

## **STUDY REPORT SUMMARY**

### **ASTRAZENECA PHARMACEUTICALS**

**FINISHED PRODUCT:** SEROQUEL XR

**ACTIVE INGREDIENT:** Quetiapine fumarate

<b>Study No: NIS-NTR-DUM-2007/1</b>
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Evaluation of the patient characteristics and treatment approaches for the patients with Bipolar Affective Disorder in Turkey.
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**Developmental phase:** Not Applicable; Registry Study

**Study Completion Date:** 26 May 2009

**Date of Report:** 28 September 2009 (in Turkish)

### **OBJECTIVES:**

Bipolar affective disorder or manic–depressive disorder is a psychiatric diagnosis that describes a category of mood disorders defined by the presence of one or more episodes of abnormally elevated mood. These mood conditions are clinically referred to as mania or, if milder, hypomania. Individuals who experience manic episodes also commonly experience depressive episodes or symptoms, or mixed episodes in which features of both mania and depression are present at the same time. The prevalence of bipolar disorder in the general population is 1.3–1.7% and it is the most common life-limiting neuropsychiatric disease. Without appropriate treatment, patients usually suffer for a lifetime with periods of wellness and functioning punctuated by severe episodes of illness. Most individuals who are diagnosed with this disorder experience both poles of the illness recurrently, but depressive episodes are the most common cause of morbidity and, indeed, of death by committing suicide.

Difficulties in diagnosis and different treatment strategies for the bipolar disease also lead to a limited knowledge on bipolar affective disorder in Turkey. With the implementation of a national observational registry study in which no treatment interventions is required, it is aimed to determine and evaluate the patient characteristics and treatment approaches for the patients with Bipolar Affective Disorder in Turkey.

## METHODS:

A total of 1001 patients diagnosed with bipolar affective disorder either previously and/or recently from 30 centers in Turkey enrolled to this observational study. Patient enrollment was completed in a period of 12 months and for each participated patient a single study visit was performed. No follow-up visits were performed.

Demographical and clinical characteristics of enrolled patients and the diagnostic and therapeutic approach of the physicians were evaluated by using descriptive statistical methods and sub-group analysis were performed by parametric and/or non-parametric tests.

## RESULTS:

Among 1001 enrolled patients, 434 (43.4%) were male and 567 (56.6%) were female as demonstrated in table 1.

**Table 1:** Gender distribution

	<b>N</b>	<b>%</b>
Male	434	43,4
Female	567	56,6
<b>Total</b>	<b>1.001</b>	<b>100,0</b>

Most patients were previously diagnosed as bipolar affective disorder (male patients 90.1%; female patients 94.5%). Average age of the patients was 37.4 (18-80) years and there were no statistically significant difference between the average age of females (37.4) and males (37.5) with bipolar affective disorder ( $p=0.917$ ).

Approximately one-third of the patients (304, 31.1%) with bipolar affective disorder were between 30-39 years of age while 28.5 % were between 20-29 years of age as shown in table 2:

**Table 2:** Distribution of the age in patients (in decades)

	<b>N</b>	<b>%</b>
Between 18-19 years of age	14	1,4
Between 20-29 years of age	279	28,5
Between 30-39 years of age	304	31,1
Between 40-49 years of age	226	23,1
Between 50-59 years of age	111	11,3
60 years of age and more	45	4,6
<b>Total</b>	<b>979</b>	<b>100,0</b>

Among 1001 patients, 412 (41.2%) were at the level of elementary education and 301(30.1%) were at the level of secondary education. 221 (22.1%) of the patients were graduated from university, 36 (3.59%) were illiterate and 31 (3.1%) were literate as summarized in table 3.

**Table 3:** Educational status of the study patients

	<b>N</b>	<b>%</b>
<b>Illiterate</b>	36	3,59
<b>Literate</b>	31	3,1
<b>Elementary education</b>	412	41,2
<b>Secondary education</b>	301	30,1
<b>University education</b>	221	22,1
<b>Total</b>	<b>1.001</b>	<b>100,0</b>

Among enrolled patients, mean age for disease onset was 26.6 years (min: 5, max: 72) while the mean age at diagnosis was 28.8 (min: 5, max: 72). The mean duration between the onset of the symptoms and the date of diagnosis was 2.1 years (min: 0 max: 41, Table 4).

**Table 4:** The mean age at onset of symptoms and diagnosis

	<b>Mean</b>	<b>St. Dev.</b>	<b>Minimum</b>	<b>Maximum</b>	<b>N</b>
<b>Age at onset of the symptoms</b>	26,67	9,75	5,00	72,00	969
<b>Age at diagnosis</b>	28,86	10,35	5,00	72,00	969
<b>Time between the onset of symptoms and the date of diagnosis (years)</b>	2,17	4,74	0,00	41,00	965

Patients with 0-1 years between the onset of the symptoms and date of diagnosis made a high majority of patients (70.1%) whereas 3.6% of the patients had a difference of 10 years between the onset and diagnosis.

