

Rational use of Medicines: Rational use of medicines requires that "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.

A major global problem

Irrational use of medicines is a major problem worldwide. WHO estimates that more than half of all medicines are prescribed, dispensed or sold inappropriately, and that half of all patients fail to take them correctly. The overuse, underuse or misuse of medicines results in wastage of scarce resources and widespread health hazards. Examples of irrational use of medicines include: use of too many medicines per patient ("poly-pharmacy"); inappropriate use of antimicrobials, often in inadequate dosage, for non-bacterial infections; over-use of injections when oral formulations would be more appropriate; failure to prescribe in accordance with clinical guidelines; inappropriate self-medication, often of prescription-only medicines; non-adherence to dosing regimes.

WHO advocates 12 key interventions to promote more rational use:

- Establishment of a multidisciplinary national body to coordinate policies on medicine use
- Use of clinical guidelines
- Development and use of national essential medicines list
- Establishment of drug and therapeutics committees in districts and hospitals
- Inclusion of problem-based pharmacotherapy training in undergraduate curricula
- Continuing in-service medical education as a licensure requirement
- Supervision, audit and feedback
- Use of independent information on medicines
- Public education about medicines
- Avoidance of perverse financial incentives
- Use of appropriate and enforced regulation
- Sufficient government expenditure to ensure availability of medicines and staff.

Aim or Goal:

Ensure therapeutically sound and cost-effective use of medicines by health professionals and consumers.

Improving the use of medicines by health workers and the general public is crucial both to reducing morbidity and mortality from communicable and non-communicable diseases, and to containing drug expenditure.

Ideally, therapeutically sound and cost-effective use of medicines by health professionals and consumers is achieved at all levels of the health system, and in both the public and the private sectors. A sound rational drug use programme in any country has three elements:

- **Rational use of medicines strategy and monitoring** -- advocating rational medicines use, identifying and promoting successful strategies, and securing responsible medicines promotion.
- **Rational use of medicines by health professionals** -- working with countries to develop and update their treatment guidelines, national essential medicines lists and formularies, and supporting training programmes on rational use of medicines.
- **Rational use of medicines by consumers** -- supporting the creation of effective systems of medicines information, and empowering consumers to take responsible decisions regarding their treatment.

The above elements were developed in close collaboration with the regional and country offices. They are formulated in such a way as to reflect the main responsibilities of a national essential medicines programme.

Rational medicine use strategy and monitoring : Support countries in implementing and monitoring a national strategy to promote rational use of medicines by health professionals and consumers.

Rational medicine use by health professionals: Develop national standard treatment guidelines, essential medicine lists, educational programmes and other effective mechanisms to promote rational medicine use by health professionals.

Rational medicine use by consumers: Establishing effective medicines information systems to provide independent and unbiased medicine information – including on traditional medicine – to the general public and to improve medicine use by consumers.