Report of the ACR Task Force on International Teleradiology

Arl Van Moore, MD[a], Bibb Allen Jr, MD[b], Shannon C. Campbell, MD[c], Richard A. Carlson, MD[d], N. Reed Dunnick, MD[e], Thomas B. Fletcher, MD[f], J. Daniel Hanks Jr, MD[g], J. Bruce Hauser, MD[h], James M. Moorefield, MD[i], Richard N. Taxin, MD[j], James H. Thrall, MD[k]

Teleradiology has proved to be a valuable tool in providing access to timely, quality radiologic interpretations. Today, teleradiology has facilitated a unique role in delivering quality radiologic interpretations to hospital emergency rooms and other health facilities that do not have access to a radiologist's contemporaneous interpretation in the past.

Although teleradiology has led to an improved level of care in the United States, the potential use of the technology abroad raises some significant potential challenges to the assurance of high-quality care that patients have come to expect.

During the summer of 2003, E. Stephen Amis, Jr., MD, chair of the ACR Board of Chancellors, convened the ACR Task Force on International Teleradiology to study legal, regulatory, reimbursement, insurance, quality assurance, and other issues associated with this new and emerging practice. The ability of teleradiology to transmit radiologic and other images electronically from one location to another, outside the borders of the United States, has made this a prominent issue for the profession and the college. This paper explores some of these issues and offers information we hope will prove useful to radiologists and other health care providers as they consider the potential use of international teleradiology.

State Licensure

Individual states, which have played a historical role in determining who can appropriately practice medicine, have generally established that physicians diagnosing and treating patients within their state boundaries need to be fully licensed by the states. Licensure represents states' vested interest in regulating the practice of medicine in an effort to provide safeguards for their citizens. Licensure establishes a threshold for determining appropriate qualifications to practice medicine.

These regulations are formulated in large part to provide some assurance of accountability and quality of patient care in the medical delivery system. A prime rationale is that differences in qualifications between in-state and out-of-state physicians engaged in the practice of medicine can be problematic. Establishing different thresholds for diagnosing or treating patients on the basis of modality or site creates an uneven playing field and, more troubling, the potential for unequal quality of care. Opinions rendered by physicians via telemedicine directly affect care. Physicians rendering these opinions must be held to at least the same standards as any other physician practicing in the licensing state.

In considering international telemedicine, these differences may be further exacerbated when facilities seek to hire physicians who are unknown to the system of care in the United States.

The ACR and Telemedicine

The ACR has been quite concerned about issues involving both quality assurance and accountability. In 1994, the ACR Council [1] adopted a resolution addressing the issue of state licensure by stating that the ACR endorses efforts by state licensing boards to require licensure of out-of-state physicians who provide official authenticated written radiological interpretations of examinations that are performed on patients in the licensing state but interpreted in another jurisdiction, provided that such law or regulation does not restrict the ability of radiologists to provide second opinion radiological consultations requested by physicians in states in which the consulting radiologist is not licensed.

In addition, the ACR Standard on Teleradiology [2] provides that "physicians who provide the official, authenticated interpretation of images transmitted by teleradiology should maintain licensure appropriate to delivery of radiologic services at both the transmitting and receiving sites" (note that the current ACR Technical Standard on Teleradiology states that "physicians who provide the official interpretation of images transmitted by teleradiology should maintain licensure as may be required for provision of radiologic service at both the transmitting and receiving sites" [resolution 11, adopted 2003]). A physician also should be credentialed by and have medical staff privileges at every facility at which he or she provides imaging services.

The American Medical Association [3] has adopted language supporting full and unrestricted licensure for out-of-state physicians practicing medicine via telemedicine. In addition, several large state medical associations, including those of California [4], Florida [5], and Ohio [6], have adopted similar stances. The prospect that the images might be read by physicians who interpret outside the United States further erodes the degree of predictability in the uniform minimal qualifications of the interpreting physician.

American Board of Radiology Certification

The task force understands that international teleradiology has the potential to improve the quality and timeliness of radiology services by providing interpretations when local physicians performing those services are unable to provide immediate coverage. Physicians performing teleradiology services must have training equivalent to those physician providers of imaging services at that health care institution receiving these services. They must also participate in lifelong learning to maintain imaging skills consistent with the work they perform.

