

# **Rajasthan State STANDARD TREATMENT GUIDELINES 2012**

**Second Special Edition**

Editors  
**Sangeeta Sharma, G. R. Sethi,  
Usha Gupta**

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**Disclaimer:** Any set of guidelines can provide only general suggestions for clinical practice and practitioners must use their own clinical judgment in treating and addressing the needs of each individual patient, taking into account patient's unique clinical situation. There is no representation of the appropriateness or validity of these guideline recommendations for any given patient. This manual does not intend to be either restrictive or prescriptive. Treatment guidelines are provided in good faith. Contributors and editors cannot be held responsible for errors, individual response to drugs and other consequences.

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## FOREWORD

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Access to health is a part of the fundamental human right to life. This is invariably linked to access to medicines. But certain negative factors have crept in the system, which are not in the interest of the mankind, particularly, the poor.

On one hand people are so poor that they cannot buy costly drugs, on the other hand they are forced to spend their hard earned money on irrational, unnecessary, higher priced alternatives of essential drugs which are, at times, even hazardous.

In these circumstances, Mukhyamantri Nishulk Dava Yojna has been launched by Government of Rajasthan with the intention of providing most commonly used essential drugs, free of cost to all patients visiting government hospitals of the state. As per WHO, Essential drugs are those that satisfy the priority healthcare needs of majority of the population. The State Government endeavours to provide safe and efficacious medicines to the people.

The WHO Essential Medicines Policy concept on use of Standard Treatment Guidelines (STGs) is a very important tool for providing the most appropriate treatment through a list of essential medicines. It is important that the patient, hospital or Government does not spend scarce resources on unnecessary medicines or inappropriate combinations of medicines or a more expensive medicine when a cheaper and equally effective medicine is available. Irresponsible prescribing is bad therapeutics, unethical practice and results in poor therapeutic outcome and economics. STGs benefit health managers, supply management staff, health care providers, and patients. For Health Care Managers, it provides expert consensus on most effective, economical treatment for a specific setting and gives opportunity to health care providers to concentrate on correct diagnosis and rational prescribing. For patients it offers and encourages adherence to treatment through consistency among prescribers, provision of most cost effective treatments for better treatment outcome.

The Hon'ble Chief Minister of the State has released the Rajasthan State Specific Standard Treatment Guidelines. The STGs developed by the Delhi Society for Promotion of Rational Use of Drugs (DSPRUD) has been reviewed by the Committee constituted by the Government comprising clinical experts from various specializations. This Committee had a series of meetings and interactive discussions with the editors of DSPRUD STG. for updating and evolving the "Rajasthan State Standard Treatment Guidelines".

I thank the Principal & Medical Superintendent SMS Hospital and all the members of the Committee for their valuable inputs, and co-ordination work undertaken by the Rajasthan Society for Promotion of Rational Use of Drugs, which has facilitated promotion towards the development of STGs for Rajasthan.

The standard treatment guidelines will immensely benefit the doctors in their clinical judgment and will encourage rational use of medicines and facilitate equity in health care.

**MD, RMSC**



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## PREFACE TO SECOND SPECIAL EDITION

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Textbooks of medicine and guidelines of professional societies have emphasized rational choice of medicines and treatment guidelines. The National Health Policy document has mentioned the importance of Standard Treatment Guidelines as a tool for providing the most appropriate treatment complemented by a list of essential medicines. The Standard Treatment Guidelines (STGs) is in its 4<sup>th</sup> edition. The first edition was brought out in 2002 by the Delhi Society for Promotion of Rational Use of Drugs under the WHO-India Essential Drugs Programme, followed by two special editions for the states of Rajasthan (2006) and Uttaranchal (2007), and now a Second Special edition for Rajasthan is being brought out.

Each edition of the STGs has incorporated several changes taking cognizance of therapeutic advances in the field and recommendations given in national disease control programmes such as TB, HIV, malaria, dengue and also some more priority diseases which were not provided for in the earlier editions, such as neonatal seizures, acute symptomatic seizures, oral and anal sexually transmitted diseases and lower abdominal pain, clinically important drug-drug interactions etc. Furthermore, the second special edition incorporates several changes in many of the chapters giving latest recommendations, viz., resuscitation, TB, dengue, malaria, AIDS, kala azar, head injury, snake bite, diabetes mellitus, poisoning, trauma, neurocysticercosis, paediatric chapter etc. and has provided algorithmic approach to treatment in many chapters making the book more up-to-date, comprehensive and exhaustive. These guidelines seek to summarize the treatment of patients presenting with priority diseases. These guidelines need to be balanced with other information and in the context of each individual patient. The recommendations neither encroach on clinical flexibility nor replace clinical judgment, which must be tailored to the particular needs of each clinical situation.

