

Changing Prospects of Chemical Pathologist in Pakistan

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The explosion of technology is providing the clinical laboratory professional a renewed chance to become a more visible and productive member of the team of health providers². Chemical pathology is an emerging field in Pakistan; very few qualified chemical pathologists are available, even in this era of post graduation. There is a need to introduce this subspecialty and to create awareness of the subject in the medical community at large. Chemical pathology is a branch of pathology dealing with the biochemical basis of diseases and the use of biochemical tests in the use of diagnosis and management³.

A chemical pathologist has dual responsibilities. First there is the provision of a reliable analytical service, for example measuring serum electrolytes, indices of liver function, hormones, drugs and tumor markers in hundreds of patient samples every day. Many of these analyses are performed on automated analyzers, usually operated by biomedical scientists, but the management of the process, staffing, assurance of quality, provision of guidance on the selection of tests and assessment of the significance of the results (particularly with some of the less generally familiar tests) are the province of the chemical pathologist. Secondly they have an important clinical role, not only advising on the management of patients with metabolic disturbances but also increasingly having direct responsibility for such patients in out-patient clinics and in the wards³.

Managed care, challenges pathologists to a paradoxical cultural transition requiring clinical participation in the community while refining competitive managerial skills to maintain a livelihood. This presentation explores several role changes that a pathologist may undertake to acquire perceived clinical and economic value in a managed care system⁴.

Chemical pathologist works closely with general practitioners, who are major users of the laboratory services, as well as with hospital colleagues. Management and interpersonal skills are essential for chemical pathology; they rely heavily on the skills of their scientific and technical colleagues in the laboratory as well as nurses and other health care professionals in clinics and wards³.

Nowadays the laboratory tests comprise an increasing volume and medical workers frequently need consultation on these tests. Effective utilization of laboratory data is an important aspect of evidence-based medicine and will also contribute to the efficiency of hospital practice and management. A chemical pathologist aims to improve medical care by providing accurate and up-to-date information on clinical laboratory tests and interpretations. They attempt to advise physicians regarding appropriate tests for particular patients. This avoids the ordering of unnecessary tests, which benefit the patient, the physician and the hospital.

A pathologist with a medical degree is a clinician and by having a higher qualification in any pathology discipline will only reinforce his status as a clinician. A chemical pathologist is therefore in a unique position to link the patient's clinical details with the laboratory evidence and to give advice regarding diagnosis and treatment of many diseases⁵. The laboratory medicine professional of today has the unique opportunity to communicate and exchange knowledge and expertise with clinical counterparts, using a variety of educational and electronic means⁵. It is extremely important that pathologist and clinicians should be indulged in reciprocal-communication and should promote such communications constantly⁶. It is with these tools and knowledge that the clinical laboratory can contribute substantially to overall patient care. This shall only result in the beneficial outcome of the patient.

Gone are the days when the chemical pathologist spent all his or her time in the laboratory. In the 21st century, laboratory scientists must change their concepts and attitude in order to supply services and information of great value. Chemical pathologists are increasingly pathologists working at the bedside - truly clinical pathologists. It is an exciting and rewarding specialty and has the considerable attraction of being practiced for the most part during socially acceptable working hours!

References

1. Joshi VV. Pathologist or laboratory physician. *Lancet*, 1995;346:258.
2. Zinder O. New directions in laboratory-clinician communications. *Clin.Chim. Acta.*, 1998;278:83-94.
3. Marshall W. Chemical pathology. Website of Royal College of Pathologists, August 2000.
(<http://www.rcpath.org>)
4. Elevitch FR. A pathologist is as a pathologist does: changing roles in a changing time. *Arch. Pathol.Lab.Med.*,1995;119:586-90.
5. Al-Jubouri MA. Pathologist or laboratory physician? . *Lancet*, 1995;30;346.
6. Zanetto U. Pathologist or laboratory physician . *Ibid* 903-4.