



## AWARENESS REGARDING FIRST AID MANAGEMENT IN BURNS AMONG PATIENT'S ATTENDANTS OF A TERTIARY CARE HOSPITAL AT KOLKATA

**Vijayalakshmi Pillai** Vice Principal, College of Nursing, INHS Asvini, Colaba, Mumbai 400005

**Shila Samuel** Tutor, College of Nursing, CHEC, Kolkata

### ABSTRACT

Despite the impressive advances in the science of injury control and prevention, burn injuries have remained and neglected disease of modern society and are still regarded as an act of fate and bad luck. Identifying areas of knowledge deficits would be useful in developing prevention programs aimed at decreasing burn injury risk. A descriptive cross-sectional study was conducted among the patient attendants of a tertiary care hospital about the awareness regarding first aid management of burns. The study results showed that only 8% of the sample has good knowledge on first aid management of burns whereas 36% had average knowledge and 56% had poor knowledge. Only 38% of the participants had correct information about the use of water as a first aid measure. Education on the immediate application of cool water on burns should be promoted. Information regarding first aid on burns to be highlighted through media for general awareness of public.

**KEYWORDS :** First aid, burn injury

### INTRODUCTION

Burn is a simple five letter word but is hazardous to the persons associated with it. A burn is defined as an injury to the skin or other organic tissue caused by thermal trauma, it occurs when some or all of the cells in the skin or other tissues are destroyed by hot liquids, hot solids or flames, radiation, radioactivity, electricity, friction or contact with chemicals. The risk factors associated with burns include cooking on open fire, explosion of pressure stoves, instability of small stoves, use of open fires to keep warm during winter, use of inflammable materials on housing and furnishing. The home is the often a hot bed of fire accidents.

First aid is the first assistance or treatment given to an injured person for any injury or sudden illness before the arrival of qualified medical care by using facilities and materials available at that time.

### BACKGROUND

WHO estimates about 265 000 deaths occur each year from fires alone globally, with more deaths from scalds, electrical burns, and other forms of burns for which data are not available. The majority of these deaths occur in low- and middle-income countries, with almost half occur in the South-East Asia Region.

Burns are one of the most neglected areas of health care in developing countries. These countries have 90% of global burn injuries with 70% of these injuries occurring in the children. In India more than 10,000 burn associated deaths and over 1 million non fatal moderate to severe burns occur each year. Burns constitute a major health problem in India. In India around 7 million people suffer from burn injuries each year with 1.4 lakh deaths and 2.4 lakh people suffer with disability. Burn death rates have been decreasing in high income countries. Burns are preventable.

A survey in India done in 2000 found that only 22.8 % of patients had received appropriate first aid for burns. The remaining had either received no first aid or else inappropriate treatment such as raw eggs, toothpaste, mashed potato or oil being rubbed into the burn. Education on the effect of immediate application of cool water to burns should be promoted widely as an affective first aid treatment.

Home should be the safest place on the earth for a person and his family. But unfortunately, a number of hazards, particularly fire start in somebody's home and spreads to the neighbourhood results in burn injuries. Sheer negligence and lack of attention leads to such situation.

Initial management, which includes first aid measures at the scene of the burn accident and treatment at the peripheral hospitals prior to transfer to a burns center, is considered to be a significantly important step in the process of burn treatment. An appropriate and simple initial treatment, that is correctly applied, can reduce the depth of injury, pain and complications post-burn.

Education on the effect of immediate application of cool water to burns should be promoted widely as an effective first aid treatment.

### Problem statement

A study to assess the level of awareness regarding first aid management in burns among patient attendants of a tertiary care hospital.

### Objective of the study

- To assess the level of awareness regarding first aid management in burns among the attendants.
- To associate the level of awareness of attendants with selected demographic variables.

### METHODOLOGY

A descriptive cross sectional research design was used to conduct the study. The population included is male and female of the age group 20 to 50 years who were accompanying patients to OPD/burn centre in the tertiary care hospital in Kolkata. 100 male and female attendants were selected for study by purposive sampling technique.

Knowledge of attendants regarding first aid management of burn injuries was the dependent variable and independent variables were the socio demographic data like age, religion, educational qualification, source of information, family history, personal history of burn injuries.

The data was collected by structured interview. The researcher developed a structured interview questionnaire with 2 parts, part I included questions on the sample characteristics or socio demographic data and part II represents the knowledge related items on first aid management of burn injuries among attendants.

### RESULTS

Out of the total 100 sample, 64 were males and 36 were females. Female attendants were reluctant to participate in the study. The study revealed that the knowledge of first aid on burns was mostly acquired from educational institutions (52%) and the media contribution was the least (9%).