This book serves as a ready reference for health care providers and supply management staff. Conditions at health facilities vary from health facility to health facility and we have proceeded on the basis that facilities appropriate to the level of health care exist. Even if appropriate facilities in terms of adequate trained personnel or infrastructure are not available, the book would still be useful as an aid to the treating physician to stabilize the patient and take timely action for referral to a higher level facility.

The recommendations in the book are evidence based. However, in the absence of strong evidence, experience of experts is taken into account; thus, this book provides a blend of best available evidence and consensus of experts.

We would like to place on record the support we received from all contributors and reviewers who lent their time and expertise towards the preparation and review and suggestions from readers will be welcome.

**Sangeeta Sharma**  
**GR Sethi**  
**Usha Gupta**



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## INTRODUCTION TO THE GUIDELINES

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This book is an attempt to give guidelines/protocols for treatment of common diseases, keeping in mind the rational use of drugs for each clinical condition. It is assumed that the patient has been fully evaluated and all co-morbidities identified. Treatment of the patient would involve a holistic approach and would require the expertise of the treating physician in formulating a treatment plan.

We describe groups of patients and make suggestions intended to apply to average patient in each group. However, patients will differ greatly in their presentation, treatment preference and capacities in their history of response to previous treatments, their family history of response to treatment, and their tolerance for different side effects; therefore, the expert's first line recommendations may not be appropriate in all circumstances; however, several alternatives have been suggested to meet the requirements. It begins at the point when the doctor has already diagnosed a patient suffering from that particular disease and has evaluated the patient to ascertain the presence of other concomitant disorders and other medical factors that may affect the diagnosis or treatment of the patient. We assume clinicians using these guidelines are familiar with assessment and diagnostic issues.

It is divided into twenty chapters. First two chapters deal with general diseases and emergencies which may be common to all specialties. The aim is to provide complete management of commonly encountered diseases and emergency cases with clear instructions for referral (when, where and how) to a higher centre with facilities for appropriate management. Rest of the chapters deal with common diseases in each specialty namely medicine, ENT, eye, skin, obstetrics and gynaecology, psychiatry, orthopaedics, surgery, paediatrics and dental. Paediatric section provides treatment of diseases specifically encountered in paediatric age group. Other diseases which are also commonly encountered in adults are also discussed in the respective section with doses for children.

The format of guidelines is such that it gives only few salient features of the disease and important diagnostic tests followed by nonpharmacological and pharmacological treatment. Nonpharmacological treatment being an important aspect has been described very clearly. Pharmacological treatment includes instructions on drug use, special precautions and warnings related to therapy. Assessment of response to therapy, key assessment indicators (signs/symptoms, investigations etc.) with the monitoring interval are also incorporated. The guidelines mention the aim of therapy

and in the case of no response to the preferred treatment, step-up therapy or referral to a higher centre with appropriate facilities for care.

Drugs are selected on the basis of balanced criteria of efficacy, safety, suitability and cost. Drugs are mentioned in generic names only. Combination drugs are not included in the treatment except for some topical preparation e.g. in eye, ENT and skin preparations. These combinations were selected on the basis of appropriate ingredients and availability in the market.

Wherever drug choices are given for the treatment of a disease, they are listed in order of their preference. Where there are many equi-efficacious alternatives available, preferably only 2-3 choices are mentioned to enable flexibility in the treatment. Drug choices are demarcated by 'Or'. If several drugs are required concomitantly for treatment they are mentioned as 1, 2, 3 and so on. Only drugs with best available evidence in support are listed in the text. Use of particular drug, if not supported by good acceptable level of evidence or is obsolete but still prescribed, is not listed in the text. Drug dose is given as a range and wherever required in per kilogram dose with maximum tolerated dose. The frequency, route and special precautions are mentioned very clearly. Modification of treatment after monitoring the response is the next important step described in the pharmacotherapy. Generally, the text is given in telegraphic language and rationale for a particular choice of drug or modality of treatment is not mentioned.

If a particular treatment needed is mentioned at several places, viz. fever, shock, pain relief, in that case details are given in one section with a note 'for details see relevant section'.

A special feature of the guidelines is a 'section on patient education' since no treatment is complete without a good communication with the patient. This includes details aimed to empower the patient by providing information about the nature and duration of the illness, prognosis and natural course of the disease, preventive measures, duration of therapy and follow-up with precautions and important side-effects which might interfere with the treatment.

We have relied on expert opinion precisely because we are asking crucial questions that are not very well answered in the literature. One thing that the history of medicine teaches us is that expert opinion at any given time can be very wrong. Accumulating research will ultimately reveal better and clearer answers. Clinicians should therefore stay abreast of the literature for developments. We will continue to revise the guidelines periodically based on new research information and on reassessment of expert opinion to keep them up-to-date.

