



## STUDY THE IMPACT OF SENSITIZATION WORKSHOP ON MEDICAL AND PARAMEDICAL STAFF REGARDING THE STANDARDIZED TREATMENT PROTOCOLS FOR CARE OF CHILDREN LIVING WITH HIV/AIDS.

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### ABSTRACT

**Introduction:** HIV/AIDS is now endemic throughout the world.[1] As in adults, pediatric HIV/AIDS is on rise all over the world. Nearly 25 million people have died world over due to HIV since 1981.

**Aims and Objectives :** To Study the impact of sensitization of the medical and paramedical staff regarding the standardized protocols for the care of children living with HIV/AIDS (CLHIV).

#### Methodology:

We evaluated the impact of a sensitization workshop on knowledge of standardised treatment protocol for the care of children living with HIV/AIDS among the medical and paramedical staff in a government medical college and hospital in Aurangabad, India. 125 medical and paramedical staff, had attended the workshops. Pre- and post-test data was collected by a questionnaire. A significant increase in knowledge regarding commonly occurring opportunistic infection and routes of transmission regarding children living with HIV/AIDS, hygienic hand washing techniques, hospital waste management (its importance and color coding), was noted after the workshop. Necessary permission from NACO, MSACS and Parents or Care takers of children living with HIV/AIDS consent was taken.

**Result :** The baseline knowledge regarding the above mentioned subjects was found to be low, with a mean score of 22.11, which was increased to a mean score of 36.8 after the sensitization programme amongst the resident doctors. The baseline knowledge regarding the above mentioned topics was found to be 17.6 as the mean score, which was observed to be increased to 31.9 after the sensitization programme amongst the staff nurses.

**Conclusion:** It was noticed that the overall knowledge of Resident Doctors & Staff Nurses was significantly low which was increased after the various sensitization programmes, to an appreciable level. Thus it shows that there is a need to conduct more such sensitization programme.

**KEYWORDS :** Impact of Sensitization, Standardized treatment protocols, children living with HIV/AIDS,

### INTRODUCTION:

HIV-AIDS is now endemic throughout the world.[1] As in adults, pediatric HIV/AIDS is on rise all over the world. Nearly 25 million people have died world over due to HIV since 1981. It is estimated that currently 38.6 million people live with HIV infection world over of which, 2.3 million i.e. 5.9% are children <15 years of age.[2] Though children represented only 6% of all these as of December 2005, they accounted for 18% of the 3.1 million AIDS deaths in 2005. This is mainly because only 40,000 or 4% of the one million people now on antiretroviral treatment are children. This means that one in every six AIDS death each year is a child and yet children represent less than one of every twenty five persons getting treatment in developing countries today.[3] The epidemiology of HIV disease in children reflects the epidemiology of HIV in women, although this relationship has been profoundly altered by the ability of antiretroviral therapy during pregnancy to prevent transmission from mother to child.[5]

The national average of HIV prevalence in ANC mothers is 0.7%.[3] Unlike in adults where more than 90% of the time HIV infection occurs through sexual route, in the developing countries 95% of cases in children occur due to vertical transmission from their infected parents. The risk of mother to child transmission of HIV infection varies from country to country and also within a country depending on the facilities available. This risk of mother to child transmission is 15-30% in non-breast feeding populations,

whereas it is 30-45% in countries where breast feeding is a normal.[2,3,4] This is because breast feeding has an additional 5-20% risk of postpartum transmission.

At Government Medical College & Hospital, Aurangabad, we have a voluntary counseling and testing centers and PPTCT centre. 328 children between the age group of 0-14 years were tested, out of which

81 (40 male & 41 female child) were tested seropositive. All these children were then registered under ART care for periodic followup and further necessary investigations.

Paediatric HIV/AIDS differs from adult in the following important aspects – >90% of children acquire infection through vertical transmission.

Children become symptomatic early in life. Higher incidence of opportunistic infections particularly PCP pneumonia in infancy.

Adherence issue is a greater problem.

