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Training of Belgian Surgeons: a steady evolution

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The Belgian program of surgical training is in continuous evolution.

Some years ago, we published an extensive contribution on the Belgian statutory health insurance system, and the imbedding of surgical training in such a system[1]. Since then quite a lot has changed.

Surgical training has since long been regulated by law. The main law of 1957 brought specialist certification under control of the Ministry of Health. More detailed and specific decrees of 1983 and 1985 gave concrete form to the National Supervisory Board[2], and Special Boards[3] for control of each specialty.

MEDICAL STUDIES

Surgical training follows a seven year curriculum of medical studies, including a 12 month period of internship. Some years ago this student curriculum has been renamed, and consists now of a bachelor and master curriculum[4], in accordance with the Bologna declaration of 1999 in Europe[5].

After these 7 years the student gets a license as doctor, which prepares him/her to later become general practitioner or specialist.

The internship may vary, according to whether the student chooses to become general practitioner or specialist.

In the first case the candidate fulfils a series of 12 months of general medical internships, particularly including substantial periods in general practitioners' offices. After his/her doctor's diploma, the candidate continues another 12 months of courses and residency in practitioner's offices and is then delivered a license as general practitioner.

The one year internship preparing for specialisation is mainly centred around hospital activities and knowledge in the main medical specialties (internal medicine, surgery, paediatrics, obstetrics, psychiatry), complemented with more specialized areas of own choice (urology, ENT, ophthalmology, various types of laboratories, nuclear medicine, and so forth). The student fulfilling this type of internship, equally gets a license as medical doctor, that prepares him/her for one of the 29 specialisations, that are recognized by the National Institute for Sickness and Invalidity Insurance[6]. The doc-

[1] See Hubens & Van Hee, 1994.
[2] Flemish : 'Hoge Raad'; French : 'Conseil Supérieur'.
[3] Flemish : 'Erkenningscommissie'; French : 'Commission d'Agrément'.
[4] Respectively three and four years.
[5] See Cumming 2010.
[6] In Flemish: 'Rijksinstituut voor Ziekte-en Invaliditeitsverzekering', in short RIZIV; In French:'Institut National d'Assurance Maladie-Invalidité', in short INAMI.

tor then starts his/her residency in one of the specialist training centres in Belgium.

SURGICAL RESIDENCY: CRITERIA FOR HOSPITALS AND INSTRUCTORS.

For surgical training 54 centres in Belgium[7] have been recognized and accredited by the National Supervisory Board, which determines the criteria for instructors and hospital services in fulfilling their training duties.

Surgical departments may provide an entire or a partial training program, depending on a list of criteria like number of department beds, trauma inpatients, and number of operations and new patients per year. Apart from the senior instructor, the department should equally be staffed by an at least since 5 year qualified surgeon, and regularly publish scientific articles in peer-reviewed journals.

SURGICAL RESIDENCY: CRITERIA FOR TRAINEES

The criteria for trainees are stipulated in the ministerial law[8] of 1999, and include a log-book of their activities, and a positive assessment of trainers and senior instructor[9]. It also includes a complementary but not by law compulsory examination during the second and sixth year of training.

The candidate specialist has to apply for his/her residency at one of the seven universities in the country, where selection committees incorporate the different instructors of university and non-university hospitals of each individual specialty.

The number of candidates per university has been agreed upon by an Interuniversity Council. In practice, recent years saw approximately half of the applicants, depending on the specialty, start their residency.

STUDENTS' AND SURGEONS' 'NUMERUS CLAUSUS'

Since 1997 two types of 'numerus clausus' have been adopted in the Belgian Kingdom[10].

They may be different in the Flemish and French communities, since regional entities are responsible for education, provision of health care, hygiene and disease prevention. The federal government on the other hand is responsible for health insurance and hospital legislation.

This complex situation induces disparity in the legislation concerning 'numerus clausus'.

The Flemish government in 1997 introduced an entry examination (in two sessions) at the start of medical graduate studies. Of the 3615 candidates in 2009, 1295 students succeeded in the test (35,8 %), restricting actively the number of ingoing students in medicine and dentistry. No numerus clausus in graduate studies exists in the French speaking community[11].

On federal Belgian level on the other hand a numerus fixus has been adopted concerning the number of 'recognizable' medical doctors, who may be accredited by the National Institute for Sickness and Invalidity Insurance. The yearly number of 'recognizable' doctors has been restricted to 757 from 2008 until 2011, to 890 in 2012 and to 975 in 2013[12]. The maximum number of new incoming 'recognized' general surgeons for instance amounted to 44 in the year 2004[13].

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[7] 32 in Flanders, and 22 in the French community.
[8] The so-called law of Colla, a Royal Decree issued on 16/03/1999.
[9] See Mendes da Costa & Weerts, 2004.
[10] See Briat 20O8.
[11] However restriction is realized by means of thorough evaluation and selection after the first bachelor study year.
[12] These 'contingents' have been published in the Royal Decree of 12/06/2008.
[13] Divided between Flanders (26) and the French community (18). See Mendes da Costa & Weerts, 2004.

