



ABBOTT HEALTHCARE EXCELLENCE FORUM  
SPECIAL SUPPLEMENT

# Top Killers

- EDITORIAL, *T. RASSAF*
- MEDICAL ERRORS: IS PREVENTION POSSIBLE? *J. KIAM*
- RISING MULTIMORBIDITY IN OUR AGEING WORLD, *H. ROBERTSON & N. NICHOLAS*
- CHRONIC INEQUITIES, *P. MAGUIRE ET AL.*
- WHAT IS THE FUTURE OF BREAST CANCER SCREENING? *E. MORRIS*
- A MOVING TARGET: THE FUTURE OF CARDIOLOGY, *H. INCE & G. D'ANCONA*
- FROM TREATMENT TO PREVENTION IN DIABETES CARE, *H. AANSTOOT*
- ROBOTICS AND AI TO ANSWER HEALTHCARE CHALLENGES, *J. BOCAS*

REDEFINING THE ROLE OF HOSPITALS - INNOVATING IN POPULATION HEALTH, *A. LOURENÇO*

A SYSTEMS PERSPECTIVE ON COLLABORATIVE CARE DELIVERY, *C. KUZIEMSKY*

RISK AND PERMISSION, *R. MILLAR*

ARE SOFT SKILLS IMPORTANT? *M. VIRARDI*

SEPARATE AND CONCENTRATE—

A SUSTAINABLE BUSINESS MODEL FOR GENERAL HOSPITALS? *L. KUNTZ ET AL.*

5G OPENS THE FUTURE OF TELESURGERY, *A. DE LACY*

SHAPING THE FUTURE OF DEMENTIA CARE, *A. LEOTSAKOS & K. PETSANIS*

OBSTACLES TO ESTABLISHING COMPETENCE IN RADIOLOGY, *P. SOLÍS*

EUROSAFE IMAGING: BE A STAR FOR YOUR PATIENTS, *L. BONOMO*

EFFECTS OF SMOKING ON CAROTID ARTERY STRUCTURES AND HAEMODYNAMICS, *D. SIMÃO ET AL.*

DIGITISATION 4.0: THE TRANSMISSION OF PATIENT DATA, *U. HORNSTEIN & G. FÜCHSL*

IF YOU CAN'T BEAT THEM...JOIN THEM, *J. BLICKMAN*



©For personal and private use only. Reproduction must be permitted by the copyright holder. Email to copyright@mindbyte.eu.

# Obstacles to establishing competence in radiology

Competence in radiology: difficult to define, more difficult to establish.



