

Summary

JRCS First Nuclear Disaster Response Basic Training Session (FY 2014)

1. Date and time: Wednesday, November 5, 2014; 11:00 – 17:00
2. Venue: Meeting Room 201 and other rooms at the JRCS Headquarters
3. Number of participants: 71
Detail: 15 physicians, 12 nurses, 15 radiological technologists, 1 clinical engineer and 29 administrative staff members of Japanese Red Cross (JRC) hospitals
4. Content:
 - Lecture: JRCS efforts for nuclear disaster response
 - Lecture: Basic knowledge about radiation protection during disaster relief activities
 - Lecture: Relief team activities and collaboration with radiation emergency medical advisors during a nuclear disaster
 - Workshop 1: Safe relief activities during a nuclear disaster
 - How to use a digital personal dosimeter and put on/off protective gear-
 - Workshop 2: How to use/maintain a survey meter and a personal dosimeter
 - Groupwork: Case study

5. Summary of the training session

Relief activities during a nuclear disaster

(1) Selection of JRCS relief team members

JRCS relief activities in the event of a nuclear emergency are, as a general rule, to be conducted in a non-high radiation area and outside of a government-restricted area. According to data of atomic-bomb survivors in Hiroshima and Nagasaki, it is believed that radiation influences on adults do not differ in age or gender. However, during a confusion period which is expected to come right after a disaster, it may be possible to give as much consideration as possible to selecting experienced personnel as relief team members.

(2) Equipment for relief teams

If an earthquake or tsunami occurs in a prefecture with a nuclear power plant, which could cause a nuclear disaster, it is preferable for initial relief teams to take radiation protective equipment such as personal dosimeters and protective gears.

(3) 1 mSv of cumulative radiation dose as a dose limit during relief activities

The JRCS rules require that a cumulative radiation dose of each JRCS relief team member during relief activities should not exceed 1 mSv. However, some prefectures with a nuclear power plant stipulate that a cumulative radiation dose of each local government employee should not exceed 20 mSv/year. Thus, JRCS relief team members are concerned that they may have difficulty working with local government employees in the case of a nuclear disaster. The JRCS hopes its relief team members understand that there is a difference in an activity period for counting a cumulative radiation dose between JRCS relief team members and local government employees, which is up to one week (1mSv) versus one year (20mSv), respectively.

The value of 1 mSv was decided by the JRCS in reference to the International Commission on Radiological Protection (ICRP) views and advice by the International Commission of the Red Cross (ICRC). The value may be reviewed in the future if many people argue that this value is low as a dose limit during relief activities. However, the JRCS does not view the value as low at the moment, because a cumulative dose of 1 mSv for one week is equivalent to 50 mSv at an annualized dose.

If JRCS relief members are asked for explanation of the value of 1 mSv by external parties (local governments, mass media, etc.), the JRCS encourages them to make a tenacious explanation to them that the value is for a one-week activity period.

Tokyo DMAT also adopts 1 mSv in their activity manual for NBC disasters, and the JRCS expects the value to be common in the future.

(4) Prior medical check-ups for JRCS relief team members

Before being dispatched for relief activities, each JRCS relief team will be interviewed by a physician to see if he/she has any problem in terms of cumulative radiation dose, diseases, and so on. If any JRCS relief team member's cumulative dose exceeds 1 mSv during his/her relief activities, the JRCS will not allow him/her to engage in relief activities during a nuclear disaster for one year from the relevant day. However, this will not be applied to radiation workers whose radiation dose limit is regulated by the government.

Radiation protective equipment

(1) GM survey meters and air dosimeters

In March 2014, the JRCS provided a GM survey meter to each JRCS block and an

air dosimeter to each JRCS chapter on the assumption that an initial relief team from each JRCS block or chapter takes each of the equipment with them. After the initial relief team completes their activities, the JRCS assumes the team will hand over the equipment to a replacement team at the local disaster response headquarters in an affected area.

It is preferable that the GM survey meter and air dosimeter are kept at JRCS hospitals rather than JRCS chapters, because the equipment is expected to be carried by the initial relief team.

(2) Caution in handling of GM survey meters

The JRCS does not recommend carrying a GM survey meter on board a plane because the meter contains gas and air pressure may break the device. It is recommended to carry it on land transportation. It is possible to carry an air dosimeter into an airplane cabin as hand luggage.

(3) Maintenance/calibration of personal dosimeters

The JRCS has already signed a contract for maintenance/calibration of personal dosimeters twice during seven years. The expense will be charged to the JRCS Headquarters.

For maintenance and calibration of GM survey meters and air dosimeters, the JRCS assumes each chapter and hospital will pay the expenses. Each maintenance/calibration costs about 55,000 yen.

(4) Stable iodine tablets

If JRC hospitals already have stockpile of stable iodine tablets, the JRCS assumes that the hospitals will let their relief team members carry the tablets with them. As for how stable iodine tablets should be administered, the hospitals should follow rules and instructions from the government and municipalities. The JRCS does not have any plan to give instructions for administration at present.