

# THE NEW UNDERGRADUATE MEDICAL COURSE AT THE UNIVERSITY OF LIVERPOOL

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*This article is introduced by Professor P Johnson, Dean of the Faculty of Medicine at the University of Liverpool.*

The University of Liverpool currently admits 200 undergraduates per year to its medical degree course. This entirely new course was introduced for the 1996 intake and beyond, and a description is given in the accompanying article by Professor John Bligh, Head of the Department of Health Care Education. This innovative course is centred on a problem-based learning style, an earlier introduction to clinical skills, a higher degree of involvement in the community, the development of enhanced communication skills and improved assessment procedures. There is far less didactic teaching.

Last year the government agreed to a 20% increase in the medical undergraduate intake for UK/EU students. Just under 300 of the proposed intake of about 1,000 have already been distributed to medical schools for the 1999 intake; the University of Liverpool will increase its annual intake from 200 to 218. A formal bidding process is being undertaken in the first half of this year with respect to the remaining additional students, and these bids are encouraged to involve innovative medical undergraduate degree courses. The universities of Liverpool and Manchester have developed a co-operative bid seeking 80 additional students each. Both medical schools have recently introduced new curricula and have exchanged information about these curricula, learning methods and assessment procedures. Most importantly, they have recently collaborated to review the geographical distribution of clinical placements, both for the present and for the proposed increased number of students. As a result, it has been proposed that all medical students coming to the Morecambe Bay Trust will be attached to the University of Liverpool.

If the present bid for increased medical undergraduate student numbers is successful, we would envisage at least 50 fourth-year students being based entirely in the Morecambe Bay area for the 'locality-based year', involving both hospital and community clinical teaching. In addition, the majority of students would be expected to spend their fifth-year hospital placement in the area. The University of Liverpool is negotiating with Lancaster University about access to library and IT resources, postgraduate science courses and the development of undergraduate Special Study Modules – the latter may also be developed within the primary care sector in Morecambe Bay. Events are moving fast, and, at a personal level, I would like to put on record my appreciation of the warmth and enthusiasm that we have met from Lancaster University, Morecambe Bay Hospitals Trust and the Morecambe Bay Health Authority in developing these exciting proposals.

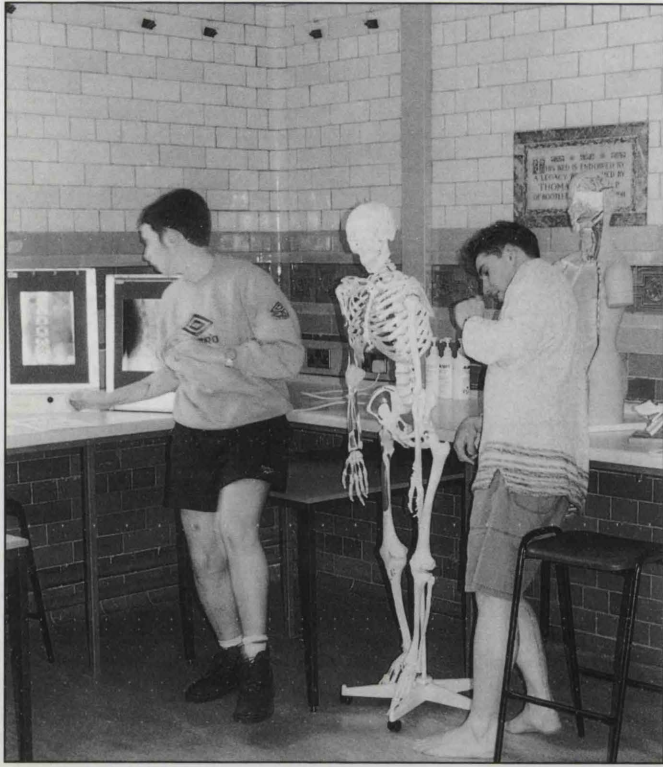
## THE NEW UNDERGRADUATE MEDICAL COURSE AT LIVERPOOL

September 1996 saw the introduction of a completely new five-year undergraduate medical course in Liverpool. The new course is totally different to the older, traditional course and is one of the most innovative in the UK. It was designed on the principle that training to become a doctor should be based on learning relevant clinical facts and skills in a way that is not only effective but also stimulating and enjoyable. The old course, like most traditional medical courses, placed a heavy emphasis on learning facts and left the introduction of clinical experience until a solid foundation of basic science had been acquired through attending lectures, practicals and anatomical discussions. Clinical experience was mainly gained through attachments to specialist firms in large teaching hospitals, with little exposure to the wider community.

