIDE ATTEMPT)
 OVERDOSE (INTENTIONAL BUT NOT SUICIDE
ATTEMPT) (NAI)
OVERDOSE (NO ASSOCIATED SUICIDALITY)
OVERDOSE (NOT SUICIDE ATTEMPT)
OVERDOSE (NOT SUICIDE ATTEMPT, IMPULSIVE
AFTER ROW WITH NEIGHBOURS)
OVERDOSE (NOT SUICIDE ATTEMPT,NO SPECIFIC
AIM)
OVERDOSE (NOT SUICIDE ATTEMPT,PSYCHOSOCIAL
STRESS)
OVERDOSE (RELATED TO ECONOMIC & SOCIAL
ISSUES-NO SUICIDE ATTEMPT MADE)

	SELF HARM (MADE SUPERFICIAL CUTS TO L
	FOREARM)
	SELF MUTILATION
	SELF MUTILATION (PT TRIED TO REMOVE TATTOOS)
	SLIGHT BURN VESICLES (ACCIDENTAL INJURY)
	SOFT TISSUE INJURY
	SUPERFICIAL ABRASION RIGHT HAND (ACCIDENTAL
	INJURY)
	SUPERFICIAL ABRASION RIGHT KNEE (ACCIDENTAL
	INJURY)
	SUPERFICIAL BURN (ACCIDENTAL)
	SUPERFICIAL CUT LFT WRIST INTENTIONAL (SELF-
	MUTILATION) NOT ATTEMPT
	SUPERFICIAL CUT ON FOREHEAD-ACCIDENT
	SUPERFICIAL FACIAL SKIN INJURY (ACCIDENTAL)
	SUPERFICIAL LACERATIONS BILATERAL SHINS-
	ACCIDENT
	SUPERFICIAL SCRATCH ON RIGHT HAND-RELATED
	TO ACCIDENTAL INJURY
	SUSPECTED OVERDOSE (ACCIDENTAL)
	UNINTENTIONAL OVERDOSE
	UNINTENTIONAL OVERDOSE OF 30MG ZYPREXA
	VERTEBRAL COMPRESSION FRACTURE
	(ACCIDENTAL)
	WALKED IN FRONT OF CAR (ACCIDENTAL
	WOUND IN FOREARM(RIGHT) (NOT SUICIDE
	ATTEMPT)
Psychiatric disorders	(PRUSIONISM) SELF MUTILATION
1 sychiatric disorders	BRUISE RIGHT HAND (ACCIDENTAL INJURY)
	BRUISE TO FOREHEAD (ACCIDENTAL INJURY)
	BRUISE TO L HAND (ACCIDENTAL
	BRUISED ANKLE
	BRUISED BOTH ARMS
	BRUISED EYE (DUE TO ACCIDENTAL FALL)
	BRUISED LEFT EYE
	BRUISED RIBS
	BRUISES (BOTH ARMS ACCIDENTAL)
	BRUISING TO RIGHT ELBOW
	DEATH BY SUICIDE(HANGING
	DESIRE TO SELF-HARM
	DESTRUCTIVE BEHAVIOR
	EXPRESSING SUICIDE IDEAS
	FEELING SUICIDAL
	FELT SUICIDAL
	FRACTURE OF RIGHT TIBIA AND FIBULA (SUICIDE
	. =====================================

