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HOSPITAL WASTE MANAGEMENT AND USE OF BIOSECURITY MEASURES AT REGIONAL HOSPITAL VLORE 2014-2015

Denada SELFO*, **Skender SKENDERI****, **Anxhela SULEJMENI** , and **Sadi BEXHETI*****

*Department of Nursing, Faculty of Public Health, Vlore, Albania

**Faculty of Technical Medical Sciences, Tirana, Albania

*** Faculty of Technical Medical Sciences, Tetovo

Abstract

Background: Health care waste is every waste that is gained during the diagnoses, treatment or immunization of people or animals, whether it is dangerous or not. WHO has evaluated that 75% of the produced waste is not dangerous and only 25% is considered as dangerous. WHO has also classified the hospital waste into: infective, sharp, pathological, radioactive, chemical, pharmaceutical and general waste. There are 6 kinds of containers for management: black, green, yellow, red, brown and blue containers.

Aim of the study: The aim of this study is recognizing the way of managing the hospital waste and the relationship evaluation between medical staff's knowledge, which is related to the safe execution of the work procedures and the number of biological risk accidents

Results: In this study there was noticed more awareness from the health staff about managing the hospital waste and use of bio-security measures. In 2013, 56% managed hospital waste and used bio-security measures regularly. In 2014-2015, 65-75% applied this procedures regularly. The most endangered pavilions have been surgery and pediatrics. About 50% of the accidents have happened because of drillings. The least endangered pavilion has been ORL. Waste management and use of bio-security measures affect significantly at health staff welfare ($p < 0.005$). Working in turns trainings and education level also affect ($p < 0.005$). Waste division is a key step to the reduction of infections spreading .Use of bio-security measures is essential during hospital waste management

Keywords: Health care waste, nurses, management, bio-security measures

1. Introduction

Health care waste are: any waste, dangerous or not, generated during diagnosis, treatment or immunization of humans or animals or activity study / research. Waste types of health care: 75-90% They are safe . 10-25% They are dangerous . WHO has estimated that in 2000 ccidents caused by contaminated syringes: 66,000 cases of infection with hepatitis B . 16,000 cases of infection with the hepatitis C. 200 to 5,000 cases of HIV infection have infected health care personnel.

MEDICAL WASTE CATEGORIES

Infectious waste	Are materials that allegedly contain pathogens that cause disease in crowded environments.
The sharp waste	Items that can cause drillings or cuts, including: syringes, scalpels, broken glasses and beakers
pathological wastes	Tissues, organs, body and blood parts, operations and autopsies' wastes, fetuses etc
radioactive waste	Liquids used in radiotherapies or laboratory research, contaminated glass etc
chemical waste	Expired laboratory reagent, disinfectants etj
Pharmaceutical Waste	Wastes which have expired, wastes with polluted packaging
General waste	Do not harm the people's health. These are : paper, cardboard, plastics and uncontaminated glass

