

Legal Issues Involving Teleradiology



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THE DIGITAL REVOLUTION has influenced the practice of medicine in the 21st Century from the conversion of medical records into a digital format to the practice of medicine via computers and other forms of telecommunications. Patients can now obtain advice from a physician by videoconferencing 24 hours a day. Even intensive care patients are being monitored remotely. This article will address some of the legal issue associated with a very common form of telemedicine known as teleradiology.¹

Teleradiology deals with the exchange of digital images via electronic communication.² It enables health care providers to transmit radiological images, like X-rays, CT scans, and MRIs, from one location to another for diagnostic or consulting purposes.³ The premise is that a radiologist can read images remotely from anywhere in the world as long as there is a phone or internet connection.⁴ This allows small healthcare

¹ Portions of this article first appeared in Coryell L. Barlow and Samuel D. Hodge, Jr., *Teleradiology: The Perks, Pitfalls and Patients Who Untimely Pay*, Rutgers Computer and Technology Law Journal, Rutgers University School of Law – Newark, Volume 41, Number 1, 2015, pages 1-30 and are reprinted with permission of the Rutgers Computer and Technology Law Journal.

² *What is Telemedicine?*, American Telemedicine Association, http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.U9WC_fldWSo (last visited July 18, 2014).

³ James H. Thrall, *Teleradiology – Part I. History and Clinical Applications*, 243 *Radiology* 613 (June 2007), available at <http://www.acr.org/~media/ACR/Documents/PDF/Membership/RFS/DollarsandSense/Informatics/Teleradiology%20I.pdf>.

⁴ Vivek Nayar, Note, *Teleradiology: Images of an Improved Standard of Medical Care*, 35 *Rutgers Computer & Tech. L.J.* 104 (2008).

providers which do not employ a radiologist on a 24 hour basis to send their films for immediate interpretation by an imaging specialist at a distant location.⁵

The rise of the computer facilitated the store-and-forward method,⁶ simplifying operations by eliminating the need for all parties—patients, providers, and other support staff—to be present at both sites simultaneously.⁷ With the advent of digital imaging, teleradiology became possible, but different practices for how these images were stored made displaying them on various machines complicated.⁸ A standard for storing digital images was created in 1993 and widely accepted by image machine manufacturers, creating uniformity among these entities.⁹

Commercial use of teleradiology systems became available in the 1980s, but their quality, adaptability, and enlargement capabilities to handle a growing amount of work were limited.¹⁰ Thus, the high costs and low performance hindered their widespread adoption.¹¹ The changes in computer technology and performance, medical imaging, and the birth of the Internet, however, created an economical and functional platform for realizing teleradiology on a large scale.¹²

WHO IS RESPONSIBLE WHEN SOMETHING GOES WRONG WITH TELERADIOLOGY? •

The advantages of teleradiology are obvious, but who is responsible when something goes wrong? The complex and sometimes far removed relationships teleradiology

creates can make ascertaining who is liable and how to seek legal redress uncertain. Parties involved at a minimum are the teleradiologist; the employer, which may be a hospital or an independent contractor; the treating physician; and the hospital with whom the teleradiology company or medical practice has contracted.

The Radiologist

Two entities, the American Board of Radiology (ABR) and the American College of Radiology (ACR), have established guidelines for standards of care governing outsourcing of radiologists' services.¹³ Both entities work with state medical boards to ensure high quality medical care and professional integrity in the practice of radiology. The ABR works with the American Board of Medical Specialties to establish board certifications in radiology, offering different certificates in radiology.¹⁴ The ABR strives, through certification, to improve the quality of medical care, to improve radiological education, and to improve training and standards within radiology.¹⁵ There are various radiological subspecialties, such as pediatric radiology and neuroradiology, however, diagnostic radiology is the basic certification enabling one to interpret a variety of different images.¹⁶ In addition to the certification requirements set forth by the ABR, the ACR works to improve the practice of radiology by furnishing ongoing education and overseeing research for the advancement of radiology.¹⁷ The organization devotes "its resources to making imaging safe, effective and accessible to those who need it."¹⁸

⁵ Judd A. Harwood and Kristen A. Larremore, *Advantages and Challenges for Teleradiology*, Birmingham Medical News, (June 2007) available at <http://www.birminghammedicalnews.com/news.php?viewStory=946>.