ATTEMPT)	
	CTDECC
HOSPITAL ADMISSION DUE TO	
HOSPITALISATION DUE TO INC	REASING OF
SCHIZOPHRENIA	
HOSPITALISATION DUE TO MEI	DICATION CHANGE
DUE TO DEPRESSION	
HOSPITALISATION FOR ANXIET	
HOSPITALISATION FOR THERA	PY TITRATION DUE TO
SUICIDAL IDEATION	
HOSPITALIZATION DUE TO INC	CREASING PSYCHOSIS
HOSPITALIZATION DUE TO PRE	EVENTION OF
HETROAGRESIVE BEHAVIOR.	
HOSPITALIZATION TO PREVEN	T SUICIDE ATTEMPT
HOSPITALIZED - SUICIDAL IDEA	ATION
IMMINENT RISK OF SUICIDE	
INCREASE IN SUICIDAL IDEATI	ON
INCREASE IN SUICIDAL IDEATI	ONS
INCREASE IN SUICIDALITY	
INCREASE OF SUICIDAL IDEAT	ION
INCREASE OF SUICIDAL IDEAT	
INCREASE OF SUICIDALITY	10110
INCREASE OF SUICIDALITY, SUI	ICIDAL THOUGHTS
INCREASE OF SURVEILLANCE (
OVERDOSED ON ZOPICLONE)	(BECHOSE ITTIEIT
INCREASE SUICIDAL IDEATION	J
INCREASE SUICIDALITY	`
INCREASE SUICIDALITY HOSPI	TALIZATION
INCREASED RISK OF SUICIDE	TALIZATION
INCREASED RISK OF SUICIDE A	TTEMDT
INCREASED RISK OF SOICIDE A	
INCREASED SUCIDALITY	VIOR
	NAT .
INCREASED SUICIDAL IDEATIO	
INCREASED SUICIDAL IDEATIO	
INCREASED SUICIDAL THOUGH	118
INCREASED SUICIDALITY	777177
INCREASED THOUGHTS OF SEL	
INJURY OF LEFT WRIST (RELAT	TED TO SUICIDE
ATTEMPT)	
INJURY PAIN (DUE TO CUT ON I	LEFT LOWER ARM
FROM SUICIDE ATTEMPT	
INTENTIONAL LACERATED RIG	
RELATED TO SUICIDE ATTEMP	
INTENTIONAL SUPERFICIAL CU	
RELATED TO SUICIDE ATTEMP	
INTERMITTENT SUICIDAL IDEA	ATION
INTERMITTENT SUICIDAL IDEA	ATIONS

MILD CLUCIDAL IDEATION
MILD SUICIDAL IDEATION
MILDLY SUICIDAL
OVERDOSE (SUICIDE ATTEMPT)
OVERDOSE OF CON-MEDS (SUICIDE ATTEMPT)
OVERDOSE/SUICIDE ATTEMPT
OVERDOSE-INTENTIONAL-GESTURE
OVERDOSE-SUICIDE ATTEMPT
RIGHT FOOT METATARSUS FRACTURE (RELATED TO
SUICIDE ATTEMPT)
RISK OF SELF HARM
SCRATCHES-LEFT FOREARM AND LEFT LEG (SELF-
INFLICTED)
SELF HARM (CUT LEFT FOREARM)(GESTURE NOT
SUICIDE ATTEMPT)
SELF INFLICTED BURNS LEFT HAND-NOT RELATED
TO SUICIDE ATTEMPT
SELF INFLICTED CUT TO LEFT ARM-NOT RELATED TO
SUICIDE ATTEMPT
SELF INFLICTED SCRATCHES TO LEFT ARM -NOT
RELATED TO SUICIDE ATTEMPT
SELF MUTILATION DELUSION
SELF-HARM (IDEAS OF)
SELF-HARM IDEATION
SELF-HARM SUPERFICIAL LACERATIONS TO RIGHT
FOOT (NOT SUICIDE ATTEMPT)
SELF-INDUCED VOMITING
SELF-MUTILATION
SEVERELY SUICIDAL
SUCIDAL IDEATION
SUICICDAL IDEATION
SUICIDAL
SUICIDAL ATTEMPT - HANGING
SUICIDAL ATTEMIT - HANGING SUICIDAL ATTEMPT (OVERDOSE AND SWALLOWING
A PIECE OF SOAP)
SUICIDAL ATTEMPT BY JUMPING
SUICIDAL ATTEMPT BY JUMPING SUICIDAL ATTEMPT BY OVERDOSE
SUICIDAL ATTEMPT BY OVERDOSE SUICIDAL ATTEMPT/DRUG
SUICIDAL ATTEMPT/OVERDOSE
SUICIDAL GESTURE(MILD OVERDOSE)
SUICIDAL IDEALISM
SUICIDAL IDEAS
SUICIDAL IDEATION
SUICIDAL IDEATION AND PLAN
SUICIDAL IDEATION INCREASE
SUICIDAL IDEATION INCREASED
SUICIDAL IDEATION SECONDARY TO CHRONIC BACK

