Rational Therapeutics

Rational therapeutics implies using the right quality assured, effective and safe drug for the patient at the right time in the right dose and manner of administration, at affordable cost and with right information and education of the patient. A prescription has to be tailor-made for an individual patient. It should take into account the diagnosis, age, sex, weight, drug and food interactions, past history of drug actions/reactions, state of vital functions as well as socio-economic conditions, beliefs and background of the individual patient.[1]

A physician should provide full information to the patient about the action of a drug, what effect is desired to be achieved, side effects, toxicity, duration of therapy etc. He should educate and motivate the patient. This involves practicing the golden principle of clinical medicine i.e. taking a detailed clinical history covering every aspect and a thorough, efficient clinical examination so that a correct diagnosis is clinched or the differential diagnosis narrowed down to a few conditions, so that a minimum number of drugs are used and least number of cost-effective investigations are employed. This is the crux of good scientific practice and qualities of a good clinician.[2,3]

Al-Rhazi stated that the best state of health is the medication-free state. He remarked that when you can cure by a regimen of simple remedies, avoid having to recourse to a medicine and when you can effect a cure by means of simple medicine, avoid a complex one. This forms the basis of modern lifestyle therapies i.e. Preventive Medicine, which should be given utmost importance. "Cured yesterday of my disease, I died last night of my physician," said Mathew Prior in the 17th century. William Pore echoed the same feeling when he said, "Remedy often-times proves worse than the disease." These are the two physicians of the 17th century who were vocal about the misuse and the adverse effects of drugs.[4] There is more than one reason to believe that the physicians of Cordoba were equally alive to the significance of drugs and their rational use. Voltaire (15th century), a famous French philosopher, poet, dramatist and reformist lamented that "doctors pour drugs about which they know little, for diseases about which they know even less, into the patients about whom they know nothing." Of course the most powerful drugs are words which cost nothing. We should use them the most. That means following the art and science of good communication, a sterling quality of a good clinician.[5]

In the olden days, drugs were very simple, yet there were problems. Now the drugs are like atomic energy, being powerful for evil as well as for good. Iatrogenic disorders (due to drugs) including fatalities are very common, even in countries where knowledge and facilities are quite advanced and there is accountability in the form of clinical audit and autopsies. In our own milieu, iatrogenic disorders are very high due to lack of professional competence and accountability. Furthermore, quackery is allowed a free hand. Dr. Friebel commented on the magnitude of the present-day problem by saying that the imbalance between the accessibility to potent drugs on one hand and the lack of professional training in the use of these drugs on the other hand is one of the few major problems of today.

No doubt the physician of today is in a very difficult position but the patient is probably worse off under the weight of the drug explosion. Of the drugs presently available in the market, a large percentage were either unknown or unavailable even fifteen years ago, when more than half of the present practising physicians were still receiving their medical training. Thus the physicians of today are forced to constantly absorb new information on drugs throughout their career in order to measure up to the standards of their responsibilities. In order to tackle this situation, there is a dire need of Continued Medical Education (CME) in Clinical Pharmacology and Clinical Therapeutics as a discipline of Internal Medicine, like Cardiology, Oncology etc., as recommended by the WHO expert committee. It needs to be known that in the developed countries, Units of Clinical Pharmacology and Clinical Therapeutics have been created, not only in the teaching hospitals but also in the general hospitals. Recently two Presidents of the Royal College of Physicians of Edinburgh have been elected belonging to this sub-speciality. In Pakistan, at the time of independence there was such a position in the King Edward Medical College Lahore, chaired by a famous Professor of Medicine and Therapeutics by the name of Col. Illahi Bakhsh, but now after sixty-four years there is not a single medical institution with a post in this discipline. Basic Pharmacology is still taught at undergraduate level in isolation of clinical setting and at postgraduate level there are no programmes of education/training in Clinical Therapeutics, nor is there any Continued Medical Education for the practising doctors. Furthermore, due to non-existence

of these units there is no training for Clinical Pharmacy. As a result, there is a lack of Clinical Pharmacists to properly man the pharmacies in hospitals.