No set of guidelines can ever improve practice if read just once. These guidelines are meant to be used in an ongoing way, since each patient's status and phases of illness will require different interventions at different times. We believe the guideline recommendations will reinforce your best judgment when you are in a familiar territory and help you with new suggestions when you are in a quandary.

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# THE CONCEPT OF ESSENTIAL MEDICINES

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Essential medicines are those that satisfy the priority health care needs of the population. They are selected with due regard to public health relevance, evidence on efficacy and safety, and comparative cost-effectiveness. Essential medicines are intended to be available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality and adequate information, and at a price the individual and the community can afford.

The implementation of the concept of essential medicines is intended to be flexible and adaptable to many different situations. Careful selection of a limited range of essential medicines results in a higher quality of care, better management of medicines (including improved quality of prescribed medicines) and more cost-effective use of health resources.

The lists of essential medicines relate closely to guidelines for clinical health care practice, which are used for the training and supervision of health professionals. Lists of essential medicines also guide the procurement and supply of medicines in the public sector, schemes that re-imburse medicine costs, medicine donations, and local medicine production.

## **Selection criteria**

The choice of essential medicines depends on several factors, including the public health relevance, and sound and adequate data on the *efficacy, safety, suitability and comparative cost-effectiveness of available treatments*. Stability in various conditions, the need for special diagnostic or treatment facilities and pharmacokinetic properties are also considered if appropriate.

Most essential medicines should be formulated as single compounds. Fixed-ratio combination products are selected only when the combination has a proven advantage in therapeutic effect, safety or compliance over single compounds administered separately.

In cost comparisons between medicines, the cost of the total treatment, and not the unit cost only of the medicine, is considered. Cost and cost-effectiveness comparisons may be made among alternative treatments within the same therapeutic group, but generally should not be made across therapeutic categories (for example, between treatment of tuberculosis and treatment of malaria). The patent status of a medicine

is not considered in selecting medicines for the List. Other factors which are also considered include factors such as local demography and pattern of disease, treatment facilities, training and experience of the available personnel, local availability of individual pharmaceutical products, financial resources and environmental factors.

### **Quality of products**

Priority is given to ensuring that available medicines have been made according to good manufacturing practices and are of assured quality. It is recommended that medicines be purchased from known manufacturers, their duly accredited agents or recognized international agencies known to apply high standards in selecting their suppliers.

## **STANDARD TREATMENT GUIDELINES**

The terms standard treatment guidelines, treatment protocols, and prescribing policies are all used to indicate systematically developed statements to help practitioners or prescribers make decisions about appropriate treatments for specific clinical conditions. Treatment guidelines exist for different levels of health care, ranging from general prescribing guidelines for rural areas to detailed protocols for tertiary health care centers.

### **Advantages**

Standard guidelines benefit health officials, supply management staff, health care providers, and patients. Their development is a good opportunity to integrate the technical advices of different disease programmes into an overall training programme. Treatment guidelines should be used as the basis for undergraduate medical and paramedical training, for in-service training, for supervision, and for medical audit to assess and compare quality of care. For Health Care Managers it provides expert consensus on most effective, economical treatment for a specific setting and gives opportunity to the health care providers to concentrate on correct diagnosis. For patients it offers and encourages adherence to treatment through consistency among prescribers, provision of most cost-effective treatments; improvement in availability of drugs and better treatment outcome.

### **Key features**

**Simplicity.** The number of health problems is limited and for each health problem, a few key diagnostic criteria are listed. Drug and dosage information is clear and concise.

**Credibility.** Guidelines developed by the most respected clinicians in the country and revisions based on actual experience.

**Use of same standard for all levels of health care.** Doctors and other health care providers use the same standard treatment as it is a referral criterion which differs, and the first choice treatment for a patient depends on the patient's diagnosis and condition—not on the prescriber.

**Provision of standards to drug supply.** Most importantly drug supply should be matched to the recommended treatments and drugs on the list of essential drugs.

**Regular updating.** As bacterial resistance patterns change or other factors alter therapeutic preferences, the standards are revised to reflect current recommendations.

## RATIONAL PRESCRIBING AND PRESCRIPTION WRITING

Once a patient with a clinical problem has been evaluated and a diagnosis has been reached, the practitioner can often select from a variety of therapeutic approaches. Medication, surgery, psychiatric treatment, physical therapy, health education, counseling, further consultation, and no therapy are some of the options available. Of these options, drug therapy is by far most commonly chosen. Drugs should only be prescribed when they are necessary, and in all cases the benefit of administering the medicine should be considered in relation to the risks involved. Bad prescribing habits lead to ineffective and unsafe treatment, exacerbation or prolongation of illness, distress and harm to the patient, and higher cost. Like any other process in medicine, writing a prescription should be based on a series of rational steps. The following steps will help to remind prescriber of the rational approach to therapeutics:

**1. Define the patient's problem.** Whenever possible, making the right diagnosis is based on integrating many pieces of information: the complaint as described by the patient; a detailed history; physical examination; laboratory tests; X-rays and other investigations. This will help in rational prescribing, always bearing in mind that diseases are evolutionary processes.

