MEDICAL EDUCATION-WHAT ARE THE CHALLENGES FOR 21st CENTURY?

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The successful launch of a new Journal in Medical Education should be no surprise to any healthcare professional who truly understands the global trends in healthcare, because s/he knows that 'education' is at the centre of the practice, practise and praxis of each and every clinician. All are engaged in a life-time of learning. For many, this is a very long life-time. Doctors Shigeaki Hinohara, Bill Frankland, Ephraim Engleman, Walter Watson and Fred Goldman were still seeing patients at the age of 100. Let us look back over their lifetime - which was, of course, the 20th century. They all began as undergraduates. Most of what they learned at medical school was out of date before our present undergraduates were born. Dr Gro Brundtland¹ pointed out that, over 40 years ago, Deans of Medical Schools would not have

"Included discussions about HIV/ AIDS; about brain imaging methods; about the use of the internet for telemedicine and for learning; about genomics and biotechnology; about the ethics of artificial reproductive technologies or about caring for the ageing in their homes"

Over the last 100 years, medicine has evolved to become a truly universal, or, international profession, remarkable for the exponential increase in knowledge. It is estimate that 2,121,740 papers were published in 2012². Of these it has been estimated that 14% of the medical science journals report false discoveries³. This raises the old dilemma that faces teachers and students as to what knowledge is of most worth. In answer to this, guidance and wisdom may be found in the framework set out in the Scottish Doctor⁴, who advocate that at graduation, "a doctor must be a competent and reflective practitioner", giving consideration to:

"What the doctor is able to do ("doing the right thing" = technical intelligences);

How the doctor approaches their practice ("doing the thing right" = intellectual, emotional, analytical and creative intelligences); and

The doctor as a professional ("the right person doing it" = personal in-telligences)".

At the point of graduation, a doctor is facing a lifetime of change. For many, the lifetime will be long, and may extend into the next century. The changes may be evolutionary and in some instances, revolutionary. In which case, the new doctor must be able to continue learning when s/he no longer has access to their teachers. Therefore, the legacy of the teachers must be students who are capable of continuous learning over a lifetime. The legacy is more than "recall of knowledge", for it embraces the more fundamental

skills of judging what to learn, how to learn, and how to apply it. Such judgments are not made in isolation from context, and therefore Medical Education must enable students to be effective in diverse health-care environments, such as, university, laboratory, hospital, urban community, and rural community in a range of economic, and cultural contexts, now and in the future. In addition, the advent of educational technology has presented the future generations of doctors with new resources and learning-gateways that are no longer paper based, or require attendance at live-lectures. Access to these resources is not restricted by geography, and reinforces the universality of professional standards.

If the legacy of teachers is to enable students to benefit from the opportunities of modern learning technology, then it follows that common global criteria for assessment and qualification, with agreed validity, reliability and standards, must be realized. Over the last three decades, steps have been taken to harmonize the accreditation of Medical Education⁵⁻⁷, Table 1 summarizes the key events.

The current challenge in Medical Education in the 21st Century, is for Medical Schools and teachers to respond to the ongoing trend towards a globalisation of quality and standards in Medical Education. They should consider how to inculcate the professional principles and behaviors required by the new generations of doctors and teachers to secure the best kind of Medical Education for students of the next century.

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TABLE 1: TIME-LINE OF EVENTS BY WHO / WFME TOWARDS A GLOBAL UNDERGRADUATE CURRICULUM

- •1988 WFME World Conference "The Edinburgh Declaration"
- •1991 WHO Agenda for Action
- •1993 WFME World Summit.
- •1993 GMC Tomorrow's Doctors
- •1998 WFME International Standards
- •2003 Scottish Doctor Project
- •2003 WFME Global Standards for Quality Improvement
- •2008 WHO = Avicenna Directory established at Copenhagen
- •2010 MEDINE a European project

REFERENCES

- Gro B. Challenges in World Health and Medical Education. WFME; 2003 [cited 2014 19 May]; Available from: http:// www.who.int/dg/brundtland/speeches/2003/copenhagen/en/
- Nature. [Cited 2014 19 May]; Available from: http://www.nature.com/news/ science-publishing-the-golden-club-1.
- Jager L, Leek J. An estimate of the science-wise false discovery rate and application to the top medical literature. Biostat.2014; 15(1): 1-12.
- The Scottish Doctor 2010. Scottish Deans Medical Education Group. [Cited 2014 19 May]; Available from: http://www.scottishdoctor.org
- 5. Walton HJ. The Edinburgh Declaration: ten years afterwards. Basic Science Ed-

ucator. 1999; 9: 3-7.

- Hanse K. International trends in medical education. Med Teach.2005; 26(3):205-206.
- Janet G, Joanne M, Nancy E G. Pilot Evaluation of the World Federation for Medical Education's Global Standards for Basic Medical Education. Med Educ. 2005; 39:245-46.