



THE BOMBAY CITY AMBULANCE CORPS

(FOUNDED 1930)

(Registered under Acts XXI of 1860 and XXXIX of 1950)

BRIGADE GAZETTE

GRATIS

No.676

September 2021

PART – I

NOTIFICATION

Instructors' Courses

The next Specialist Instructors' Course in First Aid to the Injured (January - June 2022 term), in English medium, will be conducted under the aegis of Jansetji Tata Ambulance College from Monday, January 3, 2022 for 2 hours in the evening on Mondays and Thursdays in First Aid.

Admission is open to teachers, factory supervisors, and approved social workers. Graduates with high academic qualifications and aptitude for teaching are preferred. Enrollment will be at the sole discretion of the Commandant of the College. **Those desirous of enrolling in the course should call in person at the College office between 6 and 8 p.m. from December 1 to 25, 2021.**

Members and well wishers of our society are requested to do wide publicity of the course.

NEWS

One day Seminar on Cardio Pulmonary Resuscitation

No.	Date 2021	Number of Participants	Participants From
S/21/FA/1	August 1	06	Safepro Center for training, Pune.

Basic First Aid Course in First Aid to the Injured

(B/21/FA/1)

On line Basic First Aid students (of 15 sessions) started with effect from August 7, 2021 on every Saturday from 6.45 pm to 8 pm. Practical Sessions will be conducted at the Head Quarters if situation permits.

Public Duty

Ambulance Car 13 (MH-01-CV-6683) with trained staff and equipment's such as First Aid box, extra stretcher, oxygen cylinder etc., was posted at routine evacuation mock drill of HDFC Bank at Ramon House, Mumbai 400020 on Wednesday, 11th August 2021 from 2.00 to 4.30 pm.

Donations to Service Station Fund

We have received following donation to the Service Station Fund of the Society: -

Date 2021	Amount Rs.	Donations Received from
August 24	1,00,000.00	Aatmabodh Academy of Yoga
August 24	1,500.00	Sumukhi Performing Arts Foundation

Donation to General Fund

We have received following donation to the General Fund of the Society: -

Date 2021	Amount Rs.	Donations Received from
July 24	10,000.00	Sumukhi Performing Arts Foundation
August 24	10,000.00	Sumukhi Performing Arts Foundation

SERVICE STATION STATISTICS

Year 2021	July	August
Calls Registered	02	12
Removal Services	02	24
Services for which NO donation were received	00	22
Amount of Donations received on account of :		
Removal Services	Rs.3,200.00	Rs. 700.00
Donation to Station Fund Rs.	Nil	1,01,500.00
Run of Ambulance Car (Amb. Car No.13)	43 Kms	262 Kms
Total Services rendered till date	80,927	80,951

PART II

Radiation Sickness

1. The principal ailment unique to nuclear warfare is "radiation sickness" due to "fall out". Radioactivity is one the three main forms of danger to human being consequent upon the enormous energy released from the explosion of an atomic bomb or a hydrogen bomb (the other two dangers being heat and blast)
2. Initial Radiation: A quick burst of nuclear radiation, called initial radiation, comprising gamma rays and neutrons and travelling at the speed of light, emerges instantaneously at the time of the explosion of the atom bomb or the hydrogen bomb. All persons within a radius of few miles, depending on the explosive potential of the bomb used, receive an extremely high dose of radiation which in most cases would prove fatal.
3. Residual (or Delayed) Radiation: As the brilliant fireball resulting from the explosion rises in the sky, it draws up a vast amount of earth that is melted or vaporized and contaminated by the radioactive residue of the exploded bomb. This radioactive material condenses in the cold upper air and starts falling back to earth. It is then called "fall out" (because it falls out of the sky). The pattern of the fall out and its area would depend upon the wind conditions at the time. The hazard to human beings comes from the rays given off from this "fall out" which causes "radiation sickness". The severity of the sickness would depend on the strength of the rays, the amount of the body exposed and the duration of exposure. Very large dose of residual radiation proves fatal due to their lethal effects on the body tissues as in "initial radiation", smaller doses may produce symptoms from which the patient will recover if properly treated and carefully nursed.

