

Undergraduate Medical Education

Working Policy with Respect to Hepatitis B Infected Students

Student Conduct Component: Policy #SC-08

Supersedes: none

Lead Writer: Immunization and Communicable Disease Screening Committee

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1.0 Background

- 1.1. Hepatitis B is a blood borne communicable disease. Inadvertent or accidental exposure of an affected student's blood to a patient results in a risk of transmission of the disease to the patient. Hepatitis B carrier state is defined by detection of surface antigen. Infectivity is related to the levels of viral DNA detectable (HBV DNA). The presence of e-antigen indicates active replication of virus and therefore much enhanced infectivity, but high levels of viral DNA indicate risk for transmission even in e-antigen negative individuals.
- 1.2. This document is intended to clarify policy with regard to management of Hepatitis B infected students ("affected students") within the MD Undergraduate program, and will be made available to students and curricular leaders. It was developed by an expert advisory panel assembled to review this topic, and draws primarily from the latest evidence, which the panel felt was the most comprehensive and most appropriate to application in an undergraduate context.

2.0 Definitions

- 2.1. Exposure Prone Procedures (EPP): Those procedures where there is a risk that injury to the physician (student) may result in exposure of the patient's open tissues to blood of the physician (student) (bleedback). These include procedures where the student's gloved hand may be in contact with sharp instruments, needle tips or sharp tissues (spicules of bone or teeth) inside a patient's open body cavity, wound or confined anatomical space where the hands or finger tips may not be completely visible at all times.
- 2.2. Non-exposure Prone Procedures (NEPP): Procedures where the hands and fingertips of the physician (student) are visible and outside the patient's body at all times, and internal examinations or procedures that do not involve possible injury to the physician's (student's) gloved hands from sharp instruments and/or tissues, and are considered to be non-exposure prone provided routine infection control procedures are adhered to at all times. Examples of NEPPs include:

- The drawing of blood
- Setting up and maintaining intravenous or central lines, provided there has been no skin tunneling and the procedure is performed in a non-exposure prone manner
- Minor surface suturing
- The incision of external abscesses
- Routine vaginal or rectal examinations
- Simple endoscopic procedures

2.3. A decision as to whether an affected student should perform a procedure which is not exposure prone should take into account the risk of complications arising that might necessitate the performance of an exposure prone procedure.

2.4. Non-exposure prone procedures may be performed on co-operative patients only.

3.0 Recommendations regarding performance of Physical Examination

3.1. Subject to precautions noted below, affected students may perform routine physical examination provided there is no evidence of open or healing wounds.

Recommendations with Respect to procedures

HBV DNA	Exposure Prone Procedures	Non-Exposure Prone Procedures
(10 ³) < 1000 IU/ml	Not restricted	Not restricted
>1000 IU/ml	Prohibited	Not restricted

4.0 Recommendations regarding monitoring

4.1. The Communicable Disease Advisory Group will follow the clinical progress and antigen status of all Hepatitis B infected students, with the primary goal of ensuring patient safety. In doing so it will:

- ensure the student is under active medical treatment
- communicate with the student's treating physician
- receive all relevant laboratory and clinical data
- communicate with and make recommendations to the student and to curricular leaders as appropriate

- 4.2. Hepatitis B infected students must undertake continuous medical follow-up and report their clinical and antigen status to the Advisory Group.
- 4.3. All students who are HBsAg positive should have HBV DNA levels checked otherwise, they will be presumed to have viral levels more than 1000 IU/ml and managed as such.
- 4.4. HBV DNA levels should be measured every 6 months or presumed to be greater than 1000 IU/ml and managed as such. Hepatitis viral DNA testing must be carried out immediately if a student becomes immunosuppressed or develops symptoms suggestive of a reactivation of their Hepatitis B, or investigation of a case of Hepatitis B in a patient suggests the possibility of transmission from the student to the patient.

Revised and Approved by Communicable Disease Advisory Group

November 14, 2013

References

Centers for Disease Control and Prevention (CDC). Updated CDC recommendations for the management of hepatitis B virus-infected health care providers and students. *MMWR* 2012; 61 (RR03):1-12

Henderson DK, Dembry L, Fishman NO, et al. SHEA guideline for management of healthcare workers who are infected with hepatitis B virus, hepatitis C virus and/or human immunodeficiency virus. *Infect Control Hosp Epidemiol* 2010; 31:203-32