

## Comment on “Status of Pathology Professionals”

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In 2012 Jan issue, Journal of Nepal Health Research Council published an article “Status of Pathology Professionals” by Mishra SK affiliated to Concern for Public Health and Development (C-PHD), Kathmandu, Tiwari BR affiliated to Department of Clinical Microbiology, People’s Dental College, Tribhuvan University and Yadav BK from Department of Clinical Biochemistry, Institute of Medicine, Kathmandu, Tribhuvan University, Nepal. As a result, comments were sent to JNHRC, and are published below.

Mishra SK, Tiwari BR, Yadav BK. Status of Pathology Professionals. J Nepal Health Res Counc 2012 Jan;10(20):37-40. PMID: 22929635.

Dear Editor,

We appreciate the authors’ effort on highlighting the workforce heading the private pathology laboratories of Kathmandu. It is indeed pathetic that only 8% laboratories are headed by pathologists. Definitely ethics and limitations are seriously violated.

Pathology is the branch of medicine which focuses on study of disease by examining the body tissue, blood and other body fluids and pathologists are specialist medical practitioners who specializes in the diagnosis and management of human disease by laboratory methods.<sup>1</sup> Pathology has nine major areas of activity which include Anatomical/surgical Pathology, Chemical Pathology, Clinical Pathology, Forensic Pathology, General Pathology, Genetic Pathology, Hematology, Immunopathology and Microbiology.<sup>2</sup>

A general pathologist is familiar with the major aspects of all branches of laboratory medicine described above. He or she is usually trained in anatomical pathology, cytology, chemical pathology, microbiology, hematology and blood banking.<sup>2</sup>

The subject “Pathology” is not synonymous with “Medical laboratory technology” which comes under “allied health science.” Allied health professions are health care professions distinct from medicine, dentistry, nursing, podiatry and pharmacy.<sup>3</sup> The list of allied health professionalis quiet long. A laboratory technician is a health care professional allied to pathology as are

anesthesia technician, audiologist, dental hygienist, medical imaging technicians and radiation therapist allied to anesthesia, otorhinolaryngology, dentistry, radiology and radiotherapy respectively.

There is no doubt that pathology service is a team work but the authors’ opinion that “one can be generalist(not specialist) by holding a degree in which they have studied all branches of pathology like microbiology, biochemistry, hematology and histopathology “is irrational. The curriculum of MD Pathology in Nepal and India is oriented towards producing general pathologist who can supervise all areas of laboratory work. Of course after MD, these pathologists may obtain further training in branches like cytopathology, hematopathology, histopathology etc. But these general pathologists are still specialist physicians as are doctors with MD/MS degree in internal medicine, general surgery, gynecology/ obstetrics, anesthesia and other subjects.

Certain terminologies used require clarification. The term “pathology assistant” is used synonymously as lab assistant in the article. Pathology assistants (also called pathologists’ assistants) are highly trained allied health professional whose expertise lies in gross examination of surgical specimens as well as performing forensic and medicolegal autopsies. To become a pathology assistant, one has to have a BSc or MSc degree in Pathology or Pathology Assistant Studies.<sup>4</sup> Such type of course is available in West but not in Nepal or India. Lab assistant

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course is not even equivalent to certificate level programmes in Nepal. Google search didn't reveal terms like pathology officer or pathology officer assistant which is used in the article.

All professions deserve respect. Qualified technicians are integral part of medical laboratory. The Msc/ MScMLT (Master of science in Medical Laboratory Technology) in cytology, hematology, biochemistry and microbiology produces "technical personnel" who have

more knowledge and skill than person with bachelor degree in respective subjects but this qualification is not equivalent to MD Pathology, MD Biochemistry or MD Microbiology for which one has to be a physician. Also to be known as cytopathologists or hematopathologist, one should be a pathologist, for which he or she should have MBBS as basic degree. But even these terminologies are used liberally in the article for other qualifications.

