

Biorisk Management Education for Undergraduates Studying Clinical Microbiology at University in Japan

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Abstract : Biorisk management (Biosafety/Biosecurity) is required for anyone working in a clinical laboratory (including medical/clinical research laboratories) where infectious agents and potentially hazardous biological materials are examined/stored. Proper education and training based on international standards of biorisk management should be provided not only as a part of laboratory safety program in work place but also as a part of introductory training at educational institutions for continuity and to elevate overall baseline of the biorisk management. We reported results of the pilot study of biorisk management education for graduate students majored in laboratory diagnostics previously. However, postgraduate education is still late in their profession and the participants' interview also revealed importance and demands of earlier biorisk management education for undergraduates. The aim of this study is to identify the need for biosafety/biosecurity education and training program which is designed for undergraduate students who are entering the profession in clinical microbiology. We modified the previous program to include more basic topics and explanations (risk management, principles of safe clinical lab practices, personal protective equipment, disinfection, disposal of biological substances) and provided incorporating in the routine educational system for faculty of medical sciences in Kyushu University. The results of the pre and post examinations showed that the knowledge of the students on biorisk control had developed effectively as a proof of effectiveness of the program even in the undergraduate students. Our study indicates that administrating the basic biorisk management program in the earlier stage of learning will add positive impact to the understanding of biosafety to the health professional education.

Keywords : biorisk management, biosafety, biosecurity, clinical microbiology, education for undergraduates

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