⁶ James H. Thrall & Giles Boland, *Teleradiology*, in PACS: A Guide to the Digital Revolution 315, 318 (2d ed. 2002).

⁷ Thrall, *supra*, at 614.

⁸ See Teleradiology Group, <http://www.teleradiologygroup.com/a-history-of-teleradiology>.

⁹ *Id.*

¹⁰ Thrall, *supra*, at 614.

¹¹ *Id.*

¹² *Id.*

¹³ Nathaniel H. Hwang, Comment, *You've Got Mail: The Concerns of Electronically Outsourcing Radiological Services Overseas*, 25 J. Legal Med. 469, 472 (2004).

¹⁴ *American Board of Radiology General Information*, American Board of Radiology, <http://theabr.org/about-landing> (last visited Mar. 2016).

¹⁵ *Id.*

¹⁶ *American Board of Radiology Initial Certification*, American Board of Radiology, <http://theabr.org/ic-landing> (last visited Mar. 2016).

¹⁷ *Mission of the ACR*, American College of Radiology, <http://www.acr.org/About-Us> (last visited Mar. 2016).

¹⁸ <http://www.theabr.org/abr-sponsoring-societies>.

With this background in mind, the ACR first published standards for teleradiology in 1974, which standards have been revised on several occasions.¹⁹ The criteria state that the individual providing the formal interpretations is responsible for the quality of the images.²⁰ It also notes that a diagnostic radiologist should interpret images only when he or she is involved in the full practice of radiology on a relatively consistent basis, including working to improve quality, regularly reviewing images, and participating in policy matters that affect patient care.²¹

The ACR requires those who interpret images in a state other than the one in which they reside be licensed in both states—the one where the image was produced and the one in which the interpretation takes place.²² The ACR also supports state legislation that requires out-of-state physicians to obtain and maintain a license to practice teleradiology within a particular jurisdiction.²³

Though the regulations vary by state, at least thirty-seven states and the District of Columbia have enacted statutes that generally require a full, unrestricted license to practice telemedicine, including teleradiology, within their borders.²⁴ For example, New Hampshire provides: “Any out-of-state physician...who performs radiological diagnostic evaluations or interpretations for New Hampshire patients by means of teleradiology shall be

deemed to be in the practice of medicine and shall be required to be licensed.²⁵ Thirteen states and Puerto Rico permit an exception to this requirement if the out-of-state radiologist is consulting with an in-state physician.²⁶ Minnesota, for example, requires a telemedicine license but not if “the services are provided on an irregular or infrequent basis,” a term which is defined as less than once a month or ten patients annually.²⁷ Oregon has no statutes regulating telemedicine, however, the Oregon Medical Board provides that a radiologist located outside of Oregon consulting with a physician inside Oregon does not require an Oregon license.²⁸

The above requirements and standards proffered by the ABR and ACR as well as individual state licensing requirements seem adequate to ensure that the radiologist reading the image is qualified and has the resources to do so, however, the environment in which one works can make a difference. Prior to the advent of telemedicine, working in a medical facility may have made it relatively easy to stay focused and productive; however, the pitfalls of working from home have the potential to negatively affect a teleradiologist in the same ways it can anyone else. Working from a doctor’s residence may make one more comfortable and thus more prone to become distracted and lose incentive to maintain professionalism.²⁹ Interruptions and distractions are also common problems that affect telecommunications—two problems that can have disastrous results for a teleradiologist.³⁰

The ACR has created extensive guidelines for devices used in the acquisition, digitization, compression

¹⁹ *Teleradiology (State Level)*, American College of Radiology, <http://www.acr.org/advocacy/state-local-relations/legislative-issues/teleradiology> (last visited July 22, 2014).

²⁰ *Id.*

²¹ *Id.*

²² *Teleradiology (Federal Level)*, American College of Radiology, <http://www.acr.org/Advocacy/Legislative-Issues/Teleradiology> (last visited Mar. 2016).

