

Are You My Doctor? Defining the Doctor-Patient Relationship in the Global Age of E-Health

Mindy Nunez Duffourc*

The possibility of virtual cross-border interactions between doctors and consumers in the e-health sphere clouds the establishment of a doctor-patient relationship. This Commentary discusses the concept of e-health and its impact on the doctor-patient relationship. It then analyzes the legal framework governing the doctor-patient relationship in e-health interactions between a doctor and e-health consumer under a combination of various American and European legal and regulatory regimes. Finally, it combines unifying principals from these regimes to suggest universal legal guidance for predicting when e-health interactions between a doctor and e-health consumer give rise to a doctor-patient relationship.

I. INTRODUCTION	311
II. E-HEALTH AND THE DOCTOR-PATIENT RELATIONSHIP	312
III. THE LEGAL FRAMEWORK GOVERNING DOCTOR- PATIENT/CONSUMER E-HEALTH INTERACTIONS	317
IV. UNIFYING PRINCIPLES	321
V. CONCLUSION	323

I. INTRODUCTION

E-health makes possible everything from scheduling doctors' appointments online to robotic surgery.¹ While the integration of technology in healthcare has the ability to improve healthcare access and outcomes, it also blurs the parameters of the doctor-patient relationship.² As a result, exposure to medical malpractice liability, which stems from this relationship, becomes increasingly difficult to predict.³ This can, in turn, discourage healthcare providers from embracing e-health

* © 2020 Mindy Nunez Duffourc. J.D., Attorney at Burglass Tankersley, Ph.D. candidate at University of Passau School of Law. Preliminary research for this Commentary was presented at the Católica Graduate Legal Research Conference 2018—"The Future of Health Law" in Lisbon, Portugal, on October 11-12, 2018.

1. See Vera Lúcia Raposo, *Telemedicine: The Legal Framework (or Lack of It) in Europe*, 12 GMS HEALTH TECH. ASSESSMENT 1, 1-2 (2016), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4987488/pdf/HTA-12-03.pdf> (discussing the benefits of telemedicine).

2. See *id.* at 9.

3. See *id.*

modalities.⁴ To counter this uncertainty, international guidance should combine unifying principles from various legal and regulatory regimes to (1) craft a cohesive global definition of medical practice and (2) develop a dynamic legal test that evaluates whether the degree of personalization in e-health interactions is enough to signal the practice of medicine and give rise to a doctor-patient relationship.

II. E-HEALTH AND THE DOCTOR-PATIENT RELATIONSHIP

“E-health” describes a broad range of activities positioned at the intersection of health and technology.⁵ The World Health Organization (WHO) defines “E-health” as “the use of information and communication technologies (ICT) for health.”⁶ The benefits of e-health include better healthcare access and quality at a lower cost.⁷ Patients who experience geographic barriers to healthcare can access doctors remotely using the telephone, computers, or mobile devices.⁸ It also empowers patients to become active participants in the prevention and management of their medical conditions, for example, by enabling online access to general medical information and second opinions from specialists.⁹ Doctors can improve patient care by using e-health modalities to collaborate and consult with one another around the world.¹⁰ Healthcare organizations can employ e-health to expand healthcare services and reduce costs associated with onsite care that could be provided remotely.¹¹

E-health enjoys global support from regulatory bodies, providers, and patients.¹² The World Health Organization recognizes the major role

4. See Stephen McDonald, *Where Does It Hurt? The Practice of Telemedicine Beyond State Lines and Personal Liability*, 11 CHARLESTON L. REV. 553, 579 (2017).

5. *eHealth: Connecting Health Systems in Europe*, EUROPEAN COMMISSION, https://ec.europa.eu/health/sites/health/files/ehealth/docs/2016_ehealthleaflet_vertical_en.pdf (last visited Feb. 6, 2020).

6. *eHealth*, WHO, <http://www.who.int/ehealth/en/> (last visited Feb. 6, 2020).

