Implementation of the Bologna Process in the Flemish Region of Belgium

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University education in Belgium is regulated and mainly financed by the two communities. As a consequence the medical curriculum can differ in some substantial aspects between the Flemish and French Community. In this document some aspects of mainly the Flemish situation are discussed.

1) The transformation to the Bachelor-Master structure in Medicine

Prior to the adoption of the Bologna process, medical studies had the two following degrees. The Candidate degree (Dutch: kandidaat) was obtained after the first 3 years at University. This diploma had no other finality than to give access to the doctorate studies. The Doctorate (Dutch: doctoraat) was the second cycle, leading to a degree after 4 years of medical studies. The student then became a doctor.

Since the adoption of the Bologna process in 2004 the medical studies follow the Bachelor-Master system. The bachelor's program consists of at least 180 ECTS credits spread over three academic years on average. The Master's program consists of 240 ECTS credits spread over - on average - four academic year. In 2015 the master will become 180 ECTS credits. During the years preceding the implementation of Bologna in 2004, a curricular change was introduced in all medical Flemish faculties. They introduced theme-based education (organ-system based) with more emphasis on practice performance and medicalization was introduced from year one instead of year 4. Competency- learning lines were introduced in all study phases of the program.

A first strategic learning line remained an extensive theoretical and theme-based education of the medical sciences with practice (work sessions and practical sessions, clinical lectures, problem solving based teaching). The content of the strategic learning line medical science, was focused on the knowledge any doctor needs to have in order to practice and wherever possible clinical relevance was indicated. Other important strategic learning lines were developed. For example, the strategic learning line of clinical and communication skills, implementation of skills labs introduction of OSCE's.; another strategic learning line focused on the relationship between people, environment and society. Finally other strategic learning lines emphasized on a thorough scientific training program and study points became available for individual choices in the educational program.

The bachelor gave solely access to the master program and did again not qualify for the job market. Its status remains vague. It is an "Intermediate degree" with (minimal) learning outcomes described by the Flemish universities in order to allow (some) exchange between universities after the bachelor. There were also some debates about the need of e.g. physician assistants. However questions raised regarding possible harm to the quality of the education and medical care by those medical professionals and the decision was made that there was no need of "half trained and potentially concurrent" medical professionals after the bachelor.

After the master degree there is a mutual recognition of the master degrees in Europe. EU directive 2005/36/EC regarding minimum training conditions (basic medical training in years and hours) allows that students can specialize all over Europe … if a specialization position is found.

Advanced master's programmes

After the master the student is a "Basic Doctor" (MD). He is not certified to get access to the National Health system (RIZIV) in Belgium and does not qualify for the labor market. The two cycle system of Bologna strictu sensu therefore almost doesn't exist in Medicine since there are several advanced master's programs: in Family medicine, in Public health and in Medical Specialties. A student must already hold a master's medical degree to enroll. These programs have a variable length but consist of at least 60 ECTS credits and take at least one academic year. The Master after Master (MnM) in Family Medicine e.g. is even more complex and starts in 4th master year followed by 2 additional MnM years of Family Medicine.

Credit accumulation system

The medical curriculum was transformed according to the so-called 'credit accumulation system' or educational model. There was also a new tool to measure study progress: the "cumulative study efficiency". Instead of deliberating each academic year, deliberations are held at the end of a degree program. The year system does no

longer exist: the medical program is composed of various educational stages and a new tolerance regulation replaced the current deliberation criteria. Also the examination schedule is available at the beginning of the academic year.

Individual survey report

Education has become very technical. Therefore also clear communication of criteria to obtaining a degree, including the tolerance regulation, has to be given to the students in a comprehensible way: individual survey report.

Clear information regarding individual results has to be given:

- List of courses with the results obtained for each course, the ECTS-percentile result and the tolerability.
- Result within the overall program (degree): average result, cumulative study efficiency and study progress.
- Projected study period: extrapolated study period and minimum theoretical study period based on an average of 60 study points per year.
- As is currently the case, students are also given the opportunity to discuss their results, their study progress and the choices related to their program with study itinerary guides and to seek advice. Students with a cumulative study efficiency of lower than 50% are invited to discuss their situation. This procedure requires much more man power by the medical schools than in the past.

2) **Quality assurance through an accreditation process by the NVAO**.

The main goal of the Bologna Declaration was to create a system of higher education with comparable, compatible and readable degrees across the European continent. Accreditation can enable comparisons of quality all over Europe.

