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## Demographics and Real World Healthcare Cost and Utilization for Patients With Probable Tardive Dyskinesia

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**ABSTRACT:** Background: Tardive dyskinesia (TD) is a movement disorder associated with prolonged exposure to antipsychotics. The current study was designed to describe demographics and comorbidities for patients with a dyskinesia diagnosis as probable TD (cohort 1), patients likely to have undiagnosed/uncoded TD (cohort 2), and a control population.

**METHODS:** This retrospective study analyzed Medicaid claims data from July 2013-March 2017. For a pool of patients with a history of 3 months or more of taking an antipsychotic, three cohorts were evaluated: cohort 1 (ICD-9/10 codes for dyskinesia); cohort 2 (propensity score matching to cohort 1); and cohort 3 (patients with schizophrenia, major depressive disorder [MDD], and/or bipolar disorder [BD] and history of  $\leq 2$  antipsychotic medications). Outcomes included patient characteristics, Charlson Comorbidity Index (CCI) and healthcare utilization (pre-and post [12-month] period).

**RESULTS:** Cohort sizes and characteristics were: cohort 1 (n = 1,887; female, 68%; mean age, 42 years; MDD, 17%; BD, 48%); cohort 2 (n = 1,572; female, 58%; mean age, 39 years; MDD, 22%; BD, 48%); cohort 3 (n = 25,949; female, 67%; mean age, 40 years; MDD, 11%; BD, 49%). Cohorts 1 and 2 had higher comorbidity burden than cohort 3 (mean pre-index CCIs: 0.68, 0.79, and 0.47, respectively;  $p < 0.001$  for each cohort). After 12 months, mean per member per year healthcare costs were higher in cohort 1 and 2 compared to cohort 3 (\$21,293, \$18,988, and \$11,522, respectively), as were mean claims per member per year (185, 138, and 109, respectively).

**CONCLUSION:** In the study population, patients likely suffering from TD, ICD-9/10 code-confirmed or unconfirmed, have a higher overall comorbidity burden and healthcare utilization than those who probably do not have TD.

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## Refraction Focus Hallucination: The Role of Increased Excitation at Thalamus in Complex Visual Hallucination

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**ABSTRACT:** Study Objective(s): The pathogenesis of complex visual hallucination in patients without visual lesions, appearing with eyes open and resolving with eyes closed, has been described to be associated with increased excitation at the lateral geniculate nucleus (LGN) and pulvinar of the thalamus (Winton-Brown, 2016). This reduces the fidelity of retinogeniculate transmissions and enhances aberrant projections to the visual cortex. Loss of the central sensory filtering function of the pulvinar increases "signal to noise ratio" in visual transmission. While visual hallucinations have been reported to disappear on eye closure (Manford, 1998), visual aberration with correction with refraction followed by focusing on actual visual images and visual hallucinations has not heretofore been reported. Such a case is presented.

**METHOD:** Case study: This 28-year-old, myopic, right-handed man, at 5 years of age began hallucinating vivid images of people. The visual hallucinations were triggered only with his eye open. He was myopic and without visual correction, his visual sphere would be blurred. The visual hallucinations were also blurred without visual correction. With refraction, the hallucinations became clearly in focus. He would close his eyes and the visual hallucinations disappeared but would reappear in the same position upon opening his eyes. For over 20 years, he experienced about 100 hallucinations a day. Electroencephalography (EEG) revealed continuous spikes and slow waves in bilateral temporal lobes, consistent with temporal lobe status epilepticus. After treatment with diphenylhydantoin the frequency and duration of the hallucinations markedly decreased to a second epoch every other day. However, the characteristic of the hallucinations remained the same (people).