

COMBATING THE IRRATIONAL USE OF MEDICINES

– A CALL TO ACTION.

The role that medicines play in healthcare delivery cannot be overstated, when used properly, they can help cure diseases, relieve symptoms and alleviate patient suffering. Nonetheless, the irrational use of medicines remains a major issue facing most health systems across the world. The World Health Organization estimates that more than half of all medicines are inappropriately prescribed, dispensed, or sold.

The problem of irrational medicine use is known to be worse in developing countries with weak health systems, Promoting the rational use of medicines requires effective policies as well as efficient collaboration between health professionals, patients, and entire communities.

Adequate understanding regarding the relevant aspects of medicine use on the part of all stakeholders is essential to drive collaborative efforts towards addressing the problem of irrational medicine use.

Tackling the issue of irrational medicine use is considered to be essential not only to improve healthcare delivery towards ensuring patient safety, but also to allow for optimal utilization of resources.

What is the Rational Use of Medicines?

According to WHO, rational use of medicine was defined to represent a situation where “Patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community” The World Bank has also defined rational medicine use as comprising two key principles: (1) the use of drugs according to scientific data on efficacy, safety, and compliance; and (2) the cost-effective use of drugs within the constraints of a given health system..

The Prescribing Process

Although it is frequently perceived to be a routine activity, prescribing is a complex process—one which tests the healthcare providers’ knowledge and application of sound therapeutics principles, communication skills, as well as their approach to and appreciation of risks and uncertainties. Often, the prescribing process begins with

- Establishing the goal(s) of therapy. Patient expectations and preferences can sometimes influence what goals are set or not set.
- A treatment is then selected. Often, prescribers are confronted with the task of choosing from many options.
- Patient factors that may influence the medicine selection process include Physiological status (e.g., pregnancy, kidney failure)
- Susceptibility to adverse effects,
- On-going drug therapy,

What Constitutes Good Prescribing?

Good prescribing is one that achieves the four aims, namely:

- (1) To maximize effectiveness;
- (2) Minimize risks;
- (3) Minimize costs; and
- (4) Respect the patient’s choices.

This conceptualization of good prescribing brings together the traditional balancing of risks and benefits with the need to reduce costs and the right of the patient to make choices in treatment.

The WHO has outlined five key requirements necessary for a prescribing to be regarded as good or rational

Appropriate Indication: The decision to prescribe medicines is entirely based on medical rationale and that drug therapy is an effective and safe treatment

Appropriate Drug: The selection of drug is based on efficacy, safety, suitability and cost considerations

Appropriate patient: No contraindications exist and the likelihood of adverse reactions is minimal and the drug is acceptable to the patient.

Appropriate information: Patients should be provided with relevant, accurate, important and clear information regarding his/her conditions and medication prescribed.

Appropriate Monitoring: The anticipated and expected effects of the medication should be appropriately monitored

What is Irrational Prescribing?

Irrational prescribing refers to prescribing that fails to conform to good standards of treatment. This may manifest in five different ways, namely: under-prescribing, over-prescribing, incorrect prescribing, extravagant prescribing, and multiple prescribing.

Under-prescribing indicates the instance where the medicines required are not prescribed, or an insufficient dosage or treatment duration is issued.

Over-prescribing refers to instances where a medicine that is not indicated is prescribed, or if indicated, the duration of treatment is too long or the quantity of medicine given to patients exceeds the amount required for the current course of therapy.

Incorrect prescribing occurs when a medicine is given for the wrong diagnosis, the prescription is prepared improperly, or adjustments are not made to incorporate the patient's co-existing medical, genetic, or environmental conditions.

Extravagant prescribing is said to have occurred when a prescriber issues a more expensive medicine when a less expensive one of comparable safety and efficacy exists, e.g when a patented product in a class is prescribed when low costs generics are available in the same class, which could have been used without compromising care

Multiple prescribing is also deemed to have taken place when two or more medicines are prescribed when fewer would have achieved same effect, e.g prescribing for individual symptoms of Malaria when treating the underlying infection is likely to resolve the cascade of symptoms

The Art of Dispensing

Once prescribing is complete, dispensing is often carried out by a trained pharmacist or dispensing technicians.

In clinical practice, the separation of prescribing and dispensing activities is considered to be a safety mechanism to ensure an additional independent assessment of the proposed therapy before patient begins treatment

Sound therapeutic knowledge on the part of the dispenser is extremely essential to cross-check any loop holes in the prescription made and make appropriate recommendations/interventions to the prescriber if necessary.

The engagement between the dispenser and the patient is also key, as it can significantly impact how the medicines are used by the patients. For instance, adherence is likely to improve only if the patient understands the importance of taking the medications, can follow instructions correctly, and appreciates the risks of non-adherence.

Factors Contributing to the Irrational Use of Medicines

These factors can be traced to various stages of the medicine use cycle, and can be broadly categorized into those emanating from

Patients: The influence of patients in the prescription of certain drugs such as antibiotics has been widely documented.

Prescribers: For instance, the prescriber may lack adequate training, or there may be inadequate continuing education, resulting in the reliance on out-dated prescribing practices which may have been learnt while under training.

Workplace: lack of laboratory facilities typical of many resource-poor settings may promote inappropriate prescribing.

Health system: Other issues, such as under-staffing, medicine shortages, and a lack of an inventory of a list of medicines from which choices need to be made

Supply system: pharmaceutical sales representatives often exaggerate the efficacy of their products while questioning the integrity of competitor brands, and may even encourage off-label use. Over-reliance on such sources of information could lead to irrational prescribing

Regulation,

Drug information or misinformation,.

Impact of the Irrational Use of Medicines

THE IMPACT OF IRRATIONAL MEDICINES USE

- Risks of adverse drug reactions (ADRs) is increased,
- Global insurgence of antimicrobial resistance due to inappropriate use of antibiotics
- Exposure of patients to the possibility of developing drug dependence to certain medicines, such as pain killers.
- Exposure of Patients to the contraction of certain injection-related conditions, such as abscesses, hepatitis B, and HIV/AIDS
- Indiscriminate prescribing of injections can also increase workload, as health professionals need to administer doses
- Wastage of scarce health resources, which can further reduce the availability of other vital medicines or increase treatment cost.

STEPS TO ADDRESS IRRATIONAL DRUG USE

- Effective coordination of policies on medicine use and monitoring their impact;
- Evidence-based clinical guidelines for training, supervision and supporting decision-making about medicines;
- To have lists of essential medicines used for medicine procurement;
- Pharmacy (drugs) and Therapeutics Committees in hospitals to monitor and implement interventions to improve the use of medicines;
- Problem-based training in pharmacotherapy and prescribing in undergraduate curricula;
- Continuing medical education as a requirement of licensure;
- Publicly available independent and unbiased information about medicines for health personnel and consumers;
- Public education about medicines;
- Elimination of financial incentives that lead to improper prescribing, such as prescribers selling medicines for profit to supplement their income;
- Regulations to ensure that promotional activities meet ethical criteria; and adequate funding to ensure availability of medicines and health personnel