

Study on Prescribing Pattern and Drug Utilization among Depressed Patients in Tertiary Care

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Abstract

Introduction: The purpose of drug utilization pattern is determination of benefit-risk relationship, cost effectiveness and to ensure the appropriate use of dose, duration of therapy and outcomes of therapy with drugs. The prescribing pattern promotes appropriate use of monitored drugs, reduction of abuse and ensures rationale for drug therapy. The aim was to study the prescribing pattern and drug utilization review on depressed patients.

Materials & Methods: A total of 120 prescriptions were included in the study and analysed. As per the HAM-D scoring criteria, the included patients were divided as mild, moderate and severely depressed patients. The included patients were prescribed with benzodiazepenes, antidepressants and antipsychotic. The data of the included patients were recorded in the preformed performa.

Results: There were 76 males and 44 females in the research study. The most preferred antidepressant was found to be escitalopram. Total of 42 prescriptions contains the drug name escitalopram. This was followed by combination of drugs name such as citalinforte prescribed in 60 patients and linotril was seen in 42 prescriptions of the included patients.

Discussion & Conclusion: Most of the patients in this study were males and the most susceptible age group was the 31-40 years age group. SSRIs and SNRIs seem to have replaced the older group, namely the TCAs because of fewer side effects of the newer group of drugs and the prolonged therapy which was needed to combat depression effectively. Escitalopram was the most commonly prescribed drug for depressive disorder followed by lorazepam, Clonazepam and haloperidol.

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Introduction

The mental state of the individual in which there is feeling of sadness, loneliness, low self-esteem, despair is defined as depression. The other signs that could accompany are withdrawal from interpersonal contact, psychomotor retardation and insomnia. Due to its relative lifetime prevalence and the disability caused by depression, it has led to a public health problem worldwide. [1, 2]

There has been progress to understand the risk factors that are associated with depression that includes the Comorbidities found in the adult population. However very limited information is evident on the use of medications that have caused depression as side effects. In past various researches has been done to find the association between the

depression and the type of medicine prescribed. [3, 4]

Several researches have investigated relations among medication classes and depression. The strength of evidence for depression as an adverse effect varies across medication classes. For example, depression has been consistently associated with interferon α treatment of hepatitis C with mild to moderate depression developing in 45% to 60% of treated patients and moderate to severe depression developing in 15% to 40%. [5]

Drug utilization research is defined by the WHO as marketing, distribution and utilization of drugs in society with special importance on resulting medical, social economic consequences. The purpose of drug utilization pattern is determination of benefit-risk relationship, cost effectiveness and can ensure the appropriate use of dose, duration of therapy and outcomes of therapy with drugs. [6] The prescribing pattern supports suitable utilization of monitored drugs, reduction of abuse and guarantees medical care rationale. [7] The aim and objectives of the study were to study the prescribing pattern and drug utilization review on depressed patient

Methods

The present observational research work was performed in the department of psychiatry, Vedantaa Institute of Medical Sciences. The study was done for the period of one year. The ethical committee of the institute were informed about the aims and objective & methodology of the study and ethical clearance certificate was obtained from the committee. The patients were informed about the study and the written informed consent was obtained prior to their inclusion in the study. Inclusion & exclusion criteria were as follows:

Inclusion criteria:

All the patients diagnosed with depression between the ages of 15 to 60 years and all the

patients who were treated as in patients or as out patients were included in the study.

Exclusion criteria:

Patients who did not provide the informed consent, pregnancy and lactating mothers and patients who were diagnosed and were under medication for other psychiatry disorders.

The data of the included patients were recorded in the preformed performa. The form had 2 sections. The first section was used to obtain the information on drug class, dosing schedule, route of administration and lastly the cost of drug. The second section was utilized to gain information on prescribing pattern with WHO prescribing indicators that includes: total number of antidepressant prescribed. The name, age, sex, brand name drugs, rationality of the drug prescription, generic name and antidepressant drug prescribed were recorded. The prescription of all the included patients were entered in the performa and the descriptive analysis was used for the statistical analysis of the data.

Statistical analysis

The data of the research work was recorded and were entered in the SPSS software. The descriptive analysis test was done to analyse and express in form of table chart and graphs.

Results

A total of 120 prescriptions were included in the study and analysed. As per the HAM-D scoring criteria, the included patients were divided as mild, moderate and severely depressed patients. The included patients were prescribed with benzodiazepens, antidepressants and antipsychiotic.

