

## **Reducing the Cost of Defensive Medicine Using the Internet**

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Defensive medicine consists of providing medical services that are not expected to benefit the patient, but minimize the risk of subsequent lawsuits. In that context, the Health Insurance Portability and Accountability Act of 1996 (HIPAA) rightly makes a virtue of privacy, but it can also bring about a financial burden – a burden that can best be met through a judicious use of the Internet and the latest developments in secure online communications.

A recent article published in the American Academy of Orthopedic Surgeons website states that “70 percent of emergency departments are at risk because they lack available on-call specialist coverage.” That same article also points out that if the “Kessler and McClellan estimates were applied to total U.S. healthcare spending in 2005, the defensive medicine costs would total between \$100 billion and \$178 billion per year. Add to this the cost of defending malpractice cases, paying compensation, and covering additional administrative costs (a total of \$29.4 billion). Thus, the average American family pays an additional \$1,700 to \$2,000 per year in healthcare costs simply to cover the costs of defensive medicine.”

Given the controversy surrounding healthcare reform, tort reform as it applies to medical practitioners has come into focus. It is clear that the associated costs impact American families; malpractice insurance premiums are skyrocketing and some aspects of defensive medicine may even be harmful to patients. How, then, is this burgeoning expense to be checked without reference to legislation which may or may not come into being? More to the point, what can be done to reduce or remove the root causes of malpractice litigation? One answer is: greater access to on-call medical specialists.

An increase in the availability of on-call medical specialists can only result in better decision-making for doctors, which in turn yields better patient care, and fewer cases of malpractice suits – hence lower premiums and reduced costs passed on to the consumers of medical services.

So we come to the crux of the matter: How to improve the availability of medical experts to all corners of the land? The 21<sup>st</sup> Century answer is through the Internet. It reaches everywhere, it has prodigious bandwidth, and it might have been invented for this very purpose. Yet the medical industry has only started to explore the concept of telemedicine, