AstraZeneca

STUDY REPORT SUMMARY

ASTRAZENECA PHARMACEUTICALS

FINISHED PRODUCT: Quetiapine XR
ACTIVE INGREDIENT: QUETIAPINE

Study No: NIS-NEU-SER-2010/1

Developmental Phase: Post-marketing observational study
Study Completion Date: 1 March 2011
Date of Updated Report: 21.06.2012

OBJECTIVES:

The primary objectives were:

- To describe the hospital stay in patients admitted for an acute bipolar manic episode and treated with either quetiapine IR or quetiapine XR.
- To compare the length of stay of patients with acute bipolar manic episodes treated with quetiapine IR to those treated with quetiapine XR.

Secondary objectives of the study were:

- To describe the demographic and other patient-related factors that may be linked to the use of quetiapine IR and quetiapine XR.
- To estimate and compare the length of hospital stay for patients admitted for an acute bipolar manic episode and treated with either quetiapine IR or quetiapine XR.
- To assess factors (demographic, health system-related, level of hospital care level, clinical, etc) related to length of hospital stay in both cohorts.
- To estimate the difference in adjusted number of in-hospital days for specific subgroups of patients between the 2 cohorts.
- To estimate differences in hospital stay-related use of hospital resources between the 2 cohorts.

METHODS:

This was a multinational, multicentre, observational, retrospective cohort study of patients with acute bipolar mania episodes during a fixed retrospective period.

RESULTS:

With respect to the total sample, percentages of patients included in the quetiapine IR and quetiapine XR cohorts were similar. Demographic and baseline characteristics, medical history, disease characteristics, and prior medications were similar between the cohorts.

The severity of the events leading to hospitalization was similar between the cohorts. A majority of patients in both cohorts were admitted to the psychiatric wards; 544 (82.5%) in the quetiapine IR cohort and 469 (82.1%) in the quetiapine XR cohort. There were 84 (12.7%) patients in the quetiapine IR cohort admitted to the ER compared to 52 (9.1%) patients in the quetiapine XR cohort. Fewer patients in the quetiapine IR (11 [1.7%]) cohort were admitted into the ICU than the quetiapine XR (27 [4.7%]) cohort.

The mean (SD) number of wards stayed in during the hospital stay was similar between the cohorts. The median duration of stay in the hospital was 18.0 days for the quetiapine IR cohort and 20.0 days for the quetiapine XR cohort; however, the length of hospital stay was not significantly associated with the type of quetiapine received (p=0.8199).
The factors associated with length of hospital stay were: country, type of funding, degree of cohabitation, presence of alcohol/drug abuse/dependence, psychiatric medical history, previous (12 months) hospital admission, previous (12 months) manic event, severity of index event, department of admission, maximum number of new medications administered, lithium, and anxiolytics, sedatives/hypnotics.

There was no difference in length of hospital stay adjusted for the propensity score either as a continuous covariate (p=0.439) or as a categorical fixes effect (p=0.115).Furthermore, there was no differences in length of hospital stay between cohorts in matching analysis (254 matched pairs of patients) (p=0.752).

The factors related to prescription of quetiapine XR were: type of hospital, hospital size, XR prescription from first symptoms, and time since diagnosis.

A lower percentage of patients in the quetiapine IR cohort had anticonvulsants (302 patients [45.8%] in the quetiapine IR cohort and 313 [54.8%] in the quetiapine XR cohort), anxiolytics, sedative/hypnotics (214 [32.5%] in the quetiapine IR cohort and 225 [39.4%] in the quetiapine XR cohort), and lithium (179 [27.2%] in the quetiapine IR cohort and 132 [32.1%] in the quetiapine XR cohort). There was very little change from the first to last in-hospital quetiapine dosage.

Quetiapine IR is given twice daily and requires dose titration over 4 days until the target therapeutic dose is achieved, whereas quetiapine XR is given once daily and the dose titration is over 2 days which may allow a faster improvement in acute manic episode symptoms. A short duration of hospital stay was expected to be associated with the accelerated dose titration for quetiapine XR however it was difficult to detect an impact of the accelerated dosage titration on the length of hospital stay due to the small number of patients who had a dose titration in both cohorts. Of the patients with no prior quetiapine use, quetiapine dose was titrated in the first 7 days of hospitalization for 80 patients (14.4%) in the quetiapine IR cohort and 115 patients (23.9%) in the quetiapine XR cohort. The first in-hospital quetiapine mean dosage was

447.7 mg for the quetiapine IR cohort and 482.4 mg for the quetiapine XR cohort. The last in-hospital quetiapine mean dosage was 504.7 mg for the quetiapine IR cohort and 561.4 mg for the quetiapine XR cohort. The mean change in quetiapine dosage (first to last) was 57.0 mg for the quetiapine IR cohort and 78.9 mg for the quetiapine XR cohort.

The analyses of treatment cohort adjusted for country alone for subgroups mono-therapy or poly-therapy, patients with >60 days hospital stay, type of hospital, quetiapine dose, psychiatric ward at admission, and median hospital stay 19 or fewer days suggest that length of hospital stay was not significantly associated with the type of quetiapine received for any of these subgroups.

The percentage of patients with an ICU stay was significantly associated with the type of quetiapine received, with the quetiapine XR cohort twice as likely to be admitted to the ICU; however, ICU stay was not significantly associated with the type of quetiapine received when variables identified as being significantly associated with the incidence of ICU stays were analyzed.

Treatment cohort was not significantly associated with the incidence of group therapy visits, any service visit, usual blood/biochemistry tests, ECG tests, any laboratory test, any service visit and laboratory tests. Patients in the quetiapine XR cohort were more likely to have a psychologist visit, have a substance abuse counseling visit, have a social work services visit, and have presence of symptoms at discharge. Patients in the quetiapine XR cohort were less likely to have a PET test.

The number of days in ICU, wards visited, psychologist visits, substance abuse counseling visits, and ECGs were not significantly associated with the type of quetiapine received. The average number of group therapy visits, social work visits, and all service visits, were significantly higher in the quetiapine XR cohort. The average number of usual blood/biochemistry tests, PET tests, and all laboratory tests, were significantly lower in the quetiapine XR cohort.