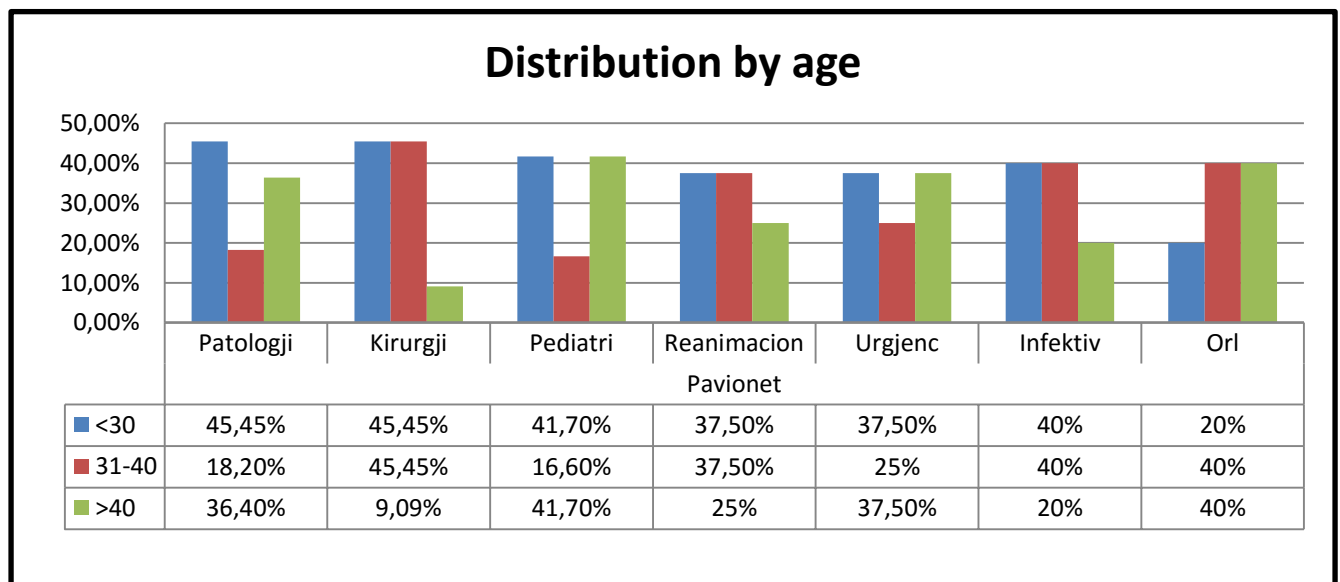
CODING BY COLOURS

Colours	Waste kinds
BLACK	Napkins, unpolluted wastes, general waste, plastic bottles, polluted packages, certain metals, uninfected fasciations
GREEN OR BLUE	Newspapers, cans, glass bottles, cardboard, clean packaging
YELLOW	Bandage and tampons, diapers, single-use urinal, hospital laboratory waste, sharp instruments, ampoules, polluted blood and liquids, undetectable tissues, dialysis waste, unsterilized wastes with high risk, polluted metal pieces
RED	Cytotoxic wastes, radioactive waste, mercury.
BROWN	Distinct body parts, placenta./

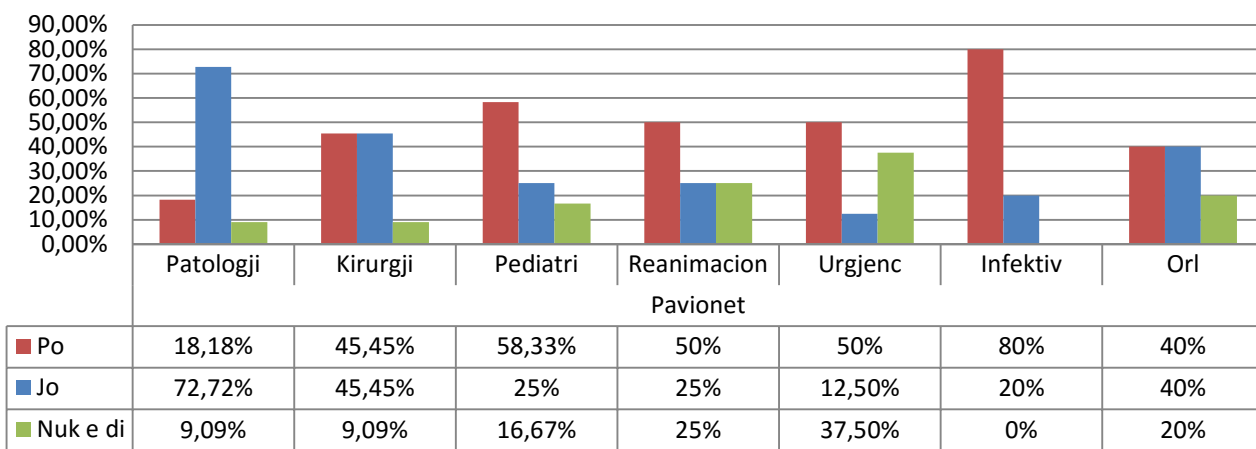
2. Material and methods

This cross-sectional, comparative study was realized during year 2015. Sixty nurses of RHV at the departments of pathology, surgery, pediatrics, reanimation and urgency have participated in this study. There have been used two questionnaires for the realization of this study. Questionnaire fulfillment was realized voluntarily by the nurses. The data processing was made by SPSS v 17.00

