Time to medication discontinuation with different antipsychotic formulations in patients with schizophrenia: a claims-based study

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Learning Goal:
To determine the time to medication discontinuation with different antipsychotic formulations (oral-daily, oral-weekly, depot, combination) in patients with schizophrenia stratified by treatment duration preceding follow-up (long-term, short-term treatment).

Abstract Text:
Background: Medication discontinuation due to non-adherence in patients with schizophrenia is common and associated with potentially severe adverse outcomes. Currently, different medication formulations (oral-daily, oral-weekly, depot injections) are available on the market with depot formulations playing a significant role in case of non-adherence. However, depot formulations are related with dissatisfaction due to its invasive character. Penfluridol is currently the only oral antipsychotic drug which has to be taken once a week. To date, time to discontinuation with Penfluridol (oral-weekly formulation) and the effect of long-term medication administration preceding follow-up on discontinuation are unknown.

Methods: Real world health insurance claims data, 2013-2016, were used in a retrospective longitudinal cohort study. Time to discontinuation in schizophrenia patients, 18-70 years old, with different antipsychotic formulations on 31-12-2015 and stratified based on treatment duration (less or more than 60 days) preceding follow-up was analyzed using survival analyses.

Results: 8257 patients were selected for analyses. Considerable discontinuation during follow-up for all medication formulations was observed. Overall, time to discontinuation for patients with long-term drug treatment preceding follow-up was longer as compared to short-term drug treatment. After adjustment for patient characteristics and history of psychiatric treatment, the long-term oral formulation showed the longest time to discontinuation. Time to discontinuation with oral-weekly and depot formulations showed a similar pattern. Furthermore, number of prior discontinuations was negatively associated with time to discontinuation with the least negative effect on long-term oral formulation.

Conclusion: Time to discontinuation showed a considerable difference between different antipsychotic formulations. Duration of drug treatment preceding follow-up is strongly associated with the outcome: long-term medication treatment preceding follow-up showed a longer time to discontinuation as compared to short-term treatment. Penfluridol (oral-weekly) and depot formulations showed similar discontinuation trends. Therefore, penfluridol could be considered an alternative in case of non-adherence, given the beneficial administration route.