

ABSTRACT

Assessment of adherence to infection control measures amongst medical students. A case study of Mbarara University Medical School

Introduction

In order to attain the necessary experience required in medical practice, Mbarara University medical students who usually have a limited experience, background knowledge and underdeveloped practical skills must undergo training sessions that involve direct interaction with blood and other body fluids. This puts the students at a high risk and makes them vulnerable to accidental exposures involving blood and other body fluids (Bell.D.M, et al 1995). WHO, (2001) recommends adherence to infection control measures to minimize these exposures. The purpose of this study was to determine the level of adherence to infection control measures amongst medical students in Mbarara university medical school.

Objective

The main objective was to assess adherence to infection control measures among medical students at MUST during the period of their clinical rotation and the specific objectives were to determine the frequency of exposures to blood and other body fluids, to identify the infection control measures in place and to assess the practices of medical students in regard to infection control measures among medical students in clinical years at MUST

Methodology

The study was a descriptive cross sectional study and data was collected using self administer semi structured questioners and a direct assessment infection control guide. The study population was purposively selected to include all 3rd, 4th and 5th year MBChB, BNSc and BMLS students since its only students from these courses and years at MUST that go for clinical trainings. A total of 177 medical students participated in this study. The study was carried out between the months of October and November 2012. Data was entered in Epi-info and transferred to SPSS version 16.0 for analysis.

Results

The study found out that there were high numbers of blood and body fluid exposures especially on maternity (51.9%), medical (49.7%), emergency (46.3%) and laboratory (38.4%) departments.

Putting IV lines and obstetric deliveries registered the high causes of exposure for MBChB students (40.8 and 47.8% respectively), putting IV lines, giving injections and obstetric delivery were the major causes of exposures for BNSc students (54.8, 48.3 and 41.9% respectively) and drawing and testing blood were the high causes of exposures for BMLS students with 54.8 and 45.1% of the students reporting exposures due to these causes respectively.

Direct contact with blood, needle stick injuries and amniotic fluid were the highest sources of exposures (71.5%, 46.8% and 42.9% respectively) amongst medical students

Only 82/177 (46.3%) of the students had completed all the 3 Hep B shots and 17/177 (9.6%) had never taken any shot of which 9/17 of these were BNSc students. 6/17 Fourth year BNSc students had never taken any shot and all the fourth year BMLS students had taken at least one shot

No student was seen using eye goggles and face masks even during high risk procedures like drawing blood and processing sputum specimens

Much as no student was seen recapping needles after use during the direct observation assessments, 25.9% of the students had been exposed as result of recapping and 46.8% had experienced needle stick injuries.

The general level of adherence to infection control measures was low since students were seen not to adhere to the available infection control measures for example 4 out of the 22 students found in the lab did not have lab coats, no one working on samples and withdrawing blood had facemasks and eye goggles on, 14 students were found with open shoes on wards, and all the students were seen moving in their clinical coats, lab coats and uniforms to their residences from wards.

Conclusion and recommendation

The high percentages of exposures noted on maternity, medical, emergency and surgical wards, together with the high frequencies of exposures due to blood, amniotic fluids and medical procedures such as putting IV lines, drawing blood and during obstetric deliveries explain the low levels of adherence to infection control measures amongst medical students

Most medical students training areas lacked some of the infection control measures. However, even in areas that had some of the infection control measures in place, such as face masks, eye goggles, Hep B vaccine, infection control signs, an exposure reporting point and hand washing points, students were seen not to adhere to them leading to a low level of adherence registered in this study.

Continuous training sessions and consistent supply of adequate infection control supplies such as gloves, masks and eye goggles, running water for some sinks, students changing rooms and unblocking the blocked sinks are required to improve the medical student's adherence to infection control measures