

An Analysis of the Drug Distribution Model in the Public Health Services in Tamil Nadu

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| Received: 16.12.2020 | Accepted: 06.06.2021 | Published: 13.12.2021

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Abstract

Original Research Article

Based on the field work in Tamil Nadu, this article analyses the procurement and dissemination functioning of the Tamil Nadu Medical Services Corporation (TNMSC), including the problems faced by different stakeholders' viz. doctors, patients and pharmaceutical companies and also the stakeholders outside Tamil Nadu. The Tamil Nadu model of procurement and distribution of medicines under TNMSC is acclaimed as a successful model for its centralized-swift actions. However there were some inconsistencies hampering TNMSC to remain a model as there were the no availability of drugs as per approved essential drugs list, shortage and incomplete availability of drugs, and a shift from centralized procurement to local purchase arrangement of some drugs across Tamil Nadu. It also observed not only the quantity, quality and number of drugs procured and distributed, not matching with the health need of patients, but also the doses are not effective. In order to do that there is a need to revamp its centralized procurement pattern and dissemination of drugs to various public health systems in Tamil Nadu. By doing this, it can avoid the high-cost private medicines being promoted even by government doctors, and truly make the public health system successful and a top model in this country.

Keywords: stakeholders' viz, TNMSC, drugs.

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INTRODUCTION

State of Tamil Nadu had launched a scheme in 1995, to provide, 'free of cost', all community prescribed medicines to all patients seeking care in all categories of government facilities. The successful model is called Tamil Nadu medical services Corporation (TNMSC). The TNMSC has far-reaching implications for the poor and disadvantaged peoples it provides access to free health care services and drugs to all in the state. At the national level, although some initiatives were made till date the scheme has not been implemented as there was a delay in earmarking of budget allocation [i].

STUDIES ON POSITIVE AND NEGATIVE FINDINGS ABOUT TNMSC

The most important success factors of the TNMSC are the autonomy, coupled with able leadership that is able to step aside bureaucratic and make decisions promptly and independently one of the critical success factors of Tamil Nadu model is the utilisation of robust IT system (Roy Chaudhary 2015).

Tamil Nadu's pooled procurement is well known in India and has resulted in decreased prices and improved availability. Other State governments will do well if they learn from the Tamil Nadu system and implement it in their own States to reduce prices and improve quality and availability of essential medicines (Kotawani 2005).

Dreze (2006) observed that a study on health sub-centres in Tamil Nadu suggested that medicines were insufficient and there were lack of equipment to transport the drugs. These observations agreed with the popular perceptions of the government facilities.

The Hindu, news paper published on August 10th 2012, a senior level management staff in the Rajiv Gandhi government general hospital in Chennai observes that hospital is facing a huge shortage of drugs. Around 12000 outpatients and 3000 inpatients register every day, and hospital is unable to supply drugs to patients for conditions such as diabetes, hypertension, and seizures. The commonly prescribed drug amlodipine for hypertension had supply shortfalls

said by a senior hospital authority. Tamil Nadu medical services Corporation (TNMSC) had sent a report of the drugs it had in stock. According to the official, the corporation had issued no objection certificate for 22 drugs, had not supplied 63 drugs and stated that 21 other drugs required by the hospital were in short supply. It had also informed the hospital that 46 drugs were not available with it.

Chakshi, M., Mongia, R., Wattal, V., (2015) According to World health organization a total of 28,157 samples were collected from four national laboratories in Mumbai, Chennai, West Bengal and Chandigarh during 2010-2013 periods, of which 24,014 samples were tested. During 2007-2012, a total of 2, 21,274 samples were tested in all central and state government laboratories of which only 11,426 were not found substandard or adulterated. The quality of drug inspection has to be done by the accredited laboratories with the assistance of selected external agency. However TNMSC every year but why TNMSC was chosen is a mystery the drugs worth RS. 59,21,174 supplied by TNMSC to the state of Madhya Pradesh, most of the drugs were found to be substandard quality, it has been found by the controller food & drug administration were used by government-run hospitals in Madhya Pradesh. According to Indian press media, 30-40% of the total marketed drugs are suspected as spurious, however this was refuted that this data is without any scientific confirmation.