The first attack of bipolar affective disorder demonstrated itself as mania in 57.1% and as depression in 34.5% of the patients. 3.2% of the patients demonstrated their first attacks as hypomania while 5.2% of the patients had mixed episodes. There was not a statistically significant difference between the genders according to the type of the first attack ( $p=0.06290$ ).

Prior to the diagnosis of bipolar affective disorder, 26.1% of the patients were diagnosed as unipolar depression, 8.3% were diagnosed as anxiety disorder, 3.4% were diagnosed as personality disorder and 2.5% were

diagnosed as alcohol and/or substance dependence disorder as shown in table 5.

**Table 5:** Previous diagnosis of the patients with bipolar affective disorder (gender distribution)

	Diagnosed as unipolar depression *		Diagnosed as personality disorder *		Diagnosed as alcohol and/or substance dependence disorder**		Diagnosed as anxiety disorder*	
	N	%	N	N	N	%	%	%
<b>Male</b>	112	25,8	18	4,1	16	3,7	38	8,8
<b>Female</b>	149	26,3	16	2,8	9	1,6	45	7,9
<b>Total</b>	<b>261</b>	<b>26,1</b>	<b>34</b>	<b>3,4</b>	<b>25</b>	<b>2,5</b>	<b>83</b>	<b>8,3</b>

\*There were no statistically significant difference between the genders for the patients who were previously diagnosed with unipolar depression ( $p=0,86608$ ), personality disorder ( $p=0,25122$ ) and anxiety disorder ( $p=0,64135$ ).

\*\*Majority of the patients who were previously diagnosed as alcohol and/or substance dependence disorder were male ( $p=0,03492$ ).

Study patients were also evaluated according to the presence of bipolar affective disorder among their first-degree relatives. Results revealed that 24.3% of the patients had a first-degree relative diagnosed with bipolar affective disorder. A total of 112 patients (11.2%) had siblings with bipolar disorder as shown in table 6.

**Table 6:** Distribution of the patients according to the presence of first-degree relatives with bipolar affective disorder

	N	%
<b>None</b>	758	75,7
<b>Mother</b>	72	7,2
<b>Father</b>	53	5,3
<b>Sibling</b>	112	11,2
<b>Child</b>	6	0,6
<b>Total</b>	<b>1.001</b>	<b>100,0</b>

In terms of treatment; Valproic Acid + Sodium Valproate was the most common treatment among depressed patients (%19,88) and hypomanic patients (% 18,81). Quetiapine was the most common treatment among mixed patients (% 21,06) while Lithium Carbonate was the most common among manic patients (% 17,43) and euthymic patients (% 22.27).

In general there was a tendency to prescribe more than one psychoactive agent for patients with bipolar affective disorders (2.37 to 2.8 active agents/patient).

**Table 7:** Treatment modalities in patients with Bipolar Affective Disorders

<b>Mostly depressed</b>	<b>Treatment most frequently prescribed</b>	<b>%</b>
Among 106 'mostly depressed' cases there were 297 prescriptions of active ingredients (multi-drug treatment, 2.8 prescription/patient). All percentages were calculated on the basis of 297 prescriptions	Valproic Acid+ Sodium Valproate	19,88
	Quetiapine	18,52
	Lithium carbonate	16,84
	Lamotrigine	5,39
	Olanzapine	5,38
	Citalopram/Escitalopram	4,72
	Venflaxine	4,72

<b>Hypomanic</b>	<b>Treatment most frequently prescribed</b>	<b>%</b>
Among 84 'hypomanic' cases there were 202 prescriptions of active ingredients (multi-drug treatment, 2.4 prescription/patient). All percentages were calculated on the basis of 202 prescriptions	Valproic acid+sodium valproate	18,81
	Quetiapine	17,34
	Lithium carbonate	15,84
	Olanzapine	14,36
	Risperidone	7,44
	Biperiden	5,45

<b>Manic</b>	<b>Treatment most frequently prescribed</b>	<b>%</b>
Among 304 'manic' cases there were 872 prescriptions of active ingredients (multi-drug treatment, 2.8 prescription/patient). All percentages were calculated on the basis of 872 prescriptions	Lithium carbonate	17,43
	Valproic Acid + Sodium Valproate	15,82
	Biperiden	12,95
	Quetiapine	12,84
	Olanzapine	7,56
	Risperidone	5,73

<b>Euthimic</b>	<b>Treatment most frequently prescribed</b>	<b>%</b>
Among 453 'euthimic' cases there were 1078 prescriptions of active ingredients (multi-drug treatment, 2.37 prescription/patient). All percentages were calculated on the basis of 1078 prescriptions	Lithium carbonate	22,27
	Valproic Acid + Sodium Valproate	20,32
	Quetiapine	14,29
	Olanzapine	12,74
	Biperiden	3,80

<b>Mixt</b>	<b>Treatment most frequently prescribed</b>	<b>%</b>
Among 52 'mixed' cases there were 152 prescriptions of active ingredients(multi-drug treatment, 2.9 prescription/patient). All percentages were calculated on the basis of 152 prescriptions	Quetiapine	21,06
	Lithium carbonate	18,42
	Valproic acid	14,42
	Biperiden	6,58
	Chlorpromazine	4,61
	Haloperidol	3,95
	Risperidone	3,95