PAIN
SUICIDAL IDEATION SECONDARY TO LEG PAIN AND
HERNIATED DISC
SUICIDAL IDEATION W/PLAN
SUICIDAL IDEATION(VAGUE)
SUICIDAL IDEATION/SUICIDE ATTEMPT
SUICIDAL IDEATION-INTERMITTENT
SUICIDAL IDEATION-PASSIVE
SUICIDAL IDEATIONS SUICIDAL IDEATIONS
SUICIDAL INTENTION SUICIDAL INTENTION
SUICIDAL THINKING
SUICIDAL THINKING SUICIDAL THINKING WITH IMMINENT RISK OF
SUICIDE
SUICIDAL THOUGHT
SUICIDAL THOUGHTS
SUICIDAL THOUGHTS (INTERMITTENT)
SUICIDAL THOUGHTS (SUICIDAL RISK)
SUICIDAL THREATS
SUICIDALITY
SUICIDALITY (SUBSEQUENT HOSPITAL ADMISSION)
SUICIDALITY(WORSENING)
SUICIDE
SUICIDE (JUMPING IN FRONT OF A TRAIN)-DEATH
SUICIDE ATTEMPT
SUICIDE ATTEMPT - OVERDOSE
SUICIDE ATTEMPT (BLEACHED RIGHT AND LEFT EYES)
SUICIDE ATTEMPT (CARBON MONOXIDE POISONING)
SUICIDE ATTEMPT (CUTTING OF LEFT FOREARM)
SUICIDE ATTEMPT (CUTTING OF LEFT FOREARM) SUICIDE ATTEMPT (DUE TO ZYPREXA OVERDOSE)
SUICIDE ATTEMPT (BUE TO ZTPREZA OVERDOSE) SUICIDE ATTEMPT (ELECTRICITY)
SUICIDE ATTEMPT (ELECTRICITY) SUICIDE ATTEMPT (HANGING)
SUICIDE ATTEMPT (HANGING) SUICIDE ATTEMPT (HANGING+PHLEBOTOMY)
SUICIDE ATTEMPT (JUMPED IN A RIVER) SUICIDE ATTEMPT (JUMPED IN FRONT OF MOVING
VEHICLE)
SUICIDE ATTEMPT (OVERDOSE OF BLYOTRI)
SUICIDE ATTEMPT (OVERDOSE)
SUICIDE ATTEMPT (OVERDOSE)
SUICIDE ATTEMPT (PANIAL ONG CROWDED AVENUE
SUICIDE ATTEMPT (RAN ALONG CROWDED AVENUE-
INTENTION OF BEING KILLED)
SUICIDE ATTEMPT (RUSSIAN ROULETTE WITH GUN)
SUICIDE ATTEMPT (SELF INFLICTED LACERATIONS
TO RIGHT WRIST WITH BLADE)
SUICIDE ATTEMPT (SLASHING OF LEFT ARM)