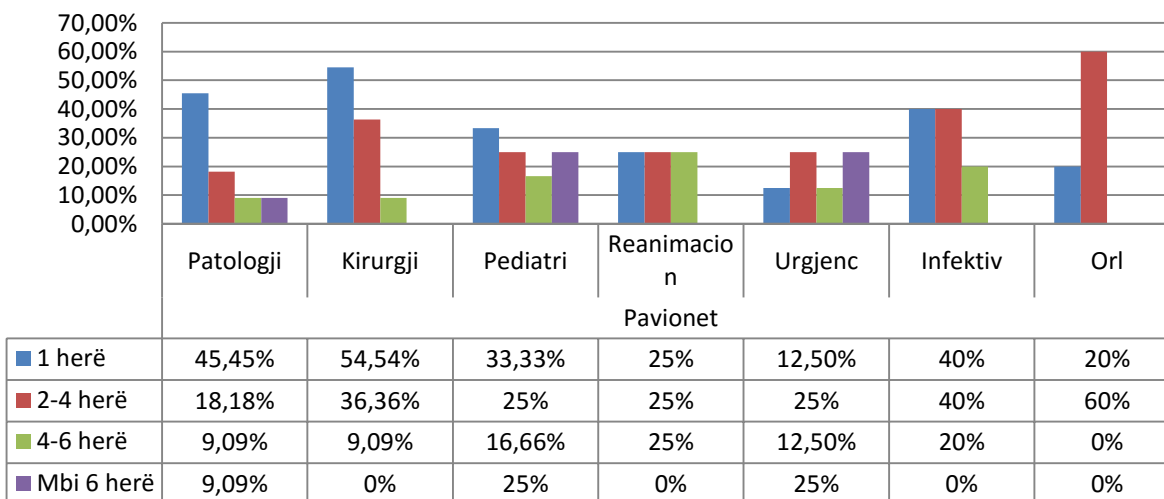
3. Results



Have you ever shown a disease that was caused from the profession?



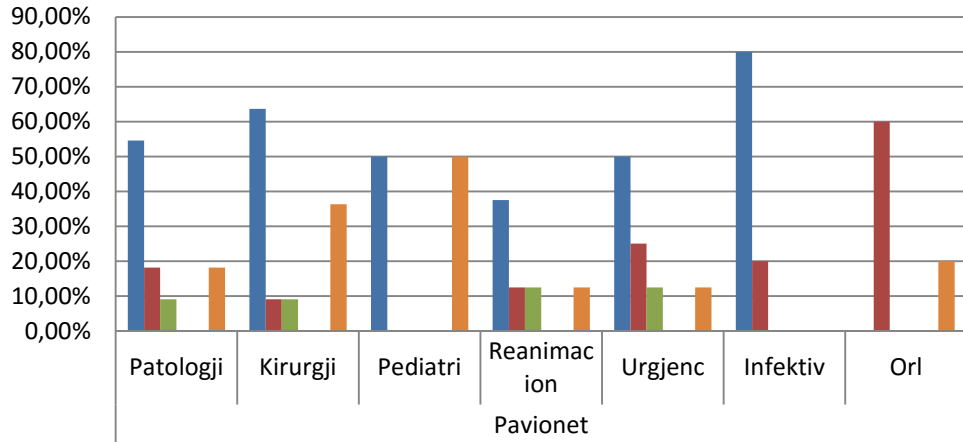
How many times have you had accidents with biological risk recently?



What kind was the exposure that caused the accident?

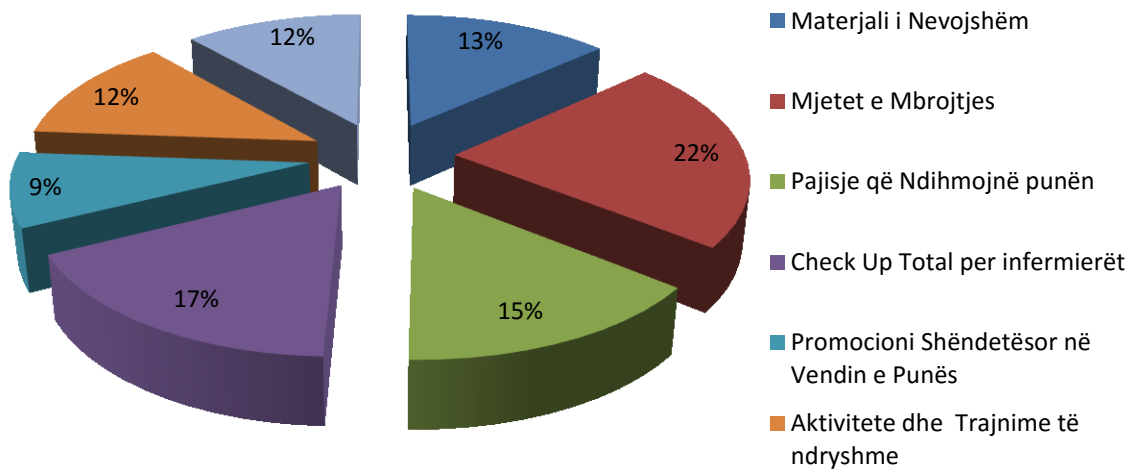


What kind of protection were you using when the accident happened?