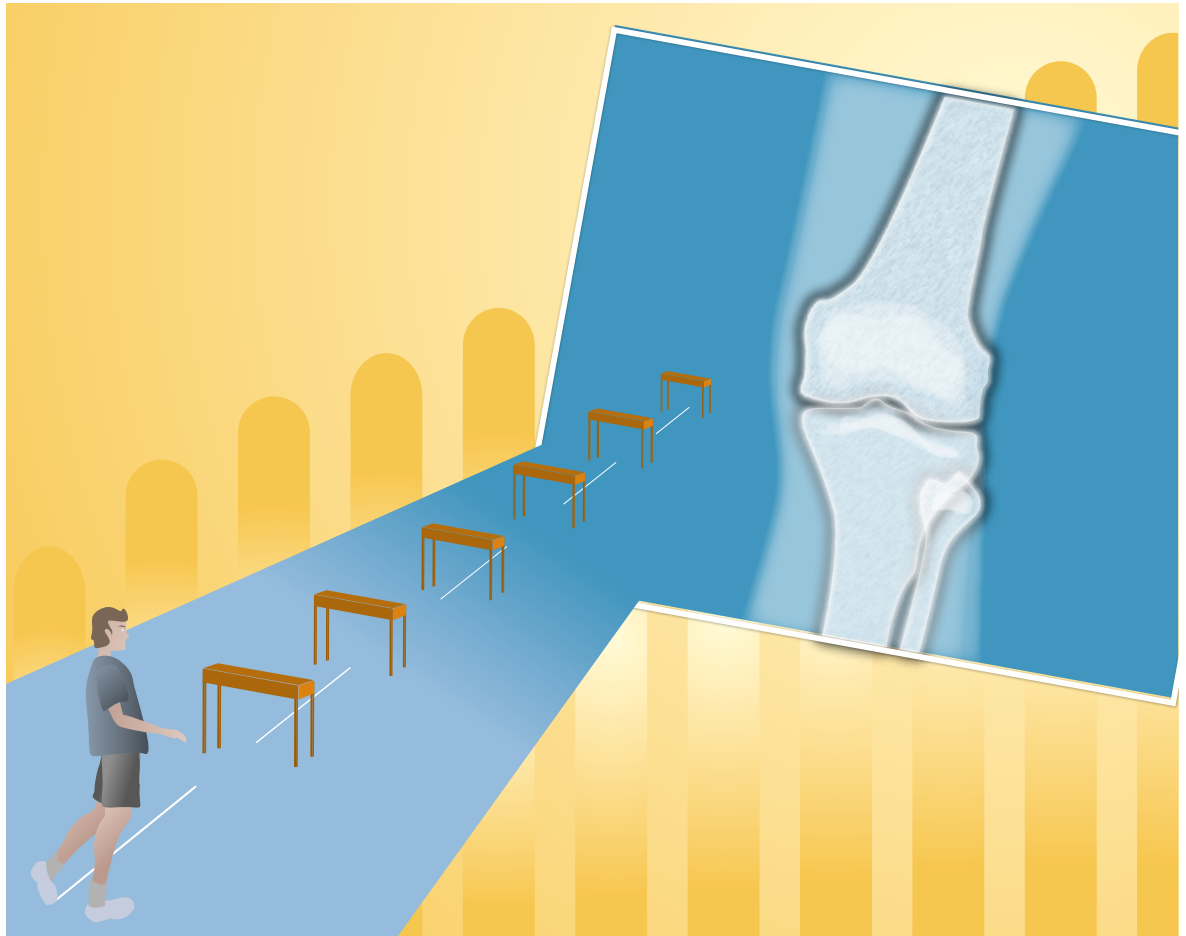
**Pablo Valdés Solís**

Head of Department of Radiology  
Agencia Sanitaria Costa del Sol  
Marbella, Spain

President  
Sociedad Española de Radiología Médica - SERAM

pabvalsol@gmail.com

@seram\_rx



Since the publication of McClelland's 1973 work (McClelland 1973), it is assumed that knowledge does not always imply better performance in the profession, and that competence is a complex concept, in which many factors are involved (Mendiratta-Lala et al. 2011). For the definition and evaluation of the competence of a radiologist, the Spanish Society of Medical Radiology (Sociedad Española de Radiología Médica - SERAM) used a functional analysis, so that the radiologist's performance can be measured. It has been proposed that monitoring systems based on validated measures

and that focus on clinical delivery are ideal (Leape et al. 2006).

These concepts led us to develop a functional model, and SERAM began designing the vascular radiologist and interventionist competency manual, not only because it fitted the model optimally, but also because it was a request from the radiologists themselves.

The initial work was successful and a manual was developed that served as a reference for other subspecialties of radiology competencies (Valdés Solís et al. 2010).

However, subsequent development was faced with different obstacles, so the project was slowed down and even paralysed for more than two years. Currently, it is being revised to try, under different conditions, to implement it.

### Do we need this?

This project arose as a request from a group of radiologists (interventionists), due to the threat posed by the activity of a certain group of vascular surgeons. SERAM's defined competency model would suppose that there would be a national reference to establish quality barriers and defend the profession of the radiologist.

The rest of the subspecialties and sections of Spanish radiology received this project with different interest, but in some cases workgroups were created to establish the competencies of the specific section. However, this request was not based on any threat and not all radiologists interpreted the project in the same way.

“MOTIVATING A PROFESSIONAL IN A SYSTEM, IN WHICH SALARIES VARY LITTLE AND PROFESSIONAL DEVELOPMENT IS SLOW, IS A DIFFICULT TASK”

In this way, although three working groups were set up (paediatric radiology, emergency radiology and cardiac radiology), none of them completed their project. In one of them (cardiac imaging) it was even experienced as a threat by the working group.

This led to a slowing down of the work until, after several months of inactivity, it ended without results.

### Why we didn't succeed

It is difficult to analyse and understand the causes why a project is not a success, but it is essential to do this analysis in order to redirect and finalise it.

We believe that there are several influential factors:

- **Complexity of the model.** In our environment, the most common models of competency assessment are simple, and are based fundamentally on the evaluation of knowledge, experience (valued primarily by seniority) and

attendance at courses and congresses. Our model fundamentally evaluates the results, something that is relatively easy to measure in interventional radiology, but more complex in other sections of radiology.