Certification by the American Board of Radiology (ABR) is recommended but is only one method of demonstrating these skills. The task force believes that the health care consumer would benefit from knowing whether offshore interpreting physicians are ABR certified. Therefore, when contracting for offshore radiology, there should be full disclosure of ABR status between the parties to the contract. The task force believes that ABR status is the most reliable guide to the quality of an interpreting physician.

Reimbursement

The ACR Task Force on International Teleradiology recognizes that there is no inherent technological difference between domestically generated teleradiology interpretations and reports and those generated outside of the United States (federal law prohibits Medicare from reimbursing physicians who interpret radiologic studies from outside the United States; see 42 USC § 1395y[a][4]. Medicare considers the site of service to be where the physician interpreted a study). In both instances, assurance of quality and competency is necessary. Therefore, payment for radiologic interpretations and subsequent reports that are rendered by international teleradiology is appropriate if the following criteria are met:

1. The person interpreting the examination and submitting the report to the referring physician are one and the same,
2. the person rendering the report is licensed in the state and credentialed as a member of the medical staff at the institution performing the examination and receiving the report,
3. the person performing the interpretation and rendering the report is available for consultation,
4. the report meets the guidelines for diagnostic reports as promulgated by the ACR [7], and
5. the ACR Technical Standard for Teleradiology is met.

Medical Liability and Jurisdictional Issues

Physicians fundamentally need liability insurance for international imaging interpretations, whether they obtain it through their employers or through contracts with other groups. As with domestic practice, physicians who intend to interpret images from outside the United States may have problems in obtaining such insurance. The task force members note that physicians providing imaging services have successfully procured liability insurance, through their existing liability insurers, international firms such as Lloyds of London, or captive risk groups that insure both in and outside the United States (J. Bruce Hauser, MD, and Richard Taxin, MD, personal communication). Other insurers, however, reportedly have either refused to write policies or have limited coverage for physicians and their practices that are interpreting images overseas or obtaining these overseas services. The task force asked Physician Insurers Association of America (PIAA) companies to specify how they have handled coverage for teleradiology. One Washington State PIAA company reported not receiving any international teleradiology claims and was not enthusiastic about addressing them because of uncertain liability and concerns about inadequate quality (Thomas Kirchmeier, Physicians Insurers, Seattle, WA, personal communication). Another PIAA company based in Boston indicated that it lacks any claims experience and might require any physician insured to indemnify it against teleradiology-related liability (Al Alfonso, ProMutual, Boston, MA, personal communication). The task force is certain that this will become an important issue of increasing magnitude for PIAA companies in the future.

Issues of malpractice insurance coverage are very important. Conservatively, anyone contracting for out-of-country teleradiology should determine who is providing malpractice insurance coverage and in what jurisdiction any claims will be brought. If the provider entity is an American corporation, it may be in a position to guarantee malpractice coverage for its physician employees and should have obtained written documentation that the insurance carrier is willing to extend insurance coverage for the exact circumstances of the services under contract with the further consent to a US jurisdiction for claims resolution. However,

insurance companies may require that physicians agree to help defend themselves to qualify for contracted coverage. Several physician-owned insurance companies indicated that they have had very few, if any, claims involving imaging interpretations performed outside the United States. If presented with such claims, the companies likely would require their insured physicians to indemnify them against liability. There may be no practical way to force an out-of-country provider to travel to the United States to participate in a malpractice case. The company organizing the teleradiology coverage should address this point regarding its employees in any contract.

American radiologists and representatives of hospitals and imaging practices must understand that physicians providing services from outside the United States may not be under the same direct control of US law or US courts regarding civil proceedings as physicians who are physically present and have assets in the country. Although physicians outside the United States may be found liable in civil proceedings, from a practical standpoint, there is no way to guarantee the implementation of such judgments unless the involved party were to voluntarily agree to them or voluntarily travel to a US jurisdiction (James Wieland, Esq., and Robert Mazer, Esq., Ober Kaler, Baltimore, MD, personal communication). It is difficult enough to exercise provisions of extradition treaties in noncapital criminal matters let alone obtain relief for civil judgments that originate in other countries.

