Review Article

Promotion of Standard Treatment Guidelines and Building Referral System for Management of Common Noncommunicable Diseases in India

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ABSTRACT

Treatment services constitute one of the five priority actions to face the global crisis due to noncommunicable diseases (NCDs). It is important to formulate standard treatment guidelines (STGs) for an effective management, particularly at the primary and secondary levels of health care. Dissemination and implementation of STGs for NCDs on a country-wide scale involves difficult and complex issues. The management of NCDs and the associated costs are highly variable and huge. Besides the educational strategies for promotion of STGs, the scientific and administrative sanctions and sanctity are important for purposes of reimbursements, insurance, availability of facilities, and legal protection. An effective and functional referral- system needs to be built to ensure availability of appropriate care at all levels of health- services. The patient-friendly "to and fro" referral system will help to distribute the burden, lower the costs, and maintain the sustainability of services.

Keywords: Chronic respiratory disease, evidence-based guidelines, noncommunicable diseases, primary care, referral system, standard treatment guidelines

Introduction

Treatment services constitute one of the five priority actions to face the global crisis due to noncommunicable diseases (NCDs).[1] The preventive strategies such as the control and reduction of risk factors, the disease surveillance systems, and health promotion policies have an obvious priority in the action plans. Disease management plans, however, deserve an equally important place to achieve the goals to lessen the healthcare burden and costs. Irrational use of medicine is a global health care problem. In a World Health Organization (WHO) estimate, less than 40% of patients in the public sector and 30% of patients in the private sector are treated as per the standard treatment guidelines (STGs) in the primary care of the developing countries.[2]

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Treatment Guidelines

Guidelines consist of systematically developed statements to help decision making about appropriate health care.[3] When used in clinical practice to treat diseases as "agreed-upon treatment practices," they are labeled as the STGs. There are enough data to support that guideline-based management approach is not only scientifically rational but also cheaper and cost-effective. The efforts to frame STGs and estimate costs of STGs for different conditions in India have been made in spite of the several limitations.[4] We have previously formulated guidelines for the management of chronic obstructive pulmonary disease (COPD) and asthma at primary and secondary levels of care under different GOI-WHO Biennium programs.[5] The estimated costs for management of COPD and asthma in India bear

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testimony that STG-based management is significantly cost-effective.[6]

Treatment guidelines offer the advantage of standardized treatments of optimal and acceptable levels at different levels of health care.[3,7] The guideline approach also includes a built-in referral system for difficult and problematic cases. They do away with the undesirable variations, impracticalities, and nonavailabilities of tests, drugs, and other interventions, for example, at the primary levels of health care, provided the STGs are formulated as a part of the national programs which are based on an amalgam of medical evidence and consensus among partners or share holders on health care.

Issues of Importance

There are several important issues involved in the implementation of guidelines meant for the management of NCDs on a large scale, for example, at the national level. Some of these issues are discussed as under:

Evidence-based guidelines vs STGs

Evidence-based guidelines (EBGs) for different NCDs framed by professional societies and experts are available for clinical practice. They consist of conclusive statements for decisions on patient clinical problems arrived at by systematically locating, appraising, and using clinical research findings.[8-10] The level of evidence may vary from Excellent for some to Nil for other recommendations which may be otherwise routinely used in clinical practice. The final prescriptions are made by physician according to their prescription habits and/or patient's choices. Many of those EBGs are somewhat impersonal and do not necessarily factor the practicality and feasibility of applications in different settings, in different populations.[11,12]

For the NCD Agenda, it is important to frame practical STGs which maintain a balance of the scientific evidence with the feasibility of applications in specified populations. Framing of STGs is a specialized scientific art. It should be undertaken by carefully chosen expert groups rather than made to order in a bureaucratic fashion. Inclusion of Community-Physicians and Health Service personnel is important in the Guideline Framing groups.

