

Medical guidance notes and information

Hepatitis B Vaccinations

Provision of Hepatitis B Vaccinations

OH is frequently asked by managers whether the company should provide hepatitis B vaccinations for staff.

Background Information

There are 3 types of hepatitis, A, B and C. Hepatitis A is spread by the faeco-oral route. B and C are blood borne and therefore require blood-to-blood contact such as with needlestick injury or handling blood with an open wound, for infection to occur.

It can also be spread by other routes, such as sex, which is not relevant to this document and extremely rarely, from a bite. There have been very few cases in the world who have developed Hepatitis B from a bite.

After needlestick injury from a needle infected with Hepatitis B there is anything between 0.1-30% chance of that person developing Hepatitis B depending on the immunity status of the 'donor'. After needlestick injury from a needle infected with Hepatitis C there is a 3 % chance of that person developing Hepatitis C.

These statistics have been found after needlestick injuries occurring in healthcare professionals exposed to Hepatitis B or C positive 'donors'. The injuries were with fresh blood. The virus will begin to die in a discarded needle and after 48 hours outside the body the risk is almost negligible.

Is Hepatitis B Vaccination Required?

In order to decide whether Hepatitis B vaccination is appropriate, the risk assessment for exposure to needlestick injuries, and risk of subsequently developing of hepatitis should be reviewed.

The risk of developing Hepatitis B or C is low because of the following reasons:

1. The source of the needle is not known. There is no risk of Hepatitis if the 'donor' does not have this.
2. The virus starts to die as soon as it leaves the body thus reducing the infectivity further with needles, which are not fresh. The length of virus survival will depend upon the amount of blood present on the needle.

The primary objective should be to prevent people from having needlestick injuries in the first place. There needs to be a safe procedure for dealing with needlestick hazards which minimises the risk of accidental injury.

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Needlestick injury

- In the unlikely event that someone receives a needlestick injury, please refer to the LU guidance note on needlestick injury – Advice for Employees on immediate management.
- The employee should be advised to attend A+E (Accidental Emergency) as soon as possible. A risk assessment will be undertaken by the casualty doctor who examines that person.
- If the casualty doctor feels that the employee is at risk of developing Hepatitis B, then Hepatitis B immunoglobulin together with vaccination will be offered. Tetanus immunity will be confirmed.
- There is no vaccination available for Hepatitis C or HIV. In certain circumstances there is a protocol for post-exposure prophylaxis/treatment in cases of exposure to a known HIV positive 'donor'.

Hepatitis B Vaccination

This consists of 3 injections. People will need to have a blood test to ensure that they have developed adequate antibodies. Full protection may take up to 6 months to develop and boosters may be required 3-5 years later. People can occasionally react to a vaccination.

Some people never develop adequate antibodies. If the company decides it wishes to recommend hepatitis vaccination consideration will need to be given to the employment options of these people.

Vaccination is recommended for high-risk groups by consultants in infectious diseases – high-risk groups would include:

1. Health care professionals;
2. Intravenous drug abusers;
3. People who practice unsafe sex;
4. Haemophiliacs or those receiving frequent blood products/transfusions;
5. Infants born to infected mothers.

OH believe the risk to station staff of Hepatitis from needlestick injury is very low provided there are adequate procedures for safe disposal of sharps/needles/syringes and adequate training in these techniques for staff. In the unlikely event of accidental exposure, there should be first aid available and the individual should be instructed to attend the local Accident and Emergency department for further advice as soon as possible.

OH should be informed of any needlestick injuries, as we may need to review the employee and counsel them as appropriate.

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