7. See Raposo, *supra* note 1, at 2.

8. See *id.*

9. See *id.*

10. See *id.*

11. See *id.*

12. *eHealth: Connecting Health Systems in Europe*, *supra* note 5; see, e.g., Council Directive 2011/24/EU of Mar. 9, 2011 on the Application of Patients’ Rights in Cross-Border Healthcare, 2011 O.J. (L 88) 45 [hereinafter Council Directive]; ACCENTURE CONSULTING, 2018 CONSUMER SURVEY ON DIGITAL HEALTH: US RESULTS 9 (2018), https://www.accenture.com/t20180306T103559Z__w__us-en/_acnmedia/PDF-71/accenture-health-2018-consumer-survey-digital-health.pdf; AM. MED. ASS’N, DIGITAL HEALTH STUDY: PHYSICIANS’ MOTIVATIONS AND REQUIREMENTS FOR ADOPTING DIGITAL CLINICAL TOOLS 16 (2016), <https://www.ama-assn.org/media/11681/download>.

of e-health in improving public health and provides support to its Member States through ongoing research and the provision of e-health tools and resources.¹³ The European Commission embraces “an active role in the uptake of eHealth at the European level, facilitating cross-border health services and supporting Member States’ action to roll out eHealth solutions at [a] national level.”¹⁴ EU Directive 2011/24/EU on patients’ rights in cross-border healthcare established support for an e-health network with the goal of coordinating European e-health systems and services.¹⁵

In the United States, providers and patients alike accept high-tech healthcare.¹⁶ In its 2016 Digital Health Study, the American Medical Association found that most physician respondents recognized the potential for digital tools to improve patient care by enhancing work efficiency, patient safety, and diagnostic abilities.¹⁷ In a 2018 consumer survey on digital health, 56% of American respondents reported using websites and 46% reported using a mobile phone or tablet to manage their health.¹⁸ And technological innovation in healthcare shows no signs of slowing.¹⁹ The telemedicine market is projected to reach \$13 billion by 2020.²⁰ In addition, 80% of healthcare executives in the United States agree that artificial intelligence will work next to humans within the next two years and 72% agree that extended reality (“technology [that] immerses users through visuals, audio, and potentially olfactory and haptic cues”) will have a widespread impact on every industry over the next five years, including healthcare.²¹

Of course, e-health does not come without its challenges, including an array of implementation cost, privacy, technology, safety, ethical, and legal concerns.²² The global reach of e-health services adds an additional layer of complication to these challenges since healthcare regulation

13. See generally *eHealth*, *supra* note 6 (providing access to e-health publications, tools, and resources).

14. *eHealth: Connecting Health Systems in Europe*, *supra* note 5.

15. Council Directive, *supra* note 12.

16. See AM. MED. ASS’N, *supra* note 12, at 3; see, e.g., ACCENTURE CONSULTING, *supra* note 12.

17. See AM. MED. ASS’N, *supra* note 12, at 3, 11.

18. ACCENTURE CONSULTING, *supra* note 12, at 4.

19. See *id.*

20. Kimberly Lovett Rockwell, *The Promise of Telemedicine: Current Landscape and Future Directions*, 96 MICH. B.J. 38, 38 (2017).

21. ACCENTURE CONSULTING, DIGITAL HEALTH TECHNOLOGY VISION 2018, at 8, 11, 14 (2018), https://www.accenture.com/_acnmedia/PDF-78/Accenture-digital-health-tech-vision-2018.pdf#zoom=50.

22. See Raposo, *supra* note 1, at 2-3.

remains in the ambit of national, or even regional or local, authorities.²³ One often recognized barrier to the adoption of e-health is the uncertainty surrounding medical liability for personal injuries caused by the cross-border provision of e-health services.²⁴ No international medical malpractice law exists to guide stakeholders who participate in the global e-health market.²⁵ Despite the lack of international law, a common prerequisite to medical malpractice liability is the establishment of a legal relationship from which a legal duty or obligation is born.²⁶ According to Dieter Giesen, “[I]t can be safely said that there is no legal system which imposes a ‘duty in the air.’”²⁷ When this relationship is between a doctor and a patient, it can be referred to as a doctor-patient relationship.²⁸

