Original Research Article

Report on evaluation of mass drug administration campaign of 2014-15 against filariasis in Raichur, Karnataka, India

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ABSTRACT

Background: Mass drug administration (MDA), for control of filariasis was launched by government of India in 1996. Under this programme, all the beneficiaries in the age group of 2 to 60 years (excluding pregnant mothers, people above 60 and having other illness), will be administered tablet diethylcarbamazine (100mg) and one tablet of albendazole (400mg) once a year. In 2014 this exercise was carried out in the month of May. The objectives of the study were to review the progress of activities of single dose DEC mass administration and albendazole tablets in the selected Talukas and to make assessment of the programme implementation with respect to process and outcome indicators.

Methods: After visiting the selected cluster, important landmark (temple, school, panchayat office etc.) was identified. A lane was randomly selected and house to house survey was conducted. This process was continued till we could cover about 30 houses.

Results: Out of 651 population surveyed 332 (50.9%) were males and 319 (49.1%) were female, 309 people (47.4%) had taken full course, 69 (10.7%) had partially taken the drugs while 273 people (41.9%) had either not received the drugs or had not taken the tablet. 7 (1.1%) people have reported minor side effects like vomiting and dizziness.

Conclusions: It has been observed that though the people have received the drug distributed not everyone has consumed the tablets. Hence instruction should be given to drug distributor that they ensure consumption of the drugs in their presence only.

Keywords: Compliance, Filariasis, MDA

INTRODUCTION

Mass drug administration (MDA), for control of filariasis was launched by government of India in 1996.¹ Under this programme, all the beneficiaries in the age group of 2 to 60 years (excluding pregnant mothers, people above 60 and having other illness), will be administered tablet diethylcarbamazine (100mg) (2-5 years=1 tablet, 6-14 years= 2 tablets, 15-60 years= 3 tablets) and one tablet of

albendazole (400mg) once a year.^{3,4} In 2014 this exercise was carried out in the month of May.

In 2002, India set an ambitious national health goal to eliminate LF by 2015. In order to achieve this goal, a “two-pillar” strategy of interrupting transmission through mass drug administration (MDA) with diethylcarbamazine (DEC) and providing care for those with the disease was adopted.²

The Regional office of Health and Family welfare, Bangalore asked Principal, Shri B. M. Patil Medical College Hospital & Research Centre, Bijapur to conduct independent evaluation of MDA campaign at Raichur district. The Department of Community Medicine comprising of 2 team members (Dr. M. M. Angadi, Professor and HOD, Dr Rohith M, 1st year Post graduate student) conducted evaluation survey at Raichur district from 25th August to 27th August 2014. Based upon the cluster selection criteria, the survey team selected 4 field clusters comprising of 1 urban and 3 rural area which are as follows,

- Ashokpet, Raichur Town, near to Raichur fort (Raichur urban);
- Masarkal village (Devdurga Taluk);
- Sirwara village (Manvi Taluk);
- Mudgal village (Lingasur Taluk).

The evaluation consisted of two components, one is to collect and analyze the secondary data from the health service system and corroborate with the community survey findings.

The evaluation team obtained copies of the available documents including the budget and expenditure pertaining to planning and programming of MDA in Raichur District.

Objectives

The objectives of the evaluation are as follows

- To review the progress of activities of single dose DEC mass administration and Albendazole tablets in the selected districts
- To make assessment of the programme implementation with respect to process and outcome indicators.

METHODS

After visiting the selected cluster, important landmark (temple, school, panchayat office etc.) was identified. A lane was randomly selected and house to house survey was conducted. After introducing ourselves and explaining the purpose of our visit all the houses willingly participated in the study. This process was continued till we could cover about 30 houses.

Coverage for MDA 2014-15

The drugs were not given to people above 60 years and those having diabetes, hypertension, or other chronic diseases in many areas. The people who were not at home when the drugs were distributed did not take the medicine. In some places it was found that the houses which were locked during the visit the effort was not

made to revisit the house and distribute the drug. As per secondary data obtained from district office; MDA was carried out on 14th May, 2014. Micro planning was done at the district level and proper training was given for the drug distributors and supervisors. The necessary amounts of tablets were procured with extra buffer stock being maintained. The programme was continued for 3 days. On the first day the drug distributors, distributed the drug and the next 2 days supervisors supervised the activities.

RESULTS

A total of 651 people were surveyed. Out of which 332 (50.9%) were males and 319 (49.1%) were females. Most of them were in the age group of 15 to 60 years (69.5%) (Table 1).

Table 1: Distribution of study population age/sex.

Age group (years)	Frequency		Total	Percentage
	Male	Female		
2-5	21	25	46	7.2
6-14	47	59	106	16.2
15-60	237	216	453	69.5
60 & above	27	19	46	7.1
Total	332	319	651	100

309 (47.4%) had taken full course, 69 (10.7%) had partially taken the drugs while 273 (41.9%) had either not received the drugs or had not taken the tablet. 7 (1.1%) people have reported minor side effects like vomiting and dizziness. Only one person reported severe skin reaction like itching all over the body, which subsided after taking treatment (Table 2).

