# **Original Article**

# The Rate of Occupational Exposure to Patients' Specimen among Personnel of Medical Diagnostic Laboratories in Birjand City

#### Shojaee, S.

BSc Student of Lab Sciences, Student's Research Committee, Birjand University of Medical Sciences, Birjand, Iran

#### Hosseine, F.

BSc Student of Lab Sciences, Student's Research Committee, Birjand University of Medical Sciences, Birjand, Iran

Fakhr-e-rad, N. (BSc) BSc of Lab Sciences, Student's Research Committee, Birjand University of Medical Sciences, Birjand, Iran

### Bijaree, B. (PhD)

Assistant Professor of Community Medicine, Medical School, Birjand University of Medical Sciences, Asthema Allergy & Immunology, Research Center, Birjand, Iran

Sekhavati, M. (BSc) BSc of Lab Sciences, Lab Administration, Lab Administration Mananger, Birjand

#### Fereidouni, M. (PhD)

Assistant Professor of Immunology, Medical School, Birjand University of Medical Scines, Birjand, Iran, Asthema Allergy & Immunology Research Center

### Corresponding author: Fereidouni, M.

Email: Dr.m.fereidouni@gmail.com

Received: 4/ Aug/ 2012 Revised: 5/ Jan/ 2013 Accepted: 9/ Feb/ 2013

# Abstract

**Background and Objective:** Having knowledge about potential risks and the usage of safety equipment in laboratories can decrease the risk of occupational exposure. The aim of this study was to evaluate the predisposing factors for occupational exposure and to assess the usage of safety equipment among personnel of medical diagnostic laboratories in Birjand.

**Material and Methods:** In this descriptive analytic study, all staff of laboratories was assessed by using a questionnaire including demographic data, type of accidental exposures and the use of protective equipment. Using SPSS software, we analyzed the data.

**Results:** Of 110, 84 (76%) have at least one accidental exposure to patients' specimens in that 55% of accidents are related to sample preparation step. In 82% of contacts, carelessness is the underlying cause of exposure. Gown, glove, fume hood and mouth mask are routinely used by 97%, 48%, 34%, 1% of personnel, respectively. Nearly all of (97%) personnel were vaccinated against hepatitis B and 78% of them have performed routine blood test for detecting any infections.

**Conclusion:** The results of current study show that accidental exposures to patients' samples are common among personnel of medical diagnostic laboratories. The level of preventive education and the rate of safety equipment usage are low; therefore, we recommend planning of some training sessions to persuade the personnel for using safety equipment.

Keywords: Medical laboratory, Occupational Exposure, Specimens, Vaccination

This paper should be cited as: Shojaee S, Hosseine F, Bijaree B, Sekhavati M, Fereidouni M. [The Rate of Occupational Exposure to Patients' Specimen among Personnel of Medical Diagnostic Laboratories in Birjand City]. MLJ. 2013; 7(2):