The doctor-patient relationship stands at the heart of medical practice.²⁹ It arises “when the professional services of a physician are accepted by another person for the purposes of medical or surgical treatment.”³⁰ Historically, physical face-to-face contact anchored the doctor-patient relationship, but e-health has eliminated the element of physicality in many instances.³¹ For example, specialists at John Hopkins use webcams to conduct remote visits with nursing home residents hundreds of miles away.³² In 2012, health technology experts predicted that “[t]he art and science of care surrounding the traditional face-to-face patient/doctor interaction will be forever changed as all aspects of communication, interaction, and information flow will become mediated (and monitored) by electronic tools.”³³ In 2018, this prediction is a

23. See *id.* at 4; see Rockwell, *supra* note 20, at 40.

24. See CATHY BAHR IN PARTNERSHIP WITH NICOLE DENJOY, UNITED4HEALTH, DOCUMENT D5.5 v1.0 U4H, INDUSTRY REPORT ON TELEMEDICINE LEGAL AND REGULATORY FRAMEWORK VERSION 1.0, at 15 (Jan. 16, 2015), <http://united4health.eu/wp-content/uploads/2015/10/D5.5-v1.0-U4H-Industry-Report-on-Telemedicine-Legal-and-Regulatory-Framework.pdf>.

25. See Raposo, *supra* note 1, at 8.

26. DIETER GIESON, INTERNATIONAL MEDICAL MALPRACTICE LAW: A COMPARATIVE LAW STUDY OF CIVIL LIABILITY ARISING FROM MEDICAL CARE 78 (1988).

27. *Id.* at 75.

28. See John Blum, *Internet Medicine and the Evolving Legal Status of the Physician-Patient Relationship*, 24 J. LEGAL MED. 413, 424 (2003).

29. *Id.* at 449.

30. STEVEN E. PEGALIS, AMERICAN LAW OF MEDICAL MALPRACTICE § 2:3, at 3 (3d ed. 1992); Kelly Gelein, *Are Online Consultations a Prescription for Trouble? The Unchartered Waters of Cybermedicine*, 66 BROOK. L. REV. 209, 213 (2000).

31. See Gelein, *supra* note 30, at 239.

32. See Paul Wicks et al., *Innovations in E-Health*, 23 QUA LIFE RES. 195, 199 (2014).

33. Jonathan P. Weiner, *Doctor-Patient Communication in the e-Health Era*, 1:33 WEINER ISR. J. HEALTH POL'Y RES. 1, 4 (2012).

reality.³⁴ In addition to changing the nature of an established doctor-patient relationship, e-health also introduces legal questions regarding the very creation of that relationship.³⁵ These questions become more complex when e-health interactions occur across borders.³⁶

The legal obligation that commences with a doctor-patient relationship can form under contract or tort law, or both, but it is, in both the United States and Europe, a prerequisite to medical malpractice liability.³⁷ In Germany and Poland, medical malpractice liability can be based on an obligation that arises under either contract or tort law.³⁸ In Italy, the legal relationship between a doctor and patient arises under contract law.³⁹ In England, tort law governs the legal duty established by a doctor-patient relationship.⁴⁰ In the United States, medical malpractice requires a doctor-patient relationship that can arise under either tort or contract law.⁴¹

The legal norms that influence the creation of doctor-patient relationships vary from jurisdiction to jurisdiction.⁴² In the case of cross-border e-health interactions, choice-of-law rules dictate which jurisdiction's legal norms govern the establishment of a doctor-patient relationship.⁴³ According to the European Union's directive on the application of patients' rights in cross-border healthcare, the laws of the Member State of treatment govern cross-border healthcare within the European Union, reserving some possibility for the law of the patient's

34. See generally ACCENTURE CONSULTING, *supra* note 12, at 2 (surveying changes in communication, interaction, information exchange, and data veracity).