²³ *Report of the ACR Task Force on International Teleradiology*, American College of Radiology, <http://www.acr.org/Membership/Legal-Business-Practices/Telemedicine-Teleradiology/Report-of-the-ACR-Task-Force-on-International-Teleradiology> (last visited Mar 2016).

²⁴ *Teleradiology Licensing Requirements by State*, American College of Radiology, <http://www.acr.org/Advocacy/State-Local-Relations/Legislative-Issues/Teleradiology/Teleradiology-Licensing-Requirements-by-State> (last visited Aug. 9, 2014).

²⁵ N.H. Rev. Stat. § 329:1-b

²⁶ *Teleradiology Licensing Requirements by State*, American College of Radiology, *supra*.

²⁷ Minn. Stat. Ann. § 147.032.

²⁸ Or. Admin. R. 847-008-0022.

²⁹ Meghan Casserly, *The 10 Mistakes Everyone Makes When Working From Home*, Forbes.com (May 10, 2012), <http://www.forbes.com/sites/meghancasserly/2012/05/10/the-10-mistakes-everyone-makes-when-working-from-home/>.

³⁰ *9 Pitfalls of Working From Home*, Entrepreneur.com (Dec. 17, 2009), <http://www.entrepreneur.com/article/199222>.

and transmission of images.³¹ It also specifies the type of monitor, graphics card and image presentation requirements.³² These guidelines take into account the needs and resources of each facility, however, they stress that all efforts should be made to ensure image quality is “appropriate to the clinical needs” of the facility.³³ Further, the teleradiology company is responsible for ensuring the teleradiologist maintains an adequate workstation.³⁴

It should be noted, however, the guidelines expressly state they are not intended to be used as a “legal standard of care.”³⁵ The preamble for most, if not all, ACR guidelines provide that the guidelines are “an educational tool designed to assist practitioners” and “are not intended, nor should they be used, to establish a legal standard of care.”³⁶ Further, the ACR specifically “cautions against the use of [the] guidelines in litigation” when “clinical decisions” are questioned.³⁷ That being said, the laws of some states mandate the appropriate governing body in the state promulgate rules based on the American College of Radiology Standards for teleradiology.³⁸

The courts have reached conflicting results in whether these guidelines can be used to establish a standard of care. In *Diaz v. New York Downtown Hospital*, cit-

ing the ACR guidelines was insufficient to demonstrate the legal standard of care for a radiologist.³⁹ Conversely, the Arizona Court of Appeals relied on ACR guidelines in determining a radiologist had a duty to communicate the results directly to the patient when there was no referring physician.⁴⁰

An element that may adversely affect a teleradiologist’s interpretation is working alone.⁴¹ When a radiologist works in a medical facility on a regular basis, a relationship is created with other health care professionals who contribute significantly to the quality of care provided.⁴² If a radiologist becomes friendly with or has a good working relationship with various RTs, he or she can discuss with the technician how the images were captured, suggest methods to optimize diagnostic quality and can appreciate the RT’s skill and style, which may assist in the radiologist’s interpretation of the images.⁴³ Despite technology expanding opportunities for physicians to practice, learn and collaborate remotely, the comfort and trust colleagues create while working together in the same physical location cannot be replicated in the virtual world of telemedicine.⁴⁴

Teleradiologist’s Employer

Holding a teleradiology company, a hospital or medical practice liable for the negligence of a radiologist is done through traditional respondeat superior principles. Presumably, a background and reference check is performed on a prospective radiologist, regardless of whether he or she plans to practice remotely.⁴⁵ If

³¹ *ACR-AAPM-SIIM Technical Standard for Electronic Practice of Medical Imaging*, American College of Radiology at 5, <http://www.acr.org/~media/AF1480B0F95842E7B163F09F1CE00977.pdf> (last visited Mar. 2016) [hereinafter *Technical Standard*].

³² *Id.* at 6.

³³ *Id.* at 4.

