

# The Commonwealth doctor of medicine: a degree of uncertainty

**ABSTRACT**—The degree of doctor of medicine (MD) is awarded by many universities in the British Commonwealth as a senior, postgraduate, research thesis-based degree. Some of its features are that it is limited to medical graduates of the same university, but that the research on which the thesis is based need not be conducted at the university awarding the degree and that there is no requirement for formal supervision of candidates. These characteristics, and its close similarities with the master of surgery (ChM) degree, may be responsible for the confusion that exists about its quality and status in relation to the doctorate of philosophy (PhD) and the 'higher' doctorates like doctor of science (DSc). There is also uncertainty about its role in the training and selection of clinical consultants and physician scientists.

The degree MD has been offered in the United Kingdom for at least 500 years [1] and in Australia and New Zealand since the establishment of medical schools there, yet confusion still exists in academic circles about its structure, purpose and standing among degrees offered by universities of the British Commonwealth, particularly how it resembles and differs from the PhD and the ChM, and what its status is in relation to the 'higher' doctorates like those in science, letters and law.

Furthermore, there are distinct differences in opinion within the medical profession about its place in postgraduate training and the advantage its possession may confer in appointment to senior registrar and consultant posts. The requirements for approval of the research for the thesis and the opportunities for advice on it also vary widely between universities.

The purpose of this paper is to review some of the special features of the MD, compare it with some other postgraduate degrees that a medical graduate might contemplate, and comment on recent changes in its regulations, purpose and standing.

## Eligibility

With certain exceptions (see below), the MD is available only to graduates in medicine of at least two

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(commonly five) years standing from their own university. The requirements for MD in the 19 universities in the United Kingdom offering it have been summarised by Johnson [2]. The prerequisites for registration as a candidate for MD in the ten Australian and two New Zealand medical schools are essentially the same.

This restriction of the MD largely to a university's own graduates now seems outdated for at least three reasons:

- There is increasing competition between universities for graduate students, particularly those whose studies for their thesis might usefully increase the research output, reputation and ranking of the institution.
- More universities are now charging fees, not only for approving and registering the title of the thesis and later for its examination, but also require MD candidates to enrol and pay course fees as graduate students for at least one year. The actual cost to the university of MD candidates is often low because it does not provide formal supervision of candidates. Furthermore, the research may be conducted at an institute other than the awarding university, thus reducing or obviating the need to provide space, equipment, support staff and indirect expenses.
- Finally, a rigorous intellectual approach to research may be encouraged when graduates undertake training for advanced degrees at a university other than that from which they gained their first degree.

The various restrictions on the opportunity to become a candidate can put overseas graduates at a disadvantage compared with local applicants, and the inequalities will become increasingly apparent when more European Community graduates seek opportunities for advanced qualifications in the United Kingdom [2] and when mutual recognition of medical qualifications occurs [3].

## Supervision

There are two polarised views relating to the value of supervision of candidates for doctorates. Those who hold the MD usually argue that, because formally appointed supervisors were not involved, their doctorate represents greater achievement in research than would a PhD. Those with a PhD generally hold the view that, because their research was formally supervised, their degree indicates a more thorough training in research.

Candidates for the MD may be advised to seek in-

formal mentors experienced in the field in which their thesis lies and to have it critically evaluated before submission, but not all receive or heed such advice. Appointment by a university of a supervisor formally links the interests of the candidate and an experienced academic, and the reputations of both are at stake should the candidate fail. The usual involvement of the supervisor in the nomination of examiners and in the examination process also increases the likelihood of success.

Obtaining suitable supervision is a particular challenge for doctors who wish to submit theses from non-academic institutions or from general practice [4]. Although most research for MD is undertaken within some form of research group where advice is available, supervision is often less than adequate. Neale [5] conducted a survey of senior registrars in which 80% made adverse comments about the system of research training, only 40% believed they were introduced to research techniques in an efficient manner, and only 25% received what they regarded as adequate supervision. Nevertheless 80% believed that a period of research must be regarded as of value in the training of a physician.

Some universities offer guidance at the time the title and outline of a proposed thesis is approved. However, universities vary greatly in the detail required at this initial stage, as well as in the amount of comment returned with the notice of acceptance or rejection as a candidate for MD.

### Relationship to ChM

The regulations for the master of surgery (MS; MCh; ChM; MChir; MChOrth) are usually very similar to those for MD. For those 13 United Kingdom universities that offer it as well as the MD, the regulations are similar [2,6]. The ChM is less commonly awarded than the MD by a factor of at least 6 [6]. Some universities, like Edinburgh, are phasing out the ChM because of its similarity to the MD in both purpose and regulations. As it is in name a master's degree, its standing in relation to other degrees is even more difficult to explain to colleagues in other faculties than is the MD.

