# TO ASSESS THE KNOWLEDGE REGARDING PREVENTION OF RABIES AMONG ADULTS. 

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#### Abstract

Introduction: Rabies is an infectious fatal disease caused by a virus and transmitted to a human being by the bite of an infected, warm-blooded animals like dogs, jackals, wolves, cats, monkeys etc. More than $95 \%$ of the cases are bitten by dogs. It has the highest case fatality rate of any known human infection essentially $100 \%$. It is the only communicable disease of man which is always fatal. Objectives: To assess the knowledge regarding prevention of rabies among adults. To associate the knowledge with the selected demographic variables. Methods and Materials: A descriptive study conducted in rural area with 100 samples, which excluding those who have taken ART. Results: The adults only $2 \%$ sample had excellent, $12(12 \%)$ were having very good knowledge score. The minimum score was 6 and the maximum score was 24 , the mean score was $12.40 \pm 3.232$ with a mean percentage score of 49.6. Discussion: Only $2 \%$ sample had excellent knowledge, considering nature of diseases it is important to have excellence knowledge regarding vaccination and prevention of disease which contributing reducing mortality rate. The finding of this study revealed that only $12 \%$ sample had very good knowledge, which included there is need of aggressive health education strategies regarding rabies.


## KEYWORDS : bio-medical waste management, knowledge, hospital

## 1. Introduction

Rabies is primarily a disease of animals. All warm blooded animals can be infected by rabies virus. It is an acute, highly fatal viral disease which affects the central nervous system. Rabies is also known as hydrophobia. Rabies is caused by a virus called lyssavirus. 1

Rabies is spread to people through close contact with infected saliva via bites or scratches. The main route of rabies transmission to humans is the bite of rabid dogs. Most of the deaths occur in the absence of post-exposure prophylaxis. Rabies is nearly always fatal when left untreated. Although it is a vaccine-preventable disease, rabies still poses a significant public health problem in many countries in Asia and Africa where $95 \%$ of human deaths occur even though safe, effective vaccines for both human and veterinary use exist. 2

India being a developing country, currently has the rural population of $74 \%$.Communicable diseases are one of the major health problem in India. Communicable diseases are the deadly diseases, which affect the common population today. Rabies is one of the communicable diseases and zoonotic disease, also known as hydrophobia. 3

National Multicentric Rabies Survey, conducted in 2004 by the Association for Prevention and Control of Rabies in India in collaboration with the World Health Organization, is 20565 deaths from rabies per year. Most animal bites in India (91.5\%) are by dogs, of which about $60 \%$ are strays and $40 \%$ pets. The incidence of animal bites is 17.4 per 1000 population. A person is bitten every 2 seconds, and someone dies from rabies every 30 minutes. The annual number of person-days lost because of animal bites is 38 million, and the cost of post-bite treatment is about $\$ 25$ million5

## 2. Review of literature

A survey was conducted in Bangalore by using a 30 cluster random sampling technique to comprehensively study the nature and magnitude of rabies and its related problems in human and dog population. The study showed that the city has an estimated dog population of 3.25 lakhs of which 2 lakhs (61.5\%) are stray dogs and 1.25 lakhs (38.5\%) are pet dogs. The dog: man ratio was about 1:12 and the pet: stray dog ratio of 1:2. The awareness about Animal Birth Control (ABC) programme was low (34\%) and only 20\% had faith in it. The annual incidence of dog bites was $1.9 \%$ persons. It was more
in males (64\%) and mostly from stray dogs (64\%). About $86 \%$ of them received anti-rabies vaccination and none received lifesaving Anti-Rabies Serum (ARS). The annual incidence of human rabies was 15 and dog rabies 58 resulting in a ratio of 1:4 approximately as a rabies contagion index. 7

The Asian Rabies Expert Bureau (AREB) conducted a multicentre, multi-country survey of patients seeking rabies post-exposure prophylaxis in rabies prevention centres in Bangladesh, China, India, Indonesia, Pakistan, the Philippines, Sri Lanka, and Thailand. Questionnaires were completed by 4377 subjects in the eight countries. Data was collected regarding the patient, former rabies exposures, the present wound, rabies exposure management, and rabies awareness. Two major issues were identified where active information of the population could make a difference: the necessity to apply appropriate wound care and to consult the nearest rabies prevention centre as soon as possible. 8

## 3. Problem statement

To assess the knowledge regarding prevention of rabies among adults.