STGs, however, cannot be made in the absence of evidence. These are based on Grade A evidence incorporating established scientific principles and practices. They are somewhat instructive for the practitioners for routine use. The option of choices to use different drugs or management strategies are limited with STGs. Tailor-made recommendations for individual patients are, however, necessary in specific clinical situations.

STGs for communicable diseases vs NCDs

Treatments for communicable diseases such as malaria, tuberculosis, diarrhea, dysenteries, and other infections are well standardized, more definitive, limited in choice and duration. There is enough experience of their formulation and implementation in different National Control Programmes of Government of India. On the other hand, treatments for NCDs are less specific and wider in scope with variations in efficacy and choice of drugs. Moreover, there are rapid advances in criteria for disease diagnosis and management, indications for treatments. Moreover, the ongoing development of new drugs makes it difficult to restrict choices for STGs. STGs for NCDs therefore are far more complex to develop and difficult to implement. The implementation policies are compulsorily required to be flexible and dynamic.

Dissemination of STGs

Dissemination for widespread use of STGs for a variety of chronic NCDs remains a contentious issue in a vast country with a huge population and enormous practice variations. On the other hand, the development of guidelines is futile unless they are widely promoted and adopted in routine clinical practice. Both educational and regulatory measures are therefore important to promote their implementation.

Educational strategies

It is important to disseminate and popularize STGs at all levels of health personnel from medical and nursing students to the clinical super-specialists and teachers in medicine. They should be included in the textbooks as separate chapters and regularly published in journals and other medical literature. Wider online availability on medical Web sites and other electronic media is equally important.

For training of general practitioners and physicians at the primary care levels, the STG should be regularly disseminated through accredited continuing educational programs and training courses. Online modules for a wider reach for self-learning, self-assessment, and certification can also prove effective. (Such a module for management of chronic respiratory disease is already in an advanced stage of development.)

Imparting sanction and sanctity to STGs

STGs should form the "standard of care" in the country at different levels of health care. It is only fair to formulate different sets of recommendations for different levels to make them feasible and acceptable. They constitute the minimum, optimum levels of treatment, not necessarily the most modern and sophisticated. Advanced medical treatments for several NCDs are not just costly but also prohibitive. The various commercial interests, prescription habits, and the overambitious demands

of the patients keep the costs moving up without any significant treatment benefits. In this context therefore, it is relevant to impart official sanctity, for example, for the following purposes:

Availability of facilities

Nonavailability of investigations and medicines is a major area of concern in small towns and rural areas. The overall access to health care is rather poor. The availability of medicine in the public sector was assessed from 0% to 30% in different states in India.[13] STG implementation must ensure the mandatory availability of drugs, devices, and personnel, at least in the organized healthcare structures. This will encourage enhanced adherence to the STG-directed management

Employer reimbursement

Reimbursements, whether by the government or the private employers, may be limited to the costs of STGs for the specified tiers. This shall not only save the unnecessary expenditure but also promote the adherence to the STGs.

Insurance linking

On the similar lines as above, the payments of medical insurance bills should be linked to the STGs for different levels of care. Unfortunately, a vicious cycle has got established between increased reimbursement bills and medical costs. Consequently, the costs keep on rising far in excess of the needs. A regulated insurance system is likely to have a salutary effect on the healthcare costs.

Referral system

Management of diseases in any healthcare system with different levels essentially depends on a referral system.[14] Typically, this is a pyramidal system with multiple primary healthcare centers at the base, less number of secondary centers in the middle, and a fewer number of tertiary care centers at the top [Figure 1]. Accordingly, the STGs are designed to suit a particular level of care. While the primary care centers offer the minimum levels of essential tests and treatments on an outpatient care basis, the secondary level centers are able to offer most of the diagnostic tests and management facilities, including hospitalization, interventional procedures, surgery, and rehabilitation programs. The role of tertiary level centers is restricted for complex interventions and surgical procedures, prescription of highly advanced and costly tests, and prescriptions of costly domiciliary devices and life support systems. Both secondary and tertiary level centers are also important for appropriate training programs and undertaking other developmental activities.