35. See McDonald, *supra* note 4, at 562-63.

36. See *id.* at 579.

37. See, e.g., Commission Study on the Legal Framework for Interoperable eHealth in Europe Final Report, at 41, SMART 2007/0059 (2009), <https://op.europa.eu/en/publication-detail/-/publication/2b01ec4c-04b0-4fe6-98bf-1ce876130ffc/language-en>; see Jessica S. Allain, Comment, *From Jeopardy! To Jaundice: The Medical Liability Implications of Dr. Watson and Other Artificial Intelligence Systems*, 73 LA. L. REV. 1049, 1061 (2013).

38. Commission Study on the Legal Framework for Interoperable eHealth in Europe Final Report, *supra* note 37.

39. Francesco Traina, *Medical Malpractice: The Experience in Italy*, 467 CLINICAL ORTHOPAEDICS RELATED RES. 434, 436 (2009).

40. MARC STAUNCH, *THE LAW OF MEDICAL NEGLIGENCE IN ENGLAND AND GERMANY: A COMPARATIVE ANALYSIS* 13 (2008).

41. See Allain, *supra* note 37 (the doctor-patient relationship creates a duty under the law of negligence); Phyllis Forrester Granade, *Medical Malpractice Issues Related to the Use of the Telemedicine: An Analysis of the Ways in Which Telecommunications Affects the Principals of Medical Malpractice*, 73 N.D. L. REV. 65, 65-66 (1997) (the doctor-patient relationship is established pursuant to an express or implied contract).

42. See Commission Study on the Legal Framework for Interoperable eHealth in Europe Final Report, *supra* note 37.

43. See *id.* at 41, 44.

home state to be applied.⁴⁴ The directive clarifies that, in the context of telemedicine, the Member State of treatment is the state where the healthcare provider is established.⁴⁵ The United States takes the opposite approach, finding that treatment occurs at the patient's location at the time of treatment.⁴⁶ As a result, the law of the state where the patient is located governs cross-border healthcare within the United States.⁴⁷ E-health transactions between the United States and Europe provide an additional layer of confusion because, absent an enforceable choice-of-law clause, there are no clear rules for determining which jurisdiction's law applies.⁴⁸

Although choice-of-law rules and contractual clauses can provide e-health participants with some guidance on the substantive law that will govern particular e-health transactions, they do not address the practical problems that arise from application of different laws for similar e-health transactions.⁴⁹ For example, under the default EU rule, an e-health transaction between a consumer in Spain and a doctor in Belgium might create a legal doctor-patient relationship, while that same transaction between an e-health consumer in Spain and a doctor in the Netherlands might not.⁵⁰ Under this model, if two Spanish citizens claim injuries stemming from a similar e-health transaction, one may have a legal cause of action while the other does not.⁵¹ When, as in the United States, the patient's location governs the applicable rules, a doctor performing the same e-health service might be liable to e-health consumers in some jurisdictions, but not others.⁵² In addition to the legal inequities created by the application of different laws governing the establishment of a doctor-patient relationship, the inability to predict when legal liability might be imposed for similar e-health interactions can inhibit the adoption of e-health practices.⁵³

44. Council Directive, *supra* note 12.

45. *Id.* at 55.

46. *See* Granada, *supra* note 41, at 84.

47. *Id.*

48. *See* Council Directive, *supra* note 12, at 55; *see* Granada, *supra* note 41, at 67.

49. *Commission Study on the Legal Framework for Interoperable eHealth in Europe Final Report*, *supra* note 37, at 44.

50. *See id.* at 64, 65, 125.

51. *See id.* at 42, 53, 64, 105.

52. *See* Granada, *supra* note 41, at 84.

53. *Commission Study on the Legal Framework for Interoperable eHealth in Europe Final Report*, *supra* note 37, at 47, 51, 53.

