

ACCIDENT MANAGEMENT BY EXPOSURE TO BLOOD OF BRASOV BLOOD TRANSFUSION CENTER PERSONNEL

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Accidents by exposure to blood (AEB) - Unlike other health units, in Blood Transfusion Centers (BTC) the exposure, occurred during the working hours and duties, shall be strictly in blood and no other biological products, which increases the default risk of illness.

Ways of AEB generation:

- parenteral, percutaneous (through puncture, cutting)
- blood contamination of the skin with any wound;
- contamination of mucous membranes (eyes, oral mucosa, nasal mucosa) spray during any maneuver in the BTC activity.

In Brasov BTC, THE MEASURES FOR PREVENTION AND RISK CONTROL OF AEB are constantly respected:

A. Universal precautions- standard measures:

- wash your hands
- use of protective equipment (gloves, suit, apron when necessary)
- carefully sealed vacutainers during the work
- immediate removal of sharp used instruments in appropriate containers
- immediate equipment and surface decontamination
- periodic laboratory testing of personnel.

B. Particular precautions :

In laboratory-automatic pipetting only

- protective equipment
- systematic hand-washing
- surface cleaning and disinfection
- appropriate handling of dangerous waste

HBV vaccination - all personnel were vaccinated.

During 2002-2012, in Brasov BTC 11 AEB occurred, fortunately all were insignificant injuries and none was followed by subsequent illness of the injured employee.

Occupational exposure has been achieved by:

- wrong maneuvers from staff - 7 cases
- technical malfunction of equipment and instruments (pipettes, centrifuges) or materials (syringes, collecting kits) that lead to accidents by spreading with blood - 4 cases.

6 AEB occurred in the collecting hall, 2 in the laboratory, 2 in the processing chamber, 1 in the sampling room for outside patients.

There has been no accident to staff during handling and disposal of dangerous waste.

AEB management

Following the basic principle according to which all donors and patients are potentially infected, in case of any AEB is going to:

- wash hands and other skin or mucosal surfaces, immediately and thoroughly after they were contaminated with blood
- hand disinfection with disinfectant
- immediate decontamination of surfaces that come in contact with blood
- test the source of the blood
- injured employee testing and further tracking , according to the source test result.

Of all AEB, only two occurred with contaminated blood, both in the collecting hall, by pricking with kit needle, at the end of collecting blood from the donor:

-in 2007 – Treponema pallidum positive donor
The injured nurse was tested repeatedly by EIA II and TPHA test, received prophylactic antibiotic treatment and was kept under observation for 6 months.

-in 2009 - HBsAg positive donor
The injured nurse was tested for HBsAg and anti-HBV vaccinated the next day, then she received another dose the next month and another after 2 months. She was kept under observation and was retested repeatedly for 6 months.

The main bad practice associated with AEB in the BTC:

- lack of concentration and attention when collecting blood from donor (especially at the end of the procedure) or handling equipment
- not always wearing surgical gloves;
- the recovering of the used syringe needles or their detaching from the syringe after use.