International Day of Radiology 2017
Interview on Emergency Radiology
Chile/Dr. Alvaro Huete

Chile's emergency radiologists work to make timely, accurate management decisions to ensure a favourable outcome for their patients, according to Dr. Alvaro Huete

European Society of Radiology: *Could you please describe the role of the radiologist in a typical emergency department in your country?*
Alvaro Huete: In Chile, most emergency departments do not have a dedicated radiology department. Radiologists perform or read emergency studies in the radiology department either as part of their general practice or in a subspecialty unit.

ESR: *What does a typical day in the emergency department look like for a radiologist?*
AH: Radiologists are in charge of determining imaging protocols for emergency patients, based on local and international guidelines. They perform a significant amount of ultrasound examinations, mainly on paediatric patients; young or pregnant women; and in clinical scenarios where ultrasound has a high impact in patient management (e.g. gallbladder diseases). Image interpretation for radiographs, CT and MRI examinations form the bulk of the activity, with frequent personal or phone consultations with referring clinicians in the emergency department.

ESR: *Teamwork is crucial in an emergency department. How is this accomplished in your department and who is involved?*
AH: In our department we have a close working relationship with emergency staff. Since we are an academic institution, we have an emergency resident rotating through the radiology department during the day. This system enables a close liaison with the emergency department when in-depth information or fast communication is needed in complex cases. Residents from both specialties get to know each other and understand relevant issues of workflow from both parties' points of view, which enhances collaboration during night shifts.

ESR: *How satisfied are you with the workflow and your role in your department? How do you think it could be improved?*
AH: Workflow has improved constantly in the last decades. Patient and report turnaround times are adequate for appropriate clinical decision making. As programme director for radiology, and as radiology rotation coordinator for the emergency residents, it is my priority that competencies of collaboration and professionalism are developed and assessed in these young physicians. In Chile, as in many places around the world, clinical-decision-support systems appear to be the next step in guiding appropriate examination selection, thus avoiding overuse of resources.

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

AH: X-rays are the cornerstone in the initial assessment of cardiopulmonary symptoms and diseases. They also are used extensively in bone and joint diseases, including trauma.
Ultrasound is extensively used in abdominal-pelvic imaging, especially in children and young or pregnant women. Doppler ultrasound examinations often are requested for possible deep-vein thrombosis and suspected testicular torsion.
CT is used in a wide array of situations, mainly acute abdomen, acute thoracic pathology, acute cerebrovascular disease (stroke protocol) and severe blunt or penetrating trauma.
MRI is mainly used in patients with neurological symptoms, as well as workup of possible choledocholithiasis and acute abdomen in pregnancy.

ESR: *Is teleradiology an issue in emergency radiology? If yes, how so, and how often is it used?*
AH: Teleradiology does have a role in emergency medicine. In our institution, it helps the call team with subspecialty consultation in complex cases, especially neuroradiology MRI. For some institutions that do not have radiology coverage at night, which is the case of some public hospitals, teleradiology has helped to provide timely consultations. It has continued to grow, but as it happens elsewhere in the world, there is a lack of clear integration with the local team of radiologists. This creates the possibility for future conflict.

ESR: *Are emergency radiologists active anywhere other than emergency departments? Do they have other non-emergency roles, or other emergency roles in other departments?*
AH: Radiologists have a dedicated practice of emergency imaging in only a handful of Chilean hospitals. Most integrate emergency cases with their general or subspecialised workload during the day. A fair number of radiologists perform night call, during which they are the primary consultants for the whole range of pathologies that may come through the emergency department.

ESR: *Do you have direct contact with patients and if yes, what does it entail?*
AH: Direct contact with patients occurs during ultrasound examinations, performed mostly by radiologists in an emergency setting (technicians only perform a few). As is customary, radiologist-to-patient interaction is crucial for a complete and focused ultrasound examination. A tailored examination develops as findings emerge from the process or the patient delivers new information not obtained during the earlier emergency department examination.

ESR: *How are radiologists in your country trained in emergency radiology? Is emergency radiology a recognised specialty in your country?*
AH: Emergency radiology is not a recognised specialty in Chile. Radiologists are trained in emergency cases during their subspecialty rotations; as part of a dedicated emergency-department rotation; and as part of a night-float emergency-room team. The depth and length of each component varies, depending on the residency programme.

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?*
AH: Rather than focus on a particular case, I think of many situations when a fast and accurate interpretation of imaging findings leads to a drastic change in patient management. Unsuspected bowel perforation; necrotic bowel; closed-loop, small bowel obstruction; and active bleeding with contrast extravasation are among the scenarios where we, as imaging experts, are key in making timely, accurate management decisions. This, in turn, possibly ensures a favourable outcome for our patients.

Dr. Alvaro Huete is a Chilean-trained radiologist, associate professor of radiology and residency programme director at the department of radiology at the Catholic University Clinical Hospital in Santiago, Chile. After finishing subspecialty fellowship training in thoracic and abdominal imaging at the Mallinckrodt Institute of Radiology in St. Louis, United States, in 2001, he returned to Chile and became section chief of body imaging at his current location.

He has had a long-standing interest in emergency radiology, with a focus on acute thoracic pathology, mesenteric ischaemia, acute biliopancreatic pathology and acute gynaecological diseases. Dr. Huete has authored or co-authored 30, peer-reviewed publications and ten book chapters and has given numerous invited lectures, tutorials and refresher courses at national and international meetings. From 2009 to 2015 he was chair of the chapter for abdominal imaging of the Chilean Society of Radiology (SOCHRADI), and since 2013, he has acted as secretary general for SOCHRADI. Also, he was chair of the Chilean Congress of Radiology in 2015. Dr. Huete currently serves on the Radiological Society of North America (RSNA) Regional Committee for Latin America and has served on the Education Exhibits Awards Committee for RSNA's Scientific Assembly and Annual Meeting from 2011 to 2014.