There were 76 males and 44 females in the research study. It can be said that males are predominantly more affected as compared to females from the depressive disorders. The age range of the patients included in the study was between 16 years and 45 years. The maximum number of the patients was in the age range of the 31 – 40 years, followed by the age group of 21 – 30 years. The least

number of patients were under age of 20 years. This shows that patients belonging to the age group of 31 – 40 years were more

prone to depression and depressive disorder. (Table 1)

Table 1: age group distribution of the included patients

Age	No. of patients
< 20	6
21 – 30	38
31 – 40	62
>40	14
Total	120

The most preferred antidepressant was found to be escitalopram. Total of 42 prescriptions contains the drug name escitalopram. This was followed by combination of drugs name such as combination of Clonazepam and

Escitalopram prescribed in 60 patients and Clonazepam was seen in 42 prescriptions of the included patients. Citalinforte is the combination drug that contains Clonazepam and Escitalopram. (Table 2)

Table 2: Frequency of the Drug Prescribed

Drugs	No. of prescription
Escitalopram	42
Citalin forte (Clonazepam + Escitalopram)	60
Linotril (Clonazepam)	40
Lorazepam	24
Librium	6
Bct	36
Haloperidol	12
Quitipin	6
Rexitebt	18
Others	36

The prescribing pattern was recorded next. The most preferred pattern was antidepressant first than the combination of antidepressant with Benzodiazepene and that was followed by combination of antidepressant with benzodiazepenes and antipsychotics. In mild cases group with 40 patients; only antidepressant were preferred. In moderate cases group with 96 patients: the combination of antidepressant with benzodiazepene was preferred. In severe cases group with 44 patients: the combination of anti depressent with benzodiazepenes and antipsychotics was preferred.

Discussion

Depression is a condition that can affect people differently and cause a wide variety of distressing symptoms. It can lead to relationship and family breakdown, increase the likelihood of drug or alcohol addiction, reduce the ability to overcome serious illness and increase mortality rates – not just from the risk of suicide. Depending on its severity, clinicians can suggest a variety of diverse treatments that can frequently recover the lives of patients. [8, 9]

The routine use of antidepressants for mild and sub-threshold depressive symptoms among adults is not generally recommended. Nevertheless, prescription may be measured

when clinically indicated. Antidepressant utilization among children and adolescents should only be part of second-line management for moderate to severe depression when subjects are indifferent to psychological management. However, it may be appropriate as a first-line approach when there is more severe depression and when they are under the care of a specialist psychiatrist. [10, 11]

Even though pharmacological intervention is the chief management modality for relieving the depressive symptoms, the effectiveness and appropriateness of other therapeutic options should not be ignored. Other therapeutic options consist of psychotherapy, cognitive behavioural therapy and lifestyle alteration. The most recognized psychotherapies that are thought to be helpful in treating depressed patients are cognitive and interpersonal psychotherapy. The function of psychotherapy alone in the management of recurring depression seems to be not as much of promising than the role of the antidepressants unaided. [12, 13]

Antidepressant drug therapy is divided into three phases: the acute phase, the continuation phase and the maintenance phase. The acute phase starts from the initiation of the therapy until remission (usually 6–12 weeks). The continuation phase is from remission to 6–9 months after the remission. The drugs of the acute phase are continued to prevent the relapse of depression. The maintenance phase is used in high risk patients like those with multiple episodes of depression, those with a history of suicidal tendencies, etc. They may receive maintenance treatment for 2-3 years or for lifelong. [14]

In the present study the escitalopram was the most commonly prescribed antidepressant drug followed by a combination drug 'citalinforte' and linotril (Clonazepam) etc. Grover et al [15] in a multicentre study analysed prescription data of 706 patients with depression in diverse teaching institution in public and private sectors and

even privately run psychiatry clinics found that escitalopram was the most commonly antidepressant, comprising 40% of total prescription, followed by sertraline (17.6%) and fluoxetine (16.3%) [16]

A study conducted by Carvalho et al revealed that safety, tolerability, adverse events and side effects were fewer in escitalopram (SSRI) than TCAs making it a widely used drug in treating major depressive disorder. Escitalopram and clonazepam was the most common combination used in polytherapy.

Yerkade et al evaluated the prevalence of depressive disorder were mostly common in females (170, 56.6%) than males (130, 43.3%) and the maximum prescription rate was in the age group between 31-40 years. [12] Similar to our study, the patients on antidepressants were mostly in the age group 31-40 years and antidepressants drugs were mostly prescribed in males (30, 60%), than females (24, 40%) because the social life varies as from other studies like most of the males were under daily wages workers and their economic status was unstable,

Conclusion

Most of the patients in this study were males and the most susceptible age group was the 31-40 years age group. By and large, the newer group of drugs namely the SSRIs and SNRIs seem to have replaced the older group, namely the TCAs because of fewer side effects of the newer group of drugs and the prolonged therapy which was needed to combat depression effectively. Escitalopram was the most commonly prescribed drug for depressive disorder followed by lorazepam, Clonazepam and haloperidol.

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