Chakshi, M., Mongia, R., Wattal, V., (2015) A WHO team two states of drug laboratories visited of i.e. Kerala and Tamil Nadu to gauge the sample capacity that states could handle. It is very important to note for both the states laboratories, drug and medical the equipment was procured by their respective states was found to be up to date, but there was a lack of staff to operate the equipment. This was acuter for the lab in Thrissur in Kerala which had opened quite recently. But interestingly in both cases, there were posts lying vacant from the pool of total sanctioned posts, while both laboratories reported a shortage of hands required to meet the annual targets.

PROCUREMENT SYSTEMS

A study conducted in Chennai, Haryana, Karnataka, West Bengal, and Maharashtra found low procurement prices and poor availability of drugs in the public health sectors Kotwani *et al.*, (2007). Majority of the people purchase medicines from private pharmacies and there is a huge price variation in the among states for the same medicine. The study highlighted the positive performance in Chennai due to centralised procurement system at the public health facilities.

Poornalingam (1996) also highlighted that the success of TNMSC model lies within the well-organised procurement policy and integrated approach, which focuses on the importance of preparation of an

essential drug list, assessment of quality assurance from suppliers. This success of TNMSC could be due to a central procurement distribution system with well managed computerized system and specifically the use of professional management at the publicly funded health system.

According to Melanie (2000), the Tamil Nadu government has achieved more success with the development of autonomous bodies, especially TNMSC. Further, he says that the purpose of creating TNMSC is to deal with the recurring drug shortage and quality concerns. The most important aspects of TNMSC is that it serves as a central clearinghouse for purchase, storage and distribution of the drug and has proved successful in facilitating the distribution of drugs to PHC's. It is able to procure quality control drugs at competitive rates and has installed a computerised system for processing placement and distribution of orders of drugs to PHC's and dispensaries.

A qualitative study was conducted in Tamil Nadu, to identify basic health care available to the poorer segment of the population (Melanie 2010). The study described public health facilities as being less clean, utilizing the poor equipment. The PHC simply did not have any stock of medicines which were in higher demand (such as for snakebites or dog bites). Moreover study emphasized on issues around non-availability of physicians, poor staff attitudes & demands for unofficial payments by the health care practitioners were common in Tamil Nadu.

According to Melanie (2000) reported that TNMSC performs well with the supply of quality of drugs and availability of drugs. They point out that greater financial and managerial flexibility to autonomous organizations similar to TNMSC could be an efficient model. For example, they observe the reputation of the government as a late payer did not carry over to TNMSC, and it was, therefore, able to work effectively with the private sector to negotiate competitive rates for drugs and supplies.

LOW DOSAGE MEDICINES

In Thanjavur district of Tamil Nadu, A study found that most participants claim about the dissatisfaction of low dosage medicines that the PHC usually offers. Because of the tendency to seek a quick recovery, they conclude that medicines in the PHC do not work effectively. When the medicines in the PHC do not work for certain patients, the doctor often refers them to their own clinics (Chiai *et al.*, 2009).

NON-AVAILABILITY OF MEDICINES

There are usually medical shops in the villages. However; commonly available medicines such as painkillers are not always available, both in the PHC and in pharmacies in Alakudi village. Some participants

also described that the inconvenience in accessing medicines. Although there is a tremendous need for diabetes treatment, there is no insulin injection available in the village level public health institutions only oral medicines. For diabetic patients, especially severe cases, they have to go to Thanjavur to get insulin. There is unmet need arising from non-availability of certain medicines (Chiai *et al.*, 2009).

RISE IN PRACTICE OF IRRATIONAL PRESCRIPTIONS

A comparative cross-sectional study was conducted among 20 private practitioners, 10 from urban and 10 from rural catchment areas of the training centers of a medical college in Kancheepuram district of Tamil Nadu by Gopala Krishnan (2012). WHO core drug use indicators questionnaire was used for the assessment which comprises of 5 patient care indicators and 2 facility indicators. Thirty exit interviews from patients in each practitioner's clinic were carried out to assess the quality of the services rendered. The study revealed that average consulting time was 4 minutes, average dispensing time was 2.19 minutes, percentage of drugs actually dispensed was 43% and all the drugs dispensed was adequately labeled, only 22% percent of patients had knowledge of correct dosage of drugs, the copy of essential drugs lists was not available in any facility and about 73% of the key drugs were available in the health facilities. The average time spent by a patient in the health facility was 18.39 minutes and 93% of the patients expressed satisfaction with the services they received.

