

International Day of Radiology 2017 Interview on Emergency Radiology Armenia/Dr. Lusine Hakobyan

The large volume of emergency patients adversely affects workflow for nonemergency cases, which may require an additional radiology department to solve in Dr. Lusine Hakobyan's Armenian hospital

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

Lusine Hakobyan: Radiologists have a primary role in emergency departments in Armenia. After an initial examination of a patient by various specialists, a radiologist immediately conducts an imaging study (e.g. ultrasound, x-ray and CT). I must mention that of course, the patient's health depends on the correct diagnosis, so the radiologist's qualifications and experience are of the utmost importance. Most of our clinics are multidisciplinary, including our medical centre, which is Armenia's largest. We serve emergency patients with trauma, acute neurologic, cardiopulmonary and surgical pathology.

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

LH: The only thing emergency-department radiologists can plan on is that there is no plan for their workdays. Every day is unique. Radiologists can't predict what will happen, even during the next minute. They must always prepare for patients with all sorts of acute pathologies and make quick decisions. Often, there is not even enough time for diagnosis, which creates some risks for patients. In order to avoid mistakes, we always meet to discuss complex cases with the specialists working in the emergency department.

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

LH: The emergency department requires teamwork. The precise orientation and correct diagnosis are important for each patient. Since the medical centre is multidisciplinary, patients are examined by a general practitioner as soon as they are admitted to the department. The general practitioner decides on whether to consult with physician specialists. Based on the patient's case, the physicians decide on the appropriate means of diagnosis. After the immediate examinations using various modalities, the doctors decide on an initial diagnosis and discuss treatment.

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

LH: Our centre's radiology department serves patients with both emergency and nonemergency pathologies. So sometimes, a large volume of emergency cases make it difficult to find time for nonemergency, diagnostic-image interpretations. In my opinion, the solution is to add another radiology department, which will help us diagnose nonemergency patients more effectively.

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

LH: In our department we use various diagnostic radiology techniques, such as ultrasound, x-ray, and CT. In the case of major, traumatic injuries, we use CT examinations. For surgical pathology, we use ultrasound, then we use x-ray and CT if necessary. In cardiopulmonary pathologies, x-ray examinations are done first, then CT if necessary.

ESR: Is teleradiology an issue in emergency radiology? If yes, how so, and how often is it used? **LH:** In our country, there is no centralised teleradiology system. However, especially in hard-todiagnose cases, we consult with local and foreign colleagues. However, in emergency situations, radiologists do not have enough time conduct teleradiology consults because every minute counts.

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

LH: Radiologists in our department are general radiologists who practice neuroradiology and general radiology. They actively work both in the emergency department, as well as other hospital departments. However, based on the profile of our hospital, emergency radiology has paramount importance.

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

LH: Our department is unique because we communicate directly contact with our patients. Due to this direct communication, we have the opportunity to learn the patient's medical history and complaints, which often helps us to find the correct diagnosis.

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

LH: In Armenia, emergency-radiology training is managed through a course during the radiology residency programme. Our specialists earned qualifications while training overseas and are taught by the most experienced specialists in our hospitals. Emergency radiology is a specialty in which radiologists deal with emergency situations every day and patients' lives depend on.



Lusine Hakobyan, MD, PhD is a first-class specialist of general radiology who specialises in emergency radiology, paediatric radiology and breast imaging. She is head of the radiology department at Erebouni Medical Center in Yerevan, Armenia. Since 1997, she has specialised in breast imaging and completed training at the Washington Women's Wellness Center of Medstar Washington Hospital Center in Washington DC, United States. She also completed a general radiology course at the Country Hospital of Salzburg in Salzburg, Austria. Her main research concentrations are emergency radiology, paediatric radiology and breast imaging using CT, mammography, ultrasound and core needle biopsy.

She currently is a lecturer of diagnostic radiology at Yerevan State Medical University (YSMU) and a member of the Armenian Association of Radiologists. She has authored and co-authored more than 30 publications and articles in Armenian, Russian and British journals.