III. THE LEGAL FRAMEWORK GOVERNING DOCTOR-PATIENT/ CONSUMER E-HEALTH INTERACTIONS

Many e-health interactions involving doctors and consumers or patients do not raise legal concerns about the establishment of a doctor-patient relationship.⁵⁴ For example, doctor-provided static health information available on a website will not ignite a doctor-patient relationship with every e-health consumer who reads that information.⁵⁵ On the other end of the spectrum, a doctor's visit conducted remotely via audio-visual communication between a doctor and preestablished patient will be subject to the legal obligations and duties of the existing doctor-patient relationship.⁵⁶ The uncertainty occurs when the initial interaction between doctors and consumers is via digital communication.⁵⁷ This can happen, for example, in an e-health forum or via e-health websites that provide tailored health information based upon consumer input.⁵⁸ According to Miller and Derse, "[t]hese practices have blurred the distinction between the provision of information and the practice of medicine."⁵⁹

One defining characteristic of the doctor-patient relationship is an agreement between the doctor and patient to, respectively, provide and receive medical treatment.⁶⁰ Since the practice of medicine (or a medical act) marks an essential component of the doctor-patient relationship, it becomes crucial to distinguish whether the e-health interaction in question involves the practice of medicine or the provision of medical information.⁶¹ At first glance, the concept of "telemedicine" appears a natural place to search for the coalescence of e-health and medical practice. Unfortunately, the term "telemedicine" takes on a variety of definitions ranging in the scope of activities, people, and modalities covered.⁶² For example, the World Health Organization defines the terms "telehealth" and "telemedicine" interchangeably as:

54. See Tracy E. Miller & Arthur R. Derse, *Between Strangers: The Practice of Medicine Online*, 21:4 HEALTH AFF. 168, 168 (2002).

55. See *id.*

56. See *id.* at 170.

57. See *id.* at 175.

58. See *id.*

59. *Id.*

60. See Granade, *supra* note 41, at 68.

61. *Id.* at 68-69.

62. See 2 World Health Organization [WHO], *Global Observatory for eHealth Series Telemedicine: Opportunities and Developments in Member States*, at 1, 9 (2010), http://www.who.int/goe/publications/goe_telemedicine_2010.pdf; see also Bahr & Denjoy, *supra* note 24, at 48.

[t]he delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.⁶³

Some definitions distinguish telehealth and telemedicine, with the former being used to refer to healthcare services delivered by all healthcare providers and the latter being used to refer only to healthcare delivered by a physician.⁶⁴ To confuse matters further, a European Commission report defines “telemedicine” as the broader of the two terms, “covering Telehealth, Telecare, and other ‘teledisciplines.’”⁶⁵ Ireland also takes a broad approach to telemedicine, defining it as:

the delivery of health care services through information and communication technologies to promote the health of individuals and their communities . . . involv[ing] the exchange of information between doctors and patients, or between doctors and professional colleagues, for the diagnosis, treatment and prevention of disease and injuries, and for research, evaluation and continuing education.⁶⁶

In the United States, Louisiana restricts telemedicine to “the practice of health care delivery, diagnosis, consultation, treatment, and transfer of medical data using interactive telecommunication technology that enables a health care practitioner and a patient at two locations separated by distance to interact.”⁶⁷ Even stricter is New York’s definition of telemedicine as:

the delivery of clinical health care services by means of real time two-way electronic audio-visual communications which facilitate the assessment, diagnosis, consultation, treatment, education, care management and self management of a patient's health care while such patient is at the originating site and the health care provider is at a distant site.⁶⁸

63. WHO, *A Health Telematics Policy in Support of WHO's Health-for-All Strategy for Global Health Development*, at 1, 10 (1998), https://apps.who.int/iris/bitstream/handle/10665/63857/WHO_DGO_98.1.pdf?sequence=1&isAllowed=y.

64. See WHO, *supra* note 62.

65. Bahr & Denjoy, *supra* note 24, at 48.

66. IR. MED. COUNCIL, *GUIDE TO PROFESSIONAL CONDUCT AND ETHICS FOR REGISTERED MEDICAL PRACTITIONERS (AMENDED)* 32 (8th ed. 2019), <https://www.medicalcouncil.ie/News-and-Publications/Reports/Guide-to-Professional-Conduct-and-Ethics-for-Registered-Medical-Practitioners-Amended-.pdf>.