EFFECTS OF RADIATION

4. The human body is a highly complex organization of cells and of delicate controlling mechanisms which are based on physical and chemical processes. The primary biological effect of radiation is to release within the cells of the body electrical charges, which interfere with the vital functions of the cells and cause many secondary functional disorders, as well as reducing resistance to infection and disease. One does not see, taste or feel the radiation rays which enter the human body and cause radiation sickness, and so this illness seems mysterious and strange.
5. Although the effects of nuclear radiation have added a relatively new hazard to the human race, radiation sickness is not new and unfamiliar to medicine. X-ray burns and radiation sickness were recognized shortly after the discovery of x-rays themselves in 1895. The experience of radium watch dial painters in the twenties showed the hazards of working with radioactive materials.
6. Since the body repairs some of the radiation damage, an individual can receive a given amount of radiation over a period of weeks without being incapacitated, whereas the same amount received in a few days would causes serious radiation sickness. As a matter of fact, we get some radiation every day from the air, use of mobile phone and periodically from such things as medical and

dental uses of X-ray, without apparent harm. It is only the effects of concentrated and continued exposure to radiation that is dangerous. The rays affect every tissue in the body, but among those which are most noticeably damaged are:

- (A) the blood forming cells: resulting in (a) shortage of red blood cells with severe anemia, (b) shortage of white blood cells with an increased liability to infection, and (c) shortage of blood platelets with a diminished clotting power of the blood, (due to loss of bone marrow)
- (2) the lining of the alimentary tract: resulting in ulceration of the mucous surfaces from the mouth to the rectum

EFFECTS OF RADIATION

'r' is unit of Radiation

- 100 r MINOR
- 100 to 300 r Gastro intestinal problems
- 450 to 1000 r Bone Marrow
- > 3000 Delirium, Coma, Convulsion Mortality 100%

7. First-aid measures include:

- (a) complete physical and mental rest
- (b) control of environmental temperatures to prevent chilling
- (c) scrupulous care to prevent infection through any wounds.
- (d) in mild cases of radiation sickness aspirin for headache and motion sickness tablets for nausea may be administered
- (e) in moderate cases additional treatment consists of slowly sipping saline solution (one teaspoon of table salt to one quart of cool water) but not until vomiting has stopped
- (f) for sore-mouth occurring in severe cases saline mouthwash is indicated.

Prompt removal of the casualty to a medical care center will ensure cure and mitigation of the effects of radiation sickness.

ENEMA

An enema is defined as a liquid for injection into the rectum, which is either ejected or absorbed. It is usually purgative in action, i.e., rectal administration resulting in a bowel action. Enemas are either (a) given quickly and returned at once, called "Evacuate Enema", or (b)

given slowly, called "Retention Enema". A Rectal Infusion is given more slowly so that the fluid contained in it is absorbed. A suppository is used for rectal administration of medications.

2. **Evacuant Enema** - The efficiency of an enema in which the fluid is returned immediately depends on sufficient fluid being introduced into the rectum 750 to 1,000 ml. of fluid is necessary to ensure distension of the rectum so that the nerve endings are stimulated and there is a reflex action of increased muscle contraction in the bowel and in the abdomen to empty the bowel. Example of Evacuant Enema are (a) Salt-1 teaspoon to 600 ml. water; (b) soft soap - piece as big as a walnut and 1 liter water; and (c) soap solution - 250 ml. with 750 ml water.
3. **Retention Enema** - Enemas to be retained are given slowly and in small amounts so that the reflex action of defecation does not occur until the hard faeces have been softened. The patient has his bowels opened 20 to 30 minutes later.
4. **Rectal Infusion** - This is given more slowly so that the electrolyte - substance which can be decomposed by electrolysis, glucose, or drugs contained in the fluid are absorbed. This is also called Nutrient Enema.
5. **Continuous Rectal Infusion** - This a more suitable method of giving fluid through the rectum to the dehydrated patient than rectal infusions at intervals of say, 4 hours. In this procedure normal saline solution (0.9 per cent sodium chloride in water) flows slowly into the rectum, where it is absorbed. When the patient is unable to take fluids by mouth, this is one method by which dehydration may be prevented, also if intravenous therapy is not possible.
6. **Suppository** - It is a cone-shaped medication, 3 to 4 Cm. in length, used for rectal administration. Examples are (a) Glycerin suppository - a gelatin base which dissolves in the rectum, glycerin attracts mucus from the rectal wall, which softens the faeces and causes sufficient stimulation for the rectal wall to contract and expel faeces in a bowel action about 20 minutes later; (b) Dulcolax suppository- for treating constipation by producing an irritant effect on the bowel which results in faecal evacuation; and (c) Anusol suppository - for the relief of pain and discomfort in hemorrhoids (piles).

DONATION APPEAL

We have received very small amount of Service Station Fund Donations and General Fund Donations since April 2020. Philanthropists are requested to donate.

KINDLY VISIT OUR WEBSITE TO READ BRIGADE GAZETTE - bcac.co.in

Edited and Published by Captain R. J. Lad, D.E.R.E., Dip. Amb. Work, Officer Commanding, The Bombay City Ambulance Corps, at Head Quarters, 21 New Marine Lines, Mumbai - 400 020 and printed by him for the owners of the Publication "The Bombay City Ambulance Corps."

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To,



From :
THE BOMBAY CITY AMBULANCE CORPS
 21 New Marine Lines, Mumbai - 400 020.
 Telephone No. : 2201 42 95