Hepatitis B

Background

Viral hepatitis caused by hepatitis B virus is transmitted from person to person by exposure to body fluids containing the virus.

Hepatitis B is an entirely vaccine-preventable disease. Most adults who become infected do not suffer serious illness, but some people never recover and become long term carriers (develop chronic viral hepatitis). Some carriers remain infectious and are able to spread the disease to others.[1] Long term carriers face the risk of developing cirrhosis and hepatocellular cancer.

A recent systematic review reports that approximately 3.4 million people (prevalence of 6.7%) are living with chronic hepatitis B in South Africa. [2] Studies have shown that people with chronic hepatitis B infection (carriers) have a 15% to 40% risk of developing cirrhosis, liver failure and/or hepatocellular carcinoma (HCC), and a 15 to 25% risk of dying from liver diseases.[3]

The high prevalence of chronic hepatitis B in SA highlights the continued need for a dedicated focus on prevention and control of this infection.

Occupational Context

Occupational infection occurs mainly from transmission via contaminated needles and other sharp objects in the workplace, or from mucosal contact (e.g. splashes of body fluids to the mouth, nose, eyes or non-intact skin).

Occupations at increased risk of exposure to hepatitis B are:

- **Healthcare workers (including students and trainees):** all healthcare workers who may have direct contact with patients' blood, blood-stained body fluids or tissues, require vaccination. This includes any staff who are at risk of injury from blood-contaminated sharp instruments, or of being deliberately injured or bitten by patients.
- **Laboratory staff:** any laboratory staff who handle body fluids that may contain the virus, require vaccination.
- **Workers who handle human effluent or biosolids**
- **Other occupational risk groups:** in some occupational groups, such as morticians and embalmers, there is an established risk of hepatitis B, and immunisation is recommended

HIV and hepatitis co-infection is common in South African patients and HIV is a known risk factor for increased hepatitis B viral replication.[4] This places South African health care workers at a particularly high risk of infection and makes a comprehensive approach to control of exposure to bloodborne pathogens and complete vaccination coverage even more crucial.

Please click on the link to read the CHS guideline document with the recommended hepatitis B vaccination programme and intervals.

Feel free to contact the SU Occupational Health team on 021 808 3496 with any questions or concerns you may have regarding potential exposure to bloodborne pathogens including hepatitis B.

References

1. International Labour Office. *Joint ILO/WHO guidelines on health services and HIV/AIDS*. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---webdev/documents/publication/kd00016.pdf (2005).
2. Schweitzer, A., Horn, J., Mikolajczyk, R. T., Krause, G. & Ott, J. J. Estimations of worldwide prevalence of chronic hepatitis B virus infection: A systematic review of data published between 1965 and 2013. *The Lancet* **386**, 1546–1555 (2015).
3. McMahon, B. J. The natural history of chronic hepatitis B virus infection. *Hepatology* **49**, (2009).
4. Sondlane, T. H. *et al.* High prevalence of active and occult hepatitis B virus infections in healthcare workers from two provinces of South Africa. *Vaccine* **34**, 3835–3839 (2016).