

The Role of Training and Education Programs of Clinical Laboratories in Myanmar

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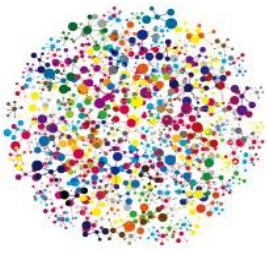
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Universal Health Coverage (UHC) is the first step of achievement as a part of its Vision 2030 for a healthier and more productive population. Human resource management is one of the implementation plans of the health workforce strategy in our country. Human Resources for Health Development Programme consists of production of different categories of the health professionals according to the needs, development of infrastructure such as teaching materials, technology, upgrading laboratories to attain International Standard, regulation of curricula in relevance to the changing trends in medical education and strengthening of human resource information and research activities. In Myanmar, Department of Human Resources for Health (DHRH) is responsible for carrying out the training and education of health personnel including Medical Laboratory Technologists (MLT) who are working in clinical laboratories of Government Hospitals, Private Clinics and Hospitals. In our country, there are two Universities of Medical Technology in Yangon and in Mandalay. Medical Laboratory Technologist typically earns a bachelor's degree of B. Med. Tech in medical laboratory science after a total of four years which includes two years education for Basic Science subjects and two years for specific pathology and microbiology subjects such as Histopathology, Chemical Pathology, Haematology and Microbiology. Para-clinical course and practical laboratory tests are conducted by on-job training in clinical laboratories of General Hospitals in third year and final year. Post-graduation degree for master course (M. Med. Tech) is the highest level of qualification from the University of Medical Technology in our country. One year Medical Technologist Grade I course is conducted in main Teaching General Hospitals in Yangon and in Mandalay. These students continue to study two years for Medical Technology Grade II course at National Health Laboratory, Yangon after working two years service in clinical laboratories of General Hospitals. MLT students learn the basic pathology and adequate knowledge of laboratory procedures to become an efficient, competent, skillful and socially accountable Medical Laboratory Technologists. In final year, students work in the Bloc posting in National Blood Center (Yangon General Hospital) for blood transfusion services, National Health Laboratory for Quality control and Quality Assurance measures, Central Women Hospital laboratory for cytology training. In Department of Medical Research, all laboratory Technicians need to obtain one science degree, either the graduation of different science degrees including Zoology, Botany, Physics and Chemistry or Pharmacology. They study and learn the laboratory procedures and principle of tests according to the guidelines of Research Divisions on job training. In clinical laboratories of private clinics and Hospitals, MLT are working part-time or full time who are trained to operate

advanced equipments and performed laboratory tests. Most of the MLT are generalists, skilled in all fields of the clinical laboratories in General Hospitals, however some are specialists technicians,



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qualified by additional training to perform more advanced methods of special tests for Haematology, Microbiology, Virology, Parasitology, Mycology, Histopathology, Biochemistry, Cytogenetics, Cytopathology, Toxicology, Molecular Biology and Immunology etc. MLT is also responsible for accuracy of laboratory test results and reporting laboratory findings to pathologists/laboratory in-charge in clinical laboratories. They are responsible for interpreting and communicating with the physician for the results of critical patients in clinics and hospitals. Laboratory in-charge pathologists may confirm the accurate laboratory reports or results from all sections of clinical laboratory in time. MLT also regularly performs validations, calibrations and quality control of all equipments and special test kits. They do well understand the guidelines of bio-safety measures and methods, the proper handling of infectious samples and proper methods of waste materials management. MLT may have good chance for training both locally or abroad in developed countries during their posting in departments or divisions. The National Health Laboratory, Department of Health Services maintains the quality control of laboratory tests in all clinical laboratories in private and government sectors by using standard samples from external reference laboratories. In the Department of Public Health, there are some basic laboratories for communicable disease control programs in our country especially for Tuberculosis, Malaria and Human Immunodeficiency Virus infections. The Systematic Programs based on Education and Training of Medical Technologists are very credential in clinical laboratories Department of Medical services for proper management of diseases, Department of public health for surveillance and control of infectious diseases, Department of food and drugs administration for quality control of drugs, foods and cosmetics and Department of Medical Research for evidence based research data of communicable and non-communicable diseases in rural and urban areas of our country.