³⁴ Ezequiel Silva III et al., *ACR White Paper on Teleradiology Practice: A Report From the Task Force on Teleradiology Practice*, 10 *J. Am. C. Radiology*, 575, 578 (Aug. 2013), available at [http://www.jacr.org/article/S1546-1440\(13\)00185-3/fulltext](http://www.jacr.org/article/S1546-1440(13)00185-3/fulltext).

³⁵ See *Technical Standard*, *supra*, at 1.

³⁶ *ACR-ACOG-AIUM-SPR-SRU Practice Parameter for the Performance of Ultrasound of the Female Pelvis*, American College of Radiology at 1, <http://www.acr.org/~media/a79db56d3b054a04bee05c8250a67a5a.pdf> (revised 2014).

³⁷ *Id.*

³⁸ 63 Okl. Stat. Ann. tit. 63§ 1-2702.

³⁹ 731 N.Y.S.2d 694, 695 (N.Y. App. Div. 2001), *aff’d*, 784 N.E.2d 68 (2002).

⁴⁰ 63 P.3d 1076, 1082 (Ariz. Ct. App. 2003), *aff’d in part, vacated in part*, 92 P.3d 849 (Ariz. 2004).

⁴¹ Eric M. Nyberg & Charles F. Lanzieri, *American Diagnostic Radiology Moves Offshore: Surfing the “Internet Wave” to Worldwide Access and Quality*, 20 *J. L. & Health* 253, 260 (2007).

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ James Thrall, *Teleradiology Part II: Limitations, Risks, and Opportunities*, 244 *Radiology* 325, 327 (Aug. 2007), available at

a hospital, medical practice or teleradiology company is negligent in hiring physicians by failing to perform background checks or ensure he or she is fit to practice, it may be liable for any malpractice that the physician commits.

Treating Physician

While it may be relatively easy to understand that the radiologist is responsible for any interpretation mistakes, the treating physician in such a situation is usually not liable. Though he or she has primary contact with the patient and ultimately determines decisions concerning care, the treating physician generally has no liability if he or she reasonably defers to the radiologist's expertise.⁴⁶ If, however, a physician is not reasonable in relying on a radiologist's diagnosis, he or she may be held liable for malpractice.⁴⁷

Hospital or Medical Group Liability

Holding a hospital or medical practice liable for a teleradiologist's mistake varies by jurisdiction. If a radiologist is an employee of a hospital physician's practice, respondeat superior holds the employer vicariously liable for any malpractice.⁴⁸ However, agency law governs the contractual relationships a hospital has with teleradiology companies. General agency principles state that a fiduciary relationship forms when one person, the principal, assents for another, the agent, to act on his or her behalf, subject to the principal's control and consent.⁴⁹ An independent contractor, however, may also be an agent and is defined as one who contracts with another but is not subject to control with respect to the

physical conduct of the performance.⁵⁰ Generally, an employer is not liable for the torts of the independent contractor. Nevertheless, a principal who represents to a third party that another is acting on its behalf may be liable to that third party for any harm caused.⁵¹ Thus, upon entering a hospital for care, the hospital may be liable for a physician's negligence despite the status of an independent contractor depending upon the representations or manifestations the hospital makes regarding its relationship with the physician.

Ostensible agency, or apparent authority, is an agent's power "to affect a principal's legal relations with third parties when a third party reasonably believes" the agent has the power to do so and that belief can be traced back to the principal's indications.⁵² Thus, if a hospital or physician's practice holds out a radiologist, such that a patient believes the radiologist is acting on behalf of the hospital or practice, they may be vicariously liable for any harm the patient suffers at the hand of the radiologist even though that individual may be an independent contractor.

Most, if not all, teleradiology contracts deem the teleradiologist to be an independent contractor. Whether a physician who is dubbed an independent contractor is an agent of a hospital for vicarious liability purposes is a question of fact.⁵³ When telemedicine was in its infancy, courts in numerous states determined that a hospital is liable for an independent contractor physi-

<http://pubs.rsna.org/doi/pdf/10.1148/radiol.2442070676>.

⁴⁶ See *Shah v. Jefferson Parish Hospital*, 870 So. 2d 597 (La. Ct. App. 2004).

⁴⁷ See *Hernandez v. Chalmette Medical Center* 869 So. 2d 141 (La. Ct. App. 2004).

