

# Commentary: Antipsychotic Prescribing Practices in the Texas Prison System

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The accompanying article addresses the use of antipsychotic medication in the Texas prison system and raises many challenging and difficult issues worthy of discussion and further examination. As the associated article and a growing body of literature document, an increasing number of severely and persistently mentally ill are incarcerated in the nation's jails and prisons.<sup>1–3</sup> A corollary to this assertion is the growing need for treatment of these populations of individuals with psychosis or severe functional impairment. I would like to take this opportunity to elaborate on several issues raised by this thoughtful article: the diagnoses and target symptomatology for antipsychotic medication, medication selection and management, and the issues of potential racial and gender bias in the treatment of incarcerated patients.

## Issues of Diagnosis and Indications for Use of Antipsychotic Medication

Clearly, antipsychotic medication is indicated in the treatment of the schizophrenias and schizophrenia-like disorders, as well as the psychoses associated with bipolar disorder, psychotic depression, and many drug intoxication states.<sup>4</sup> There are few, if any, concerns about the appropriateness of the medications as a broad class there.<sup>5</sup> Of particular relevance to the incarcerated population are off-indication uses

such as the treatment of severe impulsivity, impulsive aggression, or other disturbing behaviors that have not been responsive to behavioral, psychotherapeutic, or other kinds of medication intervention.<sup>6,7</sup>

## Medication Selection and Management

When we look at these issues, it is important to think about the literature that helps to define the relative indications of both the typical or the traditional antipsychotic medications, as well as the new class of atypical antipsychotic medications. These atypical antipsychotics are arguably more effective and more specific, both in the treatment and in the management of the diagnosable psychoses,<sup>4,5</sup> as well as the other indications for which these medications might be used as outlined previously.<sup>6,7</sup>

I would like to focus on an interesting negative finding in the article: no particular selection bias was found in the use of atypical versus typical antipsychotic medications where there was a history of violent behavior in someone with a psychotic disorder. Growing literature suggests that serotonin-selective reuptake inhibitors, anticonvulsants, antipsychotics, and other potential medications are beneficial in the treatment of violent behavior in the context of mental illness.<sup>8–10</sup> Although the article did not provide data allowing us to determine whether these other (nonantipsychotic) classes of medication were being used in this subset of violent, psychotic individuals, nevertheless, there are preliminary data to support the preferential use of atypical antipsychotics in the treatment of violence in the context of chronic psychosis,<sup>11–14</sup> with many methodological caveats

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noted.<sup>15</sup> Given the potentially improved rate of adherence to atypical antipsychotic medication (see the following discussion), this is a factor worth considering in this population. However, there is a paucity of data examining this issue in the correctional environment. This lack of data argues for the need to address explicitly the question of the relative benefit of the atypical antipsychotics and the treatment of aggression, violence, and, particularly and commonly, impulsive violence, with (or without) associated psychosis in the correctional setting.

As is known by clinicians involved in the delivery of psychiatric services in correctional settings, there are unique challenges to these environments and the data derived from community-based service delivery may not be applicable. That said, several questions of clinical relevance readily come to mind:

1. Are adverse reactions more/less common or different in response to antipsychotics by incarcerated and other clinical samples? To my knowledge, no data are available at this time on this issue.

2. Do incarcerated persons adhere to antipsychotic regimens at a rate differing from community samples because of perhaps different predictive factors (e.g., psychopathy, comorbid substance abuse history, fear of loss of alertness, and resultant vulnerability to victimization)? At least one preliminary study<sup>16</sup> supports improved adherence with atypical versus typical antipsychotics in a correctional setting consistent with findings in the community.<sup>17-19</sup> These very limited data would tend to support atypical use in correctional settings in parallel to their community use. Further studies in this area are clearly needed.

