# **Virology and Vaccine Development**

## Case Report | Open Access

# A Case Report on Needle Stick Injuries

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#### **Abstract**

Needle Stick injuries (NSIs) among Health Care Professionals (HCPs) area unit one amongst the numerous aspects of any Hospital and it ought to be monitored ceaselessly and sincerely to forestall blood borne infections. the most objective of this one-year, annual prospective study is, to be conversant in the prevalence of NSIs in our tertiary care hospital, so we will verify risk factors for injury, and do potential interventions for hindrance.

Key words: Needle sticks injuries; Post exposure prophylaxis.

#### **INTRUDUCTION**

Healthcare Professionals (HCPs) often faces peril like accidental needle stick injuries (NSIs). The risk of deed blood born infection like Human immunological disorder Virus (HIV), hepatitis B Virus (HBV) and hepatitis C Virus (HCV) by NSIs depends on many factors. These factors comprise hollow bore needle, depth of penetration, visible blood on the needle and advanced stage of the unwellness of the supply [1]. The vital routes in terms of activity exposure area unit NSIs (0.3% risk for HIV, 9-30% for HBV and 1- one 8% for HCV) [2].

This is associate degree data-based prospective annual study drained HCPs of all sections of a Tertiary Care Hospital from May2018 to June 2019.A form was administered once NSIs were self-reported by HCPs. The form consists of mode of exposure, depth of injury, immunization standing, kind of occupation etc. Blood samples of HCPs exposed by NSIs and of the supply, if known, was collected for base line HBV, HCV and HIV serum markers. The HCPs UN agency were antecedently reactive of blood born microorganism infections were excluded from this study. The exposed HCPs were followed up and repeat testing was done once 3-4 weeks for seroconversion up to six months.

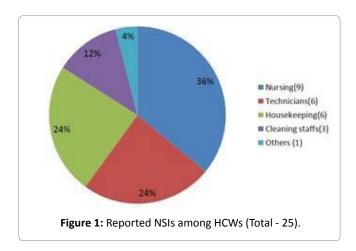
## **RESULTS**

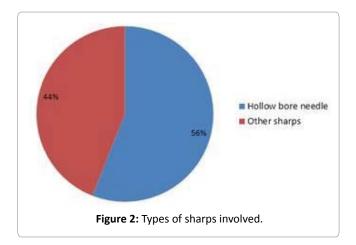
The total HCPs coverage NSIs were twenty-five within

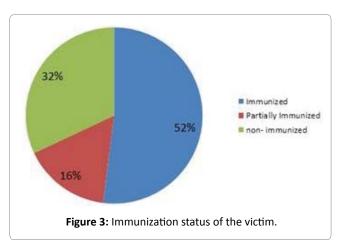
which nurses, 09 (36%) work, 06 (24%) cleanup employees, 03 (12%), 06 (24%) technicians and 01(4%) selling official. Among the employees that had NSIs, fifty fifth had a piece expertise of but one year. The devices liable for NSIs were primarily hollow bore needles (56%) (Figure 1).

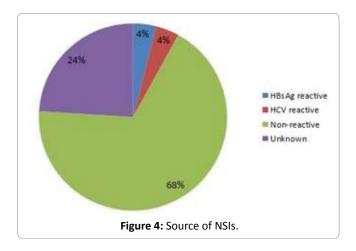
The patient supply was unknown in 06 (24%) of the NSIs. The sex quantitative relation (male/female) was zero. 785. The immunization standing of victims were 64% (Figure 2).

Of total supply standing, 01 was HBs noble metal (Hepatitis B surface antigen) and one HCV positive (Figure 3).



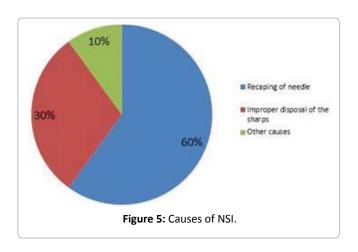






Recapping of needles caused twenty-five (8.5%) and different improper disposal of the sharps resulted in fifty-five (18.6%) of the NSIs (Figure 4).

Post-exposure prevention for HCWs UN agency reportable injuries was provided forthwith. sequent 6-month follow-up for human immunological disorder virus showed zero seroconversion (Figure 5).



#### **DISCUSSION**

As the result itself says, that the NSIs occurred in less fullfledged, young HCPs, additional stress ought to lean for frequent coaching, education and different precautional measures. The decision to supply Post exposure prevention (PEP) in our hospital relies on the clinical thought of risk solely. the availability data of knowledge} relating to liveliness was given full confidentiality together with information concerning HIV testing, liveliness provision and therefore the reasons for seeking liveliness. In our study, the observe of recapping needles was found to be most significant issue for the reason behind NSIs followed by others like handling and spending needles or sharps once use, failing to eliminate used needles properly in puncture-resistant sharps containers and poor tending waste management practices. In different studies like Ghauri et al. ascertained forty sixth, and Alshihry ascertained twenty first cases of NSIs whereas discarding the needles as compared to (n = 7; 14%).

In order to scale back NSIs, we have a tendency to area unit educating and coaching our HCPs to follow strict compliance to universal work precautions like avoiding injections once safe and effective alternatives area unit accessible, avoid recapping needles, plan for safe handling and disposal of needles once use, promptly eliminate used needles in acceptable sharps disposal containers, report all NSIs promptly to confirm that they receive acceptable follow-up care. They participate in coaching associated with infection hindrance. The Recording associate degreed monitor NSIs with an injury register in every location of tending setting is mandatory. All classes of HCPs at intervals the hospital ought to be trained on a way to protect themselves against HIV and different pathogens transmitted by blood or body fluids.

This information must be bolstered daily. All the HCPs should take a personal and collective responsibility during this regard. we tend to conduct hospital infection management meeting quarterly for normal coaching and watching hospital infection management together with universal precaution and post-exposure prevention implementation and internal control.

All HCPs should be habitually immunized against the hepatitis B virus. The vaccination for hepatitis B consists of three doses: baseline, 1 month, and6 months. Most of the recipients (99%) seroconvert once finishing the complete course. there's no vaccine or prevention against hepatitis C. The first dose of liveliness should be administered ideally at intervals a pair of hours (but definitely at intervals the primary seventy-two hours) of

exposure and therefore the risk evaluated as shortly as possible.

# **CONCLUSION**

All hospital personnel must have proper awareness regarding risks of NSIs, etiquette for incident reporting, continuous education, safe and sound instrument handling, needle disposal mechanisms, and active participation in ongoing staff training to decrease and prevent occupational hazard.

#### REFERENCES

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