OPEN SUBMISSIONS

mhc MENTAL HEALTH CLINICIAN

ORIGINAL RESEARCH Open Access

Evaluation of a prior authorization policy on compliance with VA pharmacy benefits management services recommendations for antipsychotic selection

Ofir Noah Nevo, PharmD[1]
Jeffrey Gold, PharmD, BCPP[2]
Sherri Hawk, BS Pharm, BCPS[3]

How to cite: Nevo ON, Gold, J, Hawk S. Evaluation of a prior authorization policy on compliance with VA pharmacy benefits management services recommendations for antipsychotic selection. Ment Health Clin [Internet]. 2015;5(4):169-73. DOI: 10.9740/mhc.2015.07.169.

Abstract

Introduction: A previous study at Veterans Affairs (VA) Eastern Colorado Health Care System revealed low rates of compliance with VA Pharmacy Benefits Management Services recommendations for antipsychotic selection in schizophrenia and schizoaffective disorders. As a result, formulary restrictions of second-line antipsychotics were implemented. Since April 2013, new starts of second-line antipsychotic agents require a prior authorization drug review. The objectives of this study were to evaluate the impact of the prior authorization process on compliance with the VA criteria for prescribing aripiprazole, olanzapine, and ziprasidone. The primary objective was to compare compliance rates with VA antipsychotic selection criteria preimplementation and postimplementation of the prior authorization drug review policy.

Methods: Single center, retrospective chart review of patients receiving aripiprazole, olanzapine, and ziprasidone. A report of all patients receiving a prescription for the above 3 agents between April 8, 2013, and December 6, 2013, was generated from the electronic medical record system. Charts were reviewed manually to determine compliance.

Results: One hundred forty-two unique patients were started on aripiprazole, olanzapine, and/or ziprasidone. Ninety percent of patients met VA criteria for use of these second-line antipsychotic agents, compared to 26% of patients prior to implementation of the prior authorization drug review. Overall prescribing of these agents decreased by 60%, resulting in an estimated cost avoidance of $617 389.

Discussion: Implementation of a prior authorization drug request for aripiprazole, olanzapine, and ziprasidone was associated with increased compliance with VA criteria for use of antipsychotic agents and with marked cost avoidance due to the reduced use of more expensive second-line antipsychotic agents.

Keywords: formulary management, antipsychotics, schizophrenia, schizoaffective disorder, Veterans Affairs

[1] (Corresponding author) PGY2 Psychiatric Pharmacy Resident, Veterans Affairs Eastern Colorado Health Care System, Denver, Colorado, ofir.nevo@ucdenver.edu [2] Mental Health Clinical Pharmacy Specialist, Veterans Affairs Eastern Colorado Health Care System, Denver, Colorado [3] Pharmacoeconomist and Clinical Pharmacist, Veterans Affairs Eastern Colorado Health Care System, Denver, Colorado

Background

A combination of increasing prescription drug costs and increased utilization of prescription medications over the past few decades has led to medication costs being second only to hospital costs in total health care expenditures in the United States.[1] Prescription drug costs have particularly impacted mental health care. Between 1986 and 2003, spending for mental health medications grew more rapidly than spending for all medications combined (14.9% on average annually, compared with 12.5% overall). By 2003, 13% of all retail prescription expenditures were for psychotropic medications.[2] One way to attempt to control the rising cost of prescription medications is implementing a closed formulary that restricts the use of more expensive

medications when a less expensive alternative medication is available.[1]

To address the mounting costs of antipsychotic use in particular, the Veteran Affairs (VA) Pharmacy Benefits Management Services, Medical Advisory Panel, and Veterans Integrated Services Network Pharmacist Executives created recommendations for antipsychotic selection in schizophrenia and schizoaffective disorders, which were published in June 2012.[3] The recommendations reflect the findings of trials and systematic reviews comparing first-generation and second-generation antipsychotics in patients diagnosed with schizophrenia. The algorithm (Figure 1) recommends that patients fail at least 2 first-line agents (haloperidol, loxapine, quetiapine, risperidone, or perphenazine) and clozapine (if appropriate) before starting an alternative formulary agent, specifically aripiprazole, olanzapine, and ziprasidone.

