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## Commentary

# Stepping across borders into the future of telepathology

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The description of the design and implementation of interstate telepathology services between the University of Pittsburgh Medical Center (Pittsburgh, Pennsylvania) and St. Vincent Indianapolis Hospital (Indianapolis, Indiana) in the article Institutional and Interstate Teleneuropathology"[1] provides a veritable "how-to" guide for other practices desiring to broaden the range and immediacy of their subspecialists' expertise. For those acquainted with the installation of telepathology within an institution, some of the barriers that had to be surmounted will come as no surprise. However, the added legal, administrative, and medical complexity of crossing institutional credentialing systems as well as state jurisdictions of medical practice provided some additional challenges, the solutions for which are detailed in the article. Interstate telepathology practice is not a new phenomenon as previous reports of telepathology between individual Veterans Health Administration medical centers can be found as far back as 1997.[2] but this may be one of the first reports of interstate telepathology practice between administratively and financially independent health care entities. As such, new questions arose regarding case ownership, medical malpractice and correlation between the telepathologic frozen section diagnosis and the final diagnosis. As with many forward leaps in medical practice, the lag in the development of corresponding accreditation standards, laws, and regulations left some of those questions unanswered, and the innovators were left with making their best conservative guesses. This commentary describes the implications for telepathology practice as it moves forward from this point and highlights the need for guidelines for its safe and effective use.

### **COMMENTS**

Existing barriers to inter-institutional and interstate telepathology practice are still difficult to overcome. Requirements for state licensure accreditation are variable, but in the digital future, it may make more sense for pathologists and radiologists to be able to obtain a national medical license, which is good in all 50 United States. Similarly, national medical credentials which are accepted by most if not all health care entities would dramatically simplify the connection of interstate services. As barriers decrease, contracts become standardized and further leaps in telepathology technology take place, pathologists and their laboratory accreditation agencies should be preparing for digital practice in a new paradigm. With state and even national borders no longer as barriers to delivery of immediate pathology services and with the decreasing costs of whole slide scanning technology, community pathology practices may turf more of their cases to outside experts for review, either at frozen section or for secondary consultation. Pathology practices in possession of subspecialists may find it financially advantageous to farm that expertise out to many, rather than a few, other health care entities. The potential for communication problems, such as those described in the article would likely increase with

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the number of connected institutions in that it would no longer be feasible for subspecialty pathologists to meet in person all those with whom they expect to work. When compounded by differences in geographic vernacular or, if across national borders, differences in language requiring the use of an interpreter, the potential for diagnostic error due to miscommunication should not be underestimated. There are already examples international laboratories becoming accredited by the College of American Pathologists Laboratory Accreditation Program. As more community pathology practices acquire whole slide scanners, the potential for outsourcing frozen section and consultative work to international pathologists at a less expensive rate could have an adverse financial impact on academic and other subspecialty practices. Medicolegal responsibility and compliance with accreditation standards are also issues for which there is currently no resolution. Requirements and responsibilities for image storage, image retrieval, and frozen-to-final correlations also need to be clarified when the acquisition and review of the images are administratively and financially separated. In the absence of individual hospital accreditation, requirements for face-to-face introductions of telepathologists and a core of individuals at the connected entity may help smooth the flow of communication. Setting limits on the number of health care entities to which a single telepathologist may provide service may help further facilitate communication and camaraderie between the connected individuals. In conclusion, encouraging the institution of standards and regulations which increase the ease with which telepathologists provide care to out-of-state patients while setting appropriate limits on telepathology practice are some fulcrums upon which open access to subspecialty expertise improves patient care without compromising patient safety.

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