Evaluating Rational Prescribing Practices in Primary Care

S. Gopalakrishnan and P. Ganeshkumar*
SRM Medical College Hospital & Research Center, SRM Nagar, Kattankulathur 603203, Tamil Nadu, India

Abstract
Primary health care is the first level of contact between the community and the national health care delivery system for treating the commonly occurring illnesses. Appropriate treatment and the provision of essential drugs are the two vital components of the primary health care concept. Graduate medical education in India is oriented towards training of medical students to undertake the responsibilities of a primary health care physician. Clinical training for medical students often focuses on diagnostic, rather than therapeutic skills. They are not often taught how to prescribe a drug for their patient’s benefit properly. Bad prescribing habits lead to ineffective and unsafe treatment, exacerbation or prolongation of illness, distress and harm to the patient and higher costs. The requirements for rational use of drugs will be fulfilled if the process of prescribing is appropriately followed. In order to overcome this deficiency in our medical education, the medical students and the practicing primary health care physicians need to be well trained in good prescribing practices. Hence this article is meant to highlight the importance of the step by step “Guide to Good Prescribing” to help the practicing physicians and medical students to learn the art of treating patients rationally both in the primary and secondary health care settings.

Keywords: Primary health care; Inappropriate Prescribing; Drug Prescriptions; Medical education.

Introduction
Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process [1]. Appropriate treatment of commonly occurring diseases and injuries and the provision of essential drugs are the two vital components of the primary health care concept [2].

Graduate medical curriculum in India is oriented towards training students to undertake the responsibilities of a physician of first contact who is capable of looking after the preventive, promotive, curative & rehabilitative aspect of medicine. The graduate medical education in clinical subjects is based primarily on out-patient/ward teaching, emergency departments and within the community including peripheral health care institutions [3].

Clinical social case studies during the clinical and community oriented training program are important components of training medical students to become a competent primary health care physician. During the Clinical-Social Case study, the students are expected to examine the patients and write detailed case sheets and then discuss based on the probable clinical diagnosis, management at individual, family and at the community level, clinical, social and economic issues related to the patient in question and application of levels of prevention in the management of the patient.

The overall purpose of Medical Practice is to relieve suffering. To achieve this, it is important to make a diagnosis, to know how to approach and to design an appropriate scheme of management for each patient. A wise doctor does not think himself as a diagnostician but rather as someone who elucidates human problems. But diagnosis should precede treatment whenever possible [4].

Clinical training for medical students often focuses on diagnostic, rather than therapeutic skills. They are not often taught how to prescribe a drug for their patient’s benefit properly. Although pharmacological knowledge is acquired, practical prescribing skills remain weak. Bad prescribing habits lead to ineffective and unsafe treatment, exacerbation or prolongation of illness, distress and harm to the patient and higher costs. All these are causes of irrational prescribing [5]. But, changing the existing prescribing habits is very difficult.

Access to Essential Drugs is the most important element of a good Health Care Delivery system. Drugs should be used only when it is really needed. Rational Use of Drugs means Reasonable or Sensible use of Drugs. Rational Use of Drugs is defined as appropriate use of drugs, when it is really needed, in appropriate strength, dosage and duration which will have a beneficial effect on the individual [5]. The requirements for rational use of drugs will be fulfilled if the process of prescribing is appropriately followed

Good Training is needed before poor habits get a chance to develop. In order to overcome the dangers of irrational prescription and inappropriate use of drugs, sustained effort is needed to educate the medical students and sensitize practicing physicians about the importance of good prescribing practices and rational use of drugs. In this context the following step by step guide based on “Guide to Good Prescribing” [6] will help the practicing physicians and medical students to learn the art of treating patients rationally both in the primary and secondary health care settings.

The introduction of this instruction module in the clinical social case study teaching sessions during the III year MBBS Community Medicine posting period has shown tremendous understanding and improvement about this issue among them. The same module is discussed here in detail for the benefit of the readers.

*Corresponding author: Dr. P. Ganeshkumar MD, Assistant Professor, Dept. of Community Medicine, SRM Medical College Hospital & Research Centre, SRM University, Kattankulathur 603203, Tel: 91 9840640483; E-mail: ganeshkumardr@gmail.com

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Steps in Treating patient’s Rationally

Step 1: Define the patient’s problem

A patient usually presents with a complaint or a problem. It is obvious that making the right diagnosis is a crucial step in starting the correct treatment. Patient’s complaints are mostly linked to symptoms. A symptom is not always a diagnosis although it will usually lead to it.

What is the problem of the patient?

- Diseases or disorders.
- Sign of underlying diseases.
- Psychological or social problems or anxiety.
- Side effects of drugs.
- Refill request (Poly-pharmacy).
- Non-adherence to treatment.
- Request for preventive treatment.
- Combination of the above.

Through careful observation, structured history taking, physical examination and other examinations, one should try to define the patient’s real problem.

Step 2: Specify the therapeutic objective

Before choosing a treatment, it is essential to specify your therapeutic objective.

What do you want to achieve with the treatment?