India is one of the largest consumers of antibiotics; the recent ongoing study being conducted by observed that minimum 5-7% of patients in critically ill conditions are due to drug resistant. ICMR has advised tertiary care hospitals in south India to avoid at least three antibiotics used in the treatment of multidrug resistance (TNM staff, Times of India April 15th. 2017).

Akram Ahmed *et al.*, (2016) a descriptive, cross-sectional study was conducted for 6 months from December 2012 to May 2013. The study was carried out in inpatient pediatric units including one general ward and one Intensive Care Unit at Rajah Muthaiah Medical College and Hospital (RMMCH), Chidambaram, Tamil Nadu. Overall, high proportions of antibiotics were prescribed in case of a cough and cold, diarrhea. The study observed high rates of antibiotic utilization showed in appropriateness of prescribed antibiotics with respect to standard guidelines varied with the clinical conditions

A community based descriptive study was conducted to collect 600 prescriptions from the catchment areas of rural and urban health training centers of a medical college of Tamil Nadu by using prescribing indicators as per the WHO (Gopalakrishnan 2013). As a practice of polypharmacy, it was observed

that the average number of drugs prescribed in the urban and rural area was nearly 5 and 4 drugs were by the doctors. Among the antibiotics, amoxicillin (49.2%) was the most commonly prescribed followed by gentamycin (31.7%), percentage of prescriptions with an antibiotic was 55% and nearly 62% of the practitioners prescribed drugs by their generic names only. Nearly 80% of the urban and rural practitioners were prescribing at least one injection. The study outcome reflects the practice of irrational prescribing among the General Practitioner in both urban and rural area.

This study also indicates that there is a trend toward polypharmacy that is the practice of prescription more than 2 drugs for a single illness. The percentage of the prescription with antibiotics even in the primary health set up is around 54.22%. Ideally, in primary health care settings, the antibiotic usage should not be used more than 25%. The number of the prescription with injections is around 56.67 % but it should not exceed more than 10%. Similar study needed secondary and tertiary levels and more irrational use of drugs needs to emphasized, with the free and easy availability of drugs through TNMSC, there is risk of over prescription (Tamil Nadu human development report 2003).

Another study sponsored by officials of the World Bank conducted by the Tamil Nadu health system Project (TNHSP) in two phase manner, The first phase (2005-2010) second phase was (2010-2014). They divided 32 districts into two groups that were the intervention district (Sivangangai & Virudhu Nagar) and control district (Theni & Vilupuram). According to this study 26.7% urban 26.9% rural populations were found to suffer from hypertension. To create behavioural changes strategies and create awareness in target population, Finally through interactions and discussions it emerged that some of the problems are inadequate drug supply and doctors prescribing first drug as per the protocol, however lack drugs at (PHC /GH) is a major constraint for prescribing second line drugs such as hydrochloricthiazides.

Kumari *et al.*, (2008) generated evidence on the evils of antibiotic over-prescription through a cross-sectional survey conducted across Thiruvananthapuram, Chennai, Vellore, and Lucknow. Reported that overall antimicrobial prescription rate was 69.4 percent (95% CI 67.1, 71.7). Wide variation was observed (Thiruvananthapuram 47.6%, Lucknow 81.8%, Chennai 73.1% and Vellore 76.5%). A physician practicing in rural public/government settings prescribed antimicrobials more frequently than those in urban and private settings (83.8 %, 81.9%, 68.3% and 68.2% respectively). Two third of all antimicrobials prescribed were penicillins and cotrimoxazole, and over 40% of prescriptions from the private sector were quinolones and cephalosporins. It was concluded that the

prescription of antimicrobials for acute respiratory infections and diarrhea was extremely common and warrants interventional strategies

INSUFFICIENT DRUGS AT PHCs

A World Bank sponsored study in 2004 includes areas such as Anaimalai, Thirupathur, and Sivagangai conducted. During the surprise visit by its technical team to health sub-centres found that the medicines available at the PHCs were insufficient, and there were lack of equipment to transport the drugs. These observations also coincide with popular perceptions of the government health facilities (World Bank 2004).