In situations in which an out-of-country provider is not linked to a US company or other legal entity, jurisdiction is more problematic. The same observations pertain about insurance coverage, but there is even less leverage to secure participation in claims defense. Yet even when explicitly worked out in advance, there is no guarantee of maintaining insurance coverage by a legal entity accessible through US courts.

The strongest jurisdictional leverage in dealing with out-of-country providers is licensure. Breach of contract to provide malpractice insurance coverage or to answer subpoena for testimony may be grounds for license suspension and cancellation of hospital credentials. These remedies do not address the financial risks.

Physicians or health care organizations contracting with providers of imaging interpretive services provided by physicians outside the United States should keep these kinds of jurisdictional considerations in mind, because out-of-country providers will generally be physically and, for practical purposes, functionally outside the jurisdiction of American courts for both civil and criminal proceedings except as contracted. Even then, such provisions may not be enforceable.

North American Free Trade Agreement

Some have questioned whether the North American Free Trade Agreement (NAFTA) could preempt US legal standards, such as state licensure requirements, that otherwise would apply to international teleradiology. The key question is whether the legal reservation of rights that the US government exercised under the treaty would extend to "services" such as radiologic interpretations. Reservation of rights means that a government may continue to enforce laws and regulations such as licensure standards if they existed before NAFTA took effect [8]. However, if a state government amended current licensure laws or added new laws after NAFTA implementation, those might represent a "modification" that NAFTA might supersede. It is uncertain whether NAFTA would allow non-North American physicians to render imaging

interpretations from places such as Canada or Mexico to avoid US state licensure laws and regulations. There seems to be no applicable case law or administrative decisions, so this concern remains theoretical at this time. The task force and the college will continue to monitor this issue closely.

Ethics Issue

The task force requested that the ACR Committee on Ethics address the ethics of the practice of radiologists signing reports initially read from outside the United States. The committee responded that it is unethical for a radiologist who has not personally interpreted the images obtained in a radiologic examination to sign a report of that examination in a manner that causes the reader of that report to believe that the signing radiologist is the interpreter of that examination.

Task Force Findings

General Principles

- Although international teleradiology is seen as a potential way to improve the current workforce shortage, it is critical that its use not reduce quality patient care.
- International teleradiology (including qualifications of personnel, equipment specifications, licensing, credentialing, and liability) should be performed consistent with the ACR Technical Standard for Teleradiology.
- The task force believes that a physician making an interpretation outside of the country should be appropriately licensed in the transmitting state, have appropriate liability insurance, be appropriately credentialed, and have membership on the medical staff.
- Physicians should independently interpret teleradiology studies that are initially read outside the United States and provide the official authenticated written reports. Any group that obtains final interpretations from overseas should ensure that such physicians providing image interpretation have proper liability coverage, state licensure, and credentials.
- All physicians providing imaging interpretations, based both in the United States and abroad, should regularly participate in the on-site quality assurance process and be involved in documenting that process. The quality assurance program must be equivalent to or exceed that of the service hospital.
- All physicians rendering interpretations on emergent cases should be immediately available for consultations. For nonemergent cases, interpreting physicians either should be available for consultations or make arrangements to communicate their findings.
- All physicians who employ or contract with radiologists or radiology group practices to interpret imaging studies outside the United States are reminded that such an arrangement is subject to US privacy laws and regulations (e.g., the privacy standards of the Health Insurance Portability and Accountability Act of 1996) and applicable state privacy requirements. Practices based in the United States that contract for teleradiology services should probably expect to be held jointly responsible for any violations of this act resulting from those services regardless of proximate cause.

