

Bacterial Diseases 2019: Blood borne viruses (BBVs) - Wafaa Ahmed Zahran - Menoufia University, Egypt

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Blood borne viruses (BBVs) are viral infections that can be transmitted from person to person through blood or body fluids. The BBV infection is a major global health problem, posing great risk to both healthcare workers and patients in their care. In health care settings, Healthcare workers (HCW) may acquire bloodborne infections from lacerations, punctures, and non-intact skin exposures to the blood or body fluids of infected patients. Exposures may occur during surgical or invasive medical/dental procedures. Transmission of BBV infection to patients may occur by injection, infusion, transplantation, unsterile equipment, or other accidental injury/penetration So, the workshop will concentrate on the BBVs that could be transmitted in the healthcare settings; HBV, HCV and HIV: for each of these viruses, there will be clarification of their characteristics, worldwide epidemiology, modes of transmission, clinical significance, laboratory diagnoses, and updates of treatments. In this part, PowerPoint presentation together with interaction with the audience in the form of think, pair and share activity about simple basic knowledge in relevance to these BBVs. In the second part, there will be discussion about risk of transmission between patients and healthcare workers, Factors influencing the occupational risk with elaboration of different conditions/ situations for transmission; how to get Risk Reduction of transmission to Healthcare Workers and Risk Reduction of transmission to Patients; with review of Infection control measures for prevention of transmission of Blood borne Viruses in Healthcare Settings: standard precautions, safe sharps disposal, safe injections, decontamination and healthcare workers vaccination. Discussion would elaborate the Updated Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post exposure Prophylaxis. Animation and short videos will be used to elucidate the PowerPoint presentation of this part. Third part will be in the form of interactive groups discussion about some presented case scenarios, showing different clinical presentations and select and explain best management modalities to ensure deep understanding and optimum knowledge retention.

A blood-borne ailment is a sickness that can be spread through sully by blood and other body liquids. Blood can contain pathogens of different sorts, boss among which are microorganisms, similar to microscopic organisms and parasites, and non-living irresistible specialists, for example, infections. Three bloodborne pathogens, specifically, all infections, are referred to as of essential worry to wellbeing laborers by the CDC-NIOSH: HIV, hepatitis B (HVB), and hepatitis C (HVC). Infections that are not normally transmitted legitimately by blood contact, but instead by creepy crawlly or another vector, are all the more conveniently delegated vector-borne sicknesses, despite the fact that the causative operator can be found in the blood. Vector-borne illnesses incorporate West Nile infection, zika fever, and intestinal sickness. Many blood-borne illnesses can likewise be reached by different methods, including high-hazard sexual conduct or intravenous medication use. These ailments have likewise been distinguished in sports medication. Since it is hard to figure out what pathogens any given example of blood contains, and some blood-borne sicknesses are deadly, standard clinical practice respects all blood (and anyone liquid) as conceivably irresistible. Blood and Body Fluid precautionary measures are a kind of contamination control practice that tries to limit this kind of malady transmission.

Bloodborne infections (BBVs) are viral diseases that can be transmitted from individual to individual through blood or body liquids. A few different ways that BBVs can be transmitted incorporate sex, needle sticks, or if the blood or body liquids of a tainted individual come into contact with someone else's mucous films, open injuries, or skin scraped spots. Some bloodborne infections cause not many to no side effects, while others can cause serious disease and even demise. That is the reason it is imperative to comprehend the kinds of bloodborne infections and what to do in the event that you end up in a circumstance where you have to tidy up blood or body liquids.

Transmission of blood-borne infections can result from sex and maternal–fetal transmission in the network setting, needle stick injury, and other presentation inclined methodology in the medicinal services setting. In an investigation from the USA, the yearly passing pace of human services laborers from word related occasions was evaluated to be 17–57 for every 1 million specialists, and a large portion of these passings came about because of disease related intricacies of blood-borne infections (Sepkowitz and Eisenberg, 2005). The general danger of transmission of blood-borne infections by empty needle stick injury is 33%, 3%, and 0.3% if the source is a hepatitis transporter with positive HBe antigen or high popular burden, hepatitis C bearer with viremia, and HIV, separately. Consistence with standard precautionary measures including wearing gloves when taking care of blood during persistent consideration work on, arranging sharp needles into cut safe box, and evasion of recapping needles remain the most significant approaches to forestall nosocomial procurement of blood-borne infections (Garner, 1996).

At the point when a human services specialist continues a needle stick injury, he/she ought to be encouraged to flush the injury with faucet water and permit common drying. The source patient's blood is gathered to check for the nearness of HIV, HBV, and HCV. On the off chance that the status of blood-borne infections of the source quiet is sure or obscure, postexposure prophylaxis (PEP) ought to be offered by current rules (Kuhar et al., 2013). The uncovered human services laborer will be firmly followed okay with advising, standard and follow-up HIV testing, and checking for sedate poisonousness. In the event that a more up to date fourth–age mix HIV p24 antigen-HIV immunizer test is used for follow-up HIV testing, it might be finished up 4 months after presentation. Something else, follow-up HIV testing is performed a half year after the introduction (Kuhar et al., 2013). For HBV, PEP with hepatitis B invulnerable globulin (HBIG) as well as HBV immunization ought to be considered for word related exposures after assessment of the HBsAg status of the source, and the inoculation and antibody reaction status of the uncovered individual (2001). For HCV, PEP isn't as of now suggested. In any case, an open-name pilot preliminary was led to decide the security, passableness, and acknowledgment of peginterferon alfa-2b as PEP. Among 213 social insurance laborers presented to an

HCV counteracting agent positive source, 51 HCWs took on the investigation, and 44 (86%) chosen to experience peginterferon alfa-2b as the examination gathering. Seven subjects who chose not to experience PEP were treated as the benchmark group. In this pilot study, peginterferon alfa-2b was demonstrated to be protected without genuine unfriendly impacts. Notwithstanding, the absence of HCV transmission in both the examination and control bunches didn't bolster the normal utilization of PEP in human services laborers after the HCV presentation (Corey et al., 2009). All things considered, the new polymerase and protease inhibitors utilized in the treatment of HCV disease will bring about new systems for PEP of HCV exposures.