A study conducted in 2013 evaluated compliance with the VA recommendations at the VA Eastern Colorado Health Care System (ECHCS) from July 2011 to July 2012.[4] The study revealed that of 542 unique patients who were started on aripiprazole, olanzapine, and ziprasidone, 397 (73.25%) did not meet criteria per the VA recommendations (ie, these patients had not trialed at least 2 first-line agents and clozapine, if appropriate, before initiating an alternative formulary agent). The requirement for a clozapine trial was waived if there was documentation that the patient refused clozapine or had a contraindication to clozapine. A cost analysis estimated that increased compliance with the recommendations for antipsychotic selection would generate a potential cost savings of greater than $700 000. The results of this study led to the implementation of the VA recommendations at the VA ECHCS by creating a new ordering pathway for aripiprazole, olanzapine, and ziprasidone. Since April 2013, new starts of these second-line antipsychotic agents (SLAAs) now require a prior authorization drug review (PADR) by a pharmacist to assess for compliance with VA criteria (specific information on the consult order menu design may be obtained by contacting the study authors). Patients already receiving SLAAs (VA ECHCS or an outside facility) were allowed to continue use.

The purpose of this study was to evaluate the impact the PADR has had on ECHCS's compliance with the VA recommendations for antipsychotic selection.

Methods

This was a single-center, retrospective, descriptive, chart review of patients 18 years of age or older, initiated on aripiprazole, olanzapine, and/or ziprasidone (SLAAs) for any indication between April 8, 2013, and December 11, 2013, at the VA ECHCS. The PADR was implemented April 1, 2013.

The VA's computerized patient record system software was utilized to identify all patients initiated on an SLAA for the time period specified. A manual chart review of all identified patients was performed to determine if the SLAA was truly a new start or continuation of care from another facility and to determine compliance with VA recommendations. Additionally, the chart review evaluated if appropriate procedures for the PADR were documented in each patient's chart.

For cost analysis, we estimated the number of patients that were diverted from starting an SLAA after the implementation of the PADR policy and estimated the cost avoidance by assuming patients diverted from an SLAA were instead prescribed the first-line antipsychotic agent risperidone. ECHCS yearly cost data for Q2FY13 through Q1FY14 were used in the cost analysis.

All results were reported using descriptive statistics. The study was approved by the Colorado Multiple Institutional Review Board (Protocol No. 13-3158) and the VA Subcommittee on Research Safety (No. 13575).

Results

Compliance Rates With VA Recommendations

146 new orders of SLAAs (142 unique patients) were identified for the 8-month study period following the implementation of the PADR for SLAAs. This included 74 orders (51%) for aripiprazole, 58 (40%) orders for olanzapine, and 14 (10%) orders for ziprasidone (Figure 2), and 132 (90%) of the 146 orders identified met VA criteria for use of SLAAs, compared to data from a study prior to implementation of the PADR in which only 27% of orders met VA criteria (Figure 3). One hundred ten (75%) orders were continuation of care from an outside facility, which were classified as "met criteria." Thirty-six (25%) orders were identified as new starts (Figure 3). Of the 36 new orders, 14 orders did not meet criteria. All of the 14 orders that did not meet criteria did not have a PADR documented in the patient's electronic medical record.

Cost Analysis

Based on the 8 months of data obtained in our study, a projected 213 unique patients would have started on a SLAA for the 12-month period after implementation of

