



Medical School Hotline

The Role of the Medical Technologist in Medicine

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The role of the medical technologist in medicine is always changing and that is even more true in today's world. Indeed downsizing, right sizing, mergers, re-engineering, restructuring, and reorganization are familiar terms to these health professionals. Added to the many changes are the numerous regulations such as the Good Manufacturing Practices required in Blood Banking and the Clinical Laboratory Improvement Amendments of 1988. Finally, trends like point-of-care testing and managed care create a scope and a rate of change that has great significance.

Even medical technologists actively involved in providing the fundamental laboratory services have new dimensions to their positions whether it be the technology itself, supervising others or dealing with billing codes. These professionals have long been responsible for quality assurance in the laboratory which involves accuracy in specimen identification, viable reagents, proper methodology, functioning instrumentation and responsible distribution of results. Generally they work behind the scenes.

Some of the unique opportunities emerging for medical technologists are positions on institution-wide committees to develop policies and problem solve, trainers on specific hospital wards or for entire facilities to oversee the point-of-care testing and as consultants in establishing all the systems and documentation needed for testing in physicians offices. Some have traded a microscope for a telephone and serve as client service representatives on the front line to facilitate the numerous issues that surface in the clinical laboratories.


Medical Technology includes five major disciplines: hematology, clinical chemistry, microbiology, immunology and immunohematology or blood bank-

ing. The medical technologist is educated in all of these as a generalist but it has been common in larger facilities to work as a specialist. Recent trends call for a return to the generalist role and many are refining old skills. New roles better utilize the many skills and competencies of today's medical technologists. In fact, medical technologists are being recognized by a new name which is clinical laboratory scientist. This title more appropriately reflects their background and helps to avoid confusion with the term medical technology which often is used in describing technological advances in medicine like specialized care units or imaging devices.

The education of clinical laboratory scientists in Hawaii has quite a history. This year marks the 50th anniversary of awarding the baccalaureate of science degree in medical technology at UHM. While the initial curriculum involved a senior-year rotation in a clinical laboratory to learn all the skills needed for the profession, modifications in the curriculum have added professional courses on campus starting in the freshman year. Early courses acquaint the students with the profession before they apply for acceptance into the junior year. Additional courses in the profession during the junior and senior years enable students to acquire professional level knowledge, skills and attitudes in the academic setting. A clerkship of six-weeks is designed between the junior and senior year which gives students an opportunity to gain personal experience in a clinical laboratory. A problem-based learning component is offered during this clerkship and students are linked by distance technology as needed. This summer a PBL section had students from Arkansas and Saipan linked with their classmates on Kauai while the tutor was in Honolulu. All students return to campus for their senior year. After earning the degree, they spend a final six-months clinical training rotation in a laboratory refining skills gained in the classroom and on site. Distance learning technology links students on Oahu and Hawaii. The student then takes a national certification examination which is required for employment and seeks state licensure in those states where such exists. The baccalaureate degree prepares students to be marketable professionals.

The job market is changing dramatically. About two years ago in Hawaii and nationally there was a shortage of clinical laboratory scientists. Last year jobs were hard to find. However, in the last two months most to all of the graduates have been hired here and in selected areas of the mainland.

The Division of Medical Technology is part of the John A. Burns School of Medicine. Faculty in the Division serve as tutors and resource people among other roles in the MD-PBL program. At times learning activities bring the students in medicine and medical technology together which facilitates their teamwork in the marketplace. The Division utilizes distance technology linking faculty in multiple sites on four islands. Clinical faculty in the many facilities together with faculty on campus provide an invaluable partnership in planning and delivering this curriculum.



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