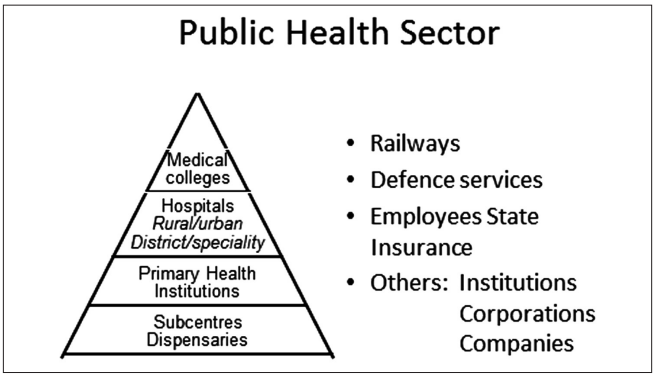

Figure 1: Pyramidal structure of healthcare structure in India

The system of "to and fro" referral needs to be built within the STG document for a clear understanding of the health personnel such as the doctors and the end-users, the patients. They can be defined in an algorithmic fashion for an easy flow of advice and recommendations. The Guidelines for Management of COPD developed under the WHO-Govt. of India Biennium Programme (2003) is an example of such a flow [Figure 2].[5] Unfortunately, the utilization of the referral system for health care in India has been rather poor.[15] Several examples are available from other Asian and African countries.[16-20]

There are, however, enormous operational difficulties with the pyramidal system of referral. It requires a highly organized network structure of service providers, referral protocols, and other resources. It essentially includes the facilities for quality communication and information, diagnostic and treatment facilities, transportation, and hospitalization. Referral from one end is successful only if the other end is both receptive and prepared for the needful to be done for those being referred.

Referral must also work in the reverse fashion, i.e., from the top to the bottom of the pyramid for continued maintenance, management, and follow-up monitoring for chronic diseases. This will reduce the burden on the apical centers as well as ensure to build the confidence of patients in the primary care management. As an example, the mechanism has been incorporated in the Revised National Tuberculosis Control Programme of Govt. of India with "referred-out" and "referred-in" provision in a horizontal fashion from one to the other center.[21] The HIV counseling and Testing and the Programmatic Management of Drug Resistant TB involves more of a vertical pyramidal referral.[17] There is no parallel example for a chronic NCD.[21,22]

Nongovernmental sectors

Presently in India, the pyramidal referral system operates in the Army, the Railways, and the Governmental Health Service sectors [Figure 1]. More than half of the total patients in India are managed outside the State's Health Service sector where there is no organized pyramidal, referral system. The primary healthcare sector consisting