- Specifying therapeutic objective is a good way to structure your thinking.
- It forces you to concentrate on the real problem, which limits the number of treatment possibilities and makes your final choice much easier.
- It will help and prevent a lot of unnecessary drug use.
- It will help you to avoid unnecessary prophylactic prescribing. (e.g. antibiotics to prevent wound infection)
- It is a good idea to discuss your therapeutic objective with the patient before you start the treatment.
- It makes the patient an informed partner in the therapy and improves adherence to treatment.

Step 3: Verify the suitability of the drugs chosen

Consider the Efficacy, Safety, Convenience and Cost of the drugs chosen

- Active substance and dosage form.
- Standard dosage schedule. (to maintain plasma level in blood)
- Standard duration of treatment. (to avoid over-prescribing & under-prescribing)
- Effectiveness of the drug. (indications & convenience)
- Safety of the drug. (contraindications, interactions)
- Use in high risk groups: Pregnancy, Lactation, Children, Elderly
- Use in high risk factors: Renal failure, Hepatic failure, History of drug allergy.
- Other diseases, other medications

Step 4: Write a prescription

A prescription is an instruction from a prescriber to a dispenser. The prescriber can be a doctor, medical assistant, midwife or nurse. The dispenser can be a pharmacist, pharmacy technician, an assistant or nurse.

A prescription should include

- Name, address, telephone number of Prescriber, date of prescription, name of the drug with strength, dosage form, duration and total quantity; label: instructions and warnings, name, address, age of the patient and signature or initials of the prescriber. Doctors are legally obliged to write prescriptions clearly.

Step 5: Give information, instruction and warning

On an average, 50% of the patients do not take prescribed drugs correctly or take them irregularly or not at all.

The most common reasons are that

- symptoms have ceased,
- side effects have occurred,
- the drug is not perceived effective or
- the dosage schedule is complicated for the patients, particularly the elderly.

Patient's adherence to treatment can be improved in three ways:

- Prescribe a well-chosen drug treatment.
- Create a good doctor-patient relationship.
- Take time to give the necessary information, instructions and warning.

Minimum information that should be given to the patient is:

| 1. Effects of the drug | 4. Warnings |
|------------------------|------------|
| Why the drug is needed  | When the drug should not be taken. |
| Which symptoms will disappear and which will not | What is the maximum dose? |
| When the effect is expected to start. | Why the full treatments course should be taken. |
| What will happen if the drug is taken incorrectly or not at all? |

| 2. Side effects | 5. Future consultations |
|----------------|------------------------|
| Which side effects may occur? | When to come back(or not) |
| How to recognize them. | In what circumstances to come earlier. |
| How long they will continue. | What information the doctor will need at the next appointment. |
| How serious they are. |   |
| What actions to take. |

| 3. Instructions | 6. Everything clear? |
|----------------|---------------------|
| How the drug should be taken. | Ask the patient whether everything is understood. |
| When it should be taken. | Ask the patient to repeat the important information. |
| How long the treatment should continue. | Ask whether the patient has any more questions. |
| How the drug should be stored. |
| What to do with the left over drug. |

This may seem a long list to go through with each patient. Yet it is the prime responsibility of the doctor to ensure that the treatment is understood by the patient. Having too many patients and no time to discuss all these issues are never accepted by a court of law as a valid excuse for not informing and instructing a patient correctly.

Step 6: Monitor, evaluate (and stop) the treatment

Monitoring the treatment enables you to determine whether it has been successful or whether additional action is needed. To do this you need to keep in touch with your patient and this can be done in two ways.

1. Passive monitoring

- You explain to the patient what to do if the treatment is not effective, is in-convenient or if too many side effects occurring. In this case monitoring is done by the patient.
2. Active monitoring

- You make an appointment to determine whether the treatment has been effective at the desired intervals.

The purpose of monitoring is to check whether the treatment has solved the patient’s problem, which can be condensed into two questions.
- Is the treatment effective?
- Are there any side effects?

Was the treatment effective?

1. Yes; and disease cured: then stop the treatment.
2. Yes; but not yet completed:—Any serious side effects?
   - If no; treatment can be continued, if yes; reconsider dosage/drug choice.
3. No; disease not cured: - Verify all steps;

   Whether diagnosis correct; therapeutic objective correct, drug suitable for the patient, drug prescribed correctly, patient instructed correctly and effect monitored correctly?

Concept of “Look, Listen and Feel”

“Look, Listen, Feel” (LLF) is a commonly used and universally known phrase among the medical and nursing fraternity. Using LLF in our day to day communications with patients should become part of clinical practice. “Look” will remind us to seek and make observations through the ‘widest lens’ possible. We must “listen”, not just to what is spoken but also the unspoken clues our patients give out as we learn to “feel” how they feel with more sincere passion. The LLF framework can be used to promote great service. Medical students and Doctors need to question and listen and observe and then learn to think differently, especially in cases where symptoms persist despite multidisciplinary consultation [7].

Conclusion

This step by step guidance to Rational Prescribing or Good Prescribing Practices will improve the skills that are not time bound, but may remain valid throughout a Clinical career. Practicing Doctors, especially in the Primary care services and Medical Students should find it a source of new idea and perhaps an incentive for change to improve their prescribing skills. This approach will definitely help in improving the rational prescribing practices and treatment of patients with rational use of drugs, thereby improving the quality of services rendered to the suffering people, particularly through the primary care services where about 90% of the commonly occurring illnesses are managed.

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