Contemporary Issue

TO ERR IS HUMAN, NEGLIGENCE IS SIN

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Abstract

There is often a fine line between medical malpractice and wrong doing. Physicians need to develop techniques and skills that enhance the patient-physician relationship and promote clientele satisfaction based on honesty and prudence. Proficiency of writing prescriptions accurately and fluently requires practice. Failure to follow programmes which maintain the integrity of patients' records often has negative influence.

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Introduction

The World Health Organisation Scientific Group has defined drug as "Any substance or product that is used or intended to be used to modify or explore physiological systems or pathological status for the benefit of the recipient" [1].

A risk is taken whenever a drug is administered to a patient. How a drug is used is more important than what drug you prescribe. Proper use of medicine requires knowledge of both therapeutic and toxic response of drugs. It is beneficial to be slow in accepting any new agent, after all drugs are foreign substances to the body.

Medical knowledge is growing very rapidly due to which it is difficult for medical staff to cope with the latest treatment or newly discovered dangers. Technology claims to be a hazard where devices and models change frequently leaving doctors at a loss for the right gear. Most practitioners do not have their knowledge re-freshed regularly after they are licensed to practise.

Retrospective Analysis

A retrospective study was carried out at the department of anaesthesiology of a services zonal hospital between Jan 2000 to Jun 2000 to find out how good are doctors in prescription writing. The prescriptions were randomly selected from 200 patients of both indoor and outdoor departments, 100 each, varying from paediatric to geriatric age groups referred to department of anaesthesiology (Operation theatre) for pre-anaesthetic assessment. The prescriptions were evaluated as per guide line of WHO technical report [1] for drug dosage, frequencies, routes of administration,

use of abbreviations, spelling and legibility of prescriptions. In addition diagnosis and signature were also looked for in the prescriptions.

While analysing the prescriptions from case sheets of indoor patients and from note books of treatment / prescription orders maintained by out door patients, it was observed that in overall 85% of patients (indoor and outdoor) there was atleast one mistake in each prescription. In 15.2% cases there were errors in dosage, 11% of cases had no mention of frequency of drug administration, 5% cases had wrong routes of administration of drugs and 12% cases had unauthorised abbreviations. There were spelling mistakes in 14.5% cases and 20% cases had illegible hand writing. In addition, diagnosis was not mentioned in 8% indoor and 22% outdoor patients and in 18% of total cases, signatures were not authenticated by rubber stamps / capital letters (Table-1). It was also observed that mistakes were compounded when more than four drugs were used in prescription orders.

TABLE 1
Errors in prescription writing

Types of Errors	Indoor patients n=100	Outdoor patients n=100	Total n=200
Overall mistakes	80	90	170 (85%)
Dosage of drugs	14	17	31 (15.2%)
Frequency of administration	10	12	22 (11%)
Route of administration	04	06	10 (5%)
Wrong abbreviations	10	14	24 (12%)
Spelling mistakes	12	17	29 (14.5%)
Illegible handwriting	18	22	40 (20%)
No diagnosis	08	22	30 (15%)
Signatures not authenticated	16	20	36 (18%)

Errors in prescription writing often give disastrous effect on patients. Some of the cases enumerated here illustrate areas in which doctors could come into struggle with the legal system.

- (i) Once a senior resident of maternity ward had asked one of the internee medical officers to give injection Methergin 0.2 mg IV to a patient of post partum bleeding. The internee instructed the sister accordingly but to his surprise it was found that the injection was given to a patient of advanced labour pain who was admitted on previous night having the same name as that of patient of post-partum bleeding. The result was that the baby delivered was still born due to intractable uterine contractions.
- (ii) In another incident a two year old child suffering from PUO was given IV Chloroquine instead of IV Chloromycetin and the child suffered a permanent brain damage resulting from convulsions [2].
- (iii) In yet another incident, to a case of glaucoma, Diamox Tablets were prescribed. Unfortunately the patient was given Daonil Tablets and he succumbed due to hypoglycaemia.
- (iv) The common mistake is the use of unauthorised abbreviation and incomplete prescription order. A patient was prescribed one capsule to be taken at 6 a.m., 2 p.m. and 10 p.m. and doctor wrote it as capsule 'A' to be taken at (6-2-10). To doctors dismay the patient reported back after two days with severe drug toxicity. On enquiry it was found that the patient had taken 6 capsules in the morning two at afternoon and ten at night.
- (v) One of the common mistakes in Casualty and ICU is wrong administration of life saving medicines. Nursing staff is often asked to give injection Dopamine, Potassium Chloride (KCl), Isoprin, Aminophylline, Sodium Nitroprusside and so on. We take it for granted that the nursing staff is well trained and knows when medicines are to be administered and by what routes. In one instance, a junior doctor had asked the sister to give IV Inj KCl and the sister gave it as an IV bolus dose. Although the patient got relief from distress of the disease but went to heaven for peace of mind.
- vi) Illegible handwritings and drugs, which often simulate phonetically are generally a source of unfortunate accidents. In a case, a medical officer was suffering from resistant malaria and was issued Quinidine tablets instead of Quinine tablets on verbal order.

