

Perspectives

Responsibility of the radiologists as a clinician: RCRT perspective and short message of the ESR International Forum 2023, Vienna, Austria

Tawika Kaewchur, M.D., FANMB.^{(1) (2) (3)}

From ⁽¹⁾Division of Nuclear Medicine, Department of Radiology,

⁽²⁾PET/CT and Cyclotron Center, Center for Medicine Excellence,
Faculty of Medicine, Chiang Mai University, Thailand.

⁽³⁾Board of Directors, Royal College of Radiologists of Thailand, Bangkok, Thailand.

Address correspondence to T.K. (e-mail: tawika.k@cmu.ac.th)

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Introduction

The European Society of Radiology (ESR) internal forum is held in the European Congress of Radiology (ECR) every year and this year, under the theme "Responsibility of the Radiologists as a Clinician", on March 3, 2023. The representatives of twenty-two international societies were invited to present their perspectives and discussions as ESR's global society stakeholders.

The "Responsibility of the Radiologists as a Clinician" was selected by ESR for sharing and engaging in deep discussions this year to enhance and emphasize diagnostic radiologists' value in engagement with referrers and directly answering patients' questions and offering explanations. From Thailand, both Assistant Professor Jaturon Tantivatana and I were the representatives of the Radiological Society of Thailand (RST) and the Royal College of Radiologists of Thailand (RCRT), respectively, to give the presentation and discussion on this topic.



A group photo of panellists in The European Society of Radiology (ESR) international forum 2023, Vienna International Conference Center (VIC), Vienna, Austria.

Roles of Diagnostic Radiologists as a Clinician: The Royal College of Radiologists of Thailand (RCRT) Perspective

A radiologist is a medical professional specializing in using imaging to diagnose and guiding the management and treatment. There are four significant specialists in radiology, including diagnostic radiologists, interventional radiologists (both body and neuroradiology), radiation oncologists and nuclear medicine physicians. Prominent roles as a clinician in direct contact with patients appear in interventional radiologists, radiation oncologists and nuclear medicine physicians. These three specialists use radiation for the objective of treatment in different ways.

With the dynamic advancement of radiological technologies, the role of traditional diagnostic radiologists in image interpretation to guide diagnosis may no longer be sufficient in the modern healthcare system. Therefore, we would enhance our positions in the patient care team by expanding our roles in the following:

1. Health delivery in disease screening,
2. Policy and management in radiation safety,
3. Research collaboration in developing innovations.

Health delivery in disease screening

Health promotion and disease screening for early abnormality detection are critical in modern medicine. Diagnostic imaging is the objective evidence for gross abnormality in the human body. Therefore, radiology investigations would be an effective disease screening tool.

Regarding the increased incidence of breast cancer in Thailand, diagnostic radiologists can be a considerable part of screening tool providers through mammography. This is because mammography shows highly cost-effective investigation with high sensitivity and specificity in detecting breast cancer. In addition, well-experienced technologists also play an essential role in generating good-quality images.

Liver ultrasonography is a powerful non-radiation tool in the early detection of parenchymal liver disease and primary liver cancers, e.g. hepatocellular carcinoma in cirrhotic liver and liver-fluke-associated cholangiocarcinoma in Northeastern Thailand. In addition, diagnostic radiologists can transfer these ultrasonography techniques and skills to general practitioners to promote health screening in remote areas.

Policy and management in radiation safety

Because of the increasing use of ionizing radiation, e.g. a plain radiograph and computed tomography (CT), as the screening, diagnosing and follow-up tool for

many diseases, radiologists would be a leader in implementing radiation safety policies and establishing the radiation practice guideline at the national or societal level to minimize radiation exposure to be as low as possible without loss of adequate imaging quality. In addition, the centralized radiation exposure data collection and analysis would help promote radiation exposure monitoring and adjust image acquisition protocol to reduce unnecessary radiation exposure to patients and workers globally. Radiologists can contribute to the expansion of the responsibility in quality management, radiation-used appropriateness, and patient safety.

Research collaboration in developing innovations

Continuous lifelong education is essential in the dynamic world nowadays. Research collaboration in developing innovations is vital in today's world where technology disruption has become pervasive. Artificial Intelligence, or AI, is becoming more popular in helping with imaging diagnosis, and its development needs research collaboration support. Furthermore, extensive pool data analysis and validation are necessary to develop AI for image diagnosis. Radiologists also play a huge role in developing innovations related to diagnostic radiology and treatment techniques to lean our working process, particularly in limited-personal numbers or facilities and widespread emerging disease burdens.

Essential Skills for Clinical Radiologists

As clinical radiologists, we need to combine the knowledge of anatomy, medical understanding of the clinical context, pathology and the principle of imaging technique for diagnosis, and decrease error. There are many essential skills for radiologists in the era of modern medicine, including:

- Good communication and relationship,
- Problem-solving and decision-making,
- Cooperation in radiological teamwork,
- Cooperation in the multidisciplinary patient-care team,
- Organization.

Roles of Diagnostic Radiologists as a Clinician: International Forum Discussion from Other Societies

- Radiological Society of North America
- American College of Radiology
- Canadian Association of Radiologists
- Inter-American College of Radiology
- Mexican Federation of Radiology and Imaging
- Mexican Society of Radiology and Imaging
- Colombian Association of Radiology
- Brazillian College of Radiology and Diagnostic Imaging
- Radiological and Diagnostic Imaging Society of Sao Paulo
- Egyptian Society of Radiology and Nuclear Medicine
- Moroccan Society of Radiology
- Asian Oceanian Society of Radiology
- European Society of Radiology
- Indian Radiological and Imaging Association
- Radiological Society of Saudi Arabia
- Radiological Society of Thailand
- Chinese Society of Radiology
- Japan Radiological Society
- Korean Society of Radiology
- Royal Australian and New Zealand College of Radiologists
- International Society of Radiology

The consensus perspectives of the societies above include:

1. Direct contact with the patients while performing ultrasonography,
2. Keeping communication with referral physicians,
3. Establishing guidelines to improve quality and standardization.

Direct contact with the patients while performing ultrasonography

The sonographic probe appears to be a radiologist's stethoscope for disease screening, diagnosing, answering specific clinical questions and guiding non-invasive procedures. Other than that, direct communication during examination and verbal communication with the referring physicians help improve the quality of reports. Setting up outpatient units, e.g. thyroid radiology, breast imaging and interventional radiology, is another option to enhance a clinical radiologist's role and make it more visible.

Keeping communication with referral physicians

Other than direct verbal reports to the referral physicians, communication in the multidisciplinary care team or during the conference is another option to light up a radiologist's role and to express professionalism. Being a part of a patient care team and advising other medical professionals, particularly general practitioners, is essential in the new era of radiology with innovations.

Establishing guidelines to improve quality and standardization

To improve quality and standardization, developing and implementing the imaging investigation guidelines are essential for the health care system, together with the awareness of unnecessary radiation exposure. Radiologists should lead this working group, by incorporating radiologic technologists, medical physicists, and other related medical professionals.

Conclusion

In the ever-changing world, radiologists must come out of the reading room to expand their leadership roles in disease screening, radiation safety policy, research collaboration in developing radiology innovations, and continuing professional development.

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