Thus, pediatric HIV/AIDS becomes a complicated issue. As the clinical presentations, severity of various opportunistic infections and their management differs in pediatric HIV/AIDS, there is a need to have a standardize treatment protocols for better management of these cases. This standardization is very important to reduce the morbidity and mortality related to pediatric HIV/AIDS. National AIDS Control Organization along with the help of Indian Academy of Pediatrics, UNICEF and WHO have developed the national guidelines for management of HIV infection and opportunistic infection in pediatric patients. But these guidelines need to be implemented universally to have a proper outcome at peripheral levels.

As the resident doctors and paramedical staff are not sensitized for the care of children living with HIV/AIDS. Hence the following study was undertaken in order to sensitize the resident doctors and staff nurses regarding these standardized protocols for better care and management of the children living with HIV/AIDS.

### METHODOLOGY:

A study was undertaken to evaluate the impact of a sensitization workshop on knowledge of standardized treatment protocol for the

care of children living with HIV/AIDS among the medical and paramedical staff in government medical college and hospital in Aurangabad, India. Hence efforts were made to strengthen the OPD and IPD services given to the children living with HIV/AIDS.

With wide search of literature and with the help of the guidelines published by National AIDS Control Organization, Indian Academy of Pediatrics and World Health Organization, Standard treatment protocols for comprehensive care of children living with HIV/AIDS were prepared. These standardized protocols were then dispersed to all the departments heads namely - The Head of the Institute, Dean, Head of the Department of Surgery, Medicine, Obstetrics and Gynecology, Pediatrics, Community Medicine.

**RESULTS :**

Sensitization of the resident doctors in the various faculties was also arranged. Their pre-sensitization knowledge was assessed by a pre-test questionnaire. A post-test was also conducted after the sensitization workshop.

During this sensitization workshop, the resident doctors were sensitized regarding the care of children living with HIV/AIDS with respect to their<sup>[10,11,18]</sup>

- Diagnosis of HIV infection in children[9,13]
- Nutrition
- Management of opportunistic infections(O.I) [13,14,15,16,17].
- Counseling of HIV infected children
- Immunization
- Psychosocial support and care
- Prevention of mother to child transmission of infection [4,8,12,14].
- Hospital waste management.
- Universal precautions and
- Post exposure prophylaxis.

The baseline knowledge regarding the above mentioned subjects was found to be low, with a mean score of 22.11, which was increased to a mean score of 36.8 after the sensitization programme amongst the resident doctors(out of 40 marks).

Similarly and sensitization workshop was arranged for the staff nurses and student nurses. They were also sensitized regarding –

- Diagnosis of HIV infection in children.<sup>[9,13]</sup>
- These nutrition and immunization
- Psychological support and care.

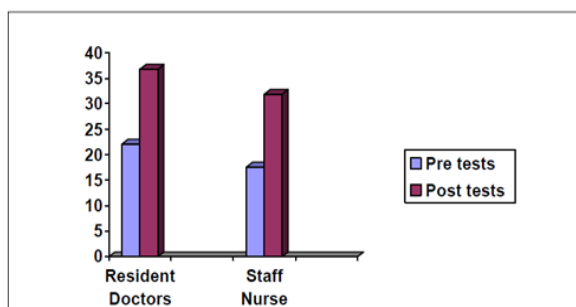
Early suspicion and management of opportunistic infections.[13,14,15,16,17].

Prevention of mother to child transmission infection.[4,8,12,14].  
Hospital waste management Universal precautions and post exposure prophylaxis

The baseline knowledge regarding the above mentioned topics was found to be 17.6 as the mean score,

which was observed to be increased to 31.9 after the sensitization programme amongst the staff nurses (out of 40 marks). Thus an effort was made to sensitize 125 medical and paramedical- staff to improve the indoor treatment facility for these children.