67. LA. REV. STAT. § 37:1262 (2008).

68. N.Y. PUB. HEALTH Law art. 28, § 2805-u(d) (McKinney 2019).

Aside from the common inclusion of diagnosis and treatment, the wide-ranging definitions of telehealth and telemedicine prevent them from offering meaningful guidance for determining when e-health interactions involve the practice of medicine and create a legal doctor-patient relationship.

Another approach is to look at how the practice of medicine is defined by regulatory bodies, because “telemedicine is not a new medical act[;] . . . [rather,] it represents an innovative way of providing healthcare services.”⁶⁹ Of course, there is no global agreement on what constitutes the practice of medicine.⁷⁰ In Europe, the scope of medical practice differs from country to country.⁷¹ In Austria, medical practice includes examination, diagnosis, treatment, surgery, taking blood, disease prevention, childbirth supervision, medically supported reproduction, prescription of drugs and cures, and autopsies.⁷² Germany licenses both physicians, who practice medicine, and nonmedical practitioners, who can provide therapeutic services.⁷³ While the law does not specifically define the practice of medicine, it notes that medical care services practiced by physicians include diagnosis and therapy.⁷⁴ The Netherlands takes a different approach, listing “reserved actions” to distinguish medical acts that can only be performed by medical doctors, with a few exceptions for dentists and midwives.⁷⁵ Reserved actions include the following:

surgical treatment, obstetric assistance, endoscopy, catheterization, injections, punctions, anaesthetizing a patient, the use of ionizing radiation, the employment of elective cardioversion, applying defibrillation, the employment of electro-convulsive therapy, the use of lithotripter for medical purposes, actions with human reproductive cells and embryos, not aimed at accomplishing a natural pregnancy.⁷⁶

69. BAHR & DENJOY, *supra* note 24, at 16.

70. *See id.* at 15; *see* Blum, *supra* note 28, at 423.

71. BAHR & DENJOY, *supra* note 24, at 15 (what constitutes a medical act differs among Member States in EU).

72. *Commission Study on the Legal Framework for Interoperable eHealth: National Profile Austria*, at 18, SMART 2007/0059 (2008), https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=2894.

73. *Commission Study on the Legal Framework for Interoperable eHealth: National Profile Germany*, at 20, SMART 2007/0059 (2008), https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=2903.

74. *Id.*

75. *Commission Study on the Legal Framework for Interoperable eHealth: National Profile The Netherlands*, at 19, SMART 2007/0059 (2008), https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=2912.

76. *Id.* at 18-19.

Portugal provides no legal definition for an act of medicine.⁷⁷

In the United States, the definition of medical practice differs from state to state.⁷⁸ Virginia defines the practice of medicine as “the prevention, diagnosis and treatment of human physical or mental ailments, conditions, diseases, pain or infirmities by any means or method.”⁷⁹ In Louisiana, the practice of medicine includes “diagnosing, treating, curing, or relieving of any bodily or mental disease, condition, infirmity, deformity, defect, ailment, or injury in any human being . . . or the examining . . . of any person or material from any person.”⁸⁰ In New York, “[t]he practice of the profession of medicine is defined as diagnosing, treating, operating or prescribing for any human disease, pain, injury, deformity or physical condition.”⁸¹ Again, like with telemedicine, diagnosis and treatment appear at the heart of medical practice, but the varying scope of medical practice adopted by the different jurisdictions does little to clarify when a doctor’s provision of online health information crosses into the realm of medical practice.⁸²

Although courts and regulatory bodies in the United States and Europe have had little occasion to address the distinction between medical information and medical practice in the e-health sphere, there are a few decisions that offer guidance, and surprisingly, they articulate similar principles.⁸³ In the United States, court decisions in two types of cases provide guidance for determining when a doctor-patient relationship might arise as a result of e-health activity.⁸⁴ First, in cases involving telephonic medical consultations between a doctor and a patient, U.S. courts are likely to find a legal doctor-patient relationship when (1) the doctor gives affirmative advice regarding a specific course of treatment, (2) it is foreseeable that the patient will rely upon the doctor’s advice, and (3) the patient relies upon the doctor’s advice.⁸⁵ Second, drawing from cases involving the distinction between general investment advice and the professional practice of a securities dealer, U.S. courts have indicated that the provision of medical information would cross into the realm of

77. *Commission Study on the Legal Framework for Interoperable eHealth: National Profile Portugal*, at 14, SMART 2007/0059 (2008), https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=2914.