### Relationship to PhD

The PhD is widely understood throughout the university community to be the degree that indicates advanced training and experience in research in any faculty. Central to this perception is the formal appointment and continuous close involvement of supervisors over a defined period. It is this quality of teaching and learning that differentiates the PhD from the other doctorates where the focus is more on contributions made to knowledge. The lack of formal supervision in most MD programmes may prompt questions as to its scientific rigour and credibility [7].

Candidates for PhD usually require an honours

degree, or evidence of ability in research, or a probationary year at master's degree level before registration is confirmed, whereas for MD usually no particular level of academic achievement in MB ChB is expected. On the other hand, the MD cannot be completed until 3–5 years after the prerequisite medical degree. Whereas the PhD is usually completed in the formative part of an academic or research career, many MD degrees are gained in the middle or late stages of a medical career. The MD is not the same as the PhD, although in some medical disciplines and institutions there may be considerable parity.

### Relationship to other doctorates

Most universities that educate professionals (eg in law, engineering, dentistry, education, commerce) offer 'faculty' doctorates awarded on the basis of a thesis or published work indicating original contributions to knowledge in a field relevant to that profession. Like the MD, these degrees usually share the prerequisite of graduation in the same discipline of the awarding university several (usually five) years previously, and do not require formal supervision.

The 'higher' doctorates, like those in literature or science and sometimes law, can be awarded to graduates of considerable standing (up to eight years) for substantial scholarly contributions of special excellence. When awarded in this way, there is usually international evaluation of published work submitted by the candidate. The 'higher' doctorates may also be awarded *honoris causa* at the initiative of the university to distinguished individuals it wishes to recognise with an honorary degree.

There is uncertainty about where the MD lies in relation to these other doctorates and the PhD. At Cambridge, the MD is historically senior to the DSc. A survey of Australian and New Zealand medical deans in 1993 indicated that three schools regarded the MD as equivalent to the PhD, one considered that it was just above the PhD, one that it was a 'faculty' degree and not a 'higher' degree, four that it was a 'higher' degree but lower than the DSc, and one that it was equivalent to the DSc.

### Advantage in gaining consultant posts

Externally refereed evidence of accomplishment in research, such as published papers and/or an MD or ChM, are significant entries in a curriculum vitae. Indeed it is a widely held belief among consultant physicians and senior registrars that success in obtaining a consultant post is dependent to a substantial extent on undertaking research and/or completing an MD thesis [5]. But is there evidence that achievement in research reflects competence as a physician? [8]

Studd [9] has been particularly critical of the perception that a second postgraduate qualification like the FRCS or MD is, if not essential, at least the fast

track to success in obstetrics and gynaecology. He refers to a Gadarene stampede for a research degree, and speaks of trainees who emerge from 'paper factories' without comprehensive clinical skills and supported more by the research reputation of the supervisor than by individual ability. However, he does acknowledge that the MD is evidence of training in clinical research and appropriate for those whose ultimate goal is a senior lectureship or a professorial chair, but concludes that too often it is merely a device for spending two to three years in a training that is already far too long.

Harvey, Burns-Cox and Heaton [10] surveyed consultant physicians in the south-western region of the United Kingdom and reported that the most common reason for undertaking an MD was to help get a consultant post, and the second most common was because it was standard practice. However, the median interval from qualification to appointment as consultant was 12 years whether the consultant had completed an MD (range 6–19 years) or not (8–13 years). Despite this apparent conflict between belief and reality, 57% of respondents stated that doing an MD does make a distinctive, useful contribution to the training of a consultant physician.

### Role in an academic career

Any university qualification confers selective advantage. The relevance of the degree and the research to the advertised position is important but, when planning a career and choosing a degree, future opportunities are usually unclear. Weatherall [11], commenting on the training of physician scientists, noted that those with a bent for basic research can be encouraged in the early stages of their careers. They can take intercalated science degrees or the MB/PhD programmes now being developed in several Commonwealth universities [7]. In biomedical science, research for MD and PhD may be carried out under similar conditions and with similar collegial support. It is in such environments that their similarities and differences are most sharply debated. Where both degrees are an option, the PhD is becoming the degree of choice because of its connotation of solid scientific training and because its nature is understood throughout the wider academic community.

However, the development of the skills required for clinical and health services research should not be neglected [11]; in these fields the MD provides a scholarly focus for research which is often undertaken in non-university institutions. But consistent quality of such training is not always possible owing to the lack of requirement for formal supervision, and in these environments there is often a lack of academically experienced mentors. The quality of the MD must therefore be maintained by the standards set by its examiners

who need to have a clear perception of the nature and status of the degree within their own and similar universities.

### Conclusion

The universities in the United Kingdom and Australasia generally award the MD to those of their own medical graduates who have demonstrated significant achievement in research. Because regular supervision of candidates in planning, conducting and presenting a thesis is not usually required, the MD is not generally perceived as an indicator of formal training in research in the same way as the PhD. The emergence of other 'faculty' doctorates provides a level for the MD somewhere between and distinct from the universal 'training' doctorate (the PhD) and the 'higher' pan-faculty doctorates like DSc and DLitt.

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