**Fig 1. Pre & post training mean scores valuation of resident doctors & Nurses :**



**Table 1:**

Paired Samples Test	Paired Differences mean	Std. Deviation	Std. Error Mean	Mean	N	T	DF	Sig. (2-tailed)	
Pair 1	R- Pre Test	-14.7333	2.5964	.3352	22.1167	60	-43.955	59	.000
	R- Post Test				36.8500	60			
Pair 2	N- Pre Test	-14.3091	2.6167	.3528	17.6182	55	-40.554	54	.000
	N- Post Test				31.9273	55			

As per the Fig.1 and Table 1 the T test was applied. The T value for the resident doctors & staff nurses is -43.955 & -40.554 respectively, and both the values are significant. The "p" value is <0.01.

**DISCUSSION:**

The widespread use of ART starting in the mid-1990s has had the most profound influence on reducing OI-related mortality in HIV-infected persons in those countries in which these therapies are accessible and affordable. Opportunistic Infections continue to cause considerable morbidity and mortality for three primary reasons: 1) many patients are unaware of their HIV infection and seek medical care when an OI becomes the initial indicator of their disease; 2) certain patients are aware of their HIV infection, but do not take ART because of psychosocial or economic factors; and 3) certain patients are prescribed ART, but fail to attain adequate virologic and immunologic response because of factors related to adherence, pharmacokinetics, or unexplained biologic factors. Thus, although hospitalizations and deaths have decreased since the implementation of ART, OIs remain a leading cause of morbidity and mortality in HIV-infected persons. Clinicians must be knowledgeable about optimal strategies for prevention and management of OIs to provide comprehensive high-quality care for these patients. Recognizing that the relation between OIs and HIV infection is bidirectional is important. HIV leads to immunosuppression that allows opportunistic pathogens to cause disease in HIV-infected persons. OIs and other coinfections that might be common in HIV-infected persons,

can also have adverse effects on the natural history of HIV infection. Certain OIs are associated with reversible increases in circulating viral load, and these increases could lead to accelerated HIV progression or increased transmission of HIV. Thus, although chemoprophylaxis and vaccination directly prevent pathogen-specific morbidity and mortality, they might also contribute to reduced rate of progression of HIV disease. For instance, randomized trials using trimethoprim-sulfamethoxazole (TMP-SMX) have documented that chemoprophylaxis can both decrease OI-related morbidity and improve survival. The survival benefit is likely to be partially attributable to reduced progression of HIV infection.

Reduced progression of HIV infection would also indirectly delay or reduce the occurrence of subsequent OIs.

Hence efforts were made to strengthen the OPD and IPD services given to the children living with HIV/AIDS.

Thus by conducting sensitization workshop for the knowledge of standardized treatment protocol for the care of children living with HIV/AIDS among the medical and paramedical staff, it was noticed that the overall knowledge of Resident Doctors & Staff Nurses was significantly low which was increased after the various sensitization programmes, to an appreciable level. Thus it shows that there is a need to conduct more such sensitization programmes. After the sensitization workshops, pediatric cases of HIV/AIDS were handled more meticulously. After the confirmed diagnosis of these children they were registered at ART center, screened for opportunistic infections and if indicated were started on Antiretroviral therapy. This study also implies that there is need to conduct such sensitization workshops of the clinical and paraclinical personnel to maintain the quality of management of pediatric patient (CLHIV).

**CONCLUSIONS:** Sensitization workshops were organized for resident doctors of various faculties & staff

nurses. The base line knowledge of the medical & paramedical staff was assessed by a pre and post test questionnaire. The base line knowledge was found to be low with a mean score of 22.11 for resident doctors & 17.6 for staff nurses out of 40. This knowledge was appreciably increased to a mean score of 36.82 in resident doctors & 31.9 in staff nurses out of 40. The difference is statistically significant and the "p" value is < 0.01. Sensitization workshops were taken in the form of didactic lecturers, demonstration, displaying of IEC materials & group discussion.

The Overall knowledge Medical & Paramedical staff was low 43% which has been increased to 93% in resident doctors & 86% in staff nurses. After the sensitization programmes there has been improvement in OPD/IPD care of children living with HIV/AIDS.

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