

Prescription Monitoring Study of Antipsychotic Drugs in Geriatric Population at Tertiary Level Referral Hospital in Rural India.

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ABSTRACT

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An attempt was made to assess the prescription monitoring pattern of anti-Psychotic drugs in geriatric patients treated at tertiary level referral hospital and to rationalise the prescription habits of the clinicians. The study was conducted in tertiary level multispecialty referral hospital at Perinthalmanna. It was a prospective and observational study conducted among inpatients for four weeks by monitoring the case sheets and patient interview in the hospital. The study was conducted to systematically assess the prescribing patterns of antipsychotic drugs among geriatric inpatients. A total of 65 geriatric patients were admitted to the hospital during the study period. . The indicator-driven analysis of antipsychotic prescribing quality revealed a need for improvement, with the main prescribing problems relating to duration and combination of therapies.

INTRODUCTION

The antipsychotics are indicated for treating psychotic disorders, including schizophrenia, delusional disorder, and psychotic symptoms in mood disorders and for a number of organic psychoses. Antipsychotic drugs are among the most widely prescribed psychotropic medications for elderly people.¹ The rapidly expanding field of psychopharmacology is challenging the traditional concepts of psychiatric treatments, and research is constantly seeking new and improved drugs to treat psychiatric disorders. In this way, psychiatrists are continuously exposed to newly introduced drugs that are claimed to be safer and more efficacious. Drug prescribing forms an important part of medical treatment. There have been many overseas studies on prescribing pattern of doctors.² The number of persons above the age of 60 years is fast growing, especially in India. India as the second most populous country in the world has 76.6 million people at or over the age of 60, constituting about 7.7% of total population. The problems faced by this segment of the population are numerous owing to the social and cultural changes that take place within the Indian society. Evaluation of the morbidity profile among elderly people, and the impact of chronic conditions on functional disability and psychological well-being are an essential part of comprehensive assessment of the elderly. It will have implications for providing health care for the elderly population and its costs. Increasingly, atypical antipsychotic

drugs are prescribed for elderly patients with symptoms of psychosis and behavioural disturbances. Although non-pharmacologic treatments for behavioural disturbances should be tried first, medications often are needed to enable the patient to be adequately cared for. Treatment with antipsychotics is very common in the elderly and often indispensable. However, for successful treatment, it is essential to have an adequate multidimensional assessment of the geriatric patient and of his or her polypathology and polypharmacy, together with knowledge of age-dependent pharmacokinetics and pharmacodynamic changes and drug-drug interactions.³

A Prescription Monitoring Program typically refers to a state-run program (in the United States) that serves as a registry to track prescriptions for controlled substances. These serve physicians who want to know if his or her patient is receiving similar medications from other physicians.⁴ Pharmacies that dispense controlled substances are usually required to register the filling of such prescriptions with a state-run database Drug utilization audits are qualitative assurance programs to ensure that drugs are used correctly and safely. The nature of such audits can be quantitative or qualitative or combination of both. Quantitative audits are concerned with quantifying various facts of drug therapy use within a healthcare system areas group whereas qualitative audits compare drug use or practice with predetermined standards or criteria. The present study was an attempt to assess drug utilization in psychotic therapy in patients above 60 years and also to know about the daily activities of the patients by documenting in the standard scale of "Lawton Brody Instrumental Activity of Daily Living Scale".⁵ Here an attempt was made to assess the prescription monitoring pattern of anti-Psychotic drugs in geriatric

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patients treated at tertiary level referral hospital, to rationalise the prescription habits of the clinicians and to assess a person's ability to perform tasks such as using a telephone, doing laundry and handling finances, using the "Lawton Instrumental Activity of Daily Living Scale".

OBJECTIVE:

To assess the prescription monitoring pattern of anti-Psychotic drugs in geriatric patients treated at tertiary level referral hospital and to rationalise the prescription habits of the clinicians. To assess a person's ability to perform tasks such as using a telephone, doing laundry and handling finances, using the "Lawton Instrumental Activity of Daily Living Scale".

