

DRIVE AGAINST FILARIASIS: EFFECTIVENESS OF MASS DRUG ADMINISTRATION PROGRAM 2013, MES MEDICAL COLLEGE, MALLAPPURAM, KERALA.

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ABSTRACT: INTRODUCTION: Filariasis is a global problem with considerable disability. The most important strategy to eliminate filariasis is by MDA of DEC + Albendazole. So, our institution took an initiative to create awareness as well as administer drug under this program in the campus. **OBJECTIVES:** 1. To assess the coverage and compliance of DEC + Albendazole under Mass Drug Administration among staff and students in MES academy of medical sciences. 2. To know the causes for non compliance among the same group. **MATERIALS AND METHODS:** Cross Sectional Study design from 13th -25th March 2013. Data was collected about compliance and reasons for non compliance after drug administration. **RESULTS:** Out of 2412 staff in college drug was distributed among 2018 giving coverage rate of 84.9% and compliance 80.3% as later assessed. Highest compliance and coverage was among nursing students and main reason for non compliance was fear of side effects to DEC +Albendazole. **CONCLUSION:** Involvement of institutions in the MDA program gives better coverage and compliance. Filariasis is not a fatal disease but responsible for considerable morbidity, and in causing disfigurement it is second only to leprosy. Filariasis is a global problem and in India 11 states are endemic for filariasis and one among them is Kerala. The 2001 National Health Policy envisages elimination of lymphatic filariasis by 2015 (1). The most important strategy of lymphatic filariasis elimination is Annual Mass drug administration (MDA) of single dose of Diethyl Carbamazine (DEC) + Albendazole for 5 years or more to the eligible population to interrupt transmission of disease. The goal to achieving filariasis elimination from South East Asia by 2020 is by reducing microfilaria rate to less than 1% in all endemic areas. Maldives, Srilanka and Thailand have achieved this by completing 5 rounds of MDA. (2)

Mass drug administration was started in 2004 as a part of filariasis elimination by Govt. of India (3). The programme was not successful as the required coverage is not achieved and/or many of the people did not consume the drugs in spite of the drugs being distributed. This was felt

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to be due to lack of sufficient awareness. This year (2013) the Program included creation of awareness and community participation before drug administration, and evaluation after the administration. This is supposed to increase the drug consumption. The department of community medicine, MES Medical College, has taken up the task of MDA inside the campus addressing staff and students around 2500 in number.

OBJECTIVES:

1. To assess the coverage and compliance of DEC + Albendazole under Mass Drug Administration among staff and students in MES academy of medical sciences.
2. To know the causes for non compliance among the same group.

MATERIALS AND METHODS: The District Medical Office approached Community Medicine department, MES Medical College, for participation and conduct of Awareness class for medical officers of health service. Department faculty conducted orientation training for doctors of health service which was attended by Post Graduate students, Interns and students of Community Medicine Department, MES Medical College. Decision was taken to participate in the MDA program and administer drugs to all faculty staff and students in the campus of MES Academy of Medical Sciences which include MES Medical College, Hospital, Nursing College and Dental College.

Under the guidance from Department of Community Medicine and in collaboration with District Medical Officer, the Intern's prepared an action plan for giving MDA to students, faculty and staff of MES academy of Medical Sciences. The Dean, of MES Medical College institutions, inaugurated the MDA program on 13th march by consuming the drugs given under the program at the awareness campaign in the presence of staff and students of Medical College. This was to motivate others also to consume the drugs. Awareness programs were repeated at Dental College, Nursing College, Paramedical institute and Hospital as per a prepared schedule, where the respective principals consumed the drugs to motivate staff and students. During awareness campaign talks were given by faculty of Department of Community Medicine, Videos were shown, charts were displayed and handouts were distributed. Drugs were distributed from 14 March to 23 March to all available faculty students and staff. Instructions were given to recipients that medicines are to be taken only after taking food. In the subsequent two days data was collected from all about the consumption and also reasons if drug was not taken.

Study design: Cross sectional Study

Study period: 13th – 25th March 2013

Study Population: All the eligible population of MES Medical College campus.

Exclusion Criteria: Pregnant women, children less than 2 years and severely ill persons.