QUALITY OF MEDICINES AT PHCs

Narayanan (2009) observes that patient undergoing surgeries and treatment for injuries at government hospitals in Tamil Nadu may be putting under brave risk, as samples of disinfectant used have been found to be substandard. Substandard disinfectant can lead to high infection and even death due to blood poisoning. Samples from at least six batches from povidone iodine procured from manufacturers and supplied to the hospitals by the state-run TNMSC for more than a year now have been tested (December 16th 2009) and are not of a standard quality by the government analyst to state directorate of drug control. In two batches they found that active ingredient was absent. In one of the samples, the solution which should be appearing dark brown was colorless. Samples from all six batches found to be substandard. The government's own drug testing laboratories were found to be several samples of povidone iodine to be spurious and putting the patient under the risk of contrast infection"

From the above review of literatures on TNMSC it is inferred that while there are favorable and encouraging arguments to support the uniqueness and functioning of TNMSC in the public health system in India, there are also serious concerns about the TNMSC model. All these studies about TNMSC leading to point that there are shortages of drugs, substandard drugs, not getting stock medicines on time (such as for snake bites and dog bites) and so on so forth.

OBJECTIVES AND METHODOLOGY

This paper broadly aimed at studying the Tamil Nadu model of drug distribution to the public health services system i.e. TNMSC. As the literature shows drug shortages, excess supply and inadequate quality etc., from within, understanding the strengths and weakness of TNMSC is important, especially in the light of rapidly developing competitive and market-driven production and supply chain management from among the pharmaceutical companies.

From among the public health system, TNMSC model has greatly excelled in terms of its

service rendered to the public, and potentially can improve further to become a best model within the public health system in India. Therefore it is pertinent to know the strengths and limitations of TNMSC in order to understand its relevance and its applicability elsewhere.

Understanding its design, pattern, and its basic principles of functioning in its entirety is important in order to understand the execution aspects of drug distribution gaps and their causes so that it can be improved for better. Thus the overall objective is to compare and corroborate whether there is any drug shortage and distribution issues in system in Tamil Nadu Public health services.

DATA SOURCE

The proposed study is based on secondary data and information available from published reports, documents, other relevant literature and some observed evidence of shortage and excess of drugs in Tamil Nadu health service facilities and the inequalities due to it in the availability of drugs across sample districts, and sub centers.

Besides, personal consultation, interviews, focused group discussions (FGD), and on line communications were conducted with subject experts, policy makers and doctors at all levels including in the health administration, randomly selected patients and other stakeholders to gather relevant information for analysis.

It has been designed to explore the nature of problems faced with, and their causes, in the supply system of public health services in Tamil Nadu i.e. TNMSC model. While Tamil Nadu state is the main reference point, this study focus was narrow down to the sample districts, PHC (Primary Health Centre), and HSC (Health Sub Centre), levels in order to get an in-depth account of functional aspects and its gaps. Hence the mixed methodology adopts both quantitative and qualitative techniques for collection of data.

Two districts with varying patient load in district hospitals proportionate to population of the districts were studied for their drug availability as per need. 2 district hospitals, 6 PHCs per district and 18 SCs per PHC were visited in this study, i.e. 2 district hospitals, 6 PHCS, and 18 sub-centers were visited. A mixed methods approach has been used. Analysis of the service system's data as well as patient data has done quantitatively, while purposive sampling has chosen for qualitative assessment of the problems and causes, which were based on interviews with administrators, service providers, and users.

SAMPLE SELECTION - DISTRICTS, PHCs and HSCs

Although TNMSC is the locus of the study, as its services intended to benefits patents across Tamil

Nadu, ideally coverage of all the public health hospitals in Tamil Nadu would have been apt, based on the best performing and poor performing method sample hospitals were selected.

Of the total 32 districts in Tamil Nadu two districts were chosen based on out-patient attendance and population coverage. As per these two parameters, the district hospitals were grouped into two categories viz. patients high load/attendance area, and patients low load/attendance area. Accordingly Perambalur district being high patient attendance area, and Madurai district being lowest attendance area were chosen. Thus field study consists of 2 district headquarters hospitals were selected. Similarly by applying the same criteria i.e. good performance and poor performance, the PHCs,

and Sub health centre's were selected, thus 6 primary health centers, and 18 sub-healthcenters were selected within the sample districts.

DATA ANALYSIS

Strengths and gaps were analyzed by comparing the inter-districts and intra district variations of the sample districts. Various stake holder viz. Health administrators, service providers i.e. doctors and beneficiaries' i.e. patient experiences and perceptions were triangulated to understand the strengths and limitations. The Quantitative data was entered in MS Excel and SPSS. Qualitative data were entered in MS Excel sheet, word coded, recorded and thematically categorized, analyzed and presented.

