When Does Telemedicine Become a Standard of Care?

Telemedicine is the term generally applied to the provision of clinical care for patients or in support of their provider at a distant location using information and communication technologies (ICT). Those clinical services provided over distance can entail direct patient care, specialty evaluation and consultation, interaction with the patient’s primary care providers, and case review involving joint decision making and management, and review of images such as radiologic studies, dermatologic photographs, or retinal scans of the eye, among other types of images. These services using ICT can be synchronous in real time, or asynchronous where the data is captured, stored, and forwarded for review by a specialist. Advances in devices, improved high-speed broadband connectivity using the Internet through both ground-based and wireless systems, and development of cloud-based software as a service are making the use of telemedicine more ubiquitous, affordable, and realistic as part of a health care delivery system. Thus, telemedicine is a means of providing access to the right care, at the right place, and at the right time regardless of the location or community in which the patient and the provider may reside. Patients in underserved, remote, or rural locations shouldn’t have to sacrifice the quality of care they receive. The use of telemedicine begins to blur the community standards of care when services provided via ICT are proven and evidence-based independent from the distance from specialty service centers. In addition, the integration of health information exchange (HIE) with telemedicine enhances the ability to evaluate the patient, document the encounter, and make better management decisions, together improving quality of care with the potential of lowering costs. Furthermore, improved security of telemedicine systems are complying with the Health Insurance Portability and

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Accountability Act (HIPAA), protecting patients’ privacy and confidentiality.

**Telemedicine Becoming a Standard of Care**

As noted in the literature, a medically applied standard of care has been defined as the diagnostic and treatment process that a clinician should follow for a certain type of patient, illness, or clinical circumstance. However, a new standard of care does not necessarily become the only standard of care. (New England Journal of Medicine, 2004). In legal terms, it is the level at which the average, prudent provider in a given community would practice. In other words, it is how similarly qualified practitioners would have managed the patient’s care under the same or similar circumstances. The medical malpractice plaintiff must establish the appropriate standard of care and demonstrate that the standard of care has been breached. Telemedicine broadens the “community” within which the provider practices because there is now the capability to access appropriate expertise to achieve a reasonable standard of diagnoses and treatment based upon established processes. Thus, the standard of care that addresses the watchfulness, attention, caution and prudence that a reasonable person in the circumstances would exercise can be facilitated via telemedicine regardless of the provider’s location and community of practice. If a provider’s actions do not meet this standard of care, then his or her acts fail to meet the duty of care that all providers should have toward others. Failure to meet the standard is negligence, and any damages resulting therefrom may be claimed in a lawsuit by the injured party.

As noted in Wikipedia; “In tort law, the *standard of care* is the degree of prudence and caution required of an individual who is under a duty of care. The problem is that the ‘standard’ is often a subjective issue upon which reasonable people can differ.” Furthermore, requirements of a standard are closely dependent on circumstances. In other words, was the integration of telemedicine a reasonably achievable process for the provider and would use of telemedicine have altered any adverse outcome or alleged damages? Again, as noted in Wikipedia,

> Whether the standard of care has been breached is determined by the *trier of fact*, and is usually phrased in terms of the reasonable person. It was famously described in *Vaughn v. Menlove* (1837) as whether the individual “proceed[ed] with such reasonable caution as a prudent man would have exercised under such circumstances.” As a professional standard of care, in certain industries and professions, the standard of care is determined by the standard that would be exercised by the reasonably prudent professional in that line of work. Such a test, known as the “Bolam Test” is used to determine whether a doctor is liable for medical malpractice. The standard of care is important because it determines the level of negligence required to state a valid cause of action. In the business world the standard of care taken can be described as part of due diligence.

From a medical perspective, *standard of care* is based upon a medical treatment guideline, and can be general or specific. It specifies appropriate treatment based on scientific evidence and collaboration between medical and/or psychological professionals involved in the treatment of a given condition. Again, in legal terms, the level at which an ordinary, prudent professional having the same training and experience in good standing in a same or similar community would practice under the same or similar circumstances. An “average” standard would not apply because in that case at least half of any group of practitioners would not qualify. The medical malpractice plaintiff must establish the appropriate standard of care and demonstrate that the standard of care has been breached, with expert testimony. A physician also may have a “duty to inform” a patient of the ability to use telemedicine to obtain additional opinions about best care and treatment.

Medical standards of care exist for many conditions, including diabetes, some cancers, and sexual abuse.

Breach of the standard of care implies negligence, but, for recovery purposes, harm and damages resulting from that negligence must also be established. Similarly, failure to use telemedicine in a given case must constitute a breach of an accepted standard of care in which telemedicine could be used and that failure to use telemedicine resulted in harm and damages.