SUICIDE ATTEMPT (TRAFFIC ACCIDENT)
SUICIDE ATTEMPT (WALKED INTO TRAFFIC WITH
EYES CLOSED)
SUICIDE ATTEMPT (WENT INTO A LAKE)
SUICIDE ATTEMPT (WRIST SLASHING)
SUICIDE ATTEMPT (WRIST SLASHING,SELF
MUTILATION)
SUICIDE ATTEMPT BY ACUTE POLYPHARMACY
INTOXICATION RESULTING IN DEATH
SUICIDE ATTEMPT BY ASPHYXIATION
SUICIDE ATTEMPT BY BURNING LEADING TO DEATH
SUICIDE ATTEMPT BY HANGING
SUICIDE ATTEMPT BY HANGING RESULTING IN
DEATH
SUICIDE ATTEMPT BY INGESTION OF LAMP OIL
SUICIDE ATTEMPT BY INGESTION OF POISON
SUICIDE ATTEMPT BY LACERATION
SUICIDE ATTEMIT BY C.D.
SUICIDE ATTEMIT BY O.B. SUICIDE ATTEMPT BY OVERDOSE
SUICIDE ATTEMPT BY OVERDOSE (DUE TO INCR.
PSYCHOSIS,LIFE STRESS EVENT)
SUICIDE ATTEMPT BY OVERDOSE (WITH
PARACETAMOL (INTENTIONAL))
SUICIDE ATTEMPT BY OVERDOSE ATTEMPT
SUICIDE ATTEMPT BY OVERDOSE LEADING TO
DEATH
SUICIDE ATTEMPT BY OVERDOSE(GESTURE SEEKING)
SUICIDE ATTEMPT BY POISONING BY KITCHENS GAS
SUICIDE ATTEMPT BY SELF-MUTILATION
SUICIDE ATTEMPT DUE TO
PSYCHOSIS(SELFMUTILATION-PT CUT LEFT LOWER
ARM)
SUICIDE ATTEMPT VIA WRIST SLASHING
SUICIDE ATTEMPT WITH OVERDOSE
SUICIDE ATTEMPT, SELF-MUTILATION
SUICIDE ATTEMPT/HANGING/DEATH
SUICIDE ATTEMPT/INCREASE PSYCHOSIS
SUICIDE ATTEMPT/OVERDOSE
SUICIDE ATTEMPT/SELF HARM
SUICIDE ATTEMPT-CUT WRIST WITH PAPER CLIP
SUICIDE ATTEMPT-GESTURES
SUICIDE ATTEMPT-HEAD BANGING
SUICIDE ATTEMPT-LACERATIONS TO WRISTS
SUICIDE ATTEMPT-OVERDOSE
SUICIDE ATTEMPT-OVERDOSE OF RESTORIL
SUICIDE ATTEMPT-OVERDOSE OF TRIAL AND
SCIOIDE ATTEMET OF ERDOSE OF TRANSPORT

	GOLIGO GELLIEU GERIGUETA
	CONCOMITANT MEDICATION
	SUICIDE GESTURE
	SUICIDE IDEATION
	SUICIDE INTENTIONS
	SUICIDE RISK
	SUICIDE THREAT
	SUICIDE/DEATH BY HANGING
	SUPERFICIAL ABRASIONS LEFT
	FOREARM(INTENTIONAL)
	SUPERFICIAL ABRASIONS LEFT WRIST
	(INTENTIONAL)
	SUPERFICIAL ABRASIONS RIGHT FOREARM
	(INTENTIONAL)
	SUPERFICIAL CUT TO LEFT FOREARM (GESTURE)
	SUPERFICIAL CUTS-LEFT FOREARM (SELF-INFLICTED)
	SUPERFICIAL LACERATIONS TO WRISTS (TO FEEL
	PAIN, NOT TO KILL HERSELF)
	SUPERFICIAL LACERATIONS TO WRISTS(TO
	EXPERIENCE PAIN, NOT ATTEMPT)
	SUPERFICIAL SCRATCHES-BOTH FOREARMS SELF-
	INFLICTED NOT SUICIDE ATTEMPT
	THOUGHTS OF OVERDOSING
	THOUGHTS OF SELF HARM
	THOUGHTS OF SELF-HARM (PATIENT DID NOT MAKE
	SUICIDE ATTEMPT)
	THOUGHTS OF SELF-HARM WITH SUICIDAL IDEATION
	THREAT OF FIRE SETTING
	THREAT OF TIRE SETTING THREATENING TO OVERDOSE
	WORSENING OF SUICIDALITY
	ZYPREXA OVERDOSE – INTENTIONAL
	ZIPKEAA OVERDOSE – INTENTIONAL
0 '10' '	ADMICCION FOR ODCEDY/ATION (FOR DOCCIDI F
Social Circumstances	ADMISSION FOR OBSERVATION (FOR POSSIBLE
	REBOUND PSYCHOSIS)
	ADMISSION FOR RESPITE CARE
	ADMISSION FOR RESPITE CARE IN RESIDENTIAL
	HOME
	ADMISSION FOR SOCIAL REASON
	HOSP DUE TO FAMILY CONFLICT
	HOSPITAL ADMISSION(RESPITE CARE)
	HOSPITALISATION DUE TO FAMILY CONFLICT
	HOSPITALISATION DUE TO SOCIAL REASON
	HOSPITALISATION DUE TO SOCIAL REASONS
	LILOCDITALICATION FOR LONGI DIECC
	HOSPITALISATION FOR LONELINESS
	HOSPITALISATION FOR SOCIAL REASON