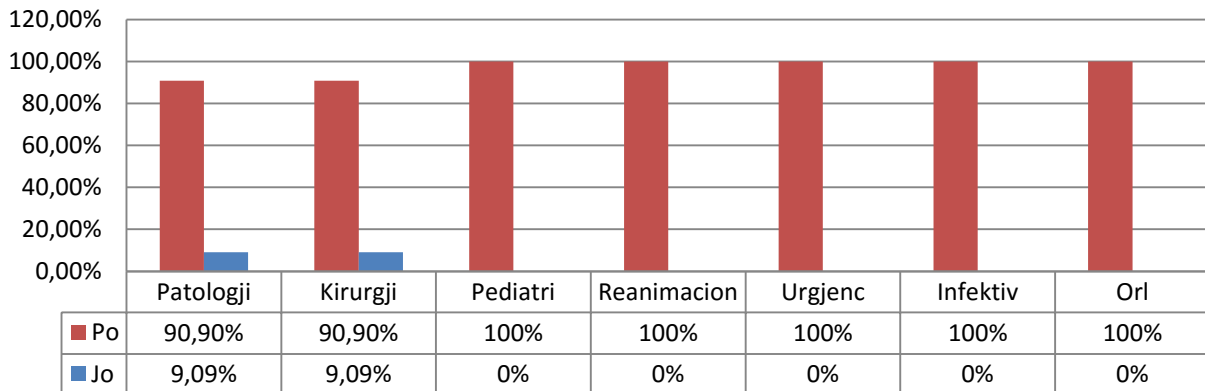


	Patologji	Kirurgji	Pediatri	Reanimacion Pavionet	Urgjenc	Infektiv	Orli
■ Doreza	54,54%	63,63%	50%	37,50%	50%	80%	0%
■ Maskë faciale	18,18%	9,09%	0%	12,50%	25%	20%	60%
■ Kapuç	9,09%	9,09%	0%	12,50%	12,50%	0%	0%
■ Mbrojtëse për sytë	0%	0%	0%	0%	0%	0%	0%
■ Përparse një përdorimshe	0%	0%	0%	0%	0%	0%	0%
■ Asnjëren prej tyre	18,18%	36,36%	50%	12,50%	12,50%	0%	20%

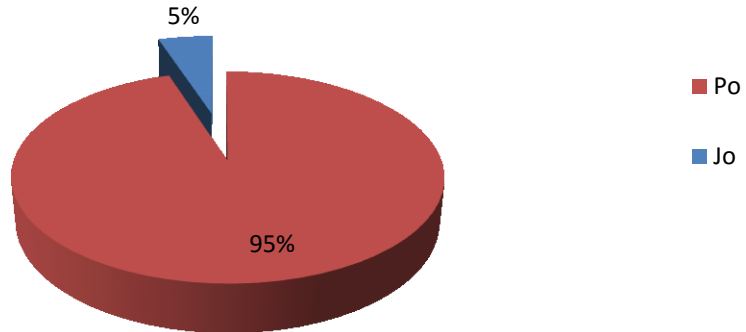
Which measures would you want to be improved in the future at the RHV relating to the Security and Health



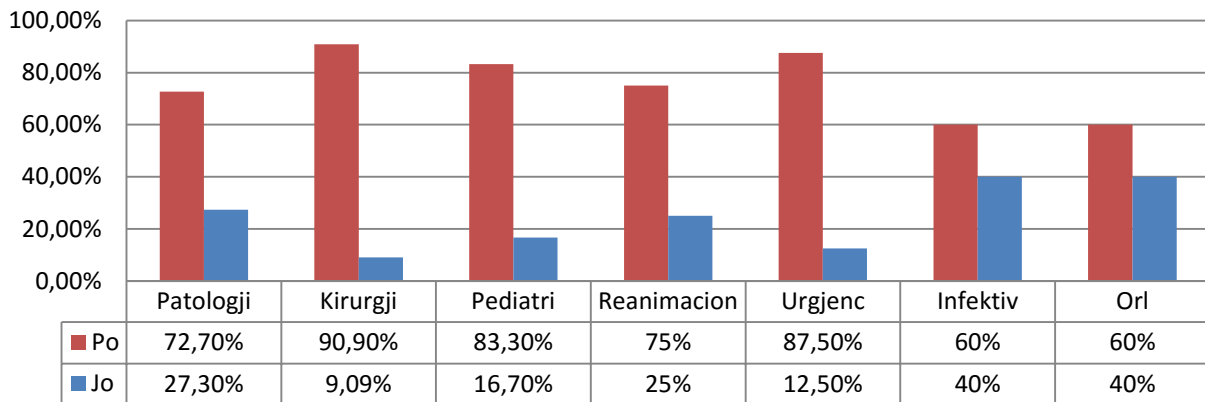
Do you consider hospital waste harmful for your health?