**Table 1. Qualification norms for authorized signatories given by NABL<sup>5</sup>**

No.	Qualifications	Disciplines for being authorized signatory
A	M.D. (Pathology)	Histopathology, Cytopathology Clinical Pathology, Haematology, Clinical Biochemistry, Nuclear Medicine (in-vitro tests), routine Microbiology and Serology, Genetics, Flow Cytometry and Molecular Biology
B	M.D. (Microbiology)	Microbiology and Serology, Flow Cytometry, Molecular Biology, Clinical Pathology, routine Haematology and routine Biochemistry
C	Ph.D. (Microbiology) with M.Sc. (Medical Microbiology)	Microbiology and Serology, Clinical Pathology, Flow Cytometry, Molecular Biology
D	M.D. (Biochemistry)	Clinical Biochemistry, Clinical Pathology, Nuclear Medicine (in-vitro tests), Flow Cytometry, Molecular Biology, Routine Haematology, Routine Microbiology and Serology
E	Ph.D. (Biochemistry) with M.Sc. (Biochemistry)	Clinical Biochemistry, Clinical Pathology, Nuclear Medicine (in-vitro tests), Flow Cytometry, Molecular Biology
F	M.S. (Anatomy)/ Ph.D. with M.Sc. (Human Anatomy)/ Ph.D. (Genetics)/ Ph.D. (Applied Biology)	Genetics
G	Medical Degree with specialized (post graduate) qualification in nuclear medicine such as Diploma in Radiation Medicine (DRM), M.D./ Ph.D./ M.Sc. in Nuclear Medicine	Nuclear Medicine. It is necessary that the person concerned holds a certificate from BARC on the use of radioisotopes and RIA, this is the mandatory requirement of AERB
H	M. D. in Lab Medicine	Clinical Pathology, Haematology, Clinical Biochemistry, Nuclear Medicine (in-vitro tests), routine Microbiology and Serology
I	DCP with 7 years experience	Histopathology, Cytopathology, Clinical Pathology, Haematology, Clinical Biochemistry, Nuclear Medicine (in-vitro tests), routine Microbiology and Serology
J	MBBS with three years experience in medical laboratory	Routine Clinical Biochemistry, routine Haematology, routine Microbiology and Serology, and Clinical Pathology.
K	M.Sc. in Medical Biochemistry with 5 years experience or M.Sc. in Biochemistry with 7 years experience in Medical laboratory	Clinical Biochemistry, Clinical Pathology, routine Haematology, routine Microbiology and Serology.
L	M.Sc. in Medical Microbiology with 5 years experience or M.Sc. in Microbiology with 7 years experience in Medical laboratory	Microbiology and Serology, Clinical Pathology, routine Clinical Biochemistry, routine Haematology.

Considering pathology investigations to be performed and signed by pathologists a malpractice is authors' personal

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wrong and biased opinion lacking any reference. In Nepal, serious attention is not given towards accreditation of laboratories. For accreditation, the laboratories are required to comply with all the requirements listed in the international standard ISO 15189. Further, the laboratory shall follow the national, regional and local laws and regulations as applicable. National Accreditation Board for Testing and Calibration Laboratories (NABL) has given qualification norms for authorized signatories for routine and special tests.<sup>5</sup>

According to these criteria, MD(pathology) is authorized to sign any discipline of laboratory medicine whereas MD biochemistry/microbiology/laboratory medicine can sign most disciplines. Disciplines for authorized signatory are more limited for PhD in biochemistry/ microbiology as compared to MD biochemistry/microbiology. Where as a MBBS without any added qualification and only 3 years experience can sign some limited discipline, minimum 5 years experience after Msc in Biochemistry or Medical microbiology is required for the same (Table 1).<sup>5</sup>

The time has come when accreditation of medical laboratories should be made compulsory according to

international norms and The National Public Health Laboratory should revise the guidelines for authorized signatory.

## REFERENCES

1. Australian Association of pathology Practice [Online]. [Cited 2012 Mar 26]. Available from <http://www.pathologyaustralia.com.au/c9/About+Pathology.aspx>
2. The Royal College of Pathologists of Australasia (Cited 2012 Mar 26). Available from: URL:<http://www.rcpa.edu.au/Pathology/Disciplines.htm>
3. Wikipedia [Online]. [Cited 2012 Mar 26]. Available from: URL:[en.wikipedia.org/wiki/Alliedhealth\\_profession](http://en.wikipedia.org/wiki/Alliedhealth_profession)
4. American association of Pathologists' Assistant [Online]. [Cited 2012 Mar 26]. Available from: URL:<http://www.pathassist.org/displaycommon.cfm?an=1&subarticlenbr=35>
5. National Accreditation Board for Testing and Calibration Laboratories. Specific criteria for Accreditation of medical Laboratories [Online]. [Cited 2012 Mar 26]. Available from: URL:[http://www.gujhealth.gov.in/portal/news/77\\_1\\_nabl-112-laboretories.pdf](http://www.gujhealth.gov.in/portal/news/77_1_nabl-112-laboretories.pdf)