78. Blum, *supra* note 28, at 418 (“each state defines the practice of medicine”).

79. Medical Practice Act, VA. CODE ANN. § 54.1-2900 (2019).

80. LA. REV. STAT. § 37:1262 (2008).

81. N.Y. EDUC. LAW § 6521 (McKinney 2019).

82. *See* Blum, *supra* note 28, at 422.

83. *See* Gelein, *supra* note 30, at 242-43.

84. *See* Gelein, *supra* note 30, at 219; Miller & Derse, *supra* note 54, at 175.

85. *See* Gelein, *supra* note 30, at 221-22.

medical practice when (1) the doctor and the patient communicate directly, (2) the doctor provides professional advice in response to the patient's particular medical situation, and (3) the encounter resolves the patient's issue without the need to obtain further medical advice.⁸⁶

The features of personalized and direct provision of medical advice also mark the practice of medicine in Europe.⁸⁷ The Belgium Council of the Order of Physicians determined that medical advice is considered the practice of medicine when (1) it concerns a particular medical treatment, (2) is aimed at treating or preventing a particular medical condition, (3) is provided to a particular individual or identifiable group of individuals, and (4) specifies the mode of treatment.⁸⁸ According to the Royal Dutch Medical Association, Internet contact between a doctor and a patient online constitutes medical treatment when a doctor gives a patient advice for a specific situation.⁸⁹ Finally, a German court recently found that questions and answers presented on a medical website constituted remote medical treatment because the expert physicians provided "concrete and individual diagnostic therapeutic statements . . . in response to the questions posed by users on a website in relation to specific diseases, ailments or complaints."⁹⁰ The court further noted that the questions and answers were so detailed and tailored to the individual person that they could not be considered general health information despite the website's proclamation that advice given on the site was not a substitute for medical treatment.⁹¹

IV. UNIFYING PRINCIPLES

The line between the provision of general health information and the practice of medicine in the e-health arena proves easy to cross.⁹² When the line is crossed, a doctor-patient relationship arises, and with that relationship, legal liability attaches to the e-health interaction.⁹³ The law

86. Miller & Derse, *supra* note 54, at 175.

87. See *Commission Study on the Legal Framework for Interoperable eHealth in Europe Final Report*, *supra* note 37, at 99; see *Landgericht München I* [LG München I] [District Court Munich I] Mar. 01, 2012, 17 HK O 20640/11, ¶¶ 9, 12, 25, 34, 40-42, 56-57 (Ger.), <https://openjur.de/u/497520.html>.

88. *Commission Study on the Legal Framework for Interoperable eHealth in Europe Final Report*, *supra* note 37, at 98, 99.

89. *Id.* at 105.

90. See *LG München I*, 17 HK O 20640/11, ¶¶ 9, 41-42 (Ger.), <https://openjur.de/u/497520.html>.

91. *Id.* ¶ 57.