Table 1: Response on the shortage of drugs in Perambalur district, Tamil Nadu

S. No	No. of years in practice by doctors	No of Doctors responded	About the drug shortages			Percentage of drug shortage		
			No	Yes	No idea	No	Yes	No idea
1	< 1 Year	5	1	4	-	20%	80%	-
2	1-5 Years	12	7	4	1	58.34%	33.33%	8.33%
3	5-10 years	5	1	4	-	20%	80%	-
4	>10 years	4	1	3	-	25%	75%	-
	TOTAL	26	10	15	1	38.5%	57.7%	3.8%

Source: Compiled from author field work data collected during 10.11.2018 to 20.11.2018

The Table 1 as above represents the results for Perambalur District hospital, which shows that 80 per cent of the doctors with less than 1 year experience responded positively about the drug shortage 20 per cent of the doctors answered in negative. Whereas about 58.34 per cent of doctors with 1-5 years of experience have said that there was no shortage of drugs about 33.33 per cent of doctors agree that there exists shortage of medicines. And one doctor (constitutes about 8.33 per cent) has said that he has no idea about the drug shortage. Again 80 percent of the doctors with 5-10 years of experience show that yes there was a shortage in drug supply system, However there was doctor, who's response constitutes about 20

per cent, claimed that there was no drug shortage. Yet another category of doctors having experience of more than 10 years, about 75 per cent of them accept the drug shortage issues, although 25 per cent category answered in negative.

As the number of years of doctor's experiences increases, the drug shortage percentage also increases with slight variations. In an overall analysis more than 50 per cent of the doctors accept the prevalence of the drug shortages in Perambalur district. In absolute numbers out of 26 doctors 10 doctors although claim no shortage of drugs, 15 of them accepts that there was shortage of drugs.

Table 2: Response on the shortage of drugs in Madurai district, Tamil Nadu

S. No	No. of years in practice by doctors	No of doctors responded	About the drug shortage			Percentage of drug shortage		
			No	Yes	No idea	No	Yes	No idea
1	< 1 Year	6	0	6	-	-	100%	-
2	1-5 Years	23	5	18	-	21.7%	78.3%	-
3	5-10 years	6	-	6	-	-	100%	-
4	>10 years	3	-	3	-	-	100%	-
	TOTAL	38	5	33	-	13.2%	86.8%	-

Source: Compiled from author field work data, collected during 10.12.2018 to 20.12.2018

The Table 2 as above represents the results for Madurai district hospital, which shows that all the doctors (i.e.100 per cent of them) with less than 1 year experience responded positively. Whereas 21.7 per cent of doctors with 1-5 years of experience have said that there was no shortage of drugs, overwhelmingly about 78.3 per cent of doctors agree that there exists shortage of medicines. Again all the doctors with 5-10 years of

experience fully agreed that there was a shortage in drug supply system. Yet another category of doctors having experience of more than 10 years, constitute about 86.8 per cent of them accept that there exists drug shortage issues, although 13.2 per cent category answered in negative.

As the number of years of doctors experiences increases, the drug shortage percentage also increases with slight variations. In an overall analysis more than 80 per cent of the doctors accept the prevalence of the drug shortages in Madurai district. In absolute numbers out of 38 doctors 5 doctors claim no shortage of drugs, 33 of them accepts that there was shortage of drugs.

ANALYSIS

In general doctors with less than one year are posted in PHCs in the rural are in both the districts perhaps not interested in revealing the drug shortage as they do not want to face any administrative problems as they are new to service.

It is surprising to notice that the Madurai district being the low load or low patients attendance area in the whole of Tamil Nadu state, confirmed in positive by as maximum as 86 per cent of the doctors. There seems to be some mismanagement in the health system but at distribution of the drug or at the availability and procurement of the drugs needs to be further studies. Since it is a low patient attendance area, the focus is not that intensive. However the case of Perambalur district shows that scenario is different. About 57 per cent accepts the drug shortage, 38.5 per cent of them deny such shortage, and 3.8 per cent remain indecisive. Although more than half of the doctors uphold the veracity of the issue, there was a split between the doctors in accepting the issue. Such responses cannot completely neglect the presence of drug shortage problem in Perambalur district. The encouraging point that Perambalur district being high patients attendance area, health administration has moderately maintaining the drug requirement, as the shortage claim is only by 57 percent unlike 86 per cent of them in Madurai District.