**2. Specify the therapeutic objective.** Doctors must clearly state their therapeutic objectives based on the pathophysiology underlying the clinical situation. Very often physicians select more than one therapeutic goal for each patient.

**3. Selecting therapeutic strategies.** The selected strategy should be agreed with the patient; this agreement on outcome, and how it may be achieved, is termed concordance. The selected treatment can be non-pharmacological and/or pharmacological; it also needs to take into account the total cost of all therapeutic options.

### Non-pharmacological treatment

It is very important to bear in mind that the patient does not always need a drug for treatment of the condition. Very often, health problems can be resolved by a change in lifestyle or diet, use of physiotherapy or exercise, provision of adequate psychological support, and other non-pharmacological treatments; these have the same importance as a prescription drug and instructions must be written, explained and monitored in the same way.

### Pharmacological treatment

**Selecting the correct group of drug.** Knowledge about the pathophysiology involved in the clinical situation of each patient and the pharmacodynamics of the chosen group of drugs, are two of the fundamental principles for rational therapeutics.

**Selecting the drug from the chosen group.** The selection process must consider benefit/risk/cost information. This step is based on evidence about maximal clinical benefit of the drug for a given indication (efficacy) with the minimum production of adverse effects (safety). In cost comparisons between drugs, the cost of the total treatment and not the unit cost of the drug only must be considered.

**Verifying the suitability of the chosen pharmaceutical treatment for each patient.** The prescriber must check whether the active substance chosen, its dosage form, standard dosage schedule and standard duration of treatment are suitable for each patient. Drug treatment should be individualized to the needs of each patient.

**4. Prescription writing.** The prescription is the link between the prescriber, the pharmacist (or dispenser) and the patient and it is a medicolegal document. While a prescription can be written on any piece of paper (as long as all of the legal elements are present), it usually takes a specific form. This item is covered in more detail in the following section.

**5. Giving information, instructions and warning.** This step is important to ensure patient adherence and is covered in detail in the following section.

**6. Monitoring treatment.** Evaluation of the follow up and the outcome of treatment allow the stopping of it (if the patient's problem is solved) or to reformulate it when necessary. This step gives rise to important information about the effects of drugs contributing to building up the body of knowledge of pharmacovigilance, needed to promote the rational use of drugs.

## PRESCRIPTION WRITING

A prescription is an instruction from a prescriber to a dispenser. All prescriptions orders should be legible, unambiguous, dated (and time in the case of chart order), and signed clearly for optimal communication between prescriber, pharmacist, and nurse. A good prescription or chart order should contain sufficient information to permit the pharmacist or nurse to discover possible errors before the drug is dispensed or administered. The prescriber is not always a doctor but can also be a paramedical worker, such as a medical assistant, a midwife or a nurse. The dispenser is not always a pharmacist, but can be a pharmacy technician, an assistant or a nurse. The following guidelines will help to ensure that prescriptions are correctly interpreted and leave no doubt about the intention of the prescriber.

### *Prescription form*

The most important requirement is that the prescription be clear. It should be legible and indicate precisely what should be given. The local language is preferred.

The following details should be shown on the form:

- The prescriber's name, address and telephone number. This will allow either the patient or the dispenser to contact the prescriber for any clarification or potential problem with the prescription.
- Date of the prescription.
- Name, form, strength of the drug and duration of treatment. The International Nonproprietary name of the drug should always be used. If there is a specific reason

to prescribe a special brand, the trade name can be added. The pharmaceutical form (for example ‘tablet’, ‘oral solution’, ‘eye ointment’) should also be stated.

- The strength of the drug should be stated in standard units using abbreviations that are consistent with the System Internationale (SI). ‘Microgram’ and ‘nanogram’ should not be abbreviated since abbreviated form (“ $\mu\text{g}$ ”) is very easily misread as “mg”, a 1000-fold overdose. Also, ‘units’ should not be abbreviated. Avoid decimals whenever possible. If unavoidable, a zero should be written in front of the decimal point.
- Specific areas for filling in details about the patient including name, address and age.

### **Directions**

Although directions for use are no longer written in Latin, many Latin apothecary abbreviations are still in use (and some others included below). Knowledge of these abbreviations is essential for the dispensing pharmacist and often useful for the prescriber.

