

**INTERNATIONAL
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**International Day of Radiology 2017
Interview on Emergency Radiology
Mexico/Dr. Guillermo Elizondo Riojas**

Mexican radiologist Dr. Guillermo Elizondo Riojas discusses the importance of fast and efficient teamwork in the emergency setting, especially when confronted with viral outbreaks and drug-war violence

***European Society of Radiology:** Could you please describe the role of the radiologist in a typical emergency department in your country?*

Guillermo Elizondo Riojas: In our hospital, we have one resident who performs emergency ultrasounds and another who discusses emergency cases with clinicians in a specially designed reading room. A professor supervises both of them.

In Mexico, there usually isn't a radiologist on site in the emergency department, although it is becoming more common, especially in private hospitals in larger cities. But in most cases, a radiologist is available by phone; and with the increasing use of teleradiology, more consultations can be done.

In my opinion, however, we radiologists have to understand that we must be visible and always available to both patients and colleagues. We have to play our role in the patient-centred care.

***ESR:** What does a typical day in the emergency department look like for a radiologist?*

GER: In our hospital, the emergency department is a very busy place. We are the trauma centre for our region, so we see all kinds of pathologies, from acute diseases, motor-vehicle accident trauma and violence victims to an endless number of patients with decompensated chronic diseases.

Increasingly more patients initially are evaluated with imaging modalities, especially CT and ultrasound; this is the bulk of our imaging work on a daily basis. I think this is representative of what is going on in emergency departments all around the world. We review the images, interact with clinicians, and decide whether another imaging test is necessary or if treatment should be initiated instead.

***ESR:** Teamwork is crucial in an emergency department. How is this accomplished in your department and who is involved?*

GER: We have a special place to review the images with the clinicians. Teamwork is key to successfully treat emergency patients; it has to be fast, efficient and effective.

A surgeon, internal medicine specialist and paediatrician lead the team in the emergency department; staff members, medical students and residents help them with their task. It is a great place for students and residents to learn about teamwork, stress management, and most importantly, the vital role of interdisciplinary communication.

***ESR:** How satisfied are you with the workflow and your role in your department? How do you think it could be improved?*

GER: We always are looking for areas of opportunity to improve our role as radiologists. In our case, we would like to have a dedicated CT in the emergency department, and we are trying to get one for our new shock trauma unit, which is under construction. And off course, we need more radiologists to be available on site around the clock.

The other area we are considering is an interventional suite, since we do a lot of emergency interventional procedures.

ESR: *Which modalities are used for different emergencies? Could you please give an overview sorted by modalities?*

GER: X-ray films are ordered like donuts for fractures, chest pathology and trauma, for example. But, as I mentioned before, ultrasound and CT are now part of the physical examination. Basically, every trauma patient, every abdominal or acute chest pain, any gunshot victim, any sports injury is now evaluated by one of these modalities. And if you include stroke, MRI becomes the rule.

ESR: *Is teleradiology an issue in emergency radiology? If yes, how so, and how often is it used?*

GER: Teleradiology plays an important role in radiology, and it is even more important in the emergency department, especially because many hospitals do not have a radiologist on site. In the future, we increasingly will use teleradiology, but we have to be sure that it is accompanied by a face-to-face interaction between the radiologist and clinician. Otherwise, the service provided by teleradiology could become a commodity – an impersonal test result that would not necessarily fit in the patient's clinical context.

Instead, we can use technology to talk to each other and see each other, to discuss our findings, make clear our suggestions and fit the patient into the care chain.

ESR: *Are emergency radiologists active anywhere other than emergency departments? Do they have other non-emergency roles, or other emergency roles in other departments?*

GER: In reality, emergency radiologists are, depending on the institution or the type of practice they work in, general radiologists assigned to the emergency department during their duty hours. As in many Latin American countries, most Mexican radiologists have to work in two places, usually an institution as emergency radiologists and in a private practice as general radiologists.

ESR: *Do you have direct contact with patients and if yes, what does it entail?*

GER: I personally have a lot of contact with patients, since I am an interventional radiologist. I usually talk a lot with my patients and their families to explain to them what we are going to do and what our expectations are for the treatment. Also, we have a lot of interaction with the referring physicians.

ESR: *How are radiologists in Mexico trained in emergency radiology? Is emergency radiology a recognised specialty in your country?*

GER: No, emergency radiology is not a recognised specialty in Mexico and, to my knowledge, there is no subspecialty training programme.

But in most programmes, including ours, residents are exposed to emergency cases every day, and they often are in charge of care when they are on call.

During the residency programme, residents are assigned to two special rotations in the emergency department.

ESR: *Many cases you are faced with in the emergency setting are challenging, but can you remember what was your most impacting experience? What knowledge did you gain from that experience?*

GER: As you probably know from the news, there was a time five or six years ago, when the violence in the war between drug cartels was particularly vicious. In those days, our hospital was like a war hospital, with injuries usually just seen in the most gory of motion pictures. We had to learn to both interpret and manage these terrible situations.

As a university medical centre, we also have to manage viral outbreaks. The H1N1 influenza taught us a lot about how radiologists can help to care for patients by ruling out disease and the importance of teamwork to manage such situations.



Prof. Guillermo Elizondo Riojas is chief of the radiology department at the Monterrey University Hospital in Monterrey, Mexico.

He completed his radiology residency at that hospital, and then obtained a research fellowship in MRI contrast agents at the Massachusetts General Hospital and Harvard Medical School in Boston, United States. He earned his doctorate in morphological sciences.

Prof. Riojas is past president of the Mexican Board of Radiology and a member of the National Academy of Medicine in Mexico (IAMP) and the Mexican Academy of Sciences (AMC).

He also is a member of the Mexican Federation of Radiology and Imaging (FMRI), Radiological Society of North America (RSNA), European Society of Radiology (ESR), Society of Interventional Radiology (SIR) and the Association of University Radiologists (AUR).