92. Granade, *supra* note 41, at 65.

93. See *id.* at 69.

governing the doctor-patient relationship is no longer contained by national or local borders.⁹⁴ The new global digital health market demands a coordinated legal response to help e-health participants determine when their interactions give rise to a doctor-patient relationship and the legal obligations and duties that follow.⁹⁵ Admittedly, because finding a legal relationship involves a fact-specific analysis of the doctor-patient interaction, there will, like with most legal questions, never be absolute clarity, but unifying principles from regulatory, jurisprudential, and legislative sources in the United States and Europe provide some guidance.⁹⁶

Although definitions of telemedicine and the scope of medical practice vary widely among jurisdictions, a couple of unifying principles can be extracted to guide an international concept of medical practice in the e-health sphere.⁹⁷ First, many jurisdictions accept that the practice of medicine using technology in lieu of a physical interaction is still considered the practice of medicine.⁹⁸ Second, the scope of medical practice focuses on a professional medical response to complaints of individual human ailments and revolves around the core activities of diagnosis and treatment.⁹⁹ As a starting point, international health organizations and regulators should attempt to supply a uniform concept of medical practice to guide cross-border e-health interactions.¹⁰⁰ This task is best left to medical experts with international experience with the cautionary advice to avoid the adoption of multiple inconsistent and contradictory definitions as seen with “telehealth” and “telemedicine.”¹⁰¹

More practical legal guidance comes from jurisprudential and regulatory decisions addressing factors that establish medical practice and the concurrent creation of a doctor-patient relationship.¹⁰² Unifying principles from these decisions supply the following considerations when

94. See generally Council Directive, *supra* note 12; *Commission Study on the Legal Framework for Interoperable eHealth in Europe Final Report*, *supra* note 37, at 11, 44.

95. See BAHR & DENJOY, *supra* note 24, at 34; see *Commission Progress Report: European Health Interoperability Roadmap 2* (Dec. 2010), [http://www.ehgi.eu/Download/European%20eHealth%20Interoperability%20Roadmap%20\[CALLIOPE%20-%20published%20by%20DG%20INFSO\].pdf](http://www.ehgi.eu/Download/European%20eHealth%20Interoperability%20Roadmap%20[CALLIOPE%20-%20published%20by%20DG%20INFSO].pdf).

96. See Granade, *supra* note 41, at 69-70.

97. Miller & Derse, *supra* note 54, at 170, 176.

98. See BAHR & DENJOY, *supra* note 24, at 31; see LG München I Mar. 01, 2012, 17 HK O 20640/11, ¶ 40 (Ger.), <https://openjur.de/u/497520.html>.

99. Medical Practice Act, VA. CODE ANN. § 54.1-2900 (2019).

100. *Commission Progress Report: European Health Interoperability Roadmap*, *supra* note 95, at 16, 37.

101. WHO, *supra* note 62, at 11.

102. See Granade, *supra* note 41, at 69-70.

determining whether a doctor-patient relationship arises in an e-health interaction:

- The nature of contact between the doctor and the e-health consumer, including the method of contact, the length and frequency of contact, and directness of contact.
- The level of personalized information provided by the e-health consumer to the doctor, including personal identification and medical history.
- The nature of the health information provided by the doctor to the e-health consumer, including whether the information is tailored to a particular consumer or specific medical presentation or gives concrete recommendations.
- The probability that the information provided by the doctor will affect the health condition of the e-health consumer.¹⁰³

Despite the fact-specific analysis required, international adoption of these general considerations can help introduce legal and jurisprudential uniformity for determining when an e-health interaction establishes a doctor-patient relationship.¹⁰⁴ As a result, e-health participants will be able to predict and manage their risks and expectations accordingly.¹⁰⁵

V. CONCLUSION

Law has always trailed behind both science and technology, so it is no surprise that the progression of digital healthcare leaves legal questions in its wake. The number of e-health interactions between doctors and consumers will continue to grow and new technologies will continue to blur the line between the provision of health information and the practice of medicine. The transnational nature of e-health demands an international legal reaction to the question of when an e-health interaction crosses the line into medical practice and gives rise to a doctor-patient relationship. This reaction should include combining unifying principles from various legal and regulatory regimes to provide both a cohesive concept of medical practice as well as a dynamic legal test that assesses the degree of personalization in e-health exchanges between doctors and consumers.

103. See Weiner, *supra* note 33, at 3-4; *Commission Progress Report: European Health Interoperability Roadmap*, *supra* note 95, at 26, 39, 41, 46.

104. *Id.* at 23.

105. *Id.*