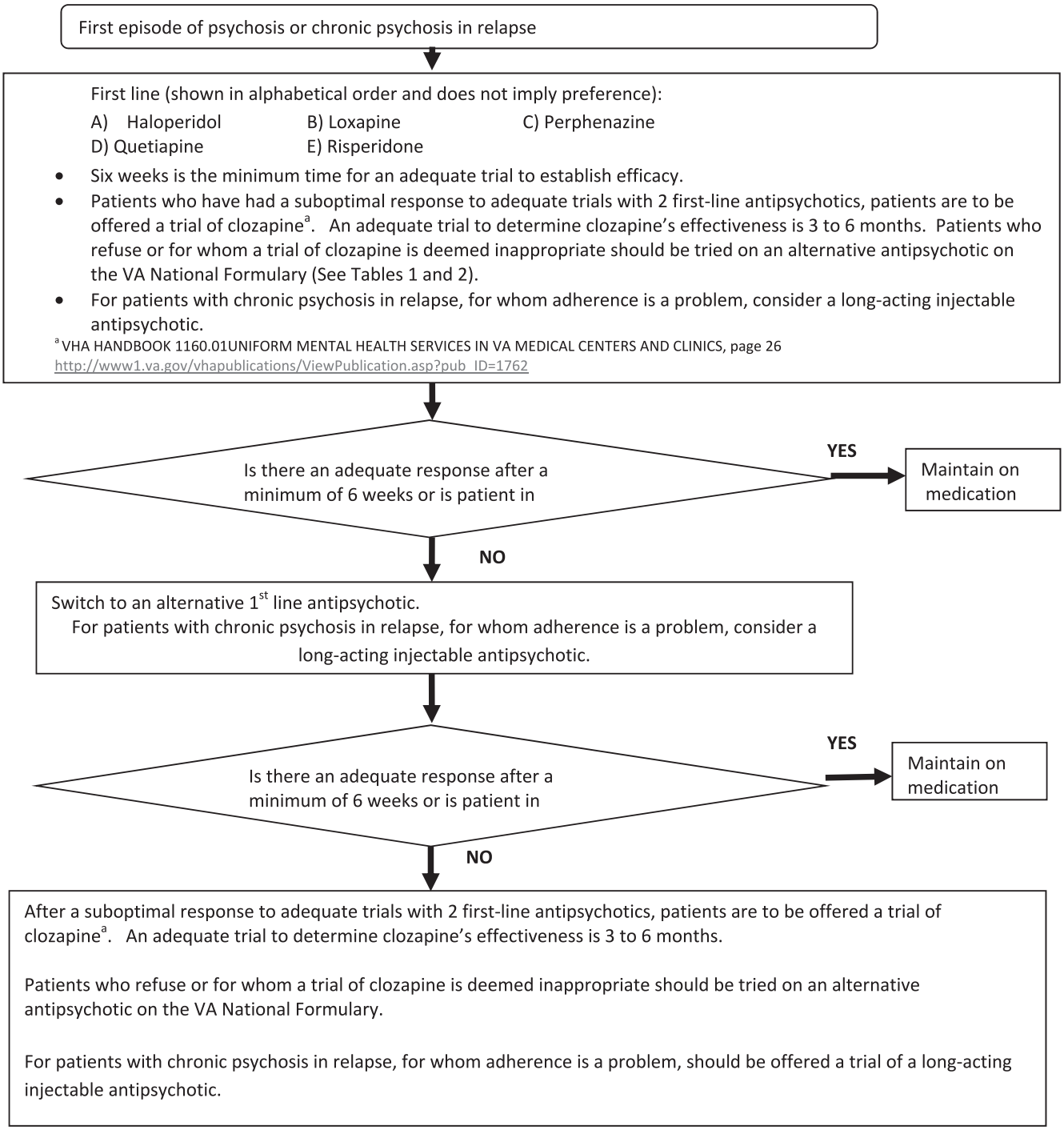

FIGURE 1: Veterans Affairs recommendations for antipsychotic selection in schizophrenia and schizoaffective disorders[3]

the PADR policy. This would roughly represent a 60% reduction in the number of total orders for aripiprazole, olanzapine, and ziprasidone compared to findings in a 2013 study that evaluated the number of orders from July 2011 to July 2012, prior to the implementation of the PADR policy (Figure 4).[3] All else remaining equal, an estimated 329 patients were diverted from an SLAA in the 12 months following the implementation of the PADR. If the percentage of orders for the different SLAAs remained the same, we estimate that 166.8 patients were spared from aripiprazole, 130.6 patients spared from olanzapine, and 31.6 patients spared from ziprasidone. Using yearly cost per unique patient data, we calculated the cost difference between each SLAA agent and risperidone and estimated the amount of spending avoided by diverting patients from an SLAA to risperidone (a first-line second-generation antipsychotic). The total estimated cost avoidance was equal to $617 389.37 (Figure 5).

