

STATEMENT

The Bologna Process and its implications for medical education

A Statement by the Association for Medical Education in Europe (AMEE), the European Medical Students' Association (EMSA) and the International Federation of Medical Students' Associations (IFMSA)

Background

Twenty years ago when the rectors of European universities signed the Magna Charta Universitatum in Bologna, outlining the founding principles of what became known as the Bologna Process, the idea that Europe would unify in the systems of higher education seemed nothing more than a dream. Over time this phantom has stepped from the shadows and become a reality (Patricio & Harden 2009, 2010). What has become known as the Bologna Process has evolved over a series of ministerial meetings with the last meeting in Louvain in April 2009. The Process has received wide recognition and has spread beyond Europe to North America, South Africa, Australia and China. Full information about the Bologna Declaration and the action lines for the Bologna Process can be found at the Bologna Process website (Bologna Process 2007–2010).

While many have welcomed the Bologna Process as a positive development in higher education, others have seen potential dangers and difficulties. This has been no more so than in Medicine where concern has been expressed in particular about the two-cycle model. To some extent Medicine has remained aloof and has not fully engaged with the Process. The World Federation for Medical Education (WFME) and AMEE in consultation with the Association of Medical Schools in Europe (AMSE) and the World Health Organisation, Europe (WHO-Euro) issued a cautionary Statement in 2005 supporting the Bologna Process but expressing some reservations (WFME and AMEE 2005). In policy Statements in 2004 (Onur et al. 2005) and 2007, the International Federation of Medical Students Associations and the European Medical Students Association also welcomed the Bologna objectives (IFMSA and EMSA 2007) but highlighted the need for certain prerequisites including the development of a core curriculum. The Comité Permanent des Médecins Européens (CPME 2004) strongly opposed the implementation of the two-cycle model.

Since the WFME/AMEE Statement in 2005, there has been a growing appreciation that the Bologna Process is a reality and that it represents not a backward step but a significant contribution to the advancement of medical education. 'Medical schools are no longer immune to the Bologna Process' was the theme for a German Rectors' Conference in Berlin in October 2008 (German Rectors' Conference 2009) and case studies of Bologna-compliant curricula were presented at the Berlin meeting and in September at AMEE 2009 in Malaga. A survey of European medical schools identified that a

number of schools had accepted the Bologna two-cycle model and had developed or were developing curricula compliant with it (Patricio et al. 2008).

Options for medicine

The Bologna Process is complicated, evolving and at times controversial. Consideration needs to be given to the position of medical education with regard to the Process. There are several options:

- (1) Medicine could call for exclusion from the Bologna Process or choose to ignore it;
- (2) Medicine could engage with the Bologna Process action lines other than those relating to the three-cycle framework;
- (3) Medicine could engage with the Bologna Process including the three-cycle framework but preserve the status quo and equate the current curricula with the three-cycle Process;
- (4) Medicine could engage with the Bologna Process including the three-cycle model and seize the opportunity to review the medical curriculum and the learning outcomes associated with each of the phases.

Options 1, 2 and probably 3 are not realistic options. Forty-six countries have now adopted the Bologna Process and all, with the exception of the UK, have enshrined the Bologna Process in national legislation. While there remains in medicine some resistance to the two-cycle model, option 4 is the preferred option. It provides an opportunity within the context of the Bologna Process to revisit the curricula in medical schools and to develop appropriate educational strategies to meet the challenges facing medical education today. This is reflected in the series of Statements set out below.

Generation and aim of statements

Comments on the Bologna Process were invited from AMEE members in October 2009. A draft Statement was prepared and circulated at a symposium on the Bologna Process at AMEE 2009 in Malaga. The great majority of the 100 participants present at the symposium supported the recommendations in the draft Statement (Patricio & Harden 2009). The Statement was then revised taking into account the comments received and circulated for comment to the AMEE members and to

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IFMSA and EMSA. A final document was produced based on the comments received during the consultation process.

This AMEE/EMSA/IFMSA Statement is not intended to commit governments or schools to a standard or uniform curriculum, methods of learning and approaches to assessment. The Statement reinforces the autonomy of medical schools in line with the ministerial Statements after the London Ministerial Meeting (London Communiqué 2007) relating to the institutional autonomy, academic freedom, equal opportunities and democratic principles.

It is hoped that the Statement will help to clarify some of the uncertainties and concerns expressed about the Bologna Process, in particular relating to the two-cycle model (Patricio & Harden 2010). The problems and difficulties associated with the Process are recognised, but the Process should be seen as an opportunity to respond to the continuing challenges and demands facing medical education. The AMEE/EMSA/IFMSA Position Paper should help all concerned with medical education to craft a constructive and meaningful response to the challenges and obstacles identified in the Bologna Process. The Statement is not intended as a comprehensive or definitive document about the Bologna Process and its application to medicine. It is appreciated that the Bologna Process is itself constantly evolving and indeed its dynamic nature is one of its strengths. It is hoped that the Statement will help to move us away from being precipitated into a polarised position, with those for the Process on one side and those against on the other. Behind the Process lies an opportunity to enhance medical education across Europe, but if this is to happen we need all of the stakeholders to engage in an informed discussion and debate and for the discussion about the Process to be taken to a much needed higher level with a closer examination of the educational principles and approaches which underpin it. The Statement can make a contribution to this.

AMEE, EMSA and IFMSA recommend that the Statement is endorsed by those concerned with medical education in the Bologna countries.