3. Does the relative cost of atypical antipsychotics contribute to reduced or differential use in a correctional environment? The dynamics of funding and reimbursement of funding may come into play here as well as in the community. Although the pharmacoeconomics of atypical antipsychotic use in the community are fairly clear, balancing the higher cost of atypical antipsychotics with decreased service utilization and improved functioning,<sup>20, 21</sup> extensions of these studies into correctional environments would have to take into account the specific funding mechanism under which each system operates. Funding issues include potential for reduced disturbances in the jail or prison, reduced need for higher cost infirmary settings, ability of the inmate patient

to function in a general population setting with fewer custody and mental health needs, and so forth.<sup>22</sup>

## Potential Racial Bias in Diagnosis and Medication Selection

In this nation, there are substantial data to suggest that incarcerated individuals are disproportionately minorities; within that group, a disproportionate number are African-Americans.<sup>23</sup> One of the concerns raised in the associated article is that there were a small number of African-Americans treated with atypical antipsychotic medication compared with the more traditional antipsychotic medications. This is of real significance for several reasons. The first is that African-Americans, in particular, are more susceptible to tardive dystonias and dyskinesias as a consequence of treatment with the typical antipsychotic medications than are diagnostically similar members of other ethnic groups.<sup>24, 25</sup> These data clearly raise concerns about the potential for racial bias in the selection of antipsychotic medication. In the discussion section, the authors reasonably raise the following question. Given the absence of data to the contrary, might there have been a disproportionate number of African-American individuals in the community admitted to the correctional system on the typical antipsychotic medications? The apparent racial bias within the correctional system may simply reflect an ongoing bias that may exist in the community regarding diagnosis and/or treatment.<sup>26-28</sup> The data are not immediately available to address that concern. This does raise an issue that our society needs to confront both in terms of the issues of selection bias, as well as treatment bias in the context of the overall apparent racial bias that leads toward incarceration in disproportionate numbers.

It may safely be stated, then, that targeted studies need to be conducted examining the potential issues of racial bias and what might be contributory factors of treatment on the one hand and treatment selection on the other. Further, data are very hard to come by at this stage of the specific diagnoses of individuals and whether the racial or cultural biases in the diagnostic preferences in the community<sup>26-28</sup> persist during incarceration. This article serves to put us on notice that it is incumbent on us as clinical researchers to address these issues, separate from any of the criminal justice issues *per se*.

## Potential Gender Bias in Medication Selection

Focusing for a moment on gender issues that are raised, a fascinating finding here has to do with the increased frequency of treatment of women with typical antipsychotics in parallel with and in addition to the finding of racial bias. What we have learned in recent years is the critical need to conduct studies of potential gender-specific responses to treatment. This clearly applies to specific disorders such as the schizophrenias, the bipolar disorders, or other disorders in which atypical antipsychotic medication may be used for the treatment of psychotic processes. Currently, limited data exist on gender differences in schizophrenia and response to treatment.<sup>29-32</sup> Therefore, it is incumbent on us to begin examining with much more targeted care and concern potential gender biases in diagnosis and subsequent treatment selection with the need for the research underpinnings to be able to examine potential gender selectivity in response to different medications given a specific diagnosis.

## Use of Practice Guidelines

One approach that may help us address many of these concerns is beginning to receive widespread attention in psychiatric practice: the use of prescribing guidelines. Although several different approaches exist,<sup>33, 34</sup> the potential benefit of applying algorithm-supported decision making in a correctional setting is substantial. Algorithmic approaches to systematizing prescribing practices may help to improve quality of care as it eliminates unwanted or unintended biases. The considered approach to decision making and the scheduled re-evaluation of therapeutic benefit and side-effect burden make the application of practice guidelines ideal in such a regulated environment as correctional settings. The concomitant psychoeducation that is part of some practice guidelines<sup>34</sup> may work further to enhance medication effects. Although applied in limited settings to date,<sup>35</sup> and not yet comprehensively applied to any correctional setting, the potential benefits of this approach clearly should encourage us to pursue this opportunity rigorously.

It is the hope of this author that the study presented here will be the harbinger of many similar studies that will allow us to examine more carefully

the treatment of the mentally ill who are incarcerated, how we might optimize the care of those individuals, and how we may bring state-of-the-art standards to the care of these populations.

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