Though the drug distribution system was reinforced the health of the poor and marginalized in Tamil Nadu with timely and over the counter availability of free drugs had thrived hope in the patients, however in the recent past the trend started inversely affecting the public health drug distribution system sheerly due to the lacunas in the TNMSC.

Some of the listed drugs when not available centrally, the hospitals at district hospital, PHCs and HSCs are authorized to buy medicine in the open market which is termed as "local purchase" from the private pharmacy. In this regard the fund allocated to hospitals is according to the proportion of the population / patent load of that hospital.

It is observed that the doctors did not reveal in specific as to the kind of drugs are running short and are referred outside. The number of chemists and the medical shops located around the government hospitals would assert that the patients are always been referred to buy drugs from the private shops.

Although the spirit of the government in providing free of cost medicines is well appreciated, the incomplete-list of drugs supplied, inadequate drugs available at respective hospitals and quiet often the habit of referring patients to get drugs from open market are intended to demine the enforcement aspects of the so-called free distribution of medicines in government hospitals, specifically the TNMSC. Prolonged such trend raises doubts about the efficacy of the scheme.

More often, the government hospital services are being overwhelmingly utilized by the poor lower middle income group people, who cannot afford the expensive private health care system, however, of later the prevalent practices is that most often the patients are referred to buy medicines in the open market, which is costlier and unaffordable to the public and poor in particular.

It may be due to low budgetary allocations for medicines, poor stock management and distribution issues, and unnecessary prescription of medicines by doctors in the public system irrespective of standard guidelines that varied with clinical conditions are some of the reasons according to the findings in some of the studies.

It is observed that the doctors did not reveal in specific as to the kind of drugs are running short and are referred outside. The number of chemists and the medical shops located around the government hospitals would assert that the patients are always been referred to buy drugs from the private shops. Although the spirit of the government in providing free of cost medicines is well appreciated, the incomplete-list of drugs supplied, inadequate drugs available at respective hospitals and quiet often the habit of referring patients to get drugs from open market are intended to demine the enforcement aspects of the so-called free distribution of medicines in government hospitals, specifically the TNMSC. Prolonged such trend raises doubts about the efficacy of the scheme.

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CONCLUSION

This study field experience was a critical part of the researcher as it helped to gain firsthand knowledge of the structures. In particular, the opportunity to interact with the communities, both rural and urban was provided important glimpses and insights. The concepts of inequality that are so central

to the theory and practice of public health were observed directly in the field. The experience also helped to gain an understanding of the reasons why programs often fail to achieve their goals at the community. Also seen were the ways in which the increasing privatization and commercialization has impacted the health sector. Drug availability has always been a problem in Govt. hospitals, particularly in PHC's which caters largely to the needs of the poorer sections of the population. Even though enough funds were earmarked for this purpose by the state government the actual supply position has always been less than satisfactory. Drug indenting, purchase, storage & distribution were always discriminatory and not based on the actual needs. There was always shortage & stock out of Essential and Life saving drugs at all levels. Unwanted medicines were dumped, which is often wasted. Cost of drug purchase went up year after year.

LIMITATIONS OF THE STUDY

- One limitation of this study is that it is limited to 2 district hospitals, and 6 PHCs, 18 SCs, but there is maybe a larger variation in conditions across 32 districts, thus limiting the generalization possibility.
- Another is that the implications of the private sector health services on the public system are not being studied.
- The responses from the doctors alone were considered in this paper thus feedback from others such as pharmacist, nurses and patients were not taken into consideration

ETHICAL CONSIDERATION

Ethical approval was obtained from the Institutional Ethical Committee under Tamilnadu government before starting the study. Tamilnadu government had also issued a government order to conduct study at government hospital. Participation in this study was voluntary and a participant was refused to participate or withdraw from the study at any time without having to give a reason. The collected information was confidential not disclosed any personal information to anyone

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ⁱAnnouncements were made in 2011 based on the recommendations of working group on drugs constituted by the erstwhile planning commission in the 12th five year plan (2012-2017) and, also on the basis of the then Prime Minister's announcement of national level free medicines scheme that would have on August 15th 2012 did not materialized. The finance minister in his budget speech (2014-15) had announced a free medicine schemes at pan India level.