Welcome to the Journal of Global Radiology

Sarwat Hussain, MD, FRCR, FACR
Editor-in-Chief

University of Massachusetts Medical School & UMass Memorial Healthcare, Worcester, MA, USA

Current address: 55 Lake Avenue North Worcester, MA 01655; sarwat.hussain@umassmemorial.org

What is global radiology?

‘GLOBAL radiology’ is a new concept – a subspecialty of radiology that includes much more than diagnosticians and interventionists. It is an in-process international community of individuals, groups, and organizations that have thus far worked to improve access to and quality of medical imaging under many different types of headings, often with little or no direct communication with each other. Disparate individuals, non-governmental organizations (NGOs), and other organizations have a limited reach and do not have the ability to elevate technology to the next level on a global basis on their own.

Global radiology’s mission is to bring these disparate resources together, to enable physicians and others to take better advantage of the knowledge afforded by medical imaging, technology, and new equipment. To achieve its broad objectives, global radiology embraces geography, public policy, cultural and economic imperatives, marketing, manufacturing, training, infrastructure, service support and much more – anything that can contribute to the availability, quality, and efficacy of radiological services in the underdeveloped world, as well as in economically advantaged environments around the globe.

Through publications, seminars, conferences, and other means, global radiology will facilitate an international exchange of skills and experiences. It will thus significantly increase the visibility of radiologists, their work, their tools and their environments, and will help to stimulate communication with, among, and for the entire radiological community.

With the involvement of policy makers, administrators, and opinion leaders, the global radiology community will assemble the resources needed to identify and deal effectively with universal shortages of equipment, infrastructure, trained personnel, education, and research opportunities.

Helping to define the size, scope, and roots of imaging problems will stimulate the development of innovative solutions, such as new techniques and equipment most appropriate to developing environments, and new business models for equipment and consumables manufacturing, business entrepreneurship, and service delivery.

Another focus of global radiology will be advocating for more and better education and training. The gaps between supply and demand for specialists – with appropriate radiological interpretive skills and an understanding of the realities of clinical practices in underdeveloped areas – will start to be closed with new medical imaging curricula and training model rules for specialists, primary care physicians, nurse practitioners, and midwives.

Ultimately, the global radiology subspecialty will be an international community of people and organizations working together to make differences in the lives of millions, possibly billions, of people around the globe.

Why “global” radiology?

No medical education or healthcare delivery program can proceed beyond primary care without diagnostic services, and imaging is a critical diagnostic tool. Even primary care physicians cannot serve their patients adequately without access to X-rays and ultrasound. And yet, according to the World Health Organization (WHO), somewhere between half and two thirds of the world’s population has no access to diagnostic radiology (1).

There is a critical shortage of radiologists in underdeveloped countries. For instance, while there are as many as 100 radiologists per million people in the United States, Liberia has less than 10 radiologists in a country of 3.5 million. Those radiologists who do practice in underdeveloped environments are spread thin, with little or no opportunities for continuing education or skill enhancements, and there are very few skilled sub-specialist radiologists who can perform biopsies or angiographies. Adding to the problem is the lack of well-trained technologists that can provide badly needed professional support.

Last, but certainly not least, there are very few research exchanges between radiologists in developed and underdeveloped countries. Potentially valuable papers are written, but never reach a large audience, if they are published at all. International collaboration in authorship and editorial support can allow such research to be published in prestigious journals and have a greater, global impact.

Many of the problems affecting radiological
practice on an international scale are rooted in a lack of vision, political will, and infrastructure commitment, as well as corruption, all of which have resulted in poor funding for equipment purchasing, maintenance, and replacement. There is also an absence of educational and equipment infrastructure, including adequate radiology and technologist training programs, standardization of processes, systems, or quality improvement programs, proper equipment for training as well as clinical use, and maintenance of existing equipment.

The bottom line is that thousands of physicians and other caregivers are forced to serve their patients with inadequate resources, and millions of people around the globe are suffering as a result.

**Meeting the critical need for useful information**

A multidirectional flow of accessible information is critical to the success of any global endeavor. Currently, articles on global radiology topics are badly scattered in various radiology journals. Additionally, many articles focus on the application of cutting-edge technology in developing environments, but the transmission of information is often unidirectional, failing to include or learn from local contexts and perspectives. There is a great wealth of valuable experience, knowledge, and expertise that is fragmented, overlooked, or otherwise not readily available to those who would most benefit from it.

The *Journal of Global Radiology* (JGR), an open-access, peer-reviewed journal available online for worldwide circulation, seeks to counteract that fragmentation of information. It will provide a global network for radiologists, business entrepreneurs, information technology experts, equipment and consumable manufacturers, policy makers, hospital administrators, public health officials, opinion leaders, educators, researchers, job seekers, and employers. Its ultimate mission is to help broaden and improve access, quality, and education in the field of radiology, and to generate increased investments in imaging technology and more effective health policies.

To achieve its objectives, the JGR’s content will focus on opportunities for technology transfer, and on research, opinions and experiences that are core to health disparities between rich and poor environments. Types of articles accepted will include original research, reviews, and invited commentary, scholar twinning articles, state of radiology reports, technical notes, case reports, imaging challenges, global engagements, editorials, letters, book/software reviews, announcements, related web sites and classifieds.

Specific content could include research on innovative and cost-effective methods of diagnostic and interventional radiology; commentaries and reviews on education in radiological sciences; reports on the state of radiology in various regions and/or countries; and activities and achievements of individual radiologists and institutions working to solve access issues in and for the developing world. Articles may also identify and share developed-world experiences that can be applied to underdeveloped environments – in areas such as information technology, equipment, economics, systems, quality assurance, performance improvement, curricula, hands-on training, certification, and writing skills.

JGR will foster conversations among individuals and organizations with visions to share. It will encourage communication, collaboration, education and advocacy. The dialogue taking place in JGR’s pages could lead to new ways of thinking about access, service delivery, research, quality, equipment, health policy, and turf issues. They could lead to a new consensus on global standards for equipment, competency, and training curricula for medical and paramedical staff.

**References**


**What can you do?**

Physicians, administrators, entrepreneurs, policy makers, and other professionals involved in building the global radiology subspecialty are invited to prepare and submit manuscripts to the *Journal of Global Radiology*. We will also welcome the efforts and insights of those who would like to contribute in a reviewing capacity.

In the long run, the *Journal of Global Radiology* will succeed in its mission if it supports those working in the field of global radiology in their missions, and in sharing their important work with a broader community of colleagues. We invite your participation in building this collaborative space, and to share your ideas and insights on how this publication can be as useful and impactful as possible. We look forward to hearing and learning from you.