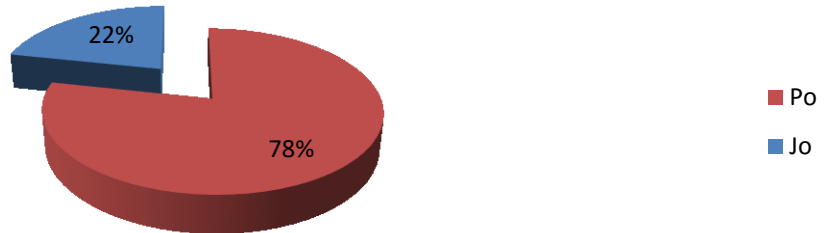
Do you think that non-management of hospital waste



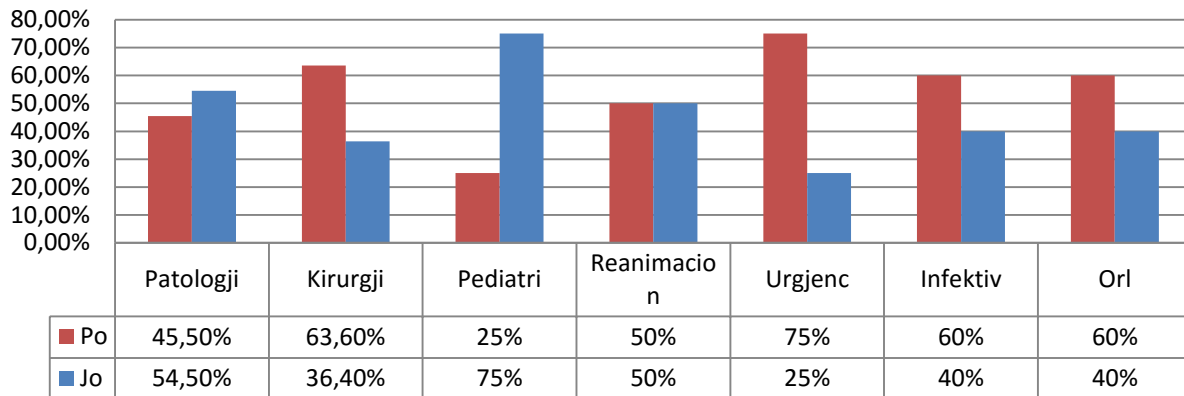
Do you think that accidents affect on your solicitude to the patient?



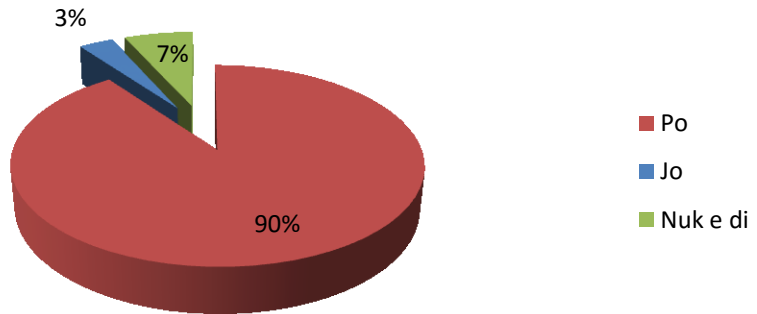
Do you know anything about bio-security measures and aseptic technique?