Abbreviation	Explanation	Abbreviation	Explanations
ac	before	qd	every day
bid	twice a day	qh, q1h	every hour
dil	dilute	qid	four times a day
Disp, dis	dispense	Qs	sufficient quantity
gr	grain	Rx	take
gtt	drops	sos	if needed
hs	at bedtime	stat	at once
OD	right eye	Tbsp, T	tablespoon (always write out (do not use) “15 ml”)
	once a day		
prn	when needed	tid	three times a day
q	every	tsp	teaspoon (always write out “5 ml”)
Qam, om	every morning	U	units (always write out “units”)

The abbreviation “OD” should be used (if at all) only to mean “the right eye”; it has been used for “every day” and has caused inappropriate administration of drugs into the eye. Acronyms such as ASA (aspirin), 5-ASA (5-Aminosalicylic acid), PCM (paracetamol), CPM (chlorpheniramine), CPZ (chlorpromazine) etc., should not be used; drug names should be written out. Unclear handwriting can be lethal when drugs with similar names especially brand names but very different effects are available e.g., Daonil, Duodil and Diovol. In this situation, errors are best avoided by noting the indication for the drug in the body of the prescription e.g., “Daonil (Glibenclamide), for diabetes”.

Directions specifying the route, dose and frequency should be clear and explicit; use of phrases such as ‘take as directed’ or ‘take as before’ should be avoided.

For preparations which are to be taken on an ‘as required’ basis, the minimum dose interval should be stated together with, where relevant, the maximum daily dose. It is good practice to qualify such prescriptions with the purpose of the medication (for example ‘every 6 hours as required for pain’, or ‘at night as required to sleep’).

It is a good practice to explain the directions to the patient; these directions will then be reinforced by the label on the medicinal product and possibly by appropriate counseling by the dispenser.

### ***Quantity to be dispensed***

The quantity of the medicinal product to be supplied should be stated such that it is not confused with either the strength of the product or the dosage directions. Alternatively, the length of the treatment course may be stated (for example ‘for 5 days’). Whenever possible, the quantity should be adjusted to match the pack sizes available.

For liquid preparations, the quantity should be stated in milliliters (abbreviated as ‘ml’) or liters (abbreviated as ‘L’, since the letter ‘l’ could be confused with the figure ‘1’).

### ***Narcotics and controlled substances***

The prescribing of a medicinal product that is liable to abuse requires special attention and may be subject to specific statutory requirements. Practitioners may need to be authorized to prescribe controlled substances; in such cases it might be necessary to indicate details of the authority on the prescription.

In particular, the strength, directions and the quantity of the controlled substance to be dispensed should be stated clearly, with all quantities written in words as well as in figures to prevent alteration. Other details such as patient particulars and date should also be filled in carefully to avoid alteration.



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# GOVERNMENT ORDERS

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राजस्थान सरकार  
चिकित्सा एवं स्वास्थ्य विभाग  
स्वास्थ्य भवन, तिलक मार्ग, सी स्क्रीम, जयपुर

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न. RMSC/ मु. पत्र/2011/213

Date 26-08-2011

आदेश

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माननीय मुख्यमंत्री महोदय द्वारा वर्ष 2011-12 की बजट घोषणा के अनुसार राज्य के सभी राजकीय चिकित्सालयों में आने वाले सभी मरीजों को सर्वाधिक उपयोग में आने वाली आवश्यक दवाइयाँ 2 अक्टूबर, 2011 से निशुल्क उपलब्ध करवाई जायेगी। इस योजना के प्रारम्भ होने पर राज्य के सभी चिकित्सकों को दवा लिखने सम्बन्धी निम्न निर्देश प्रदान किये जाते हैं।

- I. **जैनेरिक नाम से दवा लिखना (Prescription by Generic Name):** राज्य सरकार के निर्देशानुसार चिकित्सकों द्वारा यथासम्भव प्रेस्क्रिप्शन (Salt/Pharmacopoeial/Generic) नाम से लिखा जाना है एवं आवश्यक दवाओं (Essential drug) का उपयोग मानक उपचार निर्देशों (Standard Treatment Guideline) के अनुसार किया जाना है। प्रत्येक पर्ची पर निदान (Provisional/Final Diagnosis) व चिकित्सक के हस्ताक्षर आवश्यक रूप से होने चाहिये।
- II. **दो प्रति में दवा पर्ची (Double Prescription Slip):** चिकित्सकों द्वारा दवा दो पर्चीयों (कार्बन कोपी) पर लिखी जायेगी जिसकी एक प्रति मरीज के पास रहेगी तथा इसकी दूसरी प्रति निशुल्क दवा वितरण केन्द्र पर दी जाकर दवा प्राप्त की जा सकेगी।
- III. **उचित परामर्श (Counselling):** प्रभारी चिकित्सक, चिकित्सकों, नर्सिंग स्टाँफ व दवा वितरण केन्द्र के स्टाँफ व सहायिका विभाग के फार्मासिस्ट का यह दायित्व होगा कि वह राज्य सरकार की मंशा के अनुरूप रोगियों के उपचार में आवश्यक सहयोग करें व मरीजों को उचित सलाह (Counselling) प्रदान करें। संशय की स्थिति में वह जैनेरिक दवा के बारे में समुचित जानकारी दें व इस बारे में मरीजों की शंकाओं का निराकरण करने का प्रयास करें।
- IV. **प्रेसक्रिप्शन ऑडिट (Prescription audit):** राज्य सरकार के निर्देशानुसार चिकित्सा अधिकारी प्रभारी/यूनिट हेड समय समय पर 10 प्रतिशत आउटडोर व इन्डोर पर्चीयों की जांच कर राज्यादेश की पालना सुनिश्चित करावें।

