Technologist and student technologist involvement in research

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In the last two decades the training and the education of nuclear medicine technologists and radiographers in Europe has undergone enormous changes as a consequence of the permanent medical and technical development and innovation in the field of nuclear medicine, molecular imaging and related areas. Simultaneously the health care systems reforms focused in quality and efficiency as well the increase expectations of patients in modern scientific medicine induces an enlarge social request in high skilled health care professionals. Last years the major change in nuclear medicine technologists and radiographers education in Europe consists in the transition from a mainly hospital-linked to a mainly university linked degree, from a knowledge-based discipline to an evidence-based practice (1). In others words, progressively at initial training the obtaining of a professional diploma by European nuclear medicine technologists and radiographers is replaced by the acquisition of an university degree. Moreover nowadays most European countries are involved in the Bologna process that as a large reform of the European higher education system states an unified university course in three levels: bachelor, master and PhD. Nevertheless regarding nuclear medicine technologists and radiographers education we must be aware that the European context is quite heterogeneous. In some countries students graduate exclusively in nuclear medicine whether in others they graduate in an integrated curriculum with radiology and radiotherapy or within medical imaging. Otherwise if in many countries students acquire a university degree (Bachelor of Sciences) in some others countries they still obtain a professional diploma. One can assume that the crucial change between vocational studies and higher and advanced vocational education consists in the student’s initiation to research practice by means of carrying out a Bachelor thesis. More precisely the challenge for educators is how to lead students from an attitude of research results consumers to an attitude of effective research reflective practitioners. Since 2002 the initial training of nuclear medicine technologists and radiographers in the French speaking part of Switzerland become a integral curriculum within the University of Applied Sciences of Western Switzerland (HES-SO) with six others health related professions curriculum such as physiotherapy, midwifery, nursing, etc. Upon a successful completion of this curriculum the students obtain the degree of Bachelor of Sciences in Medical Radiologic Technique. In this talk the didactic device dedicated to the realisation of the Bachelor thesis within the curriculum will be presented. One of the main characteristics of this didactic approach is the request close cooperation between the University Hospital Nuclear Medicine Service staff such as technologists, physicists and physicians and the academic staff at School for the student guidance on carrying out their Bachelor thesis. As an example, the different steps regarding the realisation of a Bachelor thesis on the topic of the Effect of the injection technique on Standardized Uptake Value in F-18-FDG PET (2) will be describe in details in order to illustrate this educational process. In this specific case the two students treating this topic under the support of the School made the experience of submitting an abstract and presenting a poster at the last EANM congress technologists program, Barcelona 2009. This parallel activity to the carrying out of the Bachelor thesis will be described as well considering the educational and professional benefits. Ending reflections on the educational and professional issues for nuclear medicine technologists and radiographers create by this didactic process aimed on the initiation to research practice within an advanced vocational education curriculum in a higher education institution (HECVSante, HES-SO) will close this talk.

References