However, the error was detected on time before the

use of medicine and mishap was avoided. The last but not the least, this case illustrates how a cardiologist had come into conflict with the legal system [3]. A jury had ordered a cardiologist, a drug store and a pharmacist to pay \$450.00 to the relatives of a man who died of a heart attack after the druggist misread the doctor's handwriting in the prescription. The family of heart patient contended that the patients died because he took an overdose of the wrong medication after the pharmacist misread an illegible prescription from the doctor. The prescription called for 20 mg of Isordil used to treat angina. Instead the patient received a prescription for Plendil, which is used to treat high blood pressure. These are a few glaring examples cited from the vast ocean of population of patients who are exposed to hazards of errors of prescription writing.

Discussion

The risk of drugs has become a major topic and this has increased since "Thalidomide disaster" of 1960-61 which induced dramatic demonstration through out the world about the worst effect of drugs [4]. There was a study in a teaching hospital whose standards were supposed to be high where 7526 prescriptions were written for 840 patients. In 3% cases, there were errors in dosage, frequencies and routes of administration of drugs and in 30% cases there were errors in prescription writing in relation to standard hospital instructions. There was atleast one mistake in 79% of the prescriptions. Many errors were minor but could lead to overdose, serious drug incompatibilities or under treatment. Studies in other than teaching hospitals showed error of 15-25% in respect of drug administration and it rose when four or more drugs were prescribed at a time [5,6]. The result of this study carried out is akin to the study carried out by Tesh DE and Laser et al [5,6].

Medical mistakes kill 44,000 to 98,000 hospitalised patients a year in America alone [7]. Often our good old habits of passing verbal or telephonic instructions to nursing staff becomes lethal to patient. To avoid such mistakes all verbal orders should be written down in legible handwriting preferably in capital letters and explained to patients or nursing staff correctly.

The abbreviation of medicines must be avoided as it results in errors and a single mistake may cause a major mishap. In all illegible prescriptions, doctors should be consulted and the pharmacist should be careful not to issue any medicines on indistinct prescriptions. On rare occasions even doctors fail to decipher their own precious handwriting and patients re-

ceive different medicines. Did the doctor order 10 milligram or 10 microgram? Does the prescription call for Hormone Replacement Therapy Premarin or the antibiotic Primaxine?

Too many drug names sound alike, causing confusion to doctors, nurses, pharmacists, and patients. Consider the painkiller Celebrex and anti-seizure drug Cerebyx or Narcan, which treats morphine overdosage and Norcuron, which can paralyse breathing muscles.

Most drugs can be prescribed by their official non-proprietary or by manufacturers names. The practice of use of non-proprietary name is favoured based on the elimination of duplication of drugs and possibly has economic benefit to the patients. Whenever possible, drugs should be prescribed by their generic name followed by name of the manufacturer in parenthesis if a specific manufacturer product has distinct advantage over others [8].

For an ideal prescription, it should state the diagnosis, what drugs to be given to whom, give instructions on how much is to be taken how often, by what route and how long, manufacturer's name, if desired and lastly the date and address of both doctor and patient. An ideal prescription format to be followed is given as under:-

For XYZ, 60 years,

67/2 Mall Road, Ambala Cantt

Diag : Angina Pectoris with Hypertension

Rx

Capsule CALBETA (Atenolol + Nifedipine)

(50mg+20mg)

(Torrent Labs (P) Ltd)

Dispense 15 Capsules for 15 days

Lable : Take one capsule orally once a day each morning

Dr Ravi Kumar, MD

Dated

Regd No.:32974

Ambala Cantt

Studies have shown that about one third patients often forget some part of doctor's advice, unable to recollect directions immediately on leaving the doctor's room [8]. Errors and non compliance of instructions occur more frequently at the extremes of age and in patients living alone. Geriatric patients present problems because of lapses of memory or self neglect. Children do not adhere to instructions which is mainly related to flavour of syrup, taste and swallowing.

There is an out cry among people that a handwriting course should be a part of MBBS curriculum. Should it be? Different people have reacted differently and there are innumerable opinions on this matter. Do the doctors write their bank cheques as badly as they write illegible prescriptions? Certainly not; because they would be in trouble. Handwriting plays an important role in a professional's life and a life depends on doctor. Doctors should not be made to go through a handwriting course, but they should certainly write prescriptions legibly. It will be wise to write prescriptions in capital letters and direction be made in English rather than in Latin word.

It is the duty of all doctors to prescribe and give instructions to all nursing staff/pharmacists clearly and correctly for the benefit of patients. Clarity and legibility of prescription order by the doctor is one of the main goals of achieving clientele satisfaction. There is increased legal awareness amongst clientele and medical prescription is a medicolegal document "To err is human" implies none will ever put an end to medical mistakes. But human errors can be prevented by designing systems that make it hard for people to do the wrong things and easy for people to do the right things and aim will be "Do not harm the patients". Williom Withering has said "Poisons in small dosage are the best medicines; and useful medicines in too large dosage are poisonous" [9].

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