V. उपचार की अवधि (Duration): सामान्यतया रोगी को तीन दिन की निशुल्क दवा उपलब्ध कराई जावे। अतिआवश्यक होने पर या विशेष परिस्थितियों में कारण इंगित करते हुए 7 दिन तक की दवा दी जा सकती है। लम्बी बीमारी (Chronic illnesses) यथा ब्लड प्रेशर/डायबिटीज/हृदयरोग/मिर्गी/एनिमिया/ओस्टिओर्थराईटिस आदि के रोगियों व पेशनर्स को एक माह तक की अवधि की दवाईयां उपलब्ध कराई जा सकेगी।

VI. लाईफ लाईन ड्रग स्टोर का सुदृढीकरण: आर. एम. एस. सी. द्वारा उपलब्ध कराई गई निःशुल्क दवाईयों के अतिरिक्त अन्य दवाईयों को लाईफ लाईन ड्रग स्टोर के माध्यम से उपलब्ध कराया जाना है। आर. एम. आर. एस. नियमों के अनुसार प्रतिस्पर्धात्मक दरों पर गुणवत्तापूर्ण औषधियों का क्रय तीन चिकित्सकों की समिति द्वारा किया जाकर विक्रय हेतु उपलब्ध कराया जाना है जिससे रोगियों को उचित मूल्य पर दवा मिल सकें।

उक्त आदेशों की पालना सुनिश्चित करावें अन्यथा विभाग द्वारा अनुशासनात्मक कार्यवाही की जाएगी।



मुख्य सचिव  
राजस्थान सरकार

प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है।

1. निजी सचिव, प्रमुख सचिव, माननीय मुख्यमंत्री महोदय।
2. निजी सचिव, माननीय मंत्री महोदय चिकित्सा एवं स्वास्थ्य विभाग।
3. निजी सचिव, माननीय राज्यमंत्री महोदय, चिकित्सा एवं स्वास्थ्य विभाग।
4. निजी सचिव, प्रमुख शासन सचिव, चिकित्सा शिक्षा विभाग।
5. मिशन निदेशक, राष्ट्रीय ग्रामीण स्वास्थ्य मिशन।
6. समस्त संभागीय आयुक्त/जिला कलेक्टर।
7. समस्त निदेशक, चिकित्सा एवं स्वास्थ्य सेवाएं, राजस्थान जयपुर।
8. समस्त प्रधानाचार्य एवं नियंत्रक/अधीक्षक, मेडिकल कालेज एवं अस्पताल, राजस्थान।
9. समस्त संयुक्त निदेशक, चिकित्सा एवं स्वास्थ्य सेवाएं, राजस्थान।
10. समस्त मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी, राजस्थान।
11. समस्त प्रमुख चिकित्सा अधिकारी .....राजस्थान।
12. समस्त प्रभारी अधिकारी, सामुदायिक स्वास्थ्य केन्द्र/प्राथमिक स्वास्थ्य केन्द्र, राजस्थान।
13. रक्षित पत्रावली।



प्रमुख शासन सचिव  
चिकित्सा एवं स्वास्थ्य विभाग

**Government of Rajasthan**  
**Rajasthan Medical Services Corporation**  
**Department of Medical, Health & Family Welfare, Jaipur**

No.F./RMSC/ADMIN/2011/376

Date: 12/10/11

To,

All Principals Medical Colleges/Superintendents Attached Hospitals

All Joint Directors/PMOs/CM&HOs

Sub.-: Regarding Prescription by doctors.

Kindly refer to the Chief Secretary's letter no. RMSC/MF/2011/213 dated 26.08.11, wherein instructions regarding prescription have been issued. It clearly indicates that **as far as possible**, the doctors should prescribe essential drugs by generic name as per the standard treatment guidelines.

It also instructs doctors and staff to properly counsel the patients regarding the quality & availability of drugs.

The above order states that other drugs (which are not made available by RMSC free of cost) are to be provided through life line drugs stores at low cost. As of now, due to failure on part of suppliers in some cases, the free drugs made available by RMSC do not contain many important drugs. These drugs are to be provided at life line drug stores and co-operative stores at competitive prizes so that these can be purchased by the patients. Therefore, if the clinical condition of the patient requires prescription of drugs out of the free category, the doctor may exercise his clinical judgement to prescribe other drugs as well.

