The last observation carried forward (LOCF) analysis overlooks the meaningfulness of dropout in clinical trials. For antipsychotic medication dropout is an important outcome since long-term treatment is often required and dropout may relate to lack of drug tolerability. **OBJECTIVE:** The current analysis applies the "pattern mixture" approach (Shih & Quan, 1997) in which a composite hypothesis is tested that consists of the probability that there is a difference in completion rates (d) between two drugs and the probability that there is a difference in efficacy of complete cases (e) [p = p(d) × p(e) × (1– ln(p(d) × p(e)]. **METHODS:** The pattern-mixture approach was applied to data from a 53-week randomized, open-label non-inferiority efficacy trial of risperidone long-acting injectable (RLAI) vs. olanzapine tablets (OLA) in treating schizophrenia (n = 618) (data on file JNJ). **RESULTS:** LOCF had found a significant difference (p = 0.04) on percent of patients in each group who attained clinical improvement (20% improvement on PANSS total) favoring RLAI and no significance on difference in the continuous measure of change in PANSS total (p = 0.83). Among completers there was a greater decline on change in PANSS total favoring RLAI (Ris –23.6(±14.4); Ola –21.9 (±18.0); 1-tailed p = 0.105). 76% of the RLAI treated patients completed the trial as compared to 70% of the OLA treated patients (one-tailed p = 0.087). Using the pattern mixture approach the probability for the combined hypothesis of a difference in efficacy in complete cases, and trial completion, was significant (p = 0.05). On clinical improvement, 66.1% of RLAI group both completed the trial and improved as compared to 53.7% of the olanzapine group (Odds Ratio [95% Confidence interval]: 1.84 [1.20:2.82]). **CONCLUSIONS:** LOCF may not capture real-life, clinically important differences which can be captured by other approaches.

PMH37

THE ECONOMIC BURDEN OF SCHIZOPHRENIA IN THE UNITED STATES IN 2002

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OBJECTIVES: This study quantifies excess annual costs associated with schizophrenia patients in the United States in 2002 from a societal perspective. **METHODS:** Annual direct medical costs associated with schizophrenia were estimated separately for privately (n = 1090) and publicly (Medicaid n = 14,074) insured patients based on administrative claims data, including a large private claims database and a State Medicaid database, and compared separately to demographically-geographically matched control samples (1 case: 3 controls). Medicare costs were imputed using the Medicare/Medi-Cal dual eligible patients (n = 1491) and published statistics. Excess annual direct non-health care costs were estimated for law enforcement, homeless shelters, and research/training related to schizophrenia. Excess annual indirect costs were estimated for four components of productivity loss: unemployment, reduced work place productivity, premature mortality from suicide, and family care giving using a human capital approach based on market wages. All costs were adjusted to 2002 dollars using the Consumer Price Index and were based on the reported prevalence in the National Comorbidity Survey Replication. **RESULTS:** The overall US 2002 cost of schizophrenia was estimated to be $62.7 billion, with $22.7 billion excess direct health care cost ($7.0 billion outpatient, $5.0 billion drugs, $2.7 billion inpatient, $8.0 billion long term care). The total direct non-health care excess costs, including living cost offsets, were estimated to be $7.6 billion. The total indirect excess costs were estimated to be $32.4 billion. **CONCLUSION:** Schizophrenia is a debilitating illness resulting in significant costs. The indirect excess cost due to unemployment is the largest component of overall schizophrenia excess annual costs.

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A DISCRETE EVENT SIMULATION (DES) MODEL TO DESCRIBE SCHIZOPHRENIA

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The prevalence of schizophrenia varies between 0.2–1% and the cost to treat patients is substantial. Modeling a schizophrenic population is demanding since schizophrenia is a life long disease during which patients go through many states and the transition from one state to another is dependent on the history of patients. A previously built 1st order Monte Carlo DES model was adapted to enable 2nd order Monte Carlo simulation. **OBJECTIVE:** This abstract describes why and how the model was upgraded from a 1st order Monte Carlo (MC) simulation to a 2nd order MC model. The abstract will describe the choices made in the design of the model, the internal validity and evaluation of its strengths and weaknesses. **METHODS:** Internal validity of the model has been explored using data from several patient databases, as well as literature on a list of variables, including PANSS, the proportion of patients institutionalized and costs. Pert, beta, lognormal and uniform distributions have been used to describe 2nd order uncertainty of relevant variables, such as PANSS, QALY, risk and costs. **RESULTS:** The model was programmed to reflect the PANSS at 0 year, 1 year, and 5 years for patients from the considered databases. The modeled annual cost per patient and the location distribution were similar to published data. Outcomes were expressed in terms of direct medical costs, number and duration of episodes, PANSS, QALY, GAF, CGI, SF36 and the SF6 mental component. The uncertainty surrounding the outcomes of costs and effect measures were assessed with acceptability curves and ellipses. **DISCUSSION:** The original DES model was vastly improved with the use of additional database analyses, additional correlation analyses and 2nd order Monte Carlo simulations. This has resulted in less emphasis on expert opinion, yielding a partially validated probabilistic model which can be adapted for numerous health care settings.

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ARE QALYS SUITABLE FOR SCHIZOPHRENIA TRIALS?

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OBJECTIVES: The utility of quality adjusted life years (QALYs) as an evaluative tool in clinical psychiatric research and drug trials relating to schizophrenia has rarely been tested due to the many limitations surrounding its use. The limitations include lack of comprehensive models of quality of life specific to schizophrenia, unavailability of appropriate measures sensitive enough to pick up small changes that are expected in the course of the illness, and lack of adequate information about the performance of available instruments. **METHODS:** This paper reviews currently available evidence on the use of QALYs in studies of people with schizophrenia examining the relationship