METHODOLOGY

A prospective study done in the psychiatric department of the tertiary level multi-speciality hospital situated in Malabar region of Kerala, which covers a period of three weeks in the month of December. We have included the following inclusion and exclusion criteria for the study.

Inclusion criteria:

- Patients who were diagnosed as psychiatric patients.
- All the patients who were admitted in the psychiatric department
- Persons who were taking antipsychotic drugs for > 2 years
- All the inpatients of age \geq 55 years

Exclusion criteria:

- Patients below 50yrs
- Out patients
- Patients who were taking antipsychotic drugs prescribed from outside the hospital
- Discharged prescription
- Prescription containing incomplete information

It was a prospective and observational study conducted among inpatients for three weeks by monitoring the case sheets and patient interview in the hospital. The daily activities of the patients were documented in the standard scale of "Lawton Brody Instrumental Activity of Daily Living Scale". All the enrolled patients who met the criteria were followed on the daily basis from the date of admission to till the day of discharge to note the antipsychotic medicines prescribed. Prescriptions were collected from the case sheet containing at least one antipsychotic drug, multiple drugs etc. The drug usage pattern was analysed in terms of individual drug, its class and dosing regimen such as route, frequency and duration of therapy was calculated. Patients admitted to

the hospital were reviewed on the daily basis. Any change in the dose of drug, addition of drug or changes in the prescription were noted during the study. The addition of another antipsychotic drug to or any change to the antipsychotic drug was considered as separate prescription. All the prescriptions were thoroughly checked with standard prescribing guidelines for the antipsychotic drugs for the irrational use of drugs. Patient demographic details such as age, sex, occupation, educational status, height and body weight, clinical status such as comorbidities, reason for admission, provisional diagnosis were collected. The patient's interview was done on the daily basis and the details were collected regarding the changes or difficulties that they face in daily life, because of taking antipsychotic drugs. For eg: difficulty in remembering the names of the relatives, patients feeling loneliness, difficulty in doing the usual daily works, fear to travel alone etc. The necessary and relevant data collected were documented in a suitably designed data collection form. The daily activities of the patients were documented in the standard scale of "Lawton Brody Instrumental Activity of Daily Living Scale". By using this scale we assessed whether antipsychotic medications affected the normal activity of the patients. Values were expressed as mean (\pm standard deviation or as percentage).

RESULTS AND DISCUSSION

A prospective observational study was conducted in a tertiary level referral hospital with more than 60 consultants of national reputation. During the study 65 elderly patients were selected which who met the inclusion criteria. The study was conducted to systematically assess the prescribing patterns of antipsychotic drugs among geriatric inpatients. A total of 65 geriatric patients were admitted to the hospital during the study period. Of the total admission 27(41.53%) were female and 38(58.46%) patients were male. Out of 65 patients 41.53% had high school education and about 47.6% of patients had education below high school. 10.76% of patients were uneducated. Majority of the patients (63.07%) were found to be from middle class followed by (29.23%) from high class and (7.69%) were from low class. Out of 65 patients, 17(26.15%) patients were from orthopaedic department, 15(23.076%) patients each from general medicine and neurology. Patients from cardiology, pulmonology and gastroenterology were 8(12.3%), 1 (1.5%) and 2(3.1%) respectively followed by general surgery, nephrology, and urology 2(3.1%), 4(6.15%), and 1(1.53846%) respectively. Patient's ability assessment (using Lawton Brody Instrumental Activities of daily living scale):

In this study, it was found out that, around 29% of patients were taking antipsychotic drugs and most of these patients were 60-65 years age. Assessment of person's ability to perform daily activities was done using 'Lawton Brody