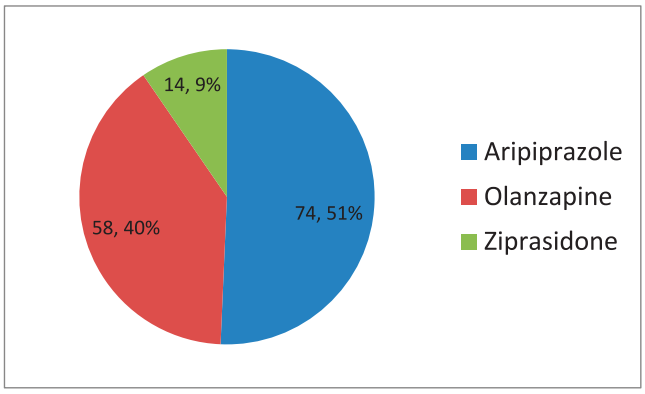

FIGURE 2: Distribution of new orders by specific second-line antipsychotic agent

Discussion

In order to increase compliance with VA recommendations for antipsychotic selection, the VA ECHCS pharmacy and therapeutics committee approved the reclassification of the formulary agents aripiprazole, olanzapine, and ziprasidone as *formulary restricted*. Only patients who had failed at least 2 first-line formulary antipsychotic agents (haloperidol, loxapine, perphenazine, risperidone, quetiapine) and clozapine, if appropriate, would be eligible to trial the above formulary restricted antipsychotic agents. A new ordering pathway was created for aripiprazole, olanzapine, and ziprasidone, which was implemented in April 2013. The new ordering pathway requires the submission of a PADR before the new order could be completed. A pharmacist reviews the PADR to ensure the patient meets criteria for the restricted formulary agent, and upon approval of the PADR, the pharmacist enters the new order so that it can be processed and dispensed to the patient. This PADR policy created a "hard stop" for physician computerized order entry of aripiprazole, olanzapine, and ziprasidone. Patients continuing care from another facility were able to bypass the PADR in order to prevent treatment interruption.

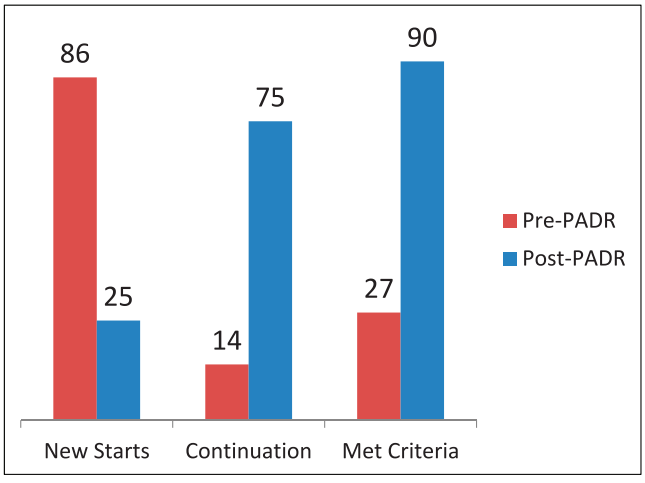

FIGURE 3: Percentage of new starts, continuations of care, and overall patients prescribed a second-line antipsychotic agent who met Veterans Affairs criteria pre– and post–prior authorization drug review implementation

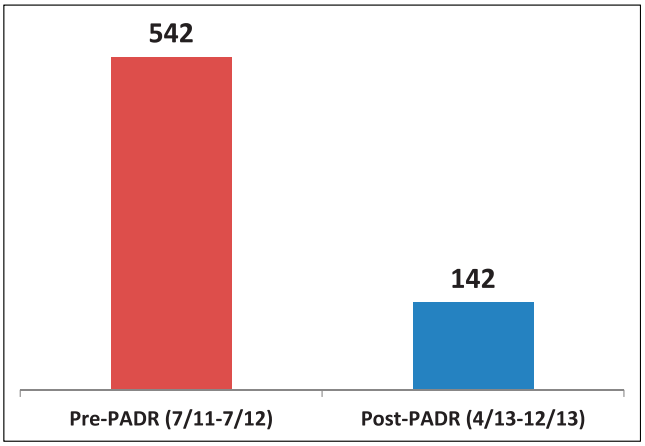

FIGURE 4: Number of unique patients initiated on second-line antipsychotic agents at Veterans Affairs Eastern Colorado Health Care System pre– and post–prior authorization drug review implementation

Our study's objective was to evaluate the impact of the PADR policy on compliance rates with VA recommendations for antipsychotic selection. The results of our study indicate that the PADR policy had a positive impact on reducing the overall prescribing of SLAAs with an estimated 60% reduction of unique patients initiated on an SLAA, based on initiation rates for the time periods July 2011 through July 2012 (pre-PADR) and April 2013 through April 2014 (post-PADR; initiation rates for December 2013 through April 2014 were projected from data from the previous 8 months). The reduction in SLAA prescribing resulted in an estimated cost avoidance of $617 389.37 by diverting patients to a less expensive first-line antipsychotic agent. Additionally, the percentage of patients initiated on an SLAA who met VA criteria for use increased from 27% to 90%, compared to a historic cohort prior to implementation of the PADR. The change in

Estimated Cost Avoidance

Agent	n	Yearly Cost/Unique Patient	Yearly Cost/Unique Patient Difference	Total Yearly Cost Difference
Aripiprazole	166.8	$2,693.18	$2,670.45	$445,431.06
Olanzapine	130.6	$898.04	$875.31	$114,315.49
Ziprasidone	31.6	$1,846.87	$1,824.14	$57,642.82
Risperidone	N/A	$22.73		
			TOTAL	$617,389.37

FIGURE 5: Estimated amount of spending avoided by diverting patients from a second-line antipsychotic agent to risperidone, based on Eastern Colorado Health Care System yearly cost data from Q2FY13 through Q1FY14

compliance rates is partially due to the relatively smaller number of "true" new starts versus continuation of care from other facilities. A major concern of implementing formulary restrictions is interruption of patient care.[5] We were reassured that our findings show that despite the formulary restriction, the PADR policy did not likely cause a disruption in treatment as indicated by the large percentage of patients who were categorized as continuing care from other facilities (75% of all new orders).

