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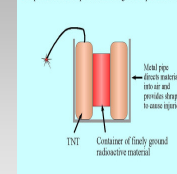
1. INTRODUCTION

Radiological incidents present uniquely challenging scenarios for hospital emergency planning and response. Radiological terrorism has been recognized as a probable scenario with high impact and hospitals are being educated to deal with this threat. Rambam HCC has been designated to treat casualties from such event.

2. PURPOSE

The purpose of this paper is to present the hospital's experience preparing staff and infrastructure for response to a Radiological Dispersal Device (RDD) explosion.

Composition of an Explosive Radiological Dispersal Device



3. METHODS

Rambam hospital is an experienced healthcare provider that knows how to respond to mass casualties from terrorist events, the fact that radioactive materials are involved impose changes in the management of the patients. In order to deal with this challenge the national authorities organize drills to simulate the response to RDD events. During the last 9 months the staff was trained on:

Radioactivity
Ionizing radiation
Types of exposure
Types of contamination
Principles of radiation protection

A major task was to explain that radioactive exposure to the caregivers is minimal and that no health threat is expected. Staff was instructed on how to wear and undress the protective suit.



Special attention was given to the fact that injuries caused by the explosion will determine the survival of the patient and not the exposure to the radioactive material.

Checklists were prepared for the different groups of staff members according to their tasks.

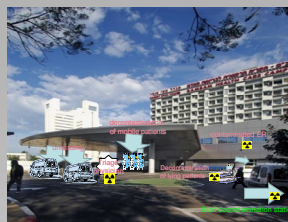
All Radiation Technologists working in the Diagnostic Department as well as in Radiotherapy were trained on the use of radiation monitoring equipment.

Medical Physicists were responsible for radiation protection.

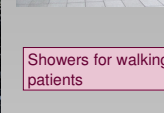
4. RESULTS

More than 100 persons attended the training sessions. The staff was divided into groups according to their specialty and task when responding to a RDD event. Hospital areas were signalized contaminated or clean including the ER and operating theatre. Different scenarios were discussed and changes to the checklists were adopted.

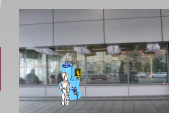
5. THE DRILL



Net stretchers at the entrance of the ER



Showers for walking patients



Waiting for the casualties



Unloading an "injured dummy" from the ambulance



Decontamination process



Monitoring contamination levels



6. CONCLUSIONS

Responding to a terrorist event is a stressful task and even more when radioactive materials are involved. Up to now no such situation has actually occurred in any hospital. The hospital staff has been prepared for this type of event and this was tested during the exercise.