

# Teaching models in the clinical years of medical education

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Students are exposed to a range of teaching methods during the pre-clinical and clinical years of medical school. At Imperial College London, the pre-clinical years involve a predominantly lecture-based approach, with the aim of efficiently disseminating large volumes of knowledge to a large cohort. As clinical years approach, there is a swift move towards hospital-based teaching, where students have the independence to make the most of learning opportunities during placements. As learning objectives during medical studies, a corresponding change in teaching method is necessary. However, a sudden transition between teaching models or an overreliance on any one can be detrimental.

There is an important role for small-group and bedside teaching during the clinical years of medicine. Teaching by mentorship, where students shadow senior doctors through their clinical activities, is an example of this. The thought process, professionalism and patient manner of the doctor is observed in close quarters by students. In so doing, they are given context to the knowledge accrued in the earlier years and a template on how to carry themselves in front of patients. Given the practical nature of medicine, this type of experiential learning is invaluable; as highlighted by the fact that a majority of students prefer it to lecture-based teaching.<sup>3</sup>

Small group teaching can also include case-based learning where the educator chooses a particular patient case and then facilitates a discussion about the case where all members of the group are encouraged to participate.<sup>2,4</sup> Important investigation and imaging results are incorporated into the discussion where relevant. This format not only assures student engagement but adds deliberative tools such as, critical analysis, appraisal and problem solving to their arsenal. When taken together with “teaching by mentorship”, small group teaching provides a practical application of the passive knowledge gained from lectures in the earlier years of medical school.<sup>2,4</sup>

Having said this, students grow accustomed to lectures during their preclinical years as the predominant teaching model. The abrupt transformation to small-group clinical teaching forces students to adapt to a more independent form of learning, exacerbated by a perceived lack of guidance on syllabus requirements.<sup>1</sup>

During this time, learning experiences and opportunities vary significantly based on differences in clinical placements, hospital sites and teaching consultants. Lecture based learning can allay this by providing a standardized platform where gaps in knowledge are filled. Furthermore, studies reported that this approach was particularly useful in demonstrating rarer clinical signs and cases, as seeing these cases in practice may be unlikely.<sup>2</sup>

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In our experience, with the majority of each working day spent on the wards, students struggle to find the time to prepare for exams. Examinable knowledge can extend beyond what is observed on the wards, hence supplementation with other sources of information is vital. Lectures, with clear learning objectives, are a more efficient and effective tool for assimilating exam relevant knowledge.

Lectures afford a uniform learning experience for all, where learning outcomes are clearly defined. On the other hand, clinical placements provide a stage for practical application of theoretical knowledge and cultivation of professionalism. Efforts can be made to transpose the strengths of lecture-based teaching onto clinical placements by ensuring that clinical educators have clear learning objectives and there is minimal variation across the placements allocated to students. Integration of both models would equip students to not only pass exams but emerge as confident, competent clinicians.

## Disclosure

The authors report no conflicts of interest in this work.

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