Telemedicine reaching the threshold in becoming an accepted standard of care represents a *sea change* with gradual adoption with evidence of improved outcomes when applied to health care. According to the Oxford English Dictionary *sea-change or seachange* originally meant “a change wrought by the sea”; in other words, a change process that takes some time to evolve. As noted in Wikipedia, the term first appears in William Shakespeare’s *The Tempest, Act 1, Scene 3*, in a song sung by the supernatural spirit Ariel to Ferdinand, the prince of Naples, after Ferdinand’s father’s apparent death by drowning in a shipwreck:

> Full fathom five thy father lies;  
> Of his bones are coral made;  
> Those are pearls that were his eyes;  
> Nothing of him that doth fade  
> But doth suffer a sea-change  
> Into something rich and strange.
Sea-nymphs hourly ring his knell

As currently used, sea change often indicates a significant and/or systemic transformation. The term is frequently used in business and information technology contexts as an alternative to paradigm shift. The term sea change is therefore often used to mean a metamorphosis, transformation, or alteration. Telemedicine also incorporates a cultural change with integration of virtual care over distance along with conventional in-person, hands-on care. In that sense, telemedicine represents a “disruptive technology” requiring a change in the approach to the delivery of health care.

As telemedicine becomes adopted, therein lies a double-edged sword with respect to risk and potential for perceived malpractice. There are potential issues that can occur when using telemedicine and also risks related to failure to use telemedicine. When using telemedicine, providers must be confident in their ability to diagnose and manage patients. They must also be aware of any limitations related to this type of virtual encounter using ICT. The same issues regarding breaches in the standards of care and potential negligence can occur when using telemedicine as during in-person encounters with patients or in support of their primary care providers. Incorrect diagnoses and treatment plans caused in part by limitations in telemedicine encounters can create risk and liability. Reasonable contingency plans should be developed in the event the telemedicine system malfunctions or apparent limitations of the ICT interfere with adequate diagnosis and treatment. In some cases, the conventional means of communication or need for transfer to another facility may be required for specialty evaluation or complex procedures. At the same time, failure to utilize telemedicine or have telemedicine capability in place where the patient is located will constitute a breach in the standard of care and appropriate practice when a second opinion and consultation with a specialist via telemedicine would have altered patient care and outcome, particularly when harm or damages could have been avoided. Malpractice cases have been filed in which failure to use telemedicine was part of the complaint that led to the damages, poor outcome, or even wrongful death. For example, a patient with acute ischemic stroke has limited amount of time (≤4½ hours) to be evaluated and to determine eligibility for the use of a clot-dissolving drug, tissue plasminogen activator (tPA), that has been shown to prevent or ameliorate brain damage. A patient who could have been eligible for tPA, who was not adequately evaluated and offered the treatment, and who suffered brain damage or death that could have been avoided through the use of telemedicine with access to a stroke specialist would constitute a breach of a standard of care, negligence, and entitlement to damages. Thus, failure to use telemedicine that, if used, could have prevented more serious complications through access to subject-matter experts increases the risk of malpractice litigation.

Lastly, telemedicine will require integration of health information systems and HIE to effectively document clinical encounters, diagnoses, and treatment recommendations and decisions. It will also require a means to securely share that protected health information (PHI) across health care provider organizations and their health care professionals. Documentation of a virtual telemedicine interaction with a patient should be provided in a manner similar to an in-person encounter and will likely need to be incorporated into the provider’s electronic medical record. Due to current lack of technical interoperability among myriad certified electronic medical records (EMRs), the role of a HIE to consolidate patient information from those EMRs will be increasingly important. Those standards for sharing and protecting PHI are also being developed and are subject to the evolving Health Insurance Portability and Accountability Act (HIPAA) and associated regulations. Furthermore, the matter of who “owns” the patient record and has responsibility for maintaining and protecting the health information needs to be addressed, particularly when the care is being shared between health care organizations in a virtual environment. The integration and sharing of the actual health information will be critical in providing coordinated continuity of patient care. An established HIE with appropriate standards for sharing health information can assist in addressing these issues when using telemedicine.

Conclusion

In conclusion, with increasing adoption of telemedicine within the health care system along with demonstrated value for improving quality of care and outcomes, telemedicine is moving toward becoming a standard of care and standard of practice regardless of the location of the patient. Telemedicine can provide access to health care services and expertise that is evidence-based. It broadens the standards for community care, improves quality, and enhances better outcomes. Health care providers and their organizations must look seriously at incorporating telemedicine into the delivery systems that improve care for their patients and lower risk of adverse outcomes and possible litigation. As awareness grows, patients will begin to expect and demand the use of telemedicine when it clearly improves their access to services and quality of care. Our legal system will also begin to test the appropriate use of telemedicine, and it should also play a role in establishing it as a standard of care.