The study results showed that only 8% of the sample has good knowledge on first aid management of burns whereas 36% had average knowledge and 56% had poor knowledge. 94% had fair knowledge regarding the first step to be done when a person sustains electric burns. Only 38% of the participants had correct information about the use of water as a first aid measure. The study also revealed that the participants had very little knowledge regarding the various factors that cause burns.

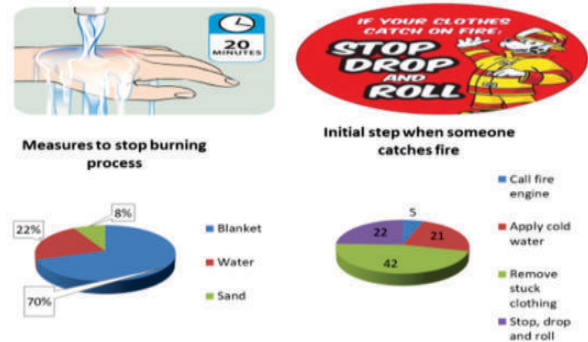


Fig 1. Chart showing the measures to stop burning process and initial step when someone catches fire

Figure 1 reveals that 70 % believed that placing a blanket is the measure to stop burning process and only 22 % believed the use of water in stopping the burning process. 42 % believed that the initial step is to remove the stuck clothes and only 22 % knows about stop, drop and roll as the initial step when someone catches the fire.

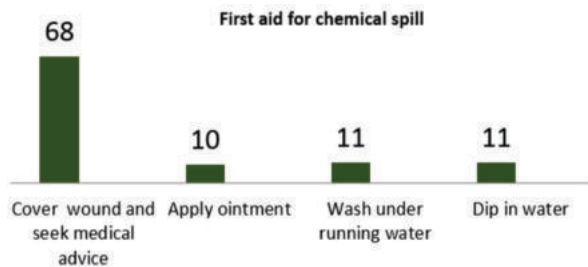


Fig 2. Bar diagram showing the knowledge of sample in first aid management of chemical burns

**DISCUSSION**

Burns are preventable, an appropriate and simple initial treatment correctly applied can reduce the depth of injury, pain and complications of the burn injury. Identifying areas of knowledge deficit would be useful in developing prevention measures of various burns or treatment modalities aimed at decreasing mortality. The general opinion among public about cooling the burn is NOT TO USE WATER as it causes infection which is very wrong which needs to be changed.

Thermal burns often occur in the industries including oil factories, electric power plants and during firefighting. Thus, these workers are being labelled as high-risk groups. As they face potential danger on a daily basis. They must have an appropriate level of knowledge for the first aid management of burns injuries to save themselves and to help others.

Many a times death results because of delay in reaching the casualty to appropriate medical care and low level of knowledge regarding first aid and treatment on the contrary, if help is provided to casualty as soon as possible following the accident or injury, a life could be saved.

The first aider should also have adequate knowledge and skills, this helps lower mortality and morbidity rates, complications due to injury or delay in the treatment and a

lesser monetary burden on the casualty. It is therefore desirable that all individuals have basic training and knowledge regarding first aid.

**CONCLUSION**

The overall aim must be to cool the burn, prevent ongoing burning and prevent contamination. Education on the effect of immediate application of cool water to burns should be promoted widely as an effective first-aid treatment. There are many studies assessing the first aid of burns, and from these, examples of good practices-such as to "cool the burn" -are drawn. Cooling the burn surface is one of the oldest methods of treatment. Burns are significant cause of mortality and morbidity among infants and children being depend on their matter or caretaker and they are unable to recognize hazardous situations leading to burn injury. Identifying areas of knowledge deficits would be useful in developing preventive programs aimed at decreasing burn injury risk.

**REFERENCES**

1. Black. M. Joyce, Hawks Hokanson Jane, Keene. M Annabelle, Medical Surgical Nursing, Vol -2, 6<sup>th</sup> Edition. PP 1331 - 1338
2. Chung ECH. Burn injuries in China: a one year survey at the United Christian Hospital, Hong Kong practice, 1996, 631-636
3. PLal M. Rahi, T. Jain, G.K Ingle Epidemiological Study of Burn injuries in a slum community of Delhi, Indian journal of Community Medicine. Vol. 31, No. 2 (2006-4-2006-6)
4. Ghosh A, Bharat R., Domestic burns prevention and first aid awareness in and around Jamshedpur, India: Strategies and impact. Burns, 2000, PP 605-608.