	(PSYCHOSIS)
	HOSPITALIZATION DUE TO ASSESSMENT TO
	WORKING ABILITY
	HOSPITALIZATION DUE TO SOCIAL REASONS
	HOSPITALIZATION FOR SOCIAL REASON
	HOSPITALIZATION FOR SOCIAL REASONS
Surgical and Medical	BRUISING OVER R ANTECUBITAL FOSSA
Procedures	(ACCIDENTAL AND DUE TO VENEPUNCTURE)
	BRUISING OVER RIGHT ANTECUBITAL FOSSA-
	ACCIDENTAL DUE TO VENIPUNCTURE
	HOSPITALIZATION FOR BETTER SURVEILLANCE OF
	THE COMPLIANCE OF STUDY MED
	HOSPITALIZATION FOR PRACTICAL REASONS
Search Terms for Que	ry and CRF Comments Databases
Search Term	HIGHER LEVEL OF SURVEILLANCE FOR SUICIDALITY
	PE
	PEP
	POTENTIAL ENDPOINT
	SUICIDE ATTEMPT
	TYPE 1

Appendix 2: Validation of Search Term Dictionary

Novartis	Protocol ABA451	
Search Matches for ABA-451-106-0010	(Randomization: 150CT1998, EOS: 09FEB2001)	
AE termSUICIDAL IDEATIONSUICIDALITY		AE Dates 09/06/2000 to 09/08/2000 01/03/1999 to 01/05/1999
	This patient has no Query matches.	
	This nationt has no Commont matches	

[/proj/genesis/data/dev1/CLEX123/CLEX123ABA451/final/pgm_eff/srchchku.sas]

Table Generation: 100CT02

Novartis	Protocol ABA451	
Search Matches for ABA-451-114-0002	(Randomization: 16JUL1998, EOS: 08SEP1998)	
AE term		AE Dates 08/07/1998 to 08/12/1998
	This patient has no Query matches.	
	This patient has no Comment matches.	

Novartis PEP Patients For Search Term Review Protocol ABA451 Search Matches for ABA-451-123-0002 (Randomization: 12AUG1998, EOS: 08DEC1999, RDO Patient, RDO Last Date: 23AUG2000) AE term AE Dates ----SUICIDALITY 12/10/1999 to 12/20/1999---------SUICIDALITY 08/30/1998 to 09/17/1998-----11/24/1999 to 11/24/1999----------SUICIDE ATTEMPT (OVERDOSE) -----SUICIDE ATTEMPT (OVERDOSE) 03/25/1999 to 03/26/1999-----This patient has no Query matches. Matched Comment CRF Identifier Rec # Comment DC (SUICIDE ATTEMPT). PLEASE NOTE THAT PT

HAD EXTRA MEDICATION FROM

Novartis	PEP Patients For Search Term Revi	iew Protocol ABA451
Search Matches for ABA-451-123-0007	(Randomization: 21AUG1998, EOS: 10NOV19	998, RDO Patient, RDO Last Date: 04AUG1999)
AE term		AE Dates 10/01/1998 to 10/22/1998
	This patient has no Query matche	es.
	This patient has no Comment match	nes.

Novartis	PEP Patients For Search Term Review	Protocol ABA451
Search Matches for ABA-451-125-0018	(Randomization: 270CT1998, EOS: 230CT2000)	
AE termSUICIDAL IDEATIONSUICIDALITYSUICIDALITY		AE Dates 03/11/1999 to 03/19/1999 12/28/1998 to 01/22/1999 12/08/1998 to 12/10/1998
	This patient has no Query matches.	
	This patient has no Comment matches.	

Novartis	PEP Patients For Search Term Review	Protocol ABA451
Search Matches for ABA-451-304-0011	(Randomization: 12JAN1999, EOS: 09JAN2001)	
AE termBRUISED BOTH ARMSBRUISED LEFT EYEFEELING SUICIDALSUICIDAL IDEATIONSUICIDAL IDEATIONSUICIDALITY (SUBSEQUENT	r HOSPITAL ADMISSION)	AE Dates 04/26/2000 to 05/09/2000 04/26/2000 to 05/09/2000 02/10/1999 to 02/22/1999 01/31/1999 to 02/09/1999 10/09/1999 to 11/16/1999 04/25/2000 to 05/04/2000 06/06/2000 to 07/24/2000
	This patient has no Query matches.	

