

PERSPECTIVE OF THE DOCTORS IN A NEW MEDICAL COLLEGE OF NORTH-EAST INDIA REGARDING THE NATIONAL LIST OF ESSENTIAL MEDICINES

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ABSTRACT

Objectives: To collate the perspectives of doctors regarding the national list of essential medicines (NLEM) and thus assess the factors affecting adaptation and implementation of NLEM at the state or institution level.

Methods: This is a cross-sectional questionnaire-based study conducted among the doctors of Tomo Riba Institute of Health and Medical Sciences, which is a new medical college and a tertiary care hospital in Naharlagun, Arunachal Pradesh. The study was carried out for 6 months. The participants were explained the purpose of the study and requested to fill out the questionnaire and return it immediately. Data analysis was performed using simple statistical methods such as percentages and proportions.

Results: Out of 73 participants, 63% were aware of NLEM, while 37% were unaware of the term NLEM. Only 17.8% of the doctors are satisfied that the drugs in the latest NLEM suffice for most of the medical conditions they come across in their daily practices. Only about 39.7% of the doctors frequently prescribed the drugs from the NLEM list in their routine practice. The majority (61.6%) of them agree that there should be a separate essential drug list supplementary to the World Health Organization list in every tertiary care medical college.

Conclusion: The concept of NLEM offers the most cost-effective solution to healthcare needs. The selection of the medicines in the list or a separate state or institutional list according to the needs of the regional population can cater to most of the healthcare needs.

Keywords: Essential, Medicines, National list of essential medicines, Healthcare, Questionnaire.

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INTRODUCTION

Drugs and other pharmaceuticals constitute up to 40% of the health-care budget in developing countries, yet most basic medicines are frequently inaccessible to a large proportion of the population. Thus, the concept of essential medicines was adopted, which selects a limited number of drugs from the abundant drugs available, leading to better supply, more rational use, and cost-effectiveness [1].

Essential medicines are defined by the World Health Organization (WHO) as "those drugs that satisfy the health care needs of the majority of the population; they should therefore be available at all times in adequate amounts and in appropriate dosage form at a price that the community can afford". It addresses the priority health-care requirements of a given population, is lifesaving, and is affordable to the consumer as well as the health care professionals [2].

The WHO model list of essential medicines is issued by the WHO to serve as a guide for all the countries in the development of their respective lists of essential medicines depending on their requirements [3]. The essential list of medicines in India has been drafted following the WHO model. This list makes it mandatory for every governmental health institution to keep the drug mentioned in the list ready at all times [4].

The national List of Essential Medicines (NLEM) aid countries to prioritize medicines and can be used as the foundation for reimbursement schemes and national treatment guidelines (standard treatment guidelines). Implementing a NLEM can be a strategy for promoting efficient use of healthcare resources [5]. However, in many

contexts, the inclusion of medicines on the NLEM does not necessarily guarantee that these are accessible to populations. The implementation process of an NLEM, including the steps for making these medicines accessible [6,7], is therefore more complex than just a simple decision to include or exclude a medicine on the list.

The WHO Essential Medicine List (EML) is used by countries to guide nationals in the preparation of their own NLEMS [6,7]. For several reasons, it has been heavily debated whether WHO EML serves as an optimal point of reference for national medicine policy. A key issue has been that WHO EML is meant to define minimum needs for a health system and therefore does not necessarily include all effective medicines that may be necessary for a country.

In guidance with WHO EML, countries also need to adapt by considering factors such as the disease burden in the country, the cost of medicines, specific patient concerns, and the capacity of the health systems to deliver medicines to patients. In addition, the demographic profile, climate, and transportation infrastructure may also influence the process. To assess these factors, countries might establish standing committees or set up processes for providing evidence to inform cost-effectiveness and assess the preferences of patients and providers [8,9].

In addition to national lists, some countries also have provisional or state lists and institutional EML by keeping in view certain conditions such as availability of medicines, affordability, treatment of facilities, personnel, and genetic, demographic, and environmental factors [10].

India is the 7th largest country and has the highest population in the world. It has a diverse demographic profile, and the population across the country varies with regard to race, ethnicity, religion, culture, and environment. All these factors ensure that the diseases that are most common differ from region to region. Therefore, there is a need to explore the theory-practice gap of the integration of global or national norms on essential medicines in real-world policymaking and translate them for prescribers and patients [11].

Thus, the condition that the patients present with in a tertiary care hospital in North East India will not be entirely similar to those presenting in a hospital in North India or elsewhere.