In Pakistan, the situation regarding drugs is precarious. Many of the "Essential Drugs" which form the back-bone of rational prescribing are not available, while the market is flooded with irrational drugs including harmful herbs and many chemicals which are not included in the pharmacopoeias of the modern scientific system of Medicine and are not registered in most countries in the world. There are more than sixty thousand formulations registered in Pakistan, a record number indeed! This poor debt-ridden country is robbed of not only the nation's meagre financial resources but also of its health of people, due to the toxic effects of these irrational medications. This situation is compounded by the free availability of drugs without prescriptions and existence of spurious and date-expired drugs including smuggled ones. Studies carried out by the author of this editorial on the prescribing trends showed very high misuse/irrational use of drugs/medicine by the doctors, both in the public and private sectors in Pakistan.[6-8]

In order to ameliorate the pathetic drug situation in Pakistan, there is a need to adopt emergency measures. In the undergraduate and postgraduate medical institutions, departments of Clinical Pharmacology and Therapeutics should be established, chaired by Physicians with special interest in this discipline as recommended by the WHO expert committee.[9] There should be active collaboration between Basic Pharmacology Department and clinical units.

The registration of drugs should be rationalized. Any drug which is not registered in countries with strict control on drug registration like USA, Canada, Australia and the Scandinavian countries etc. should not be registered in Pakistan. Rather the WHO guidelines and advice should be followed. The Drug Regulatory Boards should be manned by Pharmacologists and Physicians with special interest in Clinical Pharmacology, which is not the case at present. The Board members should also be persons of integrity.[9] With the elimination of moral fabric from the society and the ever increasing infection of materialistic virus, there is a manifold increase in corruption and unethical practice. There is a need to develop a code of ethics for the Physicians and Pharmaceutical industry. WHO's recommended Essential Drugs should be made available everywhere and at all times. The government and the professional bodies should endeavor to promote the use of Essential Drugs in the public as well as the private sector. The public should be made aware of the virtues of using Essential Drugs through the media and other means, such as drug bulletins by the Ministry of Health.

Health economics is practiced even by the rich developed countries like UK (National Health Service) and USA. Developing countries like Pakistan who have limited financial resources to cater for the health needs of their people struggle to provide even minimal health care facilities. In such countries, a vigorous economic approach is needed in which drug therapy should be viewed from the stand-point of cost-effectiveness.[10]

Economic aspects of therapeutics and investigations should be included in all medical educational programs. Only cost-effective drugs should be registered. In this respect the situation in Pakistan is also very grave, as for example Clopidogrel 75 mg tablet is granted Rupees Seven and a half price while another company has been awarded over Rupees one hundred for the same drug. There are many other drugs with the same anomaly. Furthermore Clopidogrel use, in certain situations, is recommended for a maximum of one year while in Pakistan many such patients are being prescribed Clopidogrel for over ten years.

For registration of drugs, only data validated by authentic Regulatory Authorities like FDA of USA, British National Formulary, and European Medicines Commission etc. should be accepted. Claims based on unethical, unscientific and corrupt practices adopted by companies and health care professionals should not be accepted which is being done at the present. The Ministry of Health should see to it that the pharmaceutical industry promotes drugs on the basis of proven indications which are based on scientific knowledge and should be forbidden to indulge in unethical and illegitimate promotion of drugs, which is rampant and unchecked these days. This needs a political will on the part of the governments in the

country. Pakistan was envisaged to be a welfare state by Quaid-e-Azam and as per constitution and

international convention the governments are duty bound to protect the fundamental rights of the people.

In conclusion I would like to state that Preventive Medicine should be given utmost importance. Clinical Medicine should be practiced correctly with efficient history taking (good communication) and appropriate physical examination so that the diagnostic possibilities are reduced to minimal disorders so that minimum number of cost-effective drugs is prescribed and minimum number of cost-effective investigations employed. There is a dire need for creation of units of Clinical Pharmacology and Clinical Therapeutics manned by Physicians and development of collaboration between departments of Basic Pharmacology and clinical units. Continued Medical Education should be mandatory. Registration of drugs should be streamlined. Finally the essential drugs should be made available and their use promoted at the primary, secondary and tertiary health care facilities. Governments in Pakistan should fulfil their constitutional obligations of making Pakistan a welfare state as envisaged by the Quaid-e-Azam.

Disclaimer

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Lt. Gen. (R) Prof. Mahmud Ahmad Akhtar is the first editor of the Pakistan Armed Forces Medical Journal, former Surgeon General of the Pakistan Army, and an esteemed medical specialist whose work, our PAFMJ team frequently republishes so that the younger generation can benefit from his pearls of wisdom.

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