Instrumental Activities of daily living scale'. According to the scale, ability of the patients to use telephone was found to be 58(89.23%), shopping-19(29.23%), food preparation 3(4.61%), housekeeping 32(49.23%), laundry 22(33.84%), mode of transportation 32(49.23%), responsibility for medication 16(24.61%), ability to handle finance 36(55.38%). Inappropriate use of antipsychotics in geriatrics may result in decreased patient's ability to perform daily activities. Majority of patients receiving anxiolytic drugs were found to be 10(15.3846%), followed by antidepressant drugs 5(7.692%) and antipsychotics 4(6.1538%). Most of the patients enrolled in this study had diabetes (19) and hypertension (31). Patients with co-morbidities like epilepsy, cirrhosis, UTI, Parkinsonism were 2 each and patients with COPD and CAD were 6 each respectively. The other co-morbidities were dementia, MI, TB, anaemia, hypothyroidism, osteoarthritis.

Rational prescribing was followed as per the principles of prescription writing. There was no polypharmacy, because there was no prescription that does not match the diagnosis. No fixed combinations or injections were given to the patients. Most of the prescription had one or two antipsychotic drugs. The problem we found that clinicians drug of choice was not always affordable by the patients

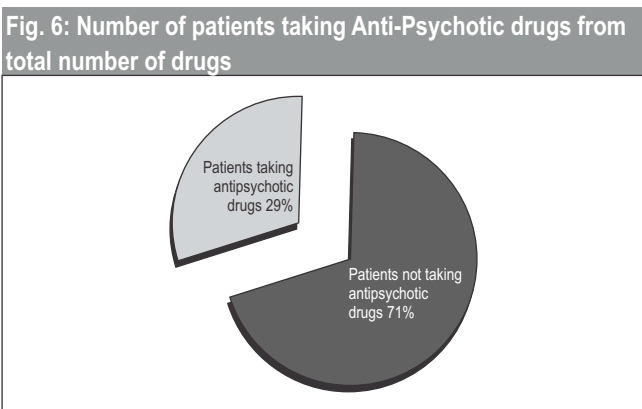
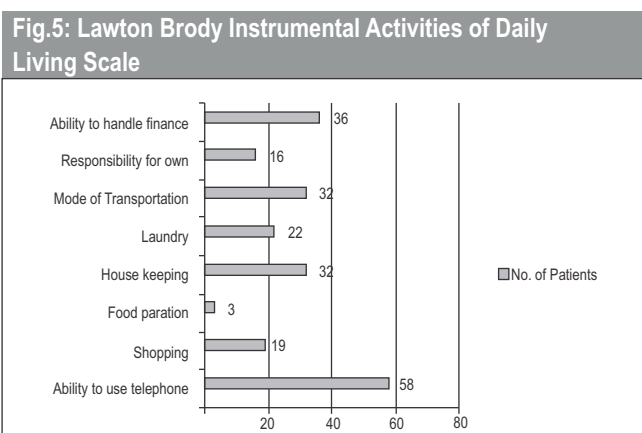
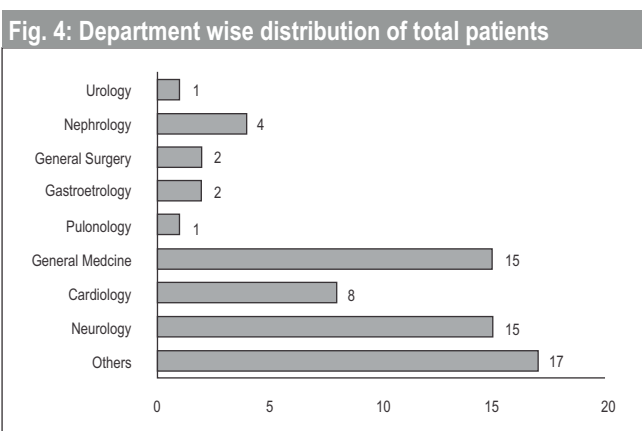
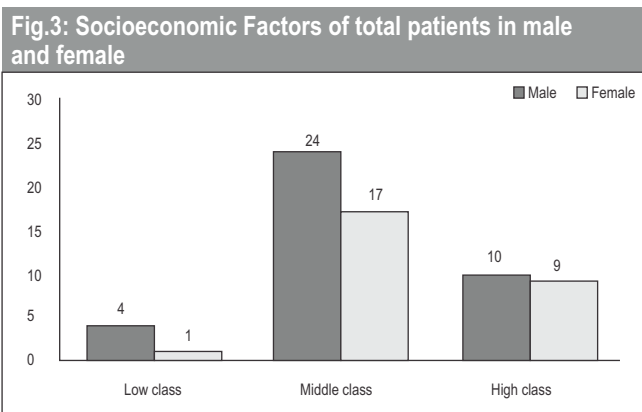
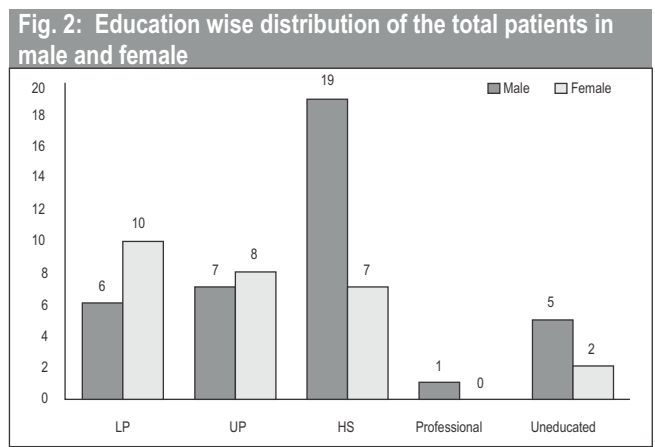
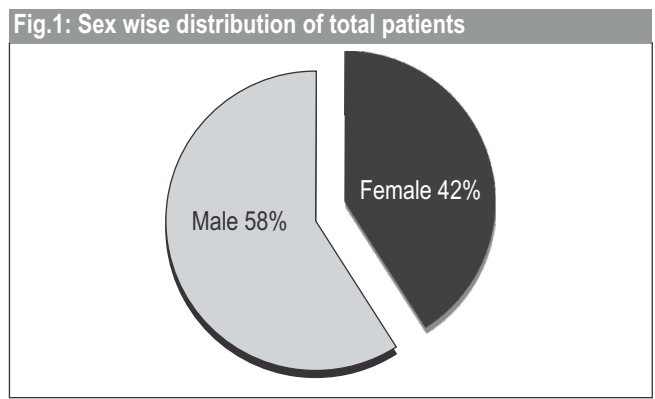