This would be as per the principle of "rational use of medicines" and would be subject to prescription audit. It is reiterated that no change in rules for medical reimbursement for Govt. employees or for pensioners has been effected. So they may get the drugs as warranted by their clinical condition. At the same time it is expected by the prescribers to stick to the principle of rational use of medicines and to follow WHO guidelines for essential drugs and standard treatment protocols, as well as code of medical ethics as prescribed by Medical Council of India.



**Principal Secretary,**  
Medical & Health, Deptt/  
Medical Education Deptt.  
Govt of Rajasthan Jaipur

Copy to:

1. P.S. to Principal Secretary, M. & H. Deptt., Raj. Jaipur
2. P.S. to Mission Director, NRHM, M & H, Raj. Jaipur
3. Director RCH/PH/Aids/ IEC, M & H. Jaipur
4. Server Room to e-mail to all concerned.



**Managing Director**  
RMSC

**Government of Rajasthan**  
**Medical, Health and Family Welfare Department**

**No. F.()/RMSC/Logistics/2012/1623**

**Date: 27/09/2012**

**OFFICE ORDER**

Whereas, it was brought to the notice of the Government that high profits in pharmaceutical industry has led to intense promotion of a large number of various pharmaceutical preparations and products under various brand names which are highly overpriced and a good number of these have been reported to be irrelevant with priority health needs and irrational combinations as per WHO criteria on selection of essential medicines. As a first step towards promotion of rational use of medicines on the basis of evidence based efficacy, safety, suitability and cost-effectiveness, this Department had constituted an Essential Drugs List Committee (EDLC) in the year 1999, comprising of highly qualified professionals and clinical specialists of various disciplines to prepare an Essential Drug List for the State. After a due consultative process with the stakeholders, discussions and availing the expertise of a WHO expert on essential drugs, the EDLC submitted its report to this Department. The State Government accepted the report of the EDLC and declared it as Rajasthan State Essential Drug List (RSEDL 2000) vide order No. F. 22(15) Med/2/74pt dated. 7.3.2000 with concurrence of the Finance Department. As per the WHO guidelines, the EDL is not a static document and should be periodically revised to cope up with the changed environment (changing disease pattern and availability of newer cost-effective safer medicines) and rational need of prescribing. Accordingly, the EDLC was reconstituted by this Department for the revision of EDL. The said reconstituted EDLC after a due consultative process with stakeholders at various levels, including availing the expertise of WHO expert on essential medicines and discussions, unanimously submitted its report to this Department with the recommendation that the revised list be known as Rajasthan State Essential Medicine List (RSEML) in consonance with the change in the nomenclature adopted by the WHO. Accordingly, this Department in concurrence with the Medical Education Department accepted the recommendation of the EDLC and has issued the order No. F. 22 (15) Med/2/74 Pt. dated 25.07.05 on enforcing RSEML 2005 with specific guidelines.

The same was further revised in consultation and recommendations of technical advisory committee of RMSC and report for addition and alterations has been received. As a further step towards promotion of rational use of medicines, this Department has also decided to improve the prescribing behaviour of doctors by issuing and enforcing adherence to comprehensive evidence based Standard Treatment Guidelines (STGs) for priority diseases prevalent in the State. It was brought to the notice of this Department that with the explicit support of the WHO, Essential Drugs and Medicines Policy, Geneva, the Delhi Society for Promotion of Rational Use of Drugs (DSPRUD) has developed comprehensive STGs (DSPRUD STGs) in 2002 and their second edition (2005) has been acquired and distributed to doctors by the Government of Gujarat.

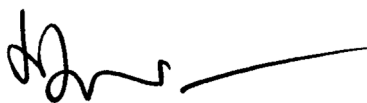
The first edition of Rajasthan STG was developed, printed and disseminated under the aegis of RHSDP with support of DSPRUD; however, looking at the procedural and time line requirements for revision of evidence based 3TGs, the Rajasthan Medical Services Corporation advised considering adoption of latest edition of DSPRUD STGs in context to the state scenario. Accordingly, the Technical Advisory Committee constituted for RMSC recommended that an expert committee comprising of experts from various clinical specializations under the chairmanship of Dr. Subhash Nepalia P&C SMS Medical College and Hospital, Jaipur, with clear terms of reference to advise on adoption of DSPRUD STGs with modification after a careful review/appraisal keeping in view the disease pattern and requirements of the State. The Committee after extensive discussions amongst various HOD's unanimously submitted its report to RMSC as "Draft Rajasthan State Standard Treatment Guidelines" (RSTGs) 2012 for approval and adoption.

