

Editorial

Little Attention Paid to Laboratory Medicine in Medical School Curriculum

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One of the most important factors in diagnosis, screening, therapy and pursuing different diseases, is to perform clinical tests. This point in modern medical science has gained the acceptance in public. According to a research in the United States laboratory sciences, despite containing 3.2% of the cost spent for healthcare matters, this plays an important role in establishing decisions in healthcare(1). Taking advantage of clinical examinations on the right time is useful in taking up the quality of the healthcare in society.

However, in general practice educational programs a little concern has been paid to teaching the laboratory medicine.

This subject was also stated in the annual report of The Centers for Diseases Control and Prevention (CDC) in 2009(1). In this report, it is mentioned clearly that medical education is not adequate in lab sciences, in spite of importance of medical tests in medicine, any formal course of laboratory medicine is nearly overlooked in curriculums of medicine universities, and without enough knowledge of medical tests performing wrong exams by the staff of health and hygiene is likely to be done wrong, and this may result in inaccurate treatment and increasing the costs of patients per head and critical payoffs(1).

In the United States of America by the 100th anniversary of Flexner educational medicine codi-

fication, the laboratory medicine was paid a great attention(2). Based on the research performed in the United States, students of medicine are not familiar with laboratory science skills, such as urine test, which is used in daily clinical work. Another assessment in England shows that 18% to 20% of the graduated students of medicine assessed themselves less that needed level in functioning diagnostic medical tests(2).

In report of 2009 of Association of American Medical Colleges (AAMC), it is expressed that putting such a program (teaching laboratory science to medical students) in educational curriculum is considered crucial, including the principles of laboratory science throughout all the educational parts, is necessary for raising the efficiency of linked educational programs(2). In this report, it is also mentioned that at the end of elementary education of medicine, students should know they might use clinical tests for different clinical aims: to watch, assess the risk of producing the disease, diagnosis, agree or disagree with a diagnosis, foresee the path of an illness, decide for a certain treatment and evaluate the development of the disease or its reactions to the treatment(2). They should know the analysis of the experiments differ in different situations and this analysis is conducted considering the completely clinical conditions. Not only should they be able to require for special

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related clinical examinations but also to suggest the helping ones for the patients. They should obtain the skills in the field of how to gain the fine consultation with clinical pathologists, laboratory staff, and other laboratory specialists to maximize the patient care. They should be familiar with taking the use of medical cares which diagnostic medical labs are involved in, like deploying blood products, cell treatments, and other special medical cares and to notice their economical function(2).

In Iran, there is no arranged and classic program for teaching clinical laboratory science to students too; however concerning their growing importance of this ground, the need for including this subject in educating system of general practice is felt. Graduated students in country should be able to recognize the characteristics of a medical test for a certain illness, to know the value of positive or negative test result and how to use reference intervals in different populations, interpret the difference in results in several exams and also the difference in results per person, to know the causes for uncertain analysis, to know the effect of pre-analytical and post-analytical variables in test results and in patient care, to determine the critical

value and turnaround time for each test, to know the priority of requiring an emergency or normal test, to know the conditions which may interfere with the tests like having the shortage or excess in amount of the test samples, hemolysis, lipemia and etc, to understand the concept of point of care (POC) and to function it.

It seems that considering what mentioned above, the medical universities in country along with the ones in developed countries should define long term, medium term, and short-term goals, reoffered to laboratory science and have the decent teaching and quality testing techniques in educational programs of medical studies.

References

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