The medical curricula in Flanders went through this formal accreditation procedure. The quality assurance system consisted of three parts: an internal part, an external part and a last part where a formal decision was taken. The internal quality assurance consisted of a self-evaluation organized by each individual faculty of Medicine. The self-evaluation resulted in a self-evaluation report. This self-evaluation report was used in an external quality evaluation organized by the VLIR (Flemish Interuniversity Council). The VLIR set up an independent evaluation panel of not only medical experts but also of experts in quality assurance, educational/pedagogical experts and experts in the international development of the field of study. Students were represented as well in the evaluation panel. This panel produced an assessment report.

The Netherlands and Flanders have set up an independent accreditation organization by an international treaty, the NVAO (http://www.nvao.net/home.html). This type of international treaty for organizing accreditation by two countries is rather unique and an example for others who want to implement this part of the Bologna declaration. The NVAO evaluated the thoroughness of the external assessment and accepted the conclusions. All faculties received a positive accreditation decision by the NVAO. As a consequence of the recognition of the medical program the curricula are listed in the Higher Education Register for 8 years followed by a new evaluation: the quality circle is closed. Accreditation in Flanders is a prerequisite for awarding bachelor's or master's degrees education funding and study financing for students. There is no medical licensing examination.

3) European Credit Transfer and Accumulation System (ECTS)

The European Credit Transfer and Accumulation System (ECTS) is well elaborated and is a tool for making the teaching and learning in higher education more transparent across Europe. ECTS enables the comparison of the medical curriculum in e.g. student mobility within the framework of the Erasmus program

The Flemish medical faculties published their course catalogues on the web, including detailed descriptions of study programmes, units of learning, university regulations and student services. The course descriptions include the 'learning outcomes'. The learning outcomes (goals) define what students are expected to know, understand and be able to do. The course description also mentions the workload i.e. the time it probably

takes for students to achieve these outcomes. Each learning outcome is expressed in terms of credits, with a student workload ranging from 1 500 to 1 800 hours for an academic year.

A series of ECTS key documents help with credit transfer and accumulation – course catalogues, learning agreements, transcript of records and Diploma Supplements (DS):

All students receive a diploma supplement. This DS provides independent data to improve the international transparency and fair academic and professional recognition of qualifications. It describes the nature, level, context, content and status of the studies successfully completed by the individual student, named on the original qualification to which the diploma supplement is appended. It is free from any value judgments, equivalence statements or suggestions about recognition. The supplement is issued in the language of instruction but an English translation is issued automatically with the official diploma supplement. This helps to compare medical curricula. However, the final decisions are the responsibility of the relevant authorities: professors involved in student exchanges are organized in a committee regarding the (partial) equivalence of the medical education

Learning account

The legislation on the financing of higher education in Flanders now grants every student a "learning account", a system based on the credits already used to compose their programs of studies. Each student receives 140 credits which he can use in an initial bachelor's or master's program, with the aim of earning them back. At the beginning of the year, the number of credits for which he has registered is subtracted from the learning account – for a year of full-time studies, this is 60 credits. He earns back the credits he passed, and loses those he failed. Each subsequent year of full-time studies also costs 60 credits.

The system is aimed at increasing the responsibility of both the student and the institution in the choice, conduct, and result of studies. The university only receives funding from the Flemish government for initial bachelor's and master's program students with sufficient learning accounts.

Student Mobility.

The Bologna process aimed to harmonize the European study architecture and to facilitate mobility. However, basic inconsistencies can hinder the exchange. The level of public expenditures for higher education is extremely divers all over Europe and can affect horizontal exchange by e.g. extreme differences in tuition fees. Erasmus programs facilitate horizontal exchange but language difficulties can imbalance the in/out ratio of students of a medical school. Also the existence of entrance examinations or of a numerus clausus or of an open access policy may affect dramatically mobility. In the Flemish community tuition fees are very low but the entrance of medical studies is determined by passing an entrance examination organized in Dutch. Entrance to the studies is therefore very well restricted and only a few percent of all students are coming from non-Dutch speaking countries The success rate of passing the first year of medical studies is very high (> 85%). In Wallonia everybody can start medical studies. The language is French with an excess of incoming students of other French-speaking countries. The passing rate in the first year is very low (< 25%). Also the question of imposing quota for nonnative students is very prominent present (also e.g. in Austria) and can contribute to foreshadow the concept of the European Higher Education Area

Conclusion.

The Bologna Implementation in medical education in Belgium led to the bachelor-master implementation including a substantially curriculum change. The bachelor however does not qualify for the job market and implies that a real two-cycle system in the sense of Bologna is not really implemented in medical education. Competencies and learning outcomes for the bachelor and master are worked out but there is need for a more European core curriculum to improve exchange, recognition and comparability. There is a well elaborated system of quality assurance with the possibility to consult the Higher Education Register. Student mobility is influenced by aspects such as language, entrance limitation, tuition fees or quota.