

INTERCOLLEGIATE GROUP ON NUTRITION MEDICAL UNDERGRADUATE CURRICULUM IN NUTRITION

ACCOMPANYING NOTES

SUMMARY

Nutrition education for doctors has long been recognised to be patchy, largely because of its 'cross-cutting' nature. As a result of it not being a system-based discipline, it may feature everywhere or nowhere, depending on the competing interests and pressures of curriculum planners and their advisors. There has therefore been little assurance that qualified doctors are sufficiently educated to ensure that, with respect to nutrition, they are safe and competent to practise.

In Tomorrow's Doctors the General Medical Council (GMC) explicitly recognises the need for nutrition within undergraduate medical training, but provides little guidance on its content. This Medical Undergraduate Curriculum in Nutrition is designed to fill that gap and meet the expectations of the GMC. It has been developed by the Intercollegiate Group on Nutrition (ICGN) of the Academy of Medical Royal Colleges. The curriculum was developed by an implementation group representing all UK medical schools and has been commended by the Medical Schools Council, and by the GMC.

The curriculum and accompanying notes are to help you incorporate nutrition within your undergraduate medical training programme. This should be simple and not burdensome to include and will add value to the existing elements.

1. Introduction

- 1.1. In recognition of the essential role that nutrition plays in promoting health and in the development and management of disease, the GMC expects medical schools to ensure that students are able to demonstrate knowledge, skills and behaviour relating to nutrition on graduation (GMC: Tomorrow's Doctors, 2009). However, little guidance is offered to the nature of the required learning, nor of how it might be delivered and assessed, such that employers of new graduates may be confident of their competence in this area.
- 1.2. As nutrition is not a discrete clinical specialty, it can be difficult to identify an individual, or group, to take responsibility for these learning outcomes. Nutrition is a topic that underpins and is relevant to all clinical systems but nutritional points of learning are often presented to the learner in a fragmented and unsystematic way. This need not be the case. This curriculum is the only document that brings together a set of learning outcomes, commended by the GMC, as a coherent statement of what is meant by nutrition and how it applies to learning across the general medical undergraduate curriculum.
- 1.3. The curriculum, and these notes, are offered as support and help to medical schools in fulfilling GMC expectations. The curriculum does NOT require medical schools to add a large number of new components to an already crowded

programme. Many of the learning outcomes are already addressed by medical schools, but this curriculum enables those responsible for planning the programme to review current learning against agreed outcomes. It and this document offers clear nutritional learning outcomes, points to where these may typically be found or suitably be placed in existing curricula, and at what stage of learning, and suggests appropriate means of teaching and assessment.

- 1.4. The most important thing is for students to appreciate how nutrition should be seen as an integrated system in its own right - the 'nutrition system' - alongside the cardiovascular, respiratory and other conventionally anatomically defined systems.

2. Integration within the Curriculum

- 2.1. The curriculum covers 17 learning outcomes within six broad areas. These describe the basic principles and conceptual framework required to introduce the student to nutrition as it relates to normal growth, development and ageing (Section A), nutrition in public health (Section B), how nutrition contributes to disease (Section C), how disease impacts on nutritional state (Section D), assessing nutritional state and the risk of ill-health (Section E), and how to approach nutritional care and treat nutrition-related disease and ill-health (Section F).
- 2.2. The learning outcomes are presented in a coherent order that reflects the traditional route to learning within the undergraduate curriculum of normal health, disease pathophysiology and treatment. The learning outcomes in Section A would most obviously be offered within foundation courses (or introductory learning) where the basic nutritional principles underlying good health across the life course would be considered alongside the basic biochemical and physiological principles. The learning outcomes of Section B could be integrated within public health teaching in identifying the nutritional determinants of health and disease, the factors that influence them and the public health approaches that are employed to maintain good health and prevent disease. Sections C and D could be integrated within the clinical teaching by specialty to ensure that students understand the importance of nutrition in the progression and management of disease and how disease affects nutritional state.
- 2.3. While the initial sections A to D are primarily knowledge based, section E identifies the essential basic skills that all doctors should have and section F places the whole curriculum within the context of modern professional practice.
- 2.4. Many medical schools offer their learning through case-based approaches or problem-based learning. Given the ubiquitous role that nutrition plays within medicine, every case should be able to illustrate at least one and probably more of these learning outcomes. As part of the learning process, it is important to ensure that the nutritional considerations of every case are addressed. Taken together, a portfolio of cases with supporting resources and activities should be sufficient to address all of the learning outcomes in the nutrition curriculum. With regards to Section E, it is important for students to acquire the practical skills relating to the assessment of nutritional state either in clinical skills training or at the bedside, integrated within history taking and physical examination.

2.5. The nutrition curriculum can provide a conceptual framework to introduce nutrition as a system (characterised by regulation and control to maintain structural and functional integrity) alongside the other systems. Students also need to recognise how nutrition inter-relates with other systems so that, in common with other cross-cutting themes, they are reminded how their learning in nutrition contributes to a holistic appreciation of health and disease.

3. Teaching methods and assessment

- 3.1. A blended portfolio of learning about nutrition can be achieved through lectures, tutorials, symposia, small group work/tutorials, projects, clinical skills training and practical experience at the bedside or in clinic, together with self-directed learning. The emphasis should be on increasing awareness about nutrition so that its relevance to disease, and utility in clinical management, is appropriate for undergraduate training.
- 3.2. The conceptual framework (see 2.1 and 2.5) needs to be presented clearly at the outset so that the detailed factual knowledge can be ordered and assimilated within a coherent whole, rather than as a series of unconnected facts.
- 3.3. Students may access information on nutrition from a variety of sources. They should be aware that many resources are of variable quality. They should learn to critically evaluate any resources they access, including the extent to which they are evidence-based.
- 3.4. Examples of authoritative sources should be provided (eg SACN, NICE, WHO, WCRF, BAPEN etc) for both knowledge and clinical skills.
- 3.5. Learning should be assessed both formatively and summatively at each stage of training using different modes of assessment to determine knowledge and understanding, skills and competence. For example, whilst discrete aspects of factual knowledge can be assessed using multiple choice or single best answer questions, assessment of understanding may be more appropriately addressed by using short answer questions or integration within essays and case studies. In addition, practical skills such as nutritional screening and measurement of height or weight may be formally assessed within OSCE or mini-cex.

Further Reading:

GMC: Tomorrow's Doctors (2009):

http://www.gmc-uk.org/education/undergraduate/tomorrows_doctors_2009.asp