

Going beyond the curriculum to promote medical education and practice.

Sir,

Promoting and updating the medical curriculum is a nagging issue that medical teaching systems all over the world have to face. As clearly stated in a recent review article published in the Saudi Medical Journal,¹ the development of any nation is measured by the populations health status, health care services and the individuals quality of life. Indeed, any country, particularly among the developing ones, who wish to achieve such objectives should have specific goals, reflected in its medical education system and clear strategies to achieve such targets. This however, does not only include the medical students, doctors and consultants, but should also target the other ancillary medical staff and positions up to hospital managers and members of health authorities. In many rich petroleum countries including Libya where millions of dollars have been spent in health services and medical education, little is reflected on the quality of such services that the citizens can feel and enjoy.² Hence, going beyond the curriculum to promote medical education and practice becomes a pressing and important issue in order to face the vast change in medical knowledge, which is clearly feasible nowadays.³ This however, could be started as early as the start of medical school and even before during high school education.⁴ Medical schools should change their methods of teaching and the way they deal with students, instead of dealing with them as "listeners" practicing on them dictated knowledge with "Talk & Chalk". Students should play an integrated role and be part of the medical education. Within the medical school or even before, students should learn not only how to get the right knowledge but also how to analyze scientific data and how they could face medical-oriented problems.⁵ They have to learn how to involve themselves in the development of research as early as possible." Listen and think not only listen to know. Furthermore, medical schools should change the students evaluation system, not to adhere themselves to the classical way of examination that we are practicing upon our students.⁶ New methods of assessment have to be introduced, with particular attention to the gifted ones, to which they could form a nucleus for us to develop and discover, I am sure we have many of them. To achieve such objectives medical schools should seriously think about the ways they choose their teaching staff and how they could assess and evaluate them on a regular basis; an important issue the arabic universities are usually

hesitant to talk about. A central body at the university formed from Professors and Academicians with an outstanding curriculum may be introduced to assess the teaching staff, not only how they deal with students and whether they are following an updating method of teaching, utilizing the existing facilities, but to follow up their research activities and the participation in departmental, hospital and university seminars which they have to be hold on a regular basis, further to the national and international conferences.⁷ Heads of the departments should be appointed according to the scientific and clinical calipers, their capability to update the department, guide specific programs for community based studies and postgraduate study programs; an avenue each department should be able to explore. Further, to develop areas of research that could promote grants for departments both from governmental and private sectors. Universities on the other hand, should publish within their annual calendars the list of their teaching staff and involve themselves in awarding grants and prizes to the distinguished ones. This will definitely add further burdens to the already limited budget of the universities, but should be dealt with. Regular updating of such reforms to meet the international standards should be within the agenda of the university council. It has to be stated clearly on an annual basis that every member of staff and department should be vigilant enough to understand and meet such reforms.

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Reply from Author

I would like to thank Dr. Daw for his interest in our article that was recently published in the Saudi Medical Journal.¹ It is very encouraging to find out that the principle of going beyond the curriculum to promote medical education is believed to be important to follow the rapid changes in the medical field. I agree with Dr. Daw in all his comments. The universities in Arab Countries are performing enormous efforts in the field of medical education, that cannot be denied. The arab universities are aware of the positive and the negative issues in their systems which is a strong indicator that they are on the right direction. It is not easy to change education systems and will certainly require enormous effort, time and patience. I would like to support Dr. Daw's belief in the importance of research, which is the

foundation of development. Let me take the opportunity to emphasize the importance of Epidemiology in this respect. This subject is the basis of medical research and should be taught on all levels in medical schools. This is a priority issue when planning for future development in medical education.

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Insulin therapy for diabetic ketoacidosis

Sir,

I read with interest the communication of Dr. Khan on the dangers of intravenous (IV) insulin in the management of diabetic ketoacidosis (DKA).¹ Because of the importance of the topic, many points in their report need to be clarified. Although crucial information such as the weight and blood gas status of the patients were not given, the insulin dose prescribed by the treating physician is apparently high (10 U/hour). It is well known that continuous insulin infusion therapy is not recommended if

syringe or infusion pumps are not available, but I can hardly see how an ordinary plain drip set delivers 500 ml of fluid in one hour. Ideally, severe DKA should be treated in intensive care units particularly if bicarbonate therapy is contemplated,² but in many situations this is not possible for logistic reasons. It is not clear from the report whether the patients died of severe hypoglycemia complicated by neuroglycopenia or of cerebral edema secondary to the rapid fall in osmolality. Very little clinical data was presented, which was not enough for making solid conclusions. The astonishing thing was the recommendation they made about using IV insulin in pulses where continuous infusion is not possible. Bolus IV insulin therapy is not appropriate. It leads to rapid lowering of plasma glucose that is shortly followed by a rebound hyperglycemia because the half-life of IV insulin is only 5 minutes.³ The rational recommendation in such circumstances is the use of a single initial IV insulin dose of 0.1 U/kg body weight followed by IM insulin in doses of 0.1 U/kg/hour. After the control of hyperglycemia (blood glucose < 15 mmol/l) and the disappearance of acidosis (blood pH > 7.3), the insulin should be given subcutaneously in a dose of 0.25 U/kg every 4-6 hours. Continuous glucose monitoring using electronic devices is not essential and the bedside measurement of capillary blood glucose is quite reliable. The need for development of adapted local protocols for the management of this acute medical emergency, that take into account the availability of staff and facilities, cannot be over emphasized.

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Reply from the Author

Sir,

I would like to thank Dr. Abdelaziz Elamin for his interest in my scientific communication. I would like to mention here that my communication was not a case report so most of the details were not reported. My aim was just to bring to the notice of the medical community of this region, those in Saudi Arabia in particular, the difficulties, problems and errors, which are encountered during the Hajj period. Cause of death whether hypoglycemia or cerebral edema is in either case related to rapid lowering of blood glucose without proper monitoring. Recommendations of hourly intravenous regular insulin are well established. Regular insulin given