



## ROLE OF A RURAL HEALTH TRAINING CENTRE IN SECONDARY PREVENTION AGAINST COMMUNICABLE AND NON-COMMUNICABLE DISEASES

### Community Medicine

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### ABSTRACT

**Introduction:** In India various national health programs and policies have laid down guidelines regarding minimum health care facilities which should be available at peripheral levels. This study was planned to evaluate services provided at RHTC and compare them with national guidelines.

#### Objectives:

1. To assess the various diagnostic and treatment services provided at RHTC.
2. To compare the RHTC services with those provided by PHC of the same area.

**Methodology:** It was a record based retrospective observational study carried out in a Rural Health Training Centre located at Sakawar, Dist-Palghar. Data collected included various lab investigations and X-rays carried out during calendar year 2014. Data was also collected from weekly, monthly and yearly OPD and dispensary records. Comparisons were made with services provided at nearby Primary Health Centres.

**Results:** The annual attendance of Sakawar OPD was around 34000. Lab investigations carried out included more than 1000 CBC, 118 Urine-R&M, 54 UPT (18 positive), around 3000 blood sugar tests, RFT, LFT and Lipid Profile. Also PSMP, Sputum AFB and HIV tests were available. Treatment for various communicable diseases like Malaria, Respiratory infections, skin infections, etc was available while that for Tuberculosis, Leprosy, etc was lacking. Under Non-communicable diseases treatment of Hypertension, Diabetes, Asthma, Epilepsy, Mental disorders was available.

**Conclusions:** The RHTC fares better than PHCs in providing Secondary Prevention services. However, the treatment of chronic diseases and provision of Ante-natal care can be added to the list of existing services. Also improvement in procedure for maintenance of records is desirable.

### KEYWORDS

RHTC, Diagnostic services, Treatment

#### Introduction:

Rural health is an important commodity not only at the individual level, but also at the micro and macroeconomic aspect of a country such as India. India is presently facing unique public health challenges in rural health. Strengthening health systems through reforms and improving capacities of health workforce by involving medical colleges - Rural Health Training Centres (RHTC) can be one option in addressing such challenges.<sup>(1)</sup>

There is a known mismatch between urban and rural areas with respect to health services provided in India. Various national health programs and policies have laid down guidelines regarding the minimum health care facilities which should be available at peripheral levels i.e. sub-centres, PHC, etc. However, no such guidelines are in place to define services needed to be present at RHTC.<sup>(2)(3)</sup>

This study was planned to evaluate services provided for early diagnosis and treatment of various diseases provided at a RHTC and compare them with health centres like PHC which are located within the same rural areas.

#### Objectives:

1. To assess the various diagnostic and treatment services provided at RHTC.
2. To compare the RHTC services with those provided by PHC of the same area.

#### Methodology:

It was a record based retrospective observational study carried out in a Rural Health Training Centre (RHTC) located at Sakawar, Dist-Palghar. This RHTC at Sakawar is run by Ramkrishna Mission along with Department of Community Medicine, Seth G S Medical College and K. E. M. Hospital, Mumbai.

Data collected for this study included various lab investigations and X-rays carried out during calendar year 2014. Data was also collected from weekly, monthly and yearly OPD and dispensary records for the same year. Comparisons were made with national guidelines to relatively evaluate the services provided. Since the RHTC is located at a village level comparison were made with services provided at local Primary Health Centre.

#### Results and Discussion:

General OPD services are available at this RHTC twice a week i.e. on Sunday and Wednesday. The special OPD services available at this RHTC included Medicine OPD, Gynaecology OPD and Dental OPD which were available to patients on every Sunday. Similarly, the Laboratory services were available once a week i.e. every Sunday. Besides this Psychiatry, Skin and Paediatric OPDs are available once a month on pre-fixed days.

Radiological Investigations like Chest X-rays and other X-rays like for hip/knee/Abdomen etc are carried out. But the records regarding normal/abnormal features in X-ray have not been maintained. Dental X-ray facility is also available.

Analysis of Diagnostic services shows that around 15% slides were positive for Malaria and 18% Sputum slides were positive for Acid Fast Tuberculosis Bacilli. Also 6% of those who underwent HIV testing turned out to be positive for the same.

A huge number of blood sugar samples were tested (around 3000.) As the laboratory functions only once a week (around 50 times a year) this amounts to 60 blood sugar samples/day which is staggeringly high for a rural centre.

**Table 1: Diagnostic Services available at RHTC**

Name of Investigation	Total Count	Abnormal Count	Abnormal %
<b>General Investigations</b>			
Hb, CBC, ESR <sup>#</sup>	1066	Hb – 384	36%
		CBC – 201	18.9%
		ESR – 114	10.7%
Urine RE & ME	118	78	66.1%
UPT	54	18 positive	33.3% positive
<b>Specific Investigations</b>			
PSMP	309	45	14.6%
Sputum AFB	616	113	18.3%
HIV	81	5	6.1%
Blood Sugar	RBS – 1943	217	11.2%
	FBS – 522	121	23.2%
	PPBS – 358	98	27.4%
RFT	101	N. A.	N. A.
LFT	106	N. A.	N. A.
Lipid Profile <sup>!</sup>	N. A.	N. A.	N. A.
X-Ray	Chest X-ray – 384	N. A.	N. A.
	Dental X-ray – 394	N. A.	N. A.
	Other X-ray – 259	N. A.	N. A.

