



ORIGINAL RESEARCH

Cost Effectiveness Analysis of Antipsychotic Medications in the Management of Schizophrenia in Benin City

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To cite this article: Edefo JW, Usifoh SF and Udezi AW. Cost Effectiveness Analysis of Antipsychotic Medications in the Management of Schizophrenia in Benin City. Journal of Basic and Social Pharmacy Research, 2019;1(1):46-56

ABSTRACT

Background: Studies on cost effectiveness analysis (CEA) of typical versus atypical antipsychotics in the management of schizophrenia are still lacking in Nigeria thus the objectives of this study are to determine which of the class of antipsychotics is more cost-effective as well as the impact of socio-demographic factors on the response rate to antipsychotics.

Method: The effectiveness was measured by Brief Psychiatric rating scale (BPRS) and costs were in Nigerian naira (NGN). The impact of different socio-demographics on the mean BPRS score \pm Standard deviation (SD) reduction was determined. The study was conducted from patient's perspective with decision tree analysis model using two-way sensitivity analysis. The model was used to explore incremental cost effectiveness ratios (ICER) of oral antipsychotic medications Haloperidol /Trifluoperazine versus Olanzapine /Risperidone over a 24-week study period.

Results: Cost effectiveness analysis with 1st scenario sensitivity test of medications, trifluoperazine 17.81 \pm 2.51mg is more cost effective than olanzapine 10mg, while haloperidol 10mg is more cost effective than risperidone 3.5 \pm 0.51mg. In the second scenario of sensitivity analysis, olanzapine is more cost effective than trifluoperazine only when the savings of making one person free from schizophrenia in a month is worth more than NGN537 while risperidone is more cost effective than haloperidol only when the savings of making one person free from schizophrenia in a month is worth more than NGN2524.1. The effect on response rate to antipsychotics gave $p=0.0251$, $P=0.009$, $P<0.0001$ for educational status, income, stable relationship respectively.

Conclusion: Atypical antipsychotic medications are not more cost effective compared to the typical antipsychotics. Higher educational level, income and stable relationship positively affected the outcome of effectiveness of antipsychotics.

Keywords: Cost-effectiveness, schizophrenia, antipsychotics, medications, decision tree