

Background

- Occupational exposure to biological fluids (OEBF) is a health concern, especially among healthcare workers (HCWs)
- It constitutes a risk of transmission of blood-borne viruses like HIV, HBV and HCV
- No recent Latin-American data that provide an update perspective on the problem
- The objective of this study is to characterize the OEBF in relation to epidemiology, exposure mechanisms, management and prognosis**

Methods

- Design:** Prospective follow-up of all HCWs was attended at the emergency room of “Hospital del Trabajador de Santiago (HT), Chile” with diagnosis of OEBF, from Jan 2014 to Jan 2015
- Setting:** Institution that administrates occupational injury insurance for a lot of primary, secondary and tertiary healthcare facilities of Santiago, Chile.
- Follow-up:** Immediate attention at HT’s emergency room and then the HCWs were sent to an infectious diseases specialist for a 6 months follow-up.

Results

- We follow-up **958 consecutive HCWs with OEBF (76.3% women)**
- The staff mainly affected were **nurse technicians (34%)** and **nurses (20%) (FIG. 1)**
- Between **medical staff**, the OEBF was most frequent in **residents (20.4%)** and **orthopedics (18.3%) (FIG. 2)**
- The most frequent **place of exposure** was the **surgical ward (13%) (FIG 3)**

FIGURE 1: Occupation of HCWs with OEBF

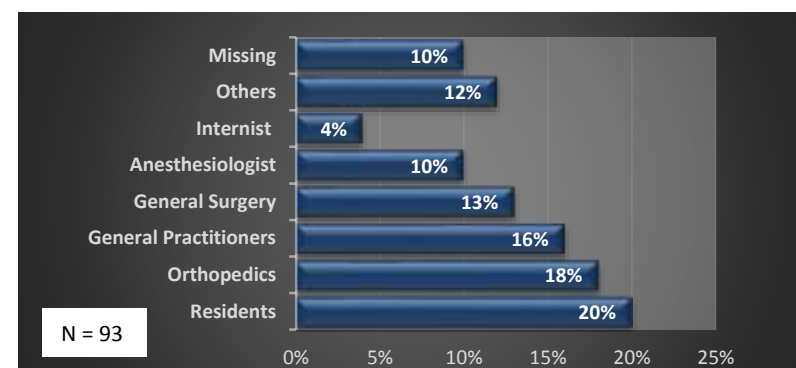
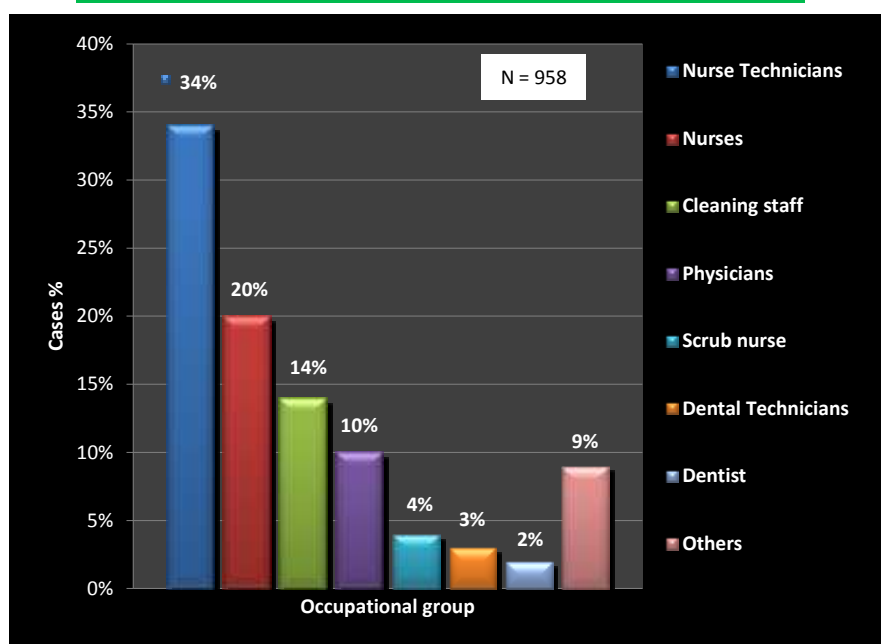


FIGURE 2: Speciality of physician with OEBF

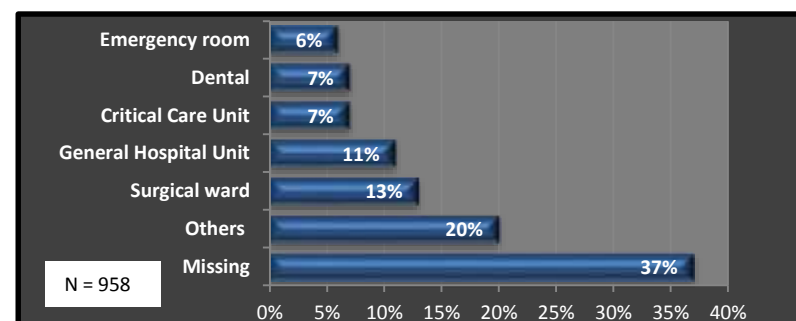


FIGURE 3: Place of exposure

- Percutaneous injuries** were the **most common (84%)**; in 433 of the cases (**45%**) **hollow needles** were involved and in **44%** of OEBF, the **fluid involved** was **blood**
- There were **73 (7.6%) positive sources: 58 (6.1%) HIV**, 6 (0.6%) HBV and 9 (0.9%) HCV.
- Only 1 HCW received **HBV prophylaxis** with HBIG, without adverse effects

RISK CLASSIFICATION OF OEBF

OEBF	n	%
Without risk	25	2,6
Low biological risk	876	91,4
Increased biological risk	57	5,9

FOLLOW-UP OF OEBF WITH BIOLOGICAL RISK (933 HCWs)

OEBF	n	%
Without follow-up	368	39,4
Only 1 month of follow-up, without infection	230	24,7
Completed 6 month follow-up, without infection	334	35,8
HIV infection	1	0,1



One HCW seroconverted at control of the 1st month post-exposure. His OEBF was considered as a low risk, so he did not receive prophylaxis but he had proper risk factors for infection (MSM with untreated HIV (+) partner).

HIV PROPHYLAXIS (67 HCWs)

Antiretroviral therapy (ART)	n	%	Adverse effects*	Stopped ART
2 drugs Zidovudine/Lamivudine	64	95,5	20 (30%)	4 (6%)
3 drugs Zidovudine/Lamivudine/Lopinavir-r Tenofovir/Emtricitabine/Lopinovir-r	3 2 1	4,5 3 1,5	1 (1,5%) 1 0	1 (1,5%) 1 0

* Mainly digestive intolerance (19 HCWs)

HCWs with exposure to an **unknown source** had **lower compliance** (123/402, **30.6%**) than HCWs with exposure to a **known source** (199/519, **38%**) or **partially known source** (14/37, **37%**) (p = 0.04)

Conclusions

- The observed adherence to the following-up was quite low and indicates that improvement must be done in this area.
- The low adherence to following-up among HCWs exposed to unknown source is remarkable .
- The suboptimal tolerance to ART supports the current trend to prefer other nucleoside analogs, such as tenofovir and emtricitabine, as 1st choice therapy in this setting.