This patient has no Comment matches.

Novartis	PEP Patients For Search Term Review	Protocol ABA451
Search Matches for ABA-451-401-00	03 (Randomization: 20AUG1998, EOS: 17AUG2000)	
AE termINCREASE OF SUICIDAINCREASE OF SUICIDASUICIDAL IDEATION		AE Dates 05/07/1999 to 06/07/1999 10/13/1999 to EOS 04/16/1999 to 05/07/1999
	This patient has no Query matches.	
	This patient has no Comment matches.	

Clozapine® (clozaril) NDA 19-758/S-047

Appendix 2 Response to "Approvable" Letter (Issue No. 4)

Novartis PEP Patients For Search Term Review

Protocol ABA451

Search Matches for ABA-451-605-0006 (Randomization: 25AUG1998, EOS: 21AUG2000)

AE term
-----INCREASED RISK OF SUICIDE ATTEMPT
-----SUICIDAL IDEATION

AE Dates
09/23/1998 to 11/02/1998----05/05/1999 to 06/14/1999-----

This patient has no Query matches.

Matched Comment

Rec # CRF Identifier 2 BK 6050006 Comment
THE PATIENT TOLD US, SHE HAD SUICIDE
ATTEMPT WHEN SHE WAS 14 YEARS

Clozapine® (clozaril) NDA 19-758/S-047 Appendix 2 Response to "Approvable" Letter (Issue No. 4)

Novartis PEP Patients For Search Term Review

Protocol ABA451

Search Matches for ABA-451-903-0005 (Randomization: 10DEC1998, EOS: 03MAY1999, RDO Patient, RDO Last Date: 04DEC2000)

AE term
----SUICIDE ATTEMPT (OVERDOSE)

AE Dates 01/06/1999 to 01/07/1999-----

This patient has no Query matches.

Matched Comment

Rec # CRF Identifier 3 BK1 Comment NUMBER OF LIFETIME SUICIDE ATTEMPTS (2 DOCUMENTED) 7 IS THE BEST GUESS

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NDA	19-758	8/S-047

		Appendix 2
Response to "Approvable"	Letter	(Issue No. 4)

Novartis PEP Patients For Search Term Review Protocol ABA451

Search Matches for ABA-451-956-0003 (Randomization: 23DEC1998, EOS: 19DEC2000)

AE term AE Dates

-----SUICIDAL IDEATION 09/14/1999 to 11/04/1999----------SUICIDE ATTEMPT BY INGESTION OF POISON 12/26/1998 to 12/26/1998-----

01/05/1999 to 01/15/1999---------SUICIDE RISK

This patient has no Query matches.

Matched Comment

Rec # CRF Identifier Comment

1 DC PATIENT DIDNT TAKE ZYPREXA FOR SEVERAL

DAYS DUE TO HIS SUICIDE ATTEMPT

List of PEPs for Selected Patients

Patient ID	Event Date	Did SMB consider endpt?	Which type of endpt?
 ABA-451-106-0010	01/03/1999	No	
	09/06/2000	No	
ABA-451-114-0002	08/07/1998	Yes	Hosp.risk suicide/incr.lvl.surv
ABA-451-123-0002	03/25/1999	Yes	Suicide attempt
	04/10/2000		Hosp.risk suicide/incr.lvl.surv
	08/30/1998	Yes	Hosp.risk suicide/incr.lvl.surv
	11/24/1999	No	
	12/10/1999	Yes	Hosp.risk suicide/incr.lvl.surv
ABA-451-123-0007	01/13/1999	Yes	Hosp.risk suicide/incr.lvl.surv
	04/26/1999	Yes	Hosp.risk suicide/incr.lvl.surv
	10/01/1998		Hosp.risk suicide/incr.lvl.surv
ABA-451-125-0018	03/11/1999	Yes	Hosp.risk suicide/incr.lvl.surv
121 101 120 0010	12/31/1998		Hosp.risk suicide/incr.lvl.surv
	12/31/1330	100	noop. How balorde, mor. Ivi. balv
ABA-451-304-0011	01/31/1999	Yes	Hosp.risk suicide/incr.lvl.surv
	06/06/2000	Yes	Hosp.risk suicide/incr.lvl.surv
ABA-451-401-0003	05/07/1999	Yes	Hosp.risk suicide/incr.lvl.surv
ABA-451-605-0006	05/19/1999	Vas	Hosp.risk suicide/incr.lvl.surv
ABA 431 003 0000	09/23/1998		Hosp.risk suicide/incr.lvl.surv
	09/23/1990	162	nosp.lisk sulcide/incl.ivi.sulv
ABA-451-903-0005	01/06/1999	Yes	Suicide attempt
ABA-451-956-0003	01/05/1999	Yes	Hosp.risk suicide/incr.lvl.surv
	10/20/1999	Yes	Hosp.risk suicide/incr.lvl.surv
	12/26/1998		Suicide attempt

