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A REVIEW ON HEPATITIS B VACCINATION AMONG HEALTHCARE WORKERS

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Abstract

Hepatitis B virus is highly contagious. Individuals with chronic infection are usually the main reservoir for continued HBV transmission. Healthcare workers (HCWs) particularly have greater chances of hepatitis B infection due to the risk of occupational contact with blood and other body fluids of infected individuals. This may occur following percutaneous injury, blood and body fluids coming in contact with the mucous membrane or non-intact skin exposure to blood and other body fluids. Every year, about a third of HCWs working in Africa are occupationally exposed to body fluids through percutaneous injuries, which in the context of high prevalence of Hepatitis B in Africa puts HCWs at a high risk of HBV infection. Hepatitis stands to inflammation of the liver. Inflammation is a tissue's reaction to irritation or injury which usually results in swelling and can cause pain. There are many causes of hepatitis. Viral hepatitis is caused by a virus and can either be acute or chronic. Viral hepatitis can be spread from person to person. Some types of viral hepatitis can be spread through sexual contact and blood stream.

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Introduction:-

Hepatitis B (HB) infection is a major public health problem globally. It is the tenth leading cause of mortality worldwide and one of the most important infectious diseases, especially in developing countries [1-4]. In Somalia, viral hepatitis, especially HBV, is of significant public health importance. There is no meta-analysis to provide an overall estimation of the prevalence of all viral hepatitis infections in this country. Hepatitis B virus (HBV) infection is the major infectious hazard for health care personnel; the annual incidence of HCWs occupational exposure was reported to be 3.5/100. Hepatitis B is transmitted through blood and infected bodily fluids, transmission occurs through direct blood-to-blood contact; unsterile needles and through sharing of sharp instruments [5].

The risk for acquiring HBV infection from occupational exposures is dependent on the frequency of percutaneous and per-mucosal exposures to blood or body fluids containing blood. Serologic studies conducted in low HBV prevalence countries during the 1970 s demonstrated that healthcare workers had a prevalence of HBV infection up to 10 times higher compared to the general population. The blood contains the highest HBV titers and is the most

important vehicle of transmission in the healthcare setting HBV is relatively stable in the environment and remains viable for at least seven days at room temperature [6-9].

The first vaccines, available between 1981 and 1982 are composed of highly filtered preparation of hepatitis B "s" antigen (HBsAg). This glycoprotein is a component of the outer envelope of the hepatitis B virus. Is a safe and effective vaccine that offers a 98-100% protection against hepatitis B that is available. Preventing hepatitis B infection averts the event of complications as well as the event of chronic illness and carcinoma [10].

The hepatitis B vaccine is the pillar of hepatitis B prevention. WHO recommends that every infant must gain the hepatitis B vaccine as soon as possible after birth, ideally within 24 hours. Routine infant immunization against hepatitis B has risen globally with an estimated coverage of 84% in 2017; the complete vaccine series induces protective antibody levels in more than 95% of infants, children and young adults. Protection lasts at least twenty years and is maybe lifelong. It's important to all healthcare staffs to have information related their HBV status and vaccinated if they didn't take for protection and prevention of HBV spreading. Globally WHO estimates that in 2015, 257 million people were living with chronic hepatitis B infection. In 2015, hepatitis B resulted in an estimated 887 000 deaths, mostly from cirrhosis and carcinoma as of 2016, 27 million people (10.5% of all people estimated to be living with hepatitis B) were vigilant of their infection, while 4.5 million (16.7%) of the people diagnosed were on treatment. The estimated overall seroprevalence of HBV surface antigen remains high in Africa at 6.1% and therefore the Western Pacific regions (6.2%). According to the World Health Organization (WHO), HBV infection affects more than 5% of the population in sub-Saharan Africa, with more than 8% in West Africa and reaching up to 15% in some areas. In East African countries, only a few studies have been conducted on the epidemiology of viral hepatitis, and most of these studies targeted on specific subpopulations, e.g., those living with HIV. Data for the general populations [10].

Hepatitis B vaccination among health-care workers

Hepatitis B virus is highly contagious. Individuals with chronic infection are usually the main reservoir for continued HBV transmission. Health-care workers (HCWs) particularly have greater chances of hepatitis B infection due to the risk of occupational contact with blood and other body fluids of infected individuals. This may occur following percutaneous injury, blood and body fluids coming in contact with the mucous membrane or non-intact skin exposure to blood and other body fluids. Percutaneous injuries carry the greatest risk of HCW HBV infection and account for about 66,000 HBV infections annually. Every year, about a third of HCWs working in Africa are occupationally exposed to body fluids through percutaneous injuries, which in the context of high prevalence of Hepatitis B in Africa puts HCWs at a high risk of HBV infection [11].

Conclusion:-

Hepatitis B infection is a major public health problem globally. It is the tenth leading cause of mortality worldwide and one of the most important infectious diseases, especially in developing countries. Africa has the second-largest number of chronic HBV carriers after the Western Pacific regions.

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