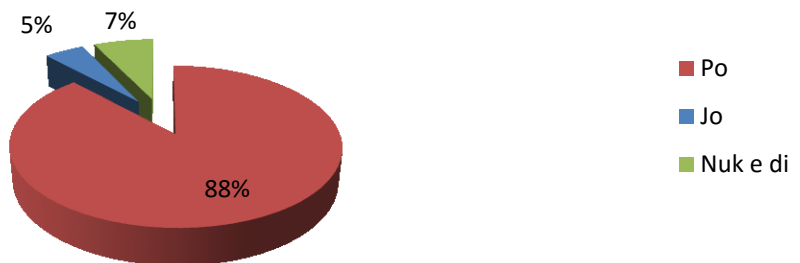
Do you always use the personal protective elements?



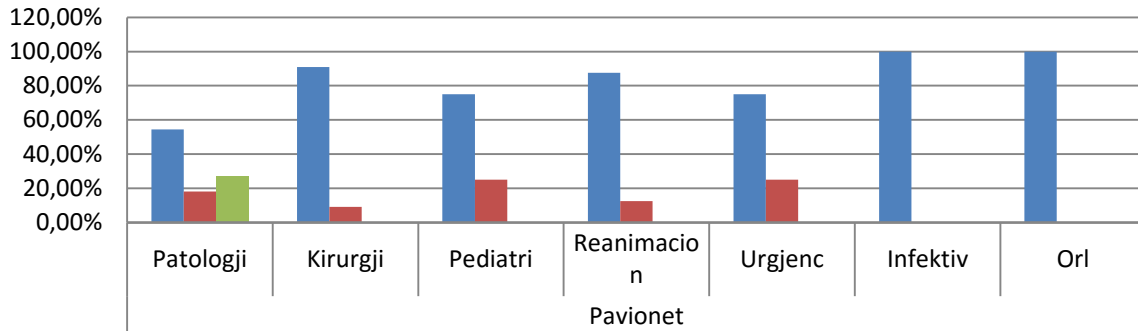
Is there a program applied for managing the waste produced in the work place?



Is this process being documented and monitored?

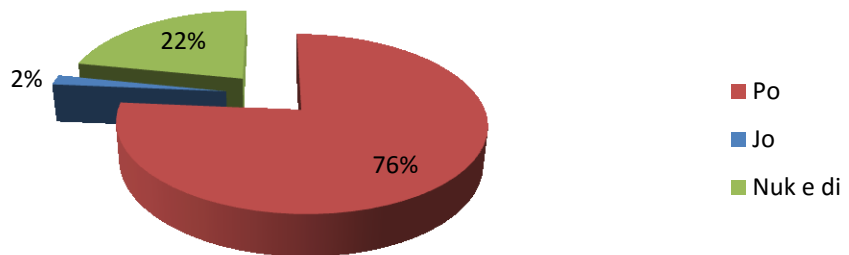


Are them collected?:



	Patologji	Kirurgji	Pediatri	Reanimacion	Urgjenc	Infektiv	Orli
C'do ditë	54,50%	90,90%	75%	87,50%	75%	100%	100%
C'do javë	18,20%	9,09%	25%	12,50%	25%	0%	0%
C'do muaj	27,30%	0%	0%	0%	0%	0%	0%

Does there exist a staff about hospital waste collecting



4. Conclusions

- Hospital wastes have an important impact in health and environment. Wastes division by the sources is a key step in infections reduction and spreading.
- After this study was realized, there was noticed that less than half of the nurses have shown diseases because of the profession. Stress and flu were the most frequent ones. In another study of 2013 it was the opposite.
- The use of protective elements especially the handles was applied by more than half of the nurses. This ascertains an increase of their use comparing to another study in 2014 where only 40.5% of the nurses had declared that they always use the personal protection elements.
- The most necessary measures that nurses want to be improved in the future of RHV are protective tools and evaluation of nurses' health while in 2013 the most necessary ones were the supplies that help the nurse job and prevent the risks during it. After this the other measure was protective measures providing
- This study has evaluated that 74% of nurses are informed about the risk in which they are exposed. This shows an increase in the informing level comparing to year 2013 where only 67% of nurses had been informed. In addition, the surgery pavilion has been less informed about the risk while now it is more informed

5. Recommendations

- Protocol providing in case of work accidents so that those can be evaluated, reduced, managed, prevented and documented
- Health education about the risks and exposure prevention, including work practices control and use of security supplies.
- Periodic health promotions in the work place relating to the professional risks in the hospital.
- Activities and different trainings relating to the security and health during the job of the nurse, risk evaluation, exposure prevention, incidents, accidents and professional diseases.
- Application of bio-security measures correctly
- Immediate reporting in case of accidents
- Personal protection elements should be always provided and used.

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