The few (14 patients) who did not meet the criteria in the post-PADR time period apparently circumvented the PADR process by initiating treatment while the patient was hospitalized. Although inpatient orders do require a PADR per policy, there is no "hard stop" in the inpatient order entry process. No obvious trends were identified with these 14 patients (eg, several different prescribers were implicated). Seven patients were initiated on an SLAA while admitted to the inpatient psychiatric service. We speculate that there was likely a verbal conversation and authorization between the prescriber and psychiatric pharmacist regarding the use of the restricted formulary agent in the majority of cases, but incomplete documentation resulted in categorizing the patient as not meeting criteria during the chart review process. Another speculation is that a number of these patients were likely receiving care from a non-VA facility, making documentation of continuation of care more challenging. We concluded that overall the PADR policy was effective, and we do not recognize a need for any new interventions beyond reinforcing the importance of proper documentation of the PADR in the patient's chart.

There are several limitations to our study. Being that this was a retrospective study comparing a historic cohort, we were unable to control for confounders that could have influenced differences in prescribing patterns between the cohort in our study and in a previous study. In addition to formulary restrictions, many other factors can influence physician antipsychotic prescribing preferences over time, such as introduction of new developments in effectiveness evidence and regulatory safety warnings.[6] Prescriber turnover and changes in total patients receiving mental health care at VA ECHCS may have also skewed our results. Nonetheless, a dramatic increase in compliance rates with VA recommendations and overall reduction in the prescribing of SLAAs was correlated with the time period immediately following the implementation of the PADR policy. Additionally, an inquiry into the number of unique patients receiving a prescription for any antipsychotic (limited to the oral formulations of aripiprazole, chlorpromazine, clozapine, fluphenazine, haloperidol, loxapine, olanzapine, paliperidone, perphenazine, quetiapine, risperidone, thioridazine, thiothixene, trifluoperazine, and ziprasidone) during the pre- and post-PADR study periods revealed a small increase in overall unique patients receiving an antipsychotic prescription (12 002 patients versus 12 257 patients, respectively). This difference in total patients receiving an antipsychotic prescription indicates that overall prescribing of antipsychotics did not decrease between the time period of the historic cohort and the present study period.

Conclusion

The results of this study suggest that implementation of a PADR for aripiprazole, olanzapine, and ziprasidone was associated with increased compliance with VA criteria for use of antipsychotic agents without causing interruptions in treatment. Increased compliance with VA criteria was associated with marked cost avoidance due to the reduced use of more expensive SLAAs.

References

1. Huskamp HA. Managing psychotropic drug costs: will formularies work? Health Affairs. 2003;22(5):84-96.
2. Mark TL, Levit KR, Buck JA, Coffey RM, Vandivort-Warren R. Mental health treatment expenditure trends, 1986-2003. Psychiatr Serv. 2007;58(8):1041-8. DOI: 10.1176/appi.ps.58.8.1041; PubMed PMID: 17664514.
3. VA Pharmacy Benefits Management Services, Medical Advisory Panel, and VISN Pharmacist Executives. Recommendations for antipsychotic selection in schizophrenia and schizoaffective disorders [Internet]. 2012 Jun. [cited 2014 Jul 7]. Available from: http://www.pbm.va.gov/PBM/clinicalguidance/clinicalrecommendations.asp
4. Clark J, Gold J, Hawk S. Implementation of antipsychotic selection recommendations at a veterans affairs facility. Ment Health Clin. 2013;3(4):188-92. DOI: 10.9740/mhc.n172352.
5. Moffic HS. Ethical principles for psychiatric administrators: the challenge of formularies. Psychiatr Q. 2006;77(4):319-27. DOI: 10.1007/s11126-006-9017-8.
6. Donohue J, O'Malley AJ, Horvitz-Lennon M, Taub AL, Berndt ER, Huskamp HA. Changes in physician antipsychotic prescribing preferences, 2002-2007. PS. 2014;65(3):315-22. DOI: 10.1176/appi.ps.201200536.