**Impact of adverse reactions to first‑generation antipsychotics on treatment**

**adherence in outpatients with schizophrenia: a cross‑sectional study**

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**Abstract**

**Background**: Antipsychotics are well-known to cause potentially serious and life-threatening adverse drug reactions (ADRs) that have been reported to be also one of the major reasons for non-adherence. In Eritrea, shortage of psychiatrists and physicians, inadequacy of laboratory setups and unavailability of second-generation antipsychotics in the national list of medicines would seem to amplify the problem. This study’s objective is to determine the impact of adverse effects of first-generation antipsychotics on treatment adherence in outpatients with schizophrenia at Saint Mary Neuro-Psychiatric National Referral Hospital.

**Methods**: A cross-sectional study design was employed. All eligible adult patients with diagnosed schizophrenia (n = 242) who visited the hospital during the study period were enrolled. Data on ADRs, adherence and other variables were collected from patients using a self-administered questionnaire, interview and through medical cards review. The collected variables were analyzed using SPSS 22.0 with descriptive and multivariable logistic regression analysis. Statistical significance was tested at p value < 0.05.

**Results**: Greater than one-third (35.5%) of the patients with schizophrenia were non-adherent to treatment. The odds of non-adherence increased 1.06 times for each unit increase in the total ADR score (AOR = 1.06, 95% CI 1.04,1.09). Patients with extrapyramidal (AOR = 44.69, 95% CI 5.98, 334.30), psychic (AOR = 14.90, 95% CI 1.90, 116.86), hormonal (AOR = 2.60, 95% CI 1.41, 4.80), autonomic (AOR = 3.23, 95% CI 1.37, 7.57) and miscellaneous reactions (AOR = 2.16, 95% CI 1.13, 4.13) were more likely to be non-adherent compared to their counterparts.

**Conclusion**: Poor treatment adherence was found to be substantial which was attributed to total ADR score, extrapyramidal, hormonal, psychic, autonomic and miscellaneous categories of reactions of the LUNSERS. To improve treatment adherence, early detection and management of adverse effects and inclusion of second-generation antipsychotics are recommended.