RESULTS AND DISCUSSION:

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TABLE NO 3: Coverage for Mass Drug Administration (MDA). N-2412

	Number	Percentage
Total people given drugs (coverage)	2048	84.9
Total number consumed drugs (Compliance)	1645	80.3
Effective Coverage	1645	68.2
Drug not given	364	15.1

TABLE No 4: Coverage of MDA among Students

Type	Coverage		Drug not given		Total no of Students
	No	%	No	%	
MBBS	434	76.41	134	23.59	568
BDS	294	97.03	9	2.97	303
BSc Nursing	175	94.08	11	5.92	186
GNM	54	73.97	19	26.03	73
Para Medical	97	96.04	4	3.96	101
Pg students	33	76.75	10	23.25	43
Total	1087	85.33	187	14.67	1274

TABLE No 4: Compliance MDA among Students

Type	Drug taken		Not taken		Total
	No.	%	No.	%	
MBBS	334	76.96	100	23.04	434
BDS	192	65.31	102	34.69	294
BSc Nursing	171	97.71	4	2.29	175
GNM	50	92.59	4	7.41	54
Para Medical	95	97.93	2	2.07	97
PG	31	93.94	2	6.06	33
Total	873	80.31	214	19.69	1087

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TABLE No 5: Coverage Of MDA among Staff

Category's Staff	Drugs given		Drug not given		Total
	No.	%	No.	%	
Teaching staff including doctors	165	80.88	39	19.12	204
Non Teaching staff	73	93.59	5	6.41	78
College of Nursing Staff and staff nurse	290	87.61	41	12.39	331
Dental College staff	88	96.71	3	3.29	91
Hospital Staff	345	79.49	89	20.51	434
Total	961	84.45	177	15.55	1138

TABLE No 5: Compliance of MDA among Staff

Category's Staff	Drug taken		Drug not taken		Total
	No.	%	No.	%	
Teaching staff including doctors	138	83.64	27	16.36	165
Non Teaching staff	59	80.82	14	19.18	73
College of Nursing Staff and staff nurse	249	85.86	41	14.14	290
Dental College staff	63	71.59	25	28.41	88
Hospital Staff	263	76.23	82	23.77	345
Total	772	80.33	189	19.67	961

TABLE NO 6. Reasons for Non Compliance

Reasons	No.	%
Fear about taking medicines	46	11.4
Feeling that drugs are not required for healthy people	69	17.1
Feeling that DEC is contra indicated along with other treatment	68	16.9
Fear of side effects of the drugs	85	21.1
Total	403	

Out of a total strength of 2412 faculty students and staff, drug was distributed to 2048 persons who were available in campus, giving coverage of 84.9%. Of those who were given drugs 1645 swallowed the same on the spot or later after food (this was later confirmed), giving a compliance of 80.3% leading to an effective coverage of 68.2% among all categories which is higher than other studies quoted.

Among all students, coverage was 85.33%. Highest coverage was among paramedical and nursing students and lowest among MBBS students. When compliance was analyzed it was 80.3%

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among all students. Highest compliance was among paramedical and nursing students but lowest among BDS students.

Compliance was 80, 33% among all staff. Highest compliance was among nursing college staff and lowest among dental college staff. Among staff and faculty the coverage was 84.45%. The highest coverage was among dental college staff and lowest among hospital staff and doctors.

Out of the 403 persons who refused or did not take drugs offered 11.4% gave the reason that they are afraid to take any medicines. 17.15 still believed that these medicines are not required for apparently healthy persons. 16.9% did not take because they believed these drugs are contraindicated for them as they had some other health problems or taking other medicines. 21% were afraid that DEC or Albendazole may cause adverse effects. A study done in west Bengal in 2012 by Raj Karmakar et al has shown a coverage of 55.9%, compliance of 69.4%, and effective coverage of 38.8% with a significant difference between rural and urban areas urban being lower (8% effective coverage) (4). Compared to this our coverage and compliance are far higher. Another study done in Karnataka, Bagalkot and Gulbarga districts in 2010, the compliance rate was 78.65 in Bagalkot while it was 38.8% in Gulbarga (5). The main reason for noncompliance in Bagalkot was non receipt of drugs and in Gulbarga it was fear of side effects. A study done in Tiruvananthapuram, Kerala, in 2007 showed coverage of 52.3% and compliance of 39.5% and urban coverage was significantly lower than rural (6). The main reason for noncompliance was fear of side effects (30.6%) and not perceiving the need (21.2%). Our study also shows the same reasons for noncompliance. Reported coverages in Kerala as on 2011 is 89.6% (7) which is higher than the results obtained in the studies quoted earlier and also that of our study.

CONCLUSION: With proper awareness and effort up to 80.3% compliance and 68.2% effective coverage could be reached in the campus. This brings the fact that an institutional based MDA programs can made more successful .All institutions can take up this model to achieve more coverage and this will add to information being disseminated to families and then by to general population.

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