## 4. Objectives

1. To assess the knowledge regarding prevention of rabies among adults.
2. To associate the knowledge with the selected demographic variables.

## 5. Methodology

Research approach-survey approach
Research design- descriptive study design
Setting of study-selected nearby rural area of wardha
Sample-adults
Sample size- 100
Sampling techniques- Non probability convenience sampling Tool- structured knowledge questionnaire including demographic variables will be used for the study.

Independent variable- Demographic variable are age, sex, education, occupation.
Dependent variable- It is the knowledge regarding prevention of rabies.

Sampling criteria

- Inclusion criteria
a) Adults available at the time of study.
b) Adults who can understand and able to speak Marathi.


## - Exclusion criteria

a) Those who had dog bite and taken treatment

## 6. Result

This section deals with the assessment of knowledge regarding prevention of rabies. The level of knowledge is divided under following headings: poor, average, good, very good, excellent.

Table no. 1 knowledge score regarding prevention of rabies among adults.

| Level of | Score | Percentage |  |  |
| :---: | :---: | :---: | :---: | :---: |
| knowledge score |  | Knowledge score |  |  |
|  | score | Frequency | Percentage |  |
| Poor | $1-5$ | $0-25 \%$ | 0 | $0 \%$ |
| Average | $6-10$ | $21-40 \%$ | 26 | $26 \%$ |
| Good | $11-15$ | $41-60 \%$ | 60 | $60 \%$ |
| Very good | $16-20$ | $61-80 \%$ | 12 | $12 \%$ |
| Excellent | $21-25$ | $81-100 \%$ | 2 | $2 \%$ |
| Minimum score | 6 |  |  |  |
| Maximum score | 24 |  |  |  |
| Mean score | $12.40 \pm 3.230$ |  |  |  |
| Mean Percentage | 49.6 |  |  |  |

The above table shows ( $0 \%$ ) had poor level of knowledge, (26\%) were having average level of knowledge, (60\%) were having good level of knowledge, ( $12 \%$ ) were having very good knowledge score and ( $2 \%$ ) were having excellent level of knowledge. The minimum score was 6 and the maximum score was 24 , the mean score for the test was $12.40 \pm 3.232$ and mean percentage of knowledge was 49.6.


Graph 1: knowledge score of prevention of rabies among adults.

## 7. Discussion

The finding of the study show that mean and standard deviation was 12.40 and 3.232 respectively. And also the mean percentage of knowledge score of adults was 49.6 respectively. So it is concluded that adults have knowledge regarding preventing rabies.

Knobel DL, Cleaveland S (2005) conducted a study to re-evaluate the burden of rabies in Africa and Asia. Data regarding burden of endemic canine rabies were collected and applied to a set of linked epidemiological and economic models. The human population at risk was predicted using data on dog density and using a series of probability steps, human rabies deaths were estimated to determine the likelihood of clinical rabies developing in a person after being bitten by a dog suspected of having rabies. The study showed that human mortality from endemic canine rabies was estimated to be 55,000 deaths/year. The estimated annual cost of rabies is USD 583.5million [90\%], patient-borne cost for postexposure treatment nearly half the total cost of rabies. It indicates that rabies remain an important yet neglected disease in Africa and

Asia. Disparities in affordability and accessibility of post-exposure treatment and risk of exposure to rabid dog resulted in a skewed distribution of disease burden across society, mainly on poor rural communities, particularly children. 4

## 8. Conclusion

In this study from detail analysis it shows that Majority of adults 60(60\%) having good knowledge, 26(26\%) having average knowledge, $12(12 \%)$ having very good knowledge, $0(0 \%)$ having poor knowledge and $2(2 \%)$ having Excellent knowledge shows and only education having significant association with demographic variable.

## 9. Recommendation

Recommendations for further study based on the findings of the study the following recommendations could be made-

A comparative study can be carried out on the knowledge regarding prevention of rabies among adults in urban and rural community.

A similar study can be conducted on the effectiveness of self instructional module regarding prevention of rabies among adults.

A similar study can be conducted on the effectiveness of planned teaching regarding prevention of rabies among adults.

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