- **Lack of culture.** The Spanish health model is based largely on public assistance, with a "civil servant" concept. Professionals develop, attend courses and conferences and improve throughout their career, but without a clear development model yet, and none based on national competencies. There is no culture that professional development is aimed at acquisition and, above all, the maintenance of certain skills.
- **Difficulty leading the project.** The professionals most involved in this project within SERAM also work in other lines of the Society, so that it was increasingly difficult to find time and energy to develop a project of this scope. There are few radiologists with enough experience and knowledge in this field. This led to the project being very dependent on certain people.
- **When the enemy is inside.** Some radiologists not only did not support the project, but, considering that the model was not adequate, they raised an important resistance to its implementation. Others saw it as a threat, since they considered that a competency evaluation model supposes unnecessary external control. Some professionals even consider that they do not need any type of control or evaluation. Finally, establishing a well-developed competency system can make it difficult to manage a radiology service when distributing posts and assigning functions.
- **Lack of motivation.** Many theories that seek to understand what motivates a professional have been described (Martín Martín 2005). Nowadays, we usually talk about three pure types of motivations: extrinsic, intrinsic and transcendent motivation. The extrinsic is based on external rewards, the intrinsic in the satisfaction for the professional of a job well done. Transcendent motivation, being more complex, encompasses a set of concepts linked to values (appreciation of work well done, prestige, altruism etc). Motivating a professional in a public system, in which salaries vary little and professional development is slow and not without problems, is a difficult task. If one more



variable is added: the certification of competencies, without the professionals seeing a motivation (especially an extrinsic motivation) means that adherence to this project is limited. And so it was in our case.

### And now?

The Spanish Medical Colleges Organisation has begun a Periodic Validation of Certification campaign. Although it is not mandatory, it is an incentive for doctors to certify a series of requirements in education and in the fulfilment of the profession. In this context, SERAM is responsible for defining the educational and technical requirements (results) of radiologists. This supposes a

With all this, SERAM is already working on this second phase, so it is expected that in less than a year it will be available.

### Conclusion

Establishing a competency model for the radiologist is complex, especially in a health system that depends on different regional governments. The experience of SERAM, in the context of the Spanish health system, is that strategies must be carefully designed so that the effort involved in the design of a competency system is not paralysed by different factors. We must adapt the model, simplify it as much as possible and look for synergies and collaborations so that the professional is motivated to follow it. Strong leadership and good communication are two essential elements to ensure success. ■

## “ ESTABLISHING A COMPETENCY MODEL IS COMPLEX, ESPECIALLY IN A HEALTH SYSTEM THAT DEPENDS ON DIFFERENT REGIONAL GOVERNMENTS ”

second opportunity to adapt the model of competencies and join forces with other scientific societies to get a culture of competence certification created. But to achieve this, it is necessary to redesign the model:

- Make it easier, so that all radiologists are involved and can be certified.
- Adapt it to the current situation, both work and training. Include activities that are already done as elements that facilitate certification.
- Spread the model, creating culture. This implies, in addition, that there must be a very powerful leadership.
- Facilitate certification, with a system that allows certification through a simple procedure. Web tools are fundamental.

### KEY POINTS



- ✓ Defining what is a competent radiologist is not easy and both scientific societies and health administrators have proposed different models
- ✓ The health system in Spain is fragmented, as it is dependent on regional governments. No national model of competence is defined and accepted
- ✓ The Spanish Society of Radiology (SERAM) is working on a model of competence and trying to implement it
- ✓ After a promising beginning, with a plan of competence in interventional radiology, the project began to slow down
- ✓ We present the analysis of the different causes that may have taken us to the actual situation, the possible mistakes made and how to face the future



### REFERENCES

Leape LL, Fromson JA (2006) Problem doctors: is there a system-level solution? *Ann Intern Med* 144(2): 107-15.

Martín Martín JJ (2005) Motivación, incentivos y retribuciones de los médicos de Atención Primaria del

Sistema Nacional de Salud. *Rev Adm Sanit Siglo XXI* 3 (1): 111-30.

McClelland DC (1973) Testing for competence rather than for "intelligence". *Am Psychol* 8(1): 1-14.

Mendiratta-Lala M et al. (2011) Quality initiatives: measuring and managing the procedural competency of radiologists. *Radiographics* 31(5), pp. 1477-88.

Valdés Solís P et al. (2010) Competencias en radiología vascular e intervencionista. Available from [seram.es/readcontents.php?file=webstructure/competencias\\_servei\\_seram.pdf](http://seram.es/readcontents.php?file=webstructure/competencias_servei_seram.pdf)