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### The Swiss Approach to Medical Imaging: How We Do It

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#### Please Tell Us About the Origins and Activities of the Swiss Society of Radiology

The Swiss Society of Medical Radiology was founded in 1913 to promote radiology in all areas of medicine including experimental and clinical research. Until the year 2000 the society united all imaging specialists. Following a revision of postgraduate education, three societies were the formed - besides the Swiss Society of

Radiology (SSR) the Swiss Society of Radiation Oncology and the Swiss Society of Nuclear Medicine are now in existence.

#### Where do You Work, and What is it Like?

I work at the Kantonsspital Aarau, one of the three largest non-university hospitals in Switzerland. The hospital has 600 beds, is a tertiary care and trauma centre and runs a large outpatient clinic. The department of radiology performs around 105,000 diagnostic and over 3,000 interventional procedures per year. We have 14 staff positions and 12 residents, as well as 45 technicians and 12 support personnel. We have specialist teams in neuroradiology, interventional radiology, paediatric radiology and breast imaging.

#### What is the Education System for Radiologists in Switzerland Like?

The current curriculum requires one clinical year and five years of radiology in accredited residency programmes to be board eligible for radiology. The national requirements and the international standards will require us to reduce the years of postgraduate education to a maximum of five years. By approximately 2010, the clinical year will no longer be obligatory.

To be accredited, our residency programmes need to present a rather elaborate curriculum for all stages of the residency. This curriculum is regularly updated. Since 2007 all accredited programmes have regular external audits based on these curricula. In between these audits, questionnaires are sent to all residents on an annual basis to rate their programmes according to the requirements. The results are made public and are used to improve the programmes and to increase competition.

Our board exam in radiology is taken in two parts: the first exam, covering the knowledge of the anatomical, technical, biological, pharmacological, medicolegal, ethical and economic subjects pertinent to radiology is a written exam that residents usually take during their second or third year. The second exam, a two-day roundup of written and oral exams as well as individual presentations is taken during or after the last year of residency. During these exams the candidates have to prove sufficient knowledge in all subspecialties of radiology.

Our postgraduate education programme ensures a high quality and competence. The Swiss board certification in radiology is a definite requirement for all staff radiologists employed in our department.

### Is Continuing Medical Education Very Important in Swiss Radiology?

It definitely is. All board certified physicians need to collect at least 50 hours/CME credits per year. If a physician is not able to prove this, the Department of Interior can revoke their medical licence.

### Does Working in a Multilingual Country Pose Problems for Radiologists? E.g., are Imaging IT Systems Configured Appropriately, can Students Take Exams in Different Languages, etc?

Of course we will have occasional language barriers – not everybody can and will be multilingual – and professionals changing their employer may have to learn (or learn better to use) another of our three major languages. But in this respect we are probably just a little bit ahead of the rest of Europe's medical community, where mobility to other countries and languages becomes more common. Our exams can be taken in German and French. The configuration of IT systems is usually not a problem, because Germany, France and Italy are large markets and these language configurations are usually readily available.

### How Closely Does Switzerland Converge with Europe in Standards and Guidelines?

To my knowledge the Swiss guidelines are adapted mostly from EU guidelines.

### Is Interventional Radiology Well Known in Switzerland?

A large number of interventional radiological procedures are performed in Switzerland each year. IR is not yet an official subspecialty, but we have a Swiss Society of Cardiovascular and Interventional Radiology working on a subspecialty programme. Interventional radiologists in Switzerland face problems similar to those of their European colleagues: their speciality is not known and promoted well enough and they need a lot of energy and stamina to gain direct patient access. Traditionally radiologists have worked as consultants and we cannot expect that the specialists who have unrestricted patient access will gladly share with us. Patient information about minimally invasive radiological procedures is improving, especially through use of the internet but it is far from being adequate.

### Are Migrant Workers Common in Radiology Departments in Switzerland? How can Employers be Sure of Their Educational Standards?

Switzerland has the highest share of foreigners/migrants in Europe, now greater than 20% of the total population. Due to its rapid growth our health system employs about 30% of non-Swiss nationals. The vast majority come from EU countries, with which educational standards have been homogenised to assure our standard of care. In 2002, Switzerland and the EU agreed to accept their respective educational and professional diplomas, so that since then there are basically no restrictions for EU nationals. If we have applicants from other countries, where the educational standards are not comparable, the applicants have to take and pass the Swiss exams to be eligible for work.

### How can More Swiss Medical Residents be Encouraged to Enter Radiology?

Like in other European countries, radiology is in danger of disappearing as a distinct speciality from the medical student's curriculum. Every reorganisation at the medical schools threatens to erase radiology from teaching and dedicated courses. Without a role model or at least an idea of what radiology can do for a patient and how much impact it can have, the student will not choose this speciality. We have students from various universities and countries, who come for a 1 - 3 month locum, who have experienced nothing more about radiology than seeing a chest x-ray but who are fascinated by its pivotal role in modern patient management. It is our obligation to assure that students or at the latest young residents are made aware of the radiologist's clinical impact.

### How Useful is the European Society of Radiology's Exchange Programme for Radiologists?

We just had one of the first exchange programme trainees with us for a week. He came from the UK and worked with our team for one week. We all judged this exchange of ideas and perceptions as a unique opportunity to achieve a mutual understanding for the differences and commonalities of our postgraduate programmes and clinical training. In the end it is the personal impression and knowledge of each other that will decide whether or not we can plan and form a common European future for our speciality.

### What are Your Three Key Pieces of Advice for Other Radiology Managers?

I am far from being an old (fortunately) or wise (unfortunately) radiologist, but I guess that the following personal experiences may be of benefit to colleagues:

- Your diagnostic or therapeutic procedures must benefit the patient and not just satisfy the referring physician - we are specialists in radiology and therefore independently able to choose and tailor our procedures to the patient's needs.

- Your language must be understood: A radiological description is nice but the translation into the answer to a clinical problem is the essential step.

- Make clinical decisions (i.e. insist on clinical information yourself ) and take responsibility. Differential diagnoses must be prioritised and recommendations for further procedures given.

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