The State government is pleased to accept the EML & STG revised by the Committee and declare it as "Rajasthan State Standard Treatment Guidelines" (hereinafter referred as STG) with the following instructions:

1. The doctors in Government Institutions shall utilize STG to the maximum extent and prescribe medicines for priority diseases as per STG.
2. Chief Secretary of Rajasthan had already issued letter No RMSC/MF/2011/213 dated 26.08.11, wherein instructions regarding prescription have been issued. It clearly indicates that as far as possible, the doctors should prescribe essential drugs by generic name as per the standard treatment guidelines. Significant deviation found during "Prescription Audit" would be viewed seriously. However, if the clinical condition of patient requires prescription of drugs out of the free category, the doctor may exercise his clinical judgment to prescribe other drugs as well. But the prescribers are expected to stick to principles of rational use of medicines and to follow WHO guidelines for essential drugs and STG as well as code of medical ethics prescribed by MCI.
3. It is Pertinent to mention here that, Hon'ble High Court of Rajasthan & Ethics committee, Medical Council of India has also issued direction as "Every physician should, as far as possible, prescribe drugs with generic names and he/she shall ensure that there is a rational prescription and use of Drugs".
4. While prescribing medicines for the treatment, all doctors must write diagnosis or provisional diagnosis in their prescription, without this the prescription would be considered as incomplete.
5. The EML & STG book is not intended to remain as a static document, and periodic revision would be required to cope up with the emerging and changing scenario in respect of priority diseases as well as in therapeutic options. Doctors are encouraged to offer their feedbacks and evidence based suggestions for improvement of EML & STG and for this purpose a format is also being appended. A state level technical advisory Committee will evaluate these suggestions during the next revision of EML & STG.
6. All in-charges of Government hospitals, CHCs and PHCs would take immediate steps to ensure compliance of the EML & STG in units under their control. They

should convene meetings of the Drug & Therapeutic Committee and sensitize doctors about the use of EML & STG.

7. The concept of RUD & use of EML & STG should be the part of under graduate curriculum & be incorporated in the foundation course, MOPs & PDCs training programme conducted by M&H Department.



**(Mukesh Sharma)**  
Principal Secretary  
Medical Health and Family Welfare  
& Medical Education Department

**Copy for information necessary action to:-**

1. PS to Hon'ble Minister, Medical & Health Department
2. PS to Chief Secretary, Rajasthan
3. PS to Principal Secretary Finance
4. PS to Principal Secretary, Medical & Health Department
5. Principals & Superintendents of all Medical Colleges, Rajasthan
6. Director (PHI AIDSIFW.) to circulate the order to all concerned and ensure compliance.
7. Members of the Technical Advisory Committee, RMSC
8. Guard File.



**(Dr. Samit Sharma)**  
Managing Director  
RMSC

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## ABBREVIATIONS USED

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### General

ABG	= arterial blood gas	GERD	= gastroesophageal reflux disease
AFB	= acid-fast bacilli	GIT	= gastrointestinal tract
AFP	= acute flaccid paralysis	Hct	= haematocrit
APH	= antepartum haemorrhage	HR	= heart rate
ASOM	= acute suppurative otitis media	INR	= international normalized ratio
BP	= blood pressure	JVP	= jugular venous pressure
CBC	= complete blood count	KFT	= kidney function test
CCF	= congestive cardiac failure	LFT	= liver function test
CNS	= central nervous system	MCH	= maternal-child health
COAD	= chronic obstructive airway diseases	MTP	= medical termination of pregnancy
CPAP	= continuous positive airway pressure	Mo/mth	= month
CPR	= cardiopulmonary resuscitation	NSAIDs	= nonsteroidal anti-inflammatory drugs
CSF	= cerebrospinal fluid	OCD	= obsessive compulsive disorder
CSOM	= chronic suppurative otitis media	ORS	= oral rehydration salts
CVP	= central venous pressure	ORT	= oral rehydration therapy
DUB	= dysfunctional uterine bleeding	PEEP	= peak end expiratory pressure
EEG	= electroencephalogram	PCR	= polymerase chain reaction
ERCP	= endoscopic retrograde cholangio-pancreatography	PCWP	= pulmonary capillary wedge pressure
FNAC	= fine needle aspiration cytology	PEFR	= peak expiratory flow rate
		PFT	= pulmonary function test
		PID	= pelvic inflammatory disease

PPH = postpartum haemorrhage  
PMS = premenstrual syndrome  
PUO = pyrexia of unknown origin  
RAP = recurrent abdominal pain  
RBBB = right bundle branch block  
RBC = red blood cell  
RR = species  
STD = sexually transmitted disease  
USG = ultrasonogram  
WBC = white blood cells  
Wt = weight

**Units**

µg/mcg = microgram  
g = gram  
IU = international units  
kg = kilogram  
mg = milligram

**Routes**

IM = intramuscular  
IV = intravenous  
PO = per oral  
PR = per rectum  
PV = per vaginum  
SC = subcutaneous