This study therefore tries to find out whether the NLEM suffices to meet the needs of the population of North East India and the perspective of the doctors of a new medical college in North East India regarding the drugs in the NLEM.

Accordingly, the primary objective of this study was to collate the perspectives of doctors regarding NLEM and thus assess the factors affecting the adaptation and implementation of NLEM at the state or institutional level.

Aims and objectives

The study aims to collate the perspectives of the doctors of a new medical college in North East India regarding NLEM.

METHODS

This is a cross-sectional questionnaire-based study conducted among the doctors of the Tomo Riba Institute of Health and Medical Sciences, which is a new medical college and a tertiary care hospital in Naharlagun, Arunachal Pradesh. The study was carried out over a period of 6 months. The study was conducted after getting approval from the Institutional Human Ethics Committee.

A self-developed, pre-validated, semi-structured questionnaire was constructed consisting of questions on awareness and opinions on various aspects of NLEM with a total of 15 questions. The study participants comprised all the doctors working in the clinical departments who gave consent for the study. A brief description of the nature of the study and the instructions for filling out the questionnaire were explained to the participants. They were then requested to fill out the questionnaire and return it immediately. The personal identity of the doctors was kept confidential.

The data collected were entered into Microsoft Excel software, and tables, graphs, and charts were prepared. Data analysis was performed using simple statistical methods such as percentages and proportions.

RESULTS

A total of 73 participants responded to the questionnaire. Out of which, 63% of the study participants were aware of NLEM, while 37% were unaware of the term NLEM (Fig. 1). Only 22% of them have seen the complete updated list of NLEM. The most common source of information regarding NLEM was from the Medical College Hospital (27.4%) (Table 1).

Only 16.4% of the respondents knew the various categories mentioned in the NLEM. Only 17.8% of the doctors are satisfied that the drugs in the latest NLEM suffice for most of the medical conditions they come across in their daily practices, while 11% think that these drugs do not cover the conditions. 37% of the doctors have responded that very few drugs are supplied in the central pharmacy of the hospital from the NLEM, and most of them do not cover the common conditions. Only about 39.7% of the doctors frequently prescribed the drugs from the NLEM list in their routine practice (Table 2).

About 61.6% of them agree that there should be a separate essential drug list supplementary to the WHO list in every tertiary care medical

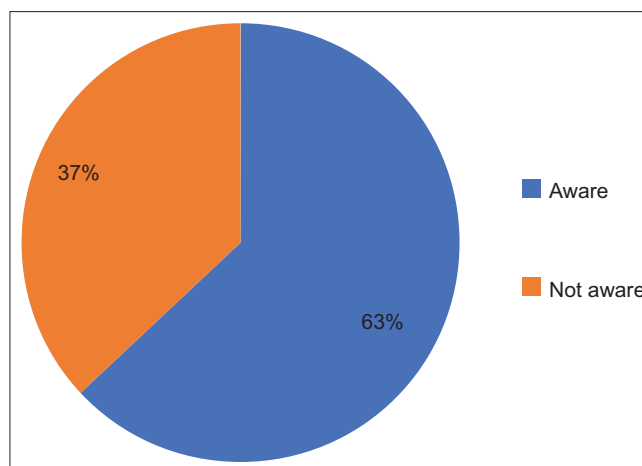


Fig. 1: Percentage of participants who are aware of the national list of essential medicines

Table 1: Source of information regarding NLEM

Source	Number (n=73)	Percentage
From medical college hospital	20	27.4
At conference/CME/journal/newspaper/magazine/TV/radio	6	8.2
From your senior/faculty/colleague/junior	10	13.7
From academic syllabus	10	13.7
Not aware about NLEM	27	37.0

NLEM: National list of essential medicines

college, and the supply of drugs should be based on the common types of conditions treated in that area (75.3%). The majority (76.7%) of them think that there should be separate lists for pediatric, geriatric, and pregnancy-related drugs. The concept of providing a mobile or laptop application of NLEM was supported by most of the participants (72.6%). 83.6% of them responded that adverse drug reaction reporting can help in updating or revising the drug information in NLEM (Table 2).

DISCUSSION

WHO EML has played a critical role in guiding the country-level selection of essential medicines for more than four decades. As per a recent survey (2007–2017) by the WHO, about one-fourth of the world population lacks access to essential medicines, leading to a series of health issues like sustained illness, disabilities, poor quality of life, and increased morbidity and mortality. NLEM aims to improve the medicine access and availability of essential and cost-effective medicines [12,13]. But despite the availability of NLEM, access to affordable medicines and devices is an unmet need in low- and middle-income countries, including India [14].

