Healthcare utilization and costs of children with attention deficit/hyperactivity disorder initiating atomoxetine versus extended-release guanfacine.

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Abstract

OBJECTIVES:
To compare 1-year direct healthcare costs and utilization among children and adolescents initiating non-stimulant medications atomoxetine (ATX) or extended-release guanfacine (GXR).

METHODS:
In this retrospective, observational cohort study, children and adolescents ages 6-17 years with ADHD who had ≥1 prescription claim for ATX or GXR between 12/31/2009-1/1/2011 were identified in the MarketScan Commercial or Multi-State Medicaid claims databases. The first claim was set as the index. Patients with no claims for other ADHD medications that overlapped with the days' supply for the index therapy during the post-period were classified as initiating monotherapy. All-cause and ADHD-related utilization and costs (2011 US$) and treatment patterns (adherence and persistence) were evaluated during the 12 months following index. Propensity score adjustment accounted for differences in patient characteristics and bootstrapping was used for comparisons.

RESULTS:
A total of 13,239 children and adolescents with ADHD met the study criteria (4,411 ATX initiators and 8,828 GXR initiators). There were 2,699 ATX monotherapy patients. In propensity-score-adjusted analyses, mean all-cause total costs were significantly less for monotherapy ATX initiators than for GXR initiators ($7,553 vs. $10,639; difference = -$3,086, $p < 0.0001$) as were mean ADHD-related total costs ($3,213 vs. $4,544; difference = -$1,330, $p < 0.0001$). Monotherapy ATX initiators had significantly fewer all-cause and ADHD-related total medical visits and approximately 22 days shorter persistence to index therapy ($p < 0.0001$). Results were similar for secondary analyses comparing all ATX with all GXR initiators regardless of monotherapy or combination regimen, and comparing only monotherapy initiators.

CONCLUSIONS:
Children and adolescents with ADHD who initiated ATX monotherapy incurred lower all-cause and ADHD-related total healthcare costs than patients who initiated GXR. This was due in part to less healthcare resource utilization and slightly shorter persistence for ATX patients. These findings may aid decision-making and inform future studies but must be tempered due to inherent observational research limitations.