# Overlap exists between abnormal reports of Hb, CBC and ESR;

! Lipid Profile services are available but data was not maintained;

N. A. stands for data Not Available;

Abbreviations like CBC, PSMP, FBS etc are as per standard medical notations

Table 1 shows that general blood and urine investigations are available in the laboratory of this RHTC. Also there are diagnostic services for Malaria, HIV-AIDS and Tuberculosis. Besides Blood sugar testing is available for diagnosis and follow-up of Diabetes Mellitus. Renal Function Tests (RFT) and Liver Function Tests (LFT) are also available, however there data has not been maintained properly. Lipid Profile is available but no records have been preserved for this investigation.

**Table 2: Patient Distribution for year 2014 at RHTC**

Distribution Characteristic	Categories	Count
Age Group	Adult	30645 (90%)
	Children	3409 (10%)
Gender	Female	18389 (54%)
	Male	15665 (46%)
Registration	Old	14357 (42.2%)
	New	19697 (57.8%)
Total		34054 (100%)

The Annual patient count was 34054. 54% of these patients were females. 42% of total patients had come for follow-up which shows adherence of patients to this health centre. Curative services are available for Non-communicable diseases like Diabetes, Hypertension, Asthma, Epilepsy, etc. Also drugs are available for acute infections like ARI, UTI, Malaria, AGE, etc. First aid services and TT injections are available too. Ambulance services are also available.

Besides the general and special OPDs a Leprosy clinic is also run at this centre on a weekly basis. In this Leprosy clinic supportive care and health education is given to patients of Leprosy however, for treatment purpose they are referred to nearby PHC.

RHTC ranks almost equivalent in provision of First aid and treatment for acute infections. The major pitfall is treatment of chronic infectious diseases like Tuberculosis, Leprosy and HIV-AIDS. Though the diagnostic procedures for these diseases are carried out at this RHTC, but for treatment of these diseases the patients are referred to nearby PHCs. This may be due to availability of free treatment at Government health centres under various National Health Programs for these diseases. However, services like treatment of Leprosy and treatment of Tuberculosis are available at a similar centre – RHTC Tasgaon run by GMC Miraj, Maharashtra.<sup>(4)</sup>

**Table 3: Comparison of services available at RHTC with services at PHC**

Services Offered	Comparison
General Investigations	√
Special Investigations	√√
Radiological Investigations	√√
First Aid Treatment	√
Treatment of Acute Infections	√
Treatment of Chronic Infections	X
Treatment of NCDs	√√
Indoor Treatment	X
Obstetric Care and ANC	X
Referral and Ambulance	√

√ √ mean services provided at RHTC are better than PHC  
√ means services provided at RHTC are equivalent to PHC  
X means services are either less than that of PHC or are absent

Table 3 shows evaluation of services at RHTC with PHC as a reference. It can be seen that diagnostic services like Hb, CBC, ESR and Urine investigations are equivalent to those at PHC. The RHTC in fact serves better with investigations like RFT, LFT and Lipid Profile. Also Radiological investigations are available which are again superior to PHC.

No Indoor facility is available. Therefore the severely wounded ones and those requiring injectable medications like dehydrated patients, etc. have to be referred to higher centre.

A staggering finding is that though a Gynaecology OPD is in place still there is no provision of Obstetric care and Ante Natal Care. This may be due to the fact that Gynaecologist visits only once a week and also there is no labour room in place. Also, there are no Immunization services in place for the Under-five children. Many of these services are available at an equivalent centre – RHTC Tasgaon.<sup>(4)</sup>

However, a wide range of treatment for various Non-communicable diseases is available and in this respect this RHTC fares better than PHCs. A similar NCD clinic is present at RHTC in Thiruvallur district of Tamil Nadu.<sup>(5)</sup>

### Conclusions and Recommendations:

This study shows that the RHTC is contributing to early diagnosis of a variety of conditions by providing various blood, urine and radiological investigations. Also there are various OPDs functioning which contribute to clinical-level screening and diagnosis.

The RHTC also provides treatment services for a variety of acute conditions with free drugs and follow-up care. But the treatment of chronic infectious diseases and Ante-natal care services are lacking. The RHTC outscores PHCs in secondary prevention of Non-Communicable diseases like Diabetes and Hypertension.

The recommendations on the basis of this study are that the frequency of OPD and laboratory can be increased for better patient care. Also, records of all services must be maintained as they help in planning and coordinating of services.

There is scope for provision of Ante-natal care services through the weekly Gynaecology OPD. Also, as there is a Leprosy clinic in place, treatment of Leprosy should be added to the service list which may help in better patient adherence and higher rates of cure.

**Limitations:** Quality Assessment of the services was not performed. Also, as this study includes data of only one calendar year, some services may have been over-estimated or under-estimated.

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