

Screening for metabolic syndrome-adherence to guidelines

Olanzapine is a widely prescribed second generation antipsychotic (SGA) that can lead to metabolic syndrome. SGAs are not a homogeneous class, and differ from each other in many ways.¹ The risk for metabolic syndrome is significantly higher with olanzapine than other second generation antipsychotics.² It is necessary for prescribing doctors to be aware of this risk in order to prevent it; and/or manage it appropriately.³ Psychiatric patients face numerous barriers with regard to access and quality of medical care.⁴ They especially receive poorer care for chronic conditions such as heart disease and diabetes.⁵ This leads to an increased risk of premature death.⁵ Addressing the physical needs of mentally ill patients needs to be given priority.⁶ Guidelines such as those arising from the Consensus Development Conference on Antipsychotic Drugs and Obesity and Diabetes, have been formulated for monitoring metabolic status.⁷ The current study aimed to establish the extent to which metabolic and cardiovascular screening and monitoring was undertaken on patients prescribed olanzapine in a specialist psychiatric hospital setting. The hypothesis was that screening was suboptimal (i.e. less than 100%).

The study objectives were to describe the demographic profile, clinical diagnosis and risk factors for metabolic complications in a sample of patients receiving olanzapine. Further, to establish the extent to which metabolic and cardiovascular screening and monitoring had been undertaken on patients prescribed olanzapine as well as to what extent the patients's demographics, diagnosis and metabolic risk factors influenced the treating doctor's adherence to screening guidelines.

This study was undertaken at Tara hospital (outpatient department). A convenience sample of patients prescribed olanzapine were selected as the study group. It was a retrospective, descriptive study.

The sample comprised of 19 females (48.72%) and 20 males (51.28%). The mean age of females in the sample was 52.38 years (SD=16.20) and the mean age of males was 41.28 (SD=17.05) years. The sample were predominantly single (61.54% n=24) with the majority being white (79.49% n=31); most had either a tertiary (43% n=17) or secondary (53.85% n=21) level of education. Only 2.56% (n=1) had only primary level education. Regarding diagnoses: 17.95% (n=7) were

diagnosed with bipolar 1 disorder, 7.69% (n=3) with major depressive disorder with psychosis, 20.51% (n=8) schizoaffective disorder and 53.84% (n=21) with schizophrenia. In 35.9% (n=14) of the sample, no risk factors for metabolic syndrome were documented with 15.38% (n=6) documented as having no risk factors. Specific risk factors were: 10.26% (n=4) with hypertension, 5.13% (n=2) with diabetes, 2.56% (n=1) with hyperlipidaemia, 5.13% (n=2) with obesity, 20.51% (n=8) were smokers. 5.13% (n=2) had more than one or more risk factors documented. None of the sample had cardiovascular disease as a risk factor. Of concern, with regard to risk factors for metabolic syndrome, is that in more than a third of the sample risk factors were not documented. It is not clear whether this was on the basis of there being no risk factors or simply that they were not elicited for whatever reason. 80% of schizophrenic patients have significant co-morbid medical problems, and in 50% of patients the problem may not have been diagnosed.⁸ This highlights the need for adequate history taking and accurate record keeping in relation to medical aspects of psychiatric patient care. More patients were initiated on olanzapine as inpatients (n=23) than as outpatients (n=16). The percentage of screening for each of the variables for outpatient initiated treatment was less than 20% and it continued to decline to less than 20% until 4 months. Beyond this there was so little screening as to render data interpretation of no value. The exception was weight, where frequency increased slightly over time. The extent of screening for inpatient initiated treatment, for the relevant screening variables, differed to those for outpatient initiated treatment. In general there was a higher level of screening, although it declined over time. Weight and blood pressure were most frequently assessed at baseline followed by lipogram, glucose and cholesterol levels. For all variables measured, the trend was for screening to decline over time. Comparing inpatient versus outpatient initiated treatment there were apparent differences in the extent of screening i.e. greater for inpatient initiated treatment, specifically with respect to weight and blood pressure. However weight and BP monitoring are a part of standard nursing procedure in the wards at the hospital and is therefore undertaken on all patients i.e. it is not specific to patients on olanzapine. Hence one should be cautious in over interpreting the apparent screening. In summary, screening for metabolic syndrome in patients on olanzapine is not being undertaken according to recommended clinical guidelines.

No significant relationship was established regarding the extent to which the patient gender, diagnosis or

Correspondence

Dr C Marsay
carinamarsay@gmail.com

patient group influenced the treating doctor's adherence to screening guidelines. The limited sample size and paucity of data, suggests that this finding should be cautiously interpreted.

In a study evaluating implementation of similar guidelines, before such guidelines were released 7.8% of patients had their lipids tested at baseline, whereas after the guidelines were released only 8.5% had lipids tested at baseline.⁹ This is comparable to the current study where at baseline 6-8.7% of patients had their lipids tested. Hence one sees that baseline rates of testing locally are comparable to international data - where guideline publication appears not to have influenced clinical practice.

Guidelines do have many benefits. They inform doctors of evidence based practices thereby striving to optimize as well as standardise practice. Whilst they can be useful in enabling the professional to evaluate what they are doing, adherence is problematic.⁹

Based on the findings of the current study it appears there is a need to actively promote the benefits of guidelines locally. Whilst one can only speculate on the basis for non-adherence, having established the status quo, there is a requirement for an appropriate strategy to address the deficit, given the implications of inadequate monitoring for metabolic syndrome within the context of SGA prescribing.

C Marsay, CP Szabo

Division of Psychiatry, University of the Witwatersrand,
Johannesburg, South Africa

References

1. Leucht S, Corves C, Arbter D, et al. Second-generation versus first generation antipsychotic drugs for schizophrenia: a meta-analysis. *Lancet* 2009;373:31-41.
2. Newcomer JW. Second-generation (atypical) antipsychotics and metabolic effects: a comprehensive literature review. *CNS drugs* 2005;19(suppl 1):1-93.
3. Koro CE, Fedder DO, L'Italien G, Weiss S, Magder L, Kreyenbuhl, et al. Assessment of independent effect of olanzapine and risperidone on diabetes among patients with schizophrenia: population control study. *BMJ* 2002;325:243-245
4. Vreeland B. Bridging the gap between mental and physical health: a multidisciplinary approach. *J Clin Psychiatry* 2007;68(suppl 4):26-33.
5. Thornicroft G, Rose D, Kassam A. Discrimination in health care against people with mental illness. *International Review of Psychiatry* 2007;19(2):113-112.
6. Maj, M. Editorial. Physical health care in persons with severe mental illness: a public health and ethical priority. *World psychiatry* 2009;8(1):1-2
7. The American Diabetes Association, the American Psychiatric Association, the American Association of Clinical Endocrinologists, and the North American Association for the Study of Obesity. Consensus Development Conference on antipsychotic drugs and obesity and diabetes. *J Clin Psychiatry* 2004; 65(2):267-272.
8. Sadock B, Sadock V, editors. Schizophrenia, In: *Synopsis of Psychiatry*, Philadelphia, Lippincott Williams and Wilkins, 9th edition, 2003:147-504.
9. Malhi G, Adams D, O'Connor N. Comment: clinical practice guidelines- guiding or goading? *Australasian Psychiatry* 2008; 16(1): 5-7.