

**Abstract #: 347**

**Presented by: Frances Santiago Eliza, BS,  
Graduate Student**

***Lead exposure among workers from a battery recycling plant***

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**Keywords:** Lead exposure, battery recycling plant, personal protection equipment

**Objective:** Lead is a gray heavy metal and used in industry because it forms alloys with other metals. Lead poisoning does not happen very often, but the greatest effects occur when fumes are inhaled or dust contacts with skin (Lenntech, 2013). The objective of this literature review is to provide information related to the behavior of workers with increased risk of exposure to lead.

**Methods:** The studies selected used several methodologies, such as interviews and blood tests, to know about the health of the workers. Blood tests for ZPP and ALA-U were conducted. These parameters measure the lead exposure in a period of time. Interviews and blood samples were obtained from workers exposed both directly and indirectly to lead.

**Results:** Studies have shown that poor workplace ventilation and a lack of protective clothing may increase the risk of lead exposure.

**Conclusion:** In conclusion, the studies demonstrated the requirement of personal protective equipment to work with lead. My recommendation is the realization of similar studies in Puerto Rico, because the information of the relation between the exposure to lead and use of personal protection equipment is very little or not available to the public. And any industry of battery recycling needs a program of occupational health, which supervises and maintains an adequate workplace for the workers.

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**Abstract #: 348**

**Presented by: Lorraine Santiago, MS,  
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***Awareness among community hospital administrators of the importance of the industrial hygiene discipline***

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**Keywords:** community hospitals, industrial hygiene, health and safety

**Objective:** Healthcare workers have a high risk of illness and injury with incidence rates higher than private industry (Vredenburg, 2002).

**Methods:** In this study we interviewed human resources representatives working at 18 community hospitals of Puerto Rico. We asked them whether they had an industrial hygienist or an occupational health and safety department in the hospital. We also asked regarding the tasks they performed.

**Results:** Most hospitals had safety committees which included safety officers, nurse supervisors and other doctors taking care of health and safety. Others had a safety officer along with human resources personnel. These people reported having OSHA training to carry out health and safety tasks instead of formal university courses. Tasks such as designing ventilation systems and ergonomic adjustments are not being practiced at any of the surveyed hospitals.

**Conclusion:** Even though appropriate and necessary safety and health tasks are being performed at the hospitals, essential tasks are missing. Permanent industrial hygienists or a health and safety department is not needed at Puerto Rico community hospitals. Each and every hospital should be oriented on the necessity of a capable health and safety specialist to fulfill the essential missing tasks and focus on training the already working personnel to be able to carry out a complete job performance.

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