The majority of the doctors in our study preferred to have an EML with drugs that treated the common conditions in that particular region and have responded that the medicines available are not sufficient for that purpose. For example, the WHO EML 2021 includes both 3FDC and 4FDC for tuberculosis, which is a common disease in our country. But NLEM 2022 has only individual antitubercular agents on the list and no FDC. Hence, NLEM 2022 is not aligned with the national tuberculosis elimination program of India. The use of non-FDC formulations, according to the NLEM 2022, may pose the risk of the emergence of multidrug-resistant strains of Mycobacterium [15]. Thus, the present NLEM list requires more discussion and revision for the missed drug and the guidance of the National Health Programs and also the National Formulary of India.

Table 2: Opinion of Doctors regarding NLEM

S. No.	Questions	Response	Number (n=73)	Percentage
1.	Do you know the various drug categories mentioned in NLEM?	Yes	12	16.4
		No	41	56.2
		Some	19	26
2.	Are the drugs supplied in the Central Pharmacy of Tomo Riba Institute of Health and Medical Sciences enough to cover most of the conditions you come across?	Not enough	27	37.0
		To some extent	31	42.5
		Enough	3	4.1
3.	Do the drugs in the NLEM are sufficient to cover most of the medical conditions you come across your practice?	Does not cover	8	11.0
		To some extent	34	46.6
		Cover most conditions	13	17.8
4.	Do you frequently prescribe the drug (s) which are furnished in NLEM in your routine clinical practice?	Yes	29	39.7
		No	43	58.9
5.	More expensive drugs should be included in NLEM rather than cheaper drugs.	Strongly disagree	8	11.0
		Disagree	39	53.4
		Agree	18	24.7
		Strongly agree	1	1.4
6.	Generic compounds of some expensive drugs should be included in the NLEM.	Strongly disagree	15	20.5
		Disagree	44	60.3
		Agree	6	8.2
		Strongly agree	8	11
7.	Every tertiary care teaching hospital must have its own list of essential medicines (supplementary to the WHO list).	Strongly disagree	2	2.7
		Disagree	6	8.2
		Agree	45	61.6
		Strongly agree	12	16.4
8.	Should the supply of drugs be based on the type of conditions treated?	Yes	55	75.3
		No	13	17.8
9.	Do you think there should be separate lists for pediatric, geriatric, pregnancy etc.?	Yes	56	76.7
		No	7	9.6
		Not sure	4	5.5
10.	Do you think NLEM should be provided in the form of mobile/laptop application to make it handy?	Yes	53	72.6
		No	9	12.3
		Not sure	5	6.8
11.	Do you think reporting of drug induced reaction (s)/adverse drug effects to ADR Monitoring Centre of tertiary care hospitals will help in updating/revising drug information in NLEM?	Yes	61	83.6
		No	3	4.1
		Not sure	2	2.7

NLEM: National list of essential medicines

In a study by Surendra *et al.* [16], the majority (63.9%) of the participants were aware of the NLEM of India, but most (49.2%) of them were prescribed only occasionally from the essential drug list which is, similar to our study. This might be due to the non-availability of the essential drugs or because they do not meet the common conditions of the regional population.

Almost all the participants (96%) of a study conducted by Malhotra and Shivaswamy [17] believed that there should be an "EML" in each clinical department, which is similar to our study as most of the doctors in our study preferred a separate list for the institution as well as a separate pediatric, geriatric, and pregnancy list.

Many studies conducted in India found that the availability of medicines is not adequate, especially in public health facilities [18]. To provide universal access to essential medicines, many states of India have constituted corporations such as Rajasthan Medical Services Corporation, Central Medical Stores Organization of Gujarat, and Tamil Nadu Medical Services Corporation for drug procurement lists following the framework of WHO-EDL, which has been approved as the state EDL and has been modified according to the different levels of health-care systems, that is, primary, secondary, and tertiary centers [19].

CONCLUSION

The concept of essential medicine is applicable globally and offers the most cost-effective solution to healthcare needs. A limited range of carefully selected medicines according to the needs of the regional population can cater to most health-care needs. The fundamental human right to access these medicines remains a challenge and will require further action at the national and state levels.

AUTHORS CONTRIBUTION

BS- Design of the study, preparation of manuscript; SM- Data collection, revision of the manuscript; NS- Statistical analysis and interpretation; PB- Data collection, coordination, revision of the manuscript; AB-Concept and design of the study, revision of the manuscript.

CONFLICTS OF INTERESTS

None.

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