Table 2: Distribution of population on consumption of tablets

Tablet consumed	Frequency	Percent
DEC + Albendazole	309	47.4
DEC Inadequate	69	10.7
DEC only	0	0
Albendazole only	0	0
No tablets	273	41.9
Total	651	100

Out of 378, majority of people were in the age group of 15 to 60 who had consumed the tablets. 152 (75.6%) males and 132 (74.5%) females had consumed the tablets (Table 3).

Reasons cited by the respondents for not consuming the tablets, fear of side effects (31.8%), not essential (23.1%), post-natal period (5.3%), minor medical problems (18.5%), no confidence in government drug supply (21.3%) (Table 4).

Table 3: Distribution of study population age / sex wise based on consumption of tablets.

Age group (years)	Male		Female		Total	Percentage
	Frequency	Percentage	Frequency	Percentage		
2 - 5	11	5.4	9	5.2	20	5.2
6 -14	29	14.4	33	18.6	62	16.4
15 - 60	152	75.6	132	74.5	284	75.1
60 & above	9	4.6	3	1.7	12	3.3
Total	201	100	177	100	378	100

Table 4: Reasons for not taking the complete dose.

Reasons*	Frequency	Percentage
Fear of side effects	101	31.8
Not essential	73	23.1
Post-Natal period	17	5.3
Minor medical problems	59	18.5
No confidence in government drug supply	68	21.3
Total	318	100

*Multiple responses possible

DISCUSSION

In the current study, Out of 651 population surveyed, only 309 (47.4%) had taken the complete dose of tablets, indicating the compliance is very low. This is much lesser than the study done by Patel (78.6%) in the Bagalkot district (2010) and higher in the Gulbarga District (38.8%) in the year 2010.⁶ On the other hand, the compliance was as high as 85.6% in an independent external evaluation of MDA in Udupi district.⁸ Similar observations were made by Pradeep Kumar in Gujarat state and by Mahalakshmy T at Puducherry, where compliance was 89% and 88.7%, respectively.⁷

A similar study done by Sanjay TV in Raichur in the year 2009, revealed that coverage and compliance of MDA programme was 45.1% and 73% respectively, which was better than the present study conducted in 2014.⁵

A high coverage (>85%) in endemic areas, which is sustained for 5 years, is required to achieve the interruption of transmission and elimination of disease in India. In this study though the coverage was good, compliance was below standard. This can be attributed to the reasons cited by beneficiaries who did not consume the tablets quoted the reasons for non-consumption as “don’t want to consume”, “fear of adverse drug reactions”, and “doubtful benefit on consumption,” all of which are pure misconceptions.

In present study, 7 (1.1%) people had reported minor side effects like vomiting and dizziness. Only one person reported severe skin reaction like itching all over the body, which subsided after taking treatment. The study

conducted in Udupi district and Bagalkot revealed that 0.72% and 1.2% of the subjects had side effects.^{6,8}

Regarding Source of information on MDA, 479 people (73.5%) of eligible population (>14 Years) knew that the drugs were distributed to prevent elephantiasis. The main source of information was Drug distributors.

IEC activities

Large number of population told that IEC activities like banner, posters, mikes, were not used. This information is questionable as the recall bias plays an important role. But they admitted that they have seen the pamphlet exhibiting the picture of the disease.

CONCLUSION

- In spite of meticulous planning with regards to man power, procurement of drugs and utilization of funds, only 58.06% of population have consumed the tablets. On the 1st day it was noticed that a good number of drug distributors have distributed the number of drugs based on the number of people in the house. But they have not ensured the consumption of the drugs or verification of consumption of drugs later. It was observed that there is no uniformity in the consumption of the tablets. Some have consumed 1 tab/day for three days, some thrice a day and some all the 3 tablets at a time. Some have consumed on empty stomach and some after food. Hence it is important to impart proper training for those who are involved in distributing the drug regarding importance and method of consumption of the drug. Distribution of tablets must be done preferably on Sunday so that maximum number of people can be reached by the health workers. Houses which have been distributed tablets must be marked similar to the one done during pulse polio so that in the follow up, missed houses can be covered.
- Involvement of village leaders: Health workers must take the social and religious leaders into confidence and seek their help in getting across the message to the people in a more effective manner.

- It has been observed that though the people have received the drug distributed not everyone has consumed the tablets. Hence instruction should be given to drug distributor that they ensure consumption of the drugs in their presence only.(like DOT's therapy in TB programme).

Note: As evaluation survey was conducted almost about three and half months after MDA campaign, the role of recall bias in providing correct information by the study population cannot be ruled out.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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