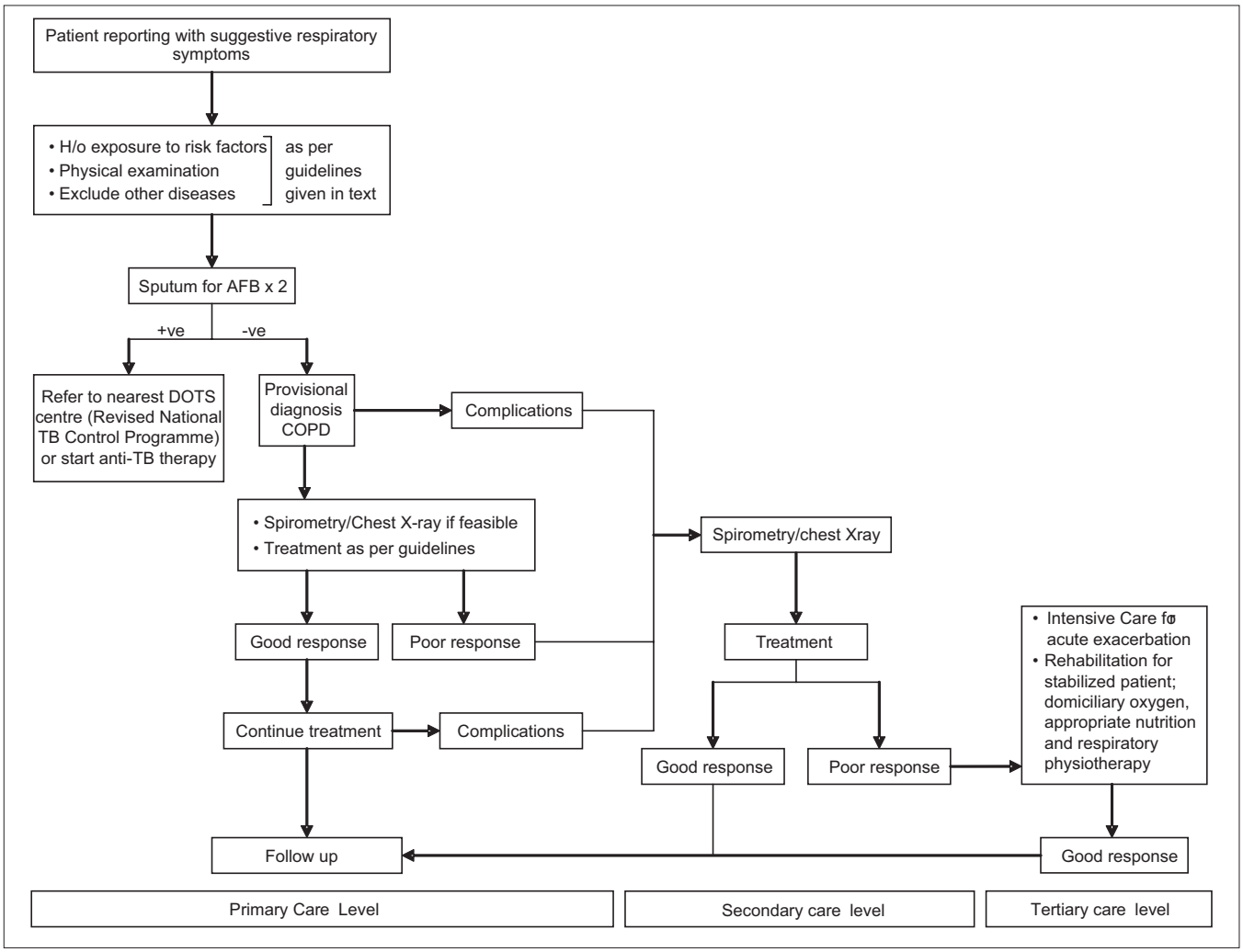

Figure 2: Algorithmic management guidelines for COPD at different levels of health care

of general practitioners' consultation chambers, clinics, nursing homes, hospitals, and corporate hospital chains operate independently. Most of them are able to offer individualized quality care which is more satisfying to the patients even if costlier than in the governmental systems.

Application of STGs and referrals in private sector are equally or perhaps even more important. Management in this sector is highly variable depending on the type of the setup. It is generally quite personal to the physician, unregulated and unsupervised. It is also more vulnerable to commercial pressures and other motivated interests. Not infrequently, there is lack of knowledge about STGs, and therefore the management is often misguided and erratic.

STGs for private sector are helpful for their guidance and for the safety against malpractice law suits which are on the rise in the modern times. STGs promote ethical "good clinical practice" principles. The "referral criteria" within the STGs help a practitioner to decide "when to stop," "how far to go," and "whom to look up to" in difficult to manage situations. "To whom to refer" is an important concern of private practitioners. Several of them have designated specialist doctors and hospitals to refer to. It is, however, important to enable them to connect to a higher level secondary or a tertiary care governmental facility depending on the appropriate conditions.

Summary

The framing and promotion of STGs for different NCDs is not just important but essential for their control. It is an enormous task requiring inputs from different sectors and shareholders. STGs should suit the different levels of health care and incorporate the referral system within the recommendations. STGs should be sensitive to the needs of patients in both the government and the private sector without dilution of levels of treatment in either sector.

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