In the new course, lectures have largely been replaced by small group problem-based work. Clinical experience starts on Day 1 of the first semester, and many of the old practical and dissection classes have been replaced by more modern teaching methods.

Students work in groups of seven, meeting three times each fortnight to analyse a clinical problem with a specially trained tutor. They identify what they do and don't know about the problem, decide on what they need to find out in order to solve it (as far as is practicable in the time available and for their stage in the course) and use the time between tutorials to find the information they need. The students use the library, the Internet and other computer-based learning resources, a daily lecture session, practical demonstrations and their clinical and communication skills sessions to piece together the evidence they need to work on the problem. A new problem is presented each fortnight and the learning cycle starts again. During the first year, students deal with problems ranging from travellers' diarrhoea (to introduce basic elements of cell physiology and the anatomy of the gastro-intestinal tract) to heart attack and stroke. Other modules focus on psychosocial aspects of medical practice using, for example, alcohol as a trigger. The module cases continue to act as triggers for learning throughout years two and three as the course becomes increasingly clinically oriented.

In each of the fortnightly modules the student group is expected to work on each of the four underlying themes of the course: structure and function in health and disease; individuals, groups and society; the population perspective and personal and professional growth. These unifying elements tie together all the aspects of a medical course so that students can effectively integrate what they are learning rather than learn facts in isolation.



*A simulated patient?*

A major highlight of the new course is the extensive use made of the clinical skills resource centre. This is a purpose-designed conversion of one of the Nightingale wards in the former Royal Infirmary. The infirmary is a listed building with many interesting architectural features, and is being gradually refurbished by the university as a site for academic activities. The skills centre uses a combination of work benches, clinical examination facilities, clinical and anatomical models and computer-aided learning to provide a stimulating and very enjoyable introduction to clinical examination skills for first-year students. Students in all the later years of the course also use the centre to learn new skills and to revise those that might have become rusty over the years. An extensive range of skills is learned, including basic life support and examination of all the major body systems and the students give a very impressive demonstration of their abilities each year in the clinical examinations.

Learning about communication skills is another feature of the new course, with students attending fortnightly group sessions from the first semester. Students learn about history-taking and the basic features of clinical communication through practical experience and the use of video recording.

Perhaps the most significant change to the way in which students learn in Liverpool is in the extensive use of special



*Ghost surgery!*

study modules (SSMs). Through the whole five-year course, students have a total of forty-eight weeks dedicated to these blocks of time when they can study a subject of their own choice in depth. Most of the modules last four weeks, although some are longer. All modules are based on a framework that encourages scientific enquiry through the use of literature searches, the design of a piece of research and the presentation of the results.



*Hands-on experience*

Another major change that the new course brings is the much greater use of the community as a site for learning. Up to thirty per cent of clinical experience in the course is based in community and general practice attachments and is coordinated through a special Community Studies Unit. Students learn to apply their clinical and history-taking skills in the setting of general practice, and gain first hand experience of how healthcare is organised and delivered. Years 2-4 of the new course are based on the chronological life cycle and all students have a 'family attachment' at the beginning of Year 2. Early clinical experience in paediatrics and obstetrics complements the theoretical part of the course that continues to strengthen learning of the basic and pathological sciences.

Students are encouraged to take increasing responsibility for their own learning as the course develops and use a clinical logbook to keep track of their experiences.

Examinations have been reduced in frequency and a wide range of testing methods is used to ensure that students are progressing satisfactorily through the course.

Plans for the final year of the course, scheduled to start in September 2000, include a strong emphasis on shadowing junior doctors and consideration of the principles of clinical governance.

The new course at Liverpool is a very significant advance from the older ways of teaching and is gaining wide recognition as a satisfying and challenging way of learning about becoming a doctor. Students adapt to the small group work very quickly and are able to develop their individual strengths and interests throughout the course. Teaching staff are much closer to the students than previously and feedback from clinical teachers in both the community and hospital settings is positive, especially about the enthusiasm students show for learning – and about their clinical skills.