Table 1: Co- morbidities present in total patient

Diseases	No. of patient
Diabetes	19
CAD	6
Hypertension	31
UTI2Anaemia	1
Hypothyroidism	1
Renal failure	3
Osteoarthritis	1
Asthma	3
Parkinsonism	2
COPD	6
Dementia	1
Epilepsy	2
Tb	1
Cirrhosis	2
MI	3
Psychosis	3

because the cheapest drug was not always prescribed. The percentage of drugs prescribed which are approved by WHO essential drug list are low.

CONCLUSION

The assessment of prescription pattern of anti-psychotic drugs in geriatric patients at tertiary level referral hospital and their ability to perform daily activities was done using "Lawton Brody Instrumental Activities of daily living scale". In-appropriate or long term use of antipsychotics in geriatrics results in decreased patients' ability to perform daily

activities. In geriatrics, who have multiple Co-morbidities, complex chronic condition and are usually receiving poly pharmacy, are at increased risk for adverse drug events. The indicator-driven analysis of antipsychotic prescribing quality revealed a need for improvement, with the main prescribing problems relating to duration and combination of therapies. The clinicians can improve the prescription pattern by awareness about the choice of drug from the WHO essential drug list and thereby reduce the prescribing of sedative and hypnotics in geriatric patients which makes them more weak to do their daily activities.

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