⁴⁸ Howard Levin, Note, *Hospital Vicarious Liability for Negligence by Independent Contractor Physicians: A New Rule for New Times*, 2005 U. Ill L. Rev. 1291, 1291 (2005).

⁴⁹ Restatement (Third) of Agency § 1.01 (2006).

⁵⁰ *Id.* at Reporter's Notes c; see also *Wiggs v. City of Phoenix*, 10 P.3d 625, 628 (Ariz. 2000) ("[I]t is not always the case that an independent contractor is not an agent.").

⁵¹ Restatement (Third) of Agency § 7.08 (2006) (stating that a principal may be liable via vicarious liability for a tort committed by an agent).

⁵² Restatement (Third) of Agency § 2.03 (2006).

⁵³ *Ermoian v. Desert Hosp.*, 61 Cal. Rptr. 3d 754, 777 (Cal. Ct. App. 2007); see also *Lamb-Rosenfeldt v. Burke Med. Grp., Ltd.*, 967 N.E.2d 411, 419-20 (Ill. App. Ct. 2012); *Farlow v. Harris Methodist Fort Worth Hosp.*, 284 S.W.3d 903, 911 (Tex. App. 2009); *Perkins v. Children's Orthopedic Hosp.*, 864 P.2d 398, 404-05 (Wash Ct. App. 1993).

cian's malpractice.⁵⁴ The hospital, however, must hold itself out as a medical services provider and, "unless the patient has actual knowledge of the physician's actual status as an independent contractor, the patient can recover if it is objectively reasonable for the patient to believe that physician is an employee of the hospital."⁵⁵ Contractual provisions expressly stating that a physician is not an employee are "not determinative of the relationship of doctor to hospital vis-a-vis the plaintiff."⁵⁶ In each case, the court looks at the facts and determines whether a reasonable person in the same circumstances would have believed the physician was an employee.

Conversely, some states refuse to recognize ostensible agency if the hospital provides notice to the patient that the physician is an independent contractor. In *Loynd v. Emerson Hospital*,⁵⁷ the plaintiff needed to prove more than a reasonable belief that the physician was an employee.⁵⁸ He needed to prove "his belief was caused by the manifestations of [the hospital]."⁵⁹ Based upon the facts, the court held the evidence was insufficient to defeat the hospital's motion for summary judgment.⁶⁰ Similarly, the Montana Supreme Court found a hospital was not liable for an independent con-

tractor physician because the patient signed a consent form stating she understood the doctor was not an employee, but rather an independent contractor.⁶¹

Colorado recognizes the common law corporate practice of medicine with regards to hospitals, which means a corporation cannot employ doctors, perform medical services, or interfere with a doctor's independent medical judgment, and is thus shielded from vicarious liability.⁶² Similarly, Alaska enacted legislation protecting hospitals from vicarious liability with regards to emergency room physicians.⁶³

Based on existing case law, holding a hospital liable for a teleradiologist's negligence depends upon the standard of proof the jurisdiction requires and the type of notice a hospital provides to patients regarding the independent contractor status of its physicians. Some jurisdictions that have extended the ostensible agency relationship to hospitals because of the contractual nature of the relationship, but not all have so ruled.

Courts also look at whether the state recognizes the common law doctrine of a non-delegable duty. This doctrine states that one may delegate a duty to an independent contractor, but if the independent contractor is negligent and subsequently breaches that duty, the delegating entity is still liable for that breach.⁶⁴ It is an alternate theory of vicarious liability.⁶⁵ This theory has been applied to employers, landlords, and common carriers, based upon the facts of each case.⁶⁶ It is generally associated with activities that are inherently dangerous.⁶⁷ Some states have explicitly extended the non-delegable

⁵⁴ See *Clark v. Southview Hosp. & Family Health Ctr.*, 628 N.E.2d 46, 53 (Ohio 1994); *Simmons v. Tuomey Reg'l Med. Ctr.*, 533 S.E.2d 312, 322 (S.C. 2000); *Richmond County Hosp. Auth. v. Brown*, 361 S.E.2d 164, 166 (Ga. 1987); *Gilbert v. Sycamore Mun. Hosp.*, 622 N.E.2d 788, 795 (Ill. 1993); *Sharsmith v. Hill*, 764 P.2d 667, 672 (Wyo. 1988); *Arthur v. St. Peters Hosp.*, 405 A.2d 443, 446-47 (N.J. Super. Ct. Law Div. 1979); *Capan v. Divine Providence Hosp.*, 430 A.2d 647, 648-50 (Pa. Super. Ct. 1980).