Appendix 3: Match Profiles for Non-PEP Patients

Appendix 4: Non-PEP Data Review Summary

Appendix 5: Summary of Non-PEP Patients

1. Patient 604-0022: Suicidal Ideation, December 6, 1998 (Clozaril)

This patient was randomized to Clozaril on Dec. 3, 1998 and 3 days later (Dec. 6, 1998) was hospitalized with the diagnosis of "Hospitalization due to psychosis".

The SAE report states that the patient's psychotic symptoms were not increased compared to baseline. The psychotic symptoms were also combined with depression and suicidal statement.

She was known for vagabond lifestyle. The dose of Clozaril was increased in order to avoid further "sauntering" and losing the patient.

PI was queried and respond on 20/01/00 confirmed that psychotic symptoms had not increased but that patient was hospitalized due to accompanying depression and suicidal ideation/statement. The rating scales from 2 days earlier (baseline) were:

CGI SS PI/BP-3(moderately suicidal) CGI SP- 5 (markedly psychotic)

ISST PI/BP- wish to die-2 (moderately strong)

Living/vs dying-2(dying outweigh for living)

Desire to make suicidal attemt-2 (moderately strong)

Passive suicidal desire-2 (would avoid steps necessary to save or maintain life)

Frequency of suicidal ideation-2(persistent or continuous)

CDS hopelessness - 3 (severe), the rest of the ratings are 2(moderate)

Medical monitor queried the PI and reported: "Investigator confirmed that hospitalization was due to psychosis. The patient was hospitalized to ensure the proper level of psychiatric care and to prevent early discontinuation. No life treating condition occurred".

Conclusion: Taking into consideration the time of the event (3 days after randomization),

the rating scales at baseline (2 days prior the event) and the confirmation from

the investigator (see above) this event did not meet PEP criteria.

2. Patient 404-0008 Suicidal Ideation, November 13, 1999 (Clozaril)

Patient was hospitalized prior to the start of study18 Jan. 98 and discharged after the study end (3 January 2000).

The suicidal ideation was marked "severe" (same at baseline on CDS), but did not meet the definition of "serious". No action taken-was reported. There is no rescue intervention form filled out for this event.

On November 18, 1999 (3 days after the AE start date):

CGI-SS PI and BP 4-severely suicidal (baseline rating reported 3-

moderately suicidal),

suicidality changed compared to baseline - 6 (much

worse).

PI was not queried.

Conclusion: A PEP should have been completed and submitted.

3. Patient 303-0010: Suicide attempt by burning leading to death, October 10, 2000 (Clozaril)

Occurred 4 days after the study completion (2 years and 4 days).

Conclusion: This event did not meet PEP criteria.

4. Patient 955-0014: Increase in suicidality, March 3, 1999 (Zyprexa)

Patient was hospitalized for increase in psychosis but SAE report specified that patient was not able to control his psychotic symptoms; subtle increase in suicidality and sentiments of hopelessness.

PI was queried and agreed on AE of Increase in suicidality. The event was marked as follows: seriousness- serious, severity-severe, action taken-hospitalization, concomitant medication.

Conclusion: A PEP should have been completed and submitted.

5. Patient 604-0029: Overdose, June 19,1999 (Zyprexa)

The PI clarified in the SAE report that the overdose was not a suicidal attempt. The patient wanted to treat her psychotic symptoms with a higher dose of a prescribed anxiolytic.

Conclusion: This event did not meet PEP criteria.