This recognition by the National Institute for Sickness and Invalidity Insurance guarantees reimbursement of patients' costs for activities performed by the general practitioner or specialist.

By implementing this restricted number of 'recognizable' doctors, health care budget is controlled[14] on the side of doctors' activities[15].

As outlined before, difference however remains between northern and southern Belgium as to the relative number of doctors graduating, inducing a shift of doctors from South to North and of federal funds from North to South inside the country[16].

This disparity has induced political debates between Flemish and French speaking communities in Belgium[17].

SURGICAL RESIDENCY: THE CURRICULUM

Surgical training has been set at a steady duration period of six years.

General surgery training is divided in two periods: a common trunk of four years and a specialisation period of two years.

A common trunk period of general surgery is also applicable for other surgical specialties, like plastic surgery (3 yrs), orthopaedics (2 yrs), urology (2 yrs), neurosurgery (1 yr).

In the common trunk of four years for the general surgery trainees, rotating periods are implemented for gastrointestinal, vascular, cardiothoracic, urologic, emergency, paediatric, orthopaedic, endocrine, and reconstructive surgery, and optionally for neurosurgery and gynaecology.

The last two specialisation years may be spent partially or entirely in one of the cited specialized sections of surgery.

Gradually the trainee is adjudged more responsibilities as well in decision making as in operative procedures. The residents in training have to keep a logbook that is yearly controlled by the Specialty Board, together with a detailed report of the trainers and main senior instructor.

A maximum of one year foreign training is allowed, and even promoted by most instructors, inside one of the other countries of the European Union. The general supervision of the trainee by the Specialty Board is on yearly basis and may eventually include adjustments for the trainee in duration or type of training.

The examination after the second year of training includes evaluation of anatomical and general surgical pathology knowledge; that during the sixth year of training evaluates competences in pathology and operative treatment of surgical diseases belonging to the various fields of surgery.

Generally approximately 90-95% of the trainees succeed in their last year examination. After a positive report of the Specialty Board, the Minister of Health confers a certificate of Specialist in General Surgery, allowing operative activities in the whole country, and guaranteeing reimbursement of patients' costs by the National Institute for Sickness and Invalidity Insurance.

SURGICAL TRAINING: RECENT CHANGES

In following the Bologna principles, residencies have been attributed the status of a 'Master post Master' degree[18]. This 'Master in General Practitioner's Health Care', respectively 'Master in Specialized Medicine', has been implemented in Belgium by a special new program, recently installed in 2009. This program aims at maximized compatibility with other European residency programs.

[14] At least partly !
[15] See Van Hee 2001.
[16] Demonstrated in the ABAFIM study of 2004.
[17] See for instance the debate in the Flemish Parliament of 7/06/05.
[18] In Flemish a 'Master na Master' or 'ManaMa'.

It implies an academic education, which is organized per region (Flemish or French Community) by the Faculties of Medicine of the universities.

In the actual phase this 'academisation' is implemented in the two years of general practitioner training, and the consecutive years of specialist training.

In the Master in Specialized Medicine curriculum, a total of 120 study points should be obtained[19]. These should be distributed over four domains: science, medicine, management and communication, and are explicited in a European Credit Transfer System or ECTS. It includes a series of academic courses in which at least 30 hours of 'communication'[20] and 20 hours of 'evidence based medicine' are compulsory. It moreover covers case or pathology related problem solving of patients and/or diseases, that forms part of a portfolio, which the trainee keeps until the end of his/her training period for regular control.

The academic training includes also active attendance at hospital seminars, at regional and national meetings, as well as at international congresses.

Moreover during his/her training the resident should at least have published one article in an international or Belgian national peer-reviewed journal of surgery (Acta chirurgica Belgica).

Study points are attributed to all these different items of practical and theoretical training, and at final examination or control should reach 120 points.

SPECIALIZED SURGICAL TRAINING

Surgical residency prepares the surgeon for a general surgery career. For specialized sections like cardiac surgery, vascular surgery, oncologic surgery and others, supplementary years of training in that subspecialty are requested, as is the case in other European countries. A variable period of training in that specialty may be necessary.

After obtaining the certificate of 'general surgeon' or 'specialized surgeon', the specialist has to follow a yearly program of recognized continuous education (CME) at national and/or international level. Such education is controlled by the Belgian 'Accreditation Committee', a branch of the National Institute for Sickness and Invalidity Evaluation[21].

CONCLUSION

A strict program of 6 years surgical residency in Belgium guarantees training in various fields of practical surgery, as well as knowledge and competences in scientific and socioeconomic aspects of surgical practice. Particularly since the recent changes in training curriculum, compliant with the European Bologna principles, the Belgian surgeon should be able of reaching the highest ranks of actual European surgery!

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[19] For comparison, in a graduate study curriculum a total of 60 points per year is normally necessary.

[20] This course includes medical economy, management, ethical principles and so forth.

[21] See Van Hee 2004.