The statement

- (1) Developments are taking place in medical education in response to advances in medical care and the growth of scientific and medical knowledge, changing public expectations, the evolution of health care systems and new approaches to education and educational technology.¹ The Bologna Process is itself a continuing and evolving activity. While on its own it is not an answer to the challenges facing medical education nor is it without controversy, the Bologna Process along with a review of the medical curriculum has the potential of serving as a catalyst and contributing to the response of medical education to the challenges.
- (2) The Bologna Process can contribute, through an emphasis on quality assurance, to the improvements in health and the tackling of human disease by aiming for excellence in the education of students, trainees and doctors in Europe.
- (3) AMEE, EMSA and IFMSA support the aims of the Bologna Declaration and the active involvement of medical education in the action lines of the Bologna Process.
- (4) AMEE, EMSA and IFMSA recognise the importance of tools such as ECTS and the Diploma Supplement that enable the transparency and the recognition of degrees, resulting in the greater mobility of students and doctors with more equitable assessment of graduates from different countries in relation to employment.
- (5) AMEE, EMSA and IFMSA welcome the focus in the Bologna Process on the learner and on the creation of more flexible learning paths suited to a diverse population, with a move towards learning methods and content personalised to the needs of the individual student.² Such developments can be supported by the use of new learning technologies and by the exchange of learning resources across schools in Europe.
- (6) AMEE, EMSA and IFMSA welcome lifelong learning as a priority action line and see this as part of what should be a seamless continuum of education in medicine. The output of medical schools has to fit with the future service needs for health care in member states.
- (7) AMEE, EMSA and IFMSA support the three-cycle model (bachelor, master and doctorate) with learning outcomes specified for each of the cycles. The three-cycle model, with learning outcomes linking each phase, supports harmonisation of curricula across Europe. Core competency-based learning outcomes should be agreed at a European level while at the same time the autonomy of universities with regard to curriculum development, approaches to teaching and learning and assessment should be respected.³
- (8) The curriculum for the first cycle in medicine should be based on an integration of the basic, paraclinical and clinical medical sciences and clinical methods.⁴ For students continuing to the second cycle, the first cycle should be viewed as the first phase of a curriculum with students returning in later phases to revisit the topics addressed in the first cycle and study them in more depth (refer to endnote 4).
- (9) On the completion of the first cycle, it is anticipated that almost all students will move on to the second cycle. Students should have a guaranteed place to complete their medical studies at the same or at a different institution and financial support should also be guaranteed. A small number of students may choose to leave their studies at this stage, but will not be qualified to practice as a doctor of medicine or as another health care professional. They may take up, however, an alternative career based on the competencies gained in the first cycle.⁵
- (10) The Bologna Process provides an opportunity to look again across Europe, at the second cycle in the medical curriculum, balancing the academic and vocational dimensions of the education programme and reviewing the expected learning outcomes, the educational strategies, the educational environment, the teaching and learning methods including the new learning technologies and the assessment procedures.

A Spiral Curriculum and the Bologna Process

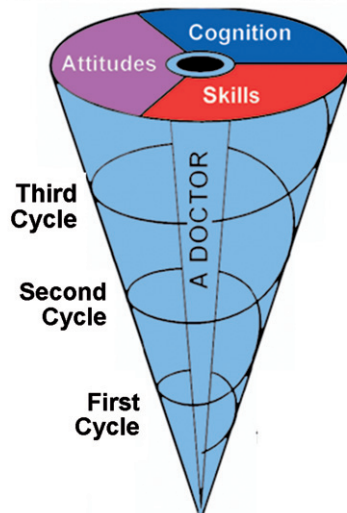


Figure 1. A spiral curriculum and the Bologna Process.

- (11) AMEE, EMSA and IFMSA stress that it is necessary to look at the third cycle and to harmonise standards and expected learning outcomes regarding the PhD degree including those related to research. The learning outcomes should be related to the outcomes for the first and second cycles.
- (12) The Bologna Process like any successful continuing reform requires both a top-down and bottom-up approach, with support from leaders in government and in the schools and engagement by teachers, students and other stakeholders. AMEE, EMSA and IFMSA recognise the dynamic nature of the Bologna Process and the need for a constructive and permanent dialogue between government and those responsible for medical education – including teachers and students – about implementing, monitoring and assessing the Bologna Process in Medicine. This should include discussion of action lines and a timetable for implementation.

Notes

1. Advances in biomedicine with changes in the knowledge base of the medical curricula along with the developments in information technology require a new educational framework. Additional factors are the changing perceptions as to the role of the doctor and the required competencies and emerging developments in health care, for example, in relation to preventative and personalised medicine. The Bologna Process can serve as a catalyst alongside national initiatives for a review of the curricula in the context of international dimensions of medical practice in the twenty-first century.
2. While the implementation of a fully adaptive curriculum in medicine may be some time off, a move in this direction based on the principles of instructional design and the use of learning technologies is now possible. The result can be a curriculum tailored in some respects to the needs of the individual learner while maintaining the concept of a core curriculum.
3. The learning outcomes specified will reflect the key features of each cycle (e.g. the difference between a bachelor and a

master degree) and the core abilities of the learner expected by the end of the cycle. While the need for some common core learning outcomes is accepted, the learning outcomes in a medical school will also reflect the curriculum of the individual medical school. Adoption of an agreed set of common core outcomes does not require an identical curriculum in each school or loss of diversity, but can be crucial in protecting patient safety in the face of free mobility of doctors in Europe.

4. The value of introducing students to clinical experiences early in their studies is now well established (see, e.g. Dornan et al. 2006). The concept of a spiral curriculum (Figure 1), as proposed for the first two-cycles, is discussed in Harden and Stamper (1999).
5. Students graduating with a Bachelor degree and not continuing into the second cycle may take up master degree in another academic field or a career that makes use of their medical science and clinical abilities. Examples are medical journalism and communication systems, medico-legal work, the pharmaceutical industry and other health related occupations.

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