

Role of Periodic Medical Examination in Prevention of Demining Accidents

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Why medical surveillance is necessary?

Occupational medical surveillance entails the systematic monitoring of health events and exposures in working deminers in order to prevent and control occupational hazards and their associated diseases and injuries.



The four essential components of Occupational Health surveillance are:

- ❑ To gather information on cases of occupational diseases and injuries and on workplace exposures
- ❑ To distill and analyze data
- ❑ To disseminate organized data to necessary parties, including workers, unions, employers, governmental agencies, and the public; and
- ❑ To intervene on the basis of data to alter the factors that produced these health events and hazards



Needs Assessment

The first stage of medical surveillance is *needs assessment*.

“Do deminers need special tests?”



Current Occupational Health Surveillance Activities for Deminers

- Medical records database
 - Incidents due to stress
 - Incidents due to deficiencies
 - identify occupational illnesses and prevent serious consequences on time
 - identify illnesses and prevent serious consequences on time



Medical Examinations Activities

- General physical examination performed
- Medical history taken, including the following topics:
 - alcohol intake
 - past history of hepatitis
 - Medicine intake (sedatives, anti convulsions)
 - work history and past exposure to hepatotoxic agents
 - past history of blood transfusions and hospitalizations
- Laboratory Reports
- Employer Surveillance Programs



Medical Examination continued

- ❑ Examinations provided shall be performed to least
 - ❑ Every 1 year for certain conditions
 - ❑ Age related tests (EKG for over 40 years old)
 - ❑ Government regulated
 - ❑ On the physician's discretion
- ❑ Each employee exposed to an emergency shall be afforded appropriate medical surveillance.
- ❑ If any deminer's health would be impaired by continuous exposure, each employee shall be withdrawn from possible contact.



Medical Examination continued

▣ Blood serum tests

- ▣ Tests for liver abnormalities (Exposure to TNT)
- ▣ Test for kidney diseases (Nephrotoxicity)
- ▣ Blood Sugar (Loss of consciousness)

▣ Hearing Evaluation (Audiometry)

- ▣ Unilateral Hearing Loss
- ▣ Bilateral Hearing Loss



Medical Examination continued

- ❑ **Visual Evaluation (optometry)**
 - ❑ Visual acuity
 - ❑ Depth conception
- ❑ **Breathing Evaluation (Spirometry)**
 - ❑ Ashtma
- ❑ **Psychological test**
 - ❑ Personality
 - ❑ Accident prone
 - ❑ Stress



Work and Exposure History

- Focus on the job when the patient first began having symptoms
- Patient's job title (or occupation): it is important to know the nature of the job
- "Tell me what you do on your job?"
- "Is there anything you do now that is different from past jobs where you've been?"
- Specific exposures: the exposure history requires further study to identify specific constituents of products and exposure levels.
- Assessment of relative levels of exposure (i.e., low, medium, high) for specific agents can be valuable





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