than the other two strategies. Compared to clonidine/guanfacine, AAPs provided a lower incremental cost/gain (0.01 QALY lost) at an additional cost of $2,186. These results were robust in sensitivity analyses. CONCLUSIONS: In this decision analysis model, AAPs provide lower expected health outcomes than other ADHD medications (aminergic, clonidine/guanfacine) and are cost-effective for children and adolescents with ADHD. This study analyzes the cost-effectiveness of medication formulation (long-acting [LA] versus short-acting [SA]) and treatment strategy (pharmacological, behavioral, or combined therapies) for children and adolescents with ADHD when considering medication adherence. Treatment with long-acting medications, especially ATX, is associated with better health outcomes and higher medication adherence. Given there is little difference in health outcomes among the therapies, however, additional research on optimal ADHD treatments (pharmacological, behavioral, or combined therapies) is needed.

**PMH48**

**EFFECTIVENESS OF PHARMACOTHERAPY FOR CHILDREN AND ADOLESCENTS WITH ATTENTION DIFFICULTY HYPERACTIVITY DISORDER**

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**OBJECTIVES:** Effective therapy with different drug formulations exists for Attention Deficit Hyperactivity Disorder (ADHD), yet poor adherence leads to suboptimal long-term effects for children and adolescents with ADHD. This study analyzes the cost-effectiveness of medication formulation (long-acting [LA] versus short-acting [SA]) and treatment strategy (pharmacological, behavioral, or combined therapies) for children and adolescents with ADHD when considering medication adherence. METHODS: We constructed a hybrid decision tree- Markov model employing a third-party payer’s perspective. Evaluation included methylphenidate (MTX), atomoxetine (ATX), and bupropion (ZP), which resulted in three medication groups for comparison: LA-ATX, LA-MPH, and SA-MPH. Only medication costs for ADHD treatments are considered, which were retrieved from Consumer Reports Best Buy Drugs® report. Quality-adjusted life expectancy (QALE) was measured in years with a life-year equivalent cost ($15,917) of $15,917 (2014 US dollars) per QALY (ICER) were reported comparing the three medication groups. Sensitivity analyses were performed to test the impact of uncertain model parameters on results. RESULTS: Considering medication adherence, the ICERs are $18,926/QALY for LA-ATX ($3,417, 4.34 QALYs), $11,353/QALY for LA-MPH ($1,288, 4.26 QALYs), and $7,816/QALY for SA-MPH ($591, 4.25 QALYs), respectively, compared to no treatment. LA medications are consistently cost-effective compared to SA medications. In general, the ICERs were insensitive to variation in key parameters. CONCLUSIONS: LA-ATX, LA-MPH, and SA-MPH are cost-effective alternatives for children and adolescents with ADHD when considering medication adherence. Treatment with long-acting medications, especially ATX, is associated with better health outcomes and higher medication adherence. Given there is little difference in health outcomes among the therapies, however, additional research on optimal ADHD treatments (pharmacological, behavioral, or combined therapies) is needed.

**PMH52**

**A COST UTILITY ANALYSIS OF CYP2D6 PHARMACOGENETIC GUIDED DOsing VERSUS STANDARD DOsing OF RISPERIDONE FOR TREATMENT OF SCHIZOPHRENIA**

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**BACKGROUND/OBJECTIVES:** Risperidone is commonly used antipsychotic for the treatment of schizophrenia. Its major metabolic pathway is through the liver enzyme P450-2D6. Variants of CYP2D6 confer differing activity levels. Poor metabolizer phenotype is suspected to increase the risk of adverse drug reactions that could lead to risperidone discontinuation and poor patient outcomes. The objective of this study was to assess the potential costs and outcomes of a pharmacogenomic-guided risperidone treatment strategy for use in schizoprenics. METHODS: A decision analytic model was developed to estimate the incremental cost per QALY gained (ICER) and cost per relapse and hospitalization avoided, associated with a pharmacogenetic-guided strategy compared to a standard treatment approach for a hypothetical schizophrenic patient initiated on risperidone. We used a one-year time horizon and a payer perspective. Model probabilities, costs, and utilities were obtained from the literature. One-way sensitivity analyses were performed to explore the possible range of results. RESULTS: For one patient entering the model, the pharmacogenetic-guided treatment increased QALYs (0.0047), and prevented hospitalizations (0.0078) as well as QALYs relative to the usual treatment at an increased total cost ($167). This resulted in an ICER of $356,356, and costs of $21,468 per relapse avoided and $71,561 per hospitalization avoided relative to standard treatment. Findings were robust to one-way sensitivity analyses and did not change the base case conclusion that a pharmacogenomic-guided treatment approach for risperidone may confer a small reduction in relapses and consequent hospitalizations, and a very minimal increase in QALYs when compared to the usual treatment. However, the large ICER suggests this approach is not cost effective.

**PMH53**

**EVALUATION OF THE BURDEN OF DEPRESSION AMONG UNITED STATES VETERAN PATIENTS**

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