The task force reviewed various scenarios to determine the appropriateness of the use of international teleradiology. They include the following:

1. Group lifestyle, whereby a contractual employee (partner or nonpartner) of the group rotates to a group facility out of the country and provides readings at that remote location only for his group. The remote group member is licensed to practice medicine within the state(s) in which the group provides services and is credentialed in all of the facilities at which remote interpretive readings (preliminary and/or final authenticated reports) are rendered.
2. American physicians providing imaging services from abroad for groups or facilities based in the United States other than the group that is their primary employer. The physician providing imaging services may be an employee of a group, as delineated in situation 1 above.
    a. The "group" may contractually link with groups in their local geographic area to provide interpretive services. The physicians providing imaging services are licensed in the state(s) and credentialed in all facilities to which these services are provided. Example: A large group in a large city has a radiologist rotate to Abu Dhabi on a monthly basis. The radiologist provides services for all of the facilities his group covers and in addition it provides services to small radiology groups in small communities in counties adjacent to the large city. The task force believes this is an acceptable approach for the use of international teleradiology.
    b. The "group" may contractually link with groups remote to their local geographic area to provide interpretive services. The physicians providing imaging services are licensed in the state(s) and credentialed in all facilities to which these services are provided. Example: A large group in a large city has a radiologist rotate to Abu Dhabi on a monthly basis. The radiologist provides services for all of the facilities his group covers and in addition it provides services to radiology practices throughout the United States, coast to coast. The task force believes this is an acceptable approach for the use of international teleradiology with the following caveats: (1) the task force would caution that the medical liability carrier must provide appropriate coverage, and (2) the task force would advocate that individuals making interpretations from outside of the country need to participate in documented ongoing quality assurance programs that meet or exceed that of the service hospital.
3. Physicians providing remote imaging services from abroad who are employees of a legal entity whose sole purpose is to provide interpretive services to groups or facilities based in the United States. The entity has no relationship with the groups receiving their services other than the contractual one for those services. In situation 3a below, if international teleradiology is used to render an interpretation, practices should consider whether to and how best to disclose this information to the patient and to the referring physicians. In situations 3b and 3c below, if international teleradiology is used to render an interpretation, practices should consider how best to disclose this information to the patient and the referring physicians. Variations include the following:
    a. A physician providing imaging services is licensed in the state where the practice of medicine is occurring and is credentialed in the facilities receiving the interpretive services. The task force believes this is an acceptable approach for the use of international teleradiology as long as the radiologist is engaged in appropriately documented quality assurance and the practice maintains appropriate liability coverage.
    b. A physician providing imaging services is licensed in the state where the practice of medicine is occurring but is not credentialed in the facilities receiving the interpretive services. The task force believes this is not an acceptable approach for the use of international teleradiology.
    c. A physician providing imaging services is not licensed in the state where the practice of medicine is occurring and is not credentialed in the facilities

receiving the interpretive services. The task force believes this is not an acceptable approach for the use of international teleradiology.

References

1. American College of Radiology Council. Resolution 26 (ACR position statement on remote interpretation of radiologic images (resolution 26, 1994)). In: ACR Digest Council Actions. Reston (VA): American College of Radiology; 2004;.
2. American College of Radiology. ACR Standard on Teleradiology: resolution 21, adopted 1994. Reston (VA): American College of Radiology.
3. American Medical Association. AMA policy statement H480.969: the promotion of quality telemedicine (adopted 1996). Chicago: American Medical Association.
4. California Medical Association. Recommendation 5 (adopted 1997). Sacramento: California Medical Association.
5. Florida Medical Association. Resolution 96–9, A-4 on licensure requirements for telemedicine. Tallahassee: Florida Medical Association.
6. Ohio State Medical Association. Amended resolution 26 (adopted 1996) on telemedicine regulation. Hilliard: Ohio State Medical Association.
7. American College of Radiology. ACR practice guideline for communication: diagnostic radiology (2003). Reston (VA): American College of Radiology.
8. Laberge N. Globalization of health care. Can Assoc Radiol J. 2002;46:2.

---

[a]Charlotte Radiology PA, Charlotte, North Carolina.
[b]Baptist Medical Center-Montclair, Birmingham, Alabama.
[c]University Rochester Medical Center, Rochester, New York.
[d]Suburban Radiologic Consultant Group, Minneapolis, Minnesota.
[e]University of Michigan, Ann Arbor, Michigan.
[f]Austin Radiological Association, Austin, Texas.
[g]Rome Radiology Group, PA, Rome, Georgia.
[h]Radiology Associates of Roanoke, PC, Roanoke, Virginia.
[i]Sacramento Radiological Group, Inc., Sacramento, California.
[j]Crozer Chester Medical Center, Upland, Pennsylvania.
[k]Massachusetts General Hospital, Boston, Massachusetts.