⁵⁵ *Ermoian, supra*, 61 Cal. Rptr. 3d at 781; see also *Clark, supra*, 628 N.E.2d at 53 (holding it is objectively reasonable for a patient to assume a doctor he has never met to be an employee of the hospital); *Simmons*, 533 S.E.2d at 322 (holding patients were reasonable in their assumption that treating physicians were employees of the hospital).

⁵⁶ *Irving v. Doctors Hosp. of Lake Worth, Inc.*, 415 So. 2d 55, 60 (Fla. Dist. Ct. App. 1982).

⁵⁷ 2001 WL 417281 (Mass. Super. Ct. Mar. 1, 2001).

⁵⁸ *Id.* at *3.

⁵⁹ *Id.*

⁶⁰ *Id.* at *4.

⁶¹ *Brookins v. Mote*, 292 P.3d 347, 356 (Mont. 2012); See also *Jennison v. Providence St. Vincent Medical Center*, 25 P.3d 358 (Or. Ct. App. 2001).

⁶² *Daly v. Aspen Ctr. for Women's Health, Inc.*, 134 P.3d 450, 452 (Colo. App. Ct. 2005).

⁶³ Alaska Stat. Ann. § 09.65.096 (West 2014); See *Fletcher v. South Peninsula Hospital*, 71 P.3d 833 (Alaska 2003).

⁶⁴ *Simmons v. Tuomey Reg'l Med. Center, supra*, 533 S.E.2d at 317.

⁶⁵ *Id.*

⁶⁶ *Id.* at 317-18.

⁶⁷ See *Kelly v. St. Luke's Hosp. of Kansas City*, 826 S.W.2d 391, 394 (Mo. Ct. App. 1992).

duty doctrine to hospitals.⁶⁸ Depending upon the facts of each case and the extent to which hospitals have provided notice of the independent contractor status of its physicians, even a state recognizing the non-delegable duty doctrine may not hold a hospital liable for the malpractice of those physicians.⁶⁹ Recognizing the existence of a non-delegable duty, some courts do not extend it based on public policy.⁷⁰ Expanding the scope of liability is “better left to the Legislature.”⁷¹

Hospitals may be held liable for the malpractice of teleradiologists through either theory—ostensible agency or the non-delegable duty doctrine. They will not be able to escape liability by relying on the contracts they have executed with physicians declaring them independent contractors unless patients receive clear and timely notice of such relationships. Conversely, if a patient seeks out a particular doctor at a hospital or is admitted by a private physician who has privileges at a hospital, courts have rejected holding a hospital liable. Patients in such situations could not reasonably believe the physician is an employee of that hospital.⁷²

JURISDICTION AND SERVICE OF PROCESS

- What happens if a teleradiologist does not maintain a residence or is not licensed in the state of suit? Most, if not all, states have long-arm statutes that can be interpreted to provide for jurisdiction over a non-resident physician on a number of theories.⁷³ Conducting business transactions within the state, contracting to provide

services within the state or holding malpractice insurance that covers claims in that state are just a few examples.⁷⁴ Pennsylvania, for instance, “may exercise personal jurisdiction over a person . . . who acts directly or by an agent” if he or she contracts “to supply services” or causes “harm or tortious injury.”⁷⁵ This statute appears broad enough to cover contracts that hospitals in Pennsylvania have with teleradiology companies anywhere—domestic and internationally.

Depending upon the location of the teleradiology company, service of process may pose an issue. For instance, service of process outside of Pennsylvania is not an issue if it is within the United States. Under Pennsylvania law, service upon an individual in another country may be accomplished according to a treaty or at the direction of that “foreign authority in response to a letter rogatory or request.”⁷⁶ A letter rogatory is a way of acquiring judicial assistance from another country absent a treaty and is used to effect service of process if permitted by that foreign country’s laws.⁷⁷ Executing these letters is time-consuming and may take more than a year to complete, thus effecting service on a teleradiologist located in a foreign country may be difficult.⁷⁸

CONCLUSION • Teleradiology blossomed due in part to the expense of maintaining an on-site radiologist.⁷⁹ Using a teleradiology service dramatically reduces the cost by hiring a full time radiologist or by paying on a per-exam basis rather than by a daily or hourly flat fee.⁸⁰ Smaller facilities, rural areas, and those requiring round-the-clock services benefit the most from these

⁶⁸ See *Irving v. Doctors Hosp. of Lake Worth, Inc. supra*, 415 So. 2d at 59; *Martell v. St. Charles Hosp.*, 523 N.Y.S.2d 342, 352 (N.Y. Sup. Ct. 1987); but see *Baptist Mem’l Hosp. Sys. v. Sampson*, 969 S.W.2d 945, 949 (Tex. 1998); and *Kelly, supra*, 826 S.W.2d at 394.

⁶⁹ See *Renown Health Inc. v. Vanderford*, 235 P.3d 614, 616 (Nev. 2010).

⁷⁰ *Id.* at 616.

⁷¹ *Id.*

⁷² See *Ward v. Lutheran Hosps. & Homes Soc. of Am., Inc.*, 963 P.2d 1031 (Alaska 1998).

⁷³ *Long-Arm Statutes: A Fifty-State Survey*, Vedder Price, <http://euro.com.cmu.edu/program/law/08-732/Jurisdiction/LongArmSurvey.pdf> (last visited Mar 2016).

⁷⁴ *Id.* at i.

⁷⁵ 42 Pa. Cons. Stat. § 5322(a)

⁷⁶ Pa. R.Civ. P. 404(4)-(5) (1999).

⁷⁷ *Preparation of Letters Rogatory*, U.S. Dept of State, <http://travel.state.gov/content/travel/english/legal-considerations/judicial/obtaining-evidence/preparation-letters-rogatory.html> (last visited Mar 2016).

⁷⁸ *Id.*

⁷⁹ Teleradiology Group, <http://www.teleradiologygroup.com>.

⁸⁰ *Id.* Services begin at approximately \$1500 per day versus \$8 per exam. *Id.*

savings.⁸¹ Teleradiology also provides access to excellent radiologists across the globe.⁸² When radiologists dedicated to high-quality service and professional standards use the opportunity that teleradiology provides to consult, mentor, and improve the practice overall, medical care and quality can improve dramatically in areas that otherwise have medical limitations.⁸³

In a litigation context, courts hold teleradiologists liable for malpractice when evidence of his or her negligence either directly or proximately caused the injury. If the teleradiologist's employer was negligent in hiring

the physician, vicarious liability is a form of redress for injured patients. Imputing liability to the hospital via ostensible agency depends on the facts of each case. Proving the hospital holds itself out as a provider of medical services is generally not in dispute. Showing the patient reasonably believed the teleradiologist was an agent of the hospital is more difficult. Alternatively, trying to hold a hospital liable based on the common law non-delegable duty doctrine is harder because most states have not recognized this concept as applied to hospitals.⁸⁴ State law governs medical liability and pursuing a non-delegable duty theory does not require the same evidentiary standard—expert testimony.⁸⁵

⁸¹ *Id.*

⁸² Katherine Eban, *Is a Doctor Reading Your X-Rays? Maybe Not*, NBC News.com (Oct. 26, 2011), <http://www.nbcnews.com/id/44949425/ns/health-cancer/t/doctor-reading-your-x-rays-maybe-not/#.U-ZV0PldWSo>.

⁸³ Thrall, *supra*, at 327.

⁸⁴ Annie Dike, *Defending Against the Non-Delegable Duty Claim*, DRIToday (Jan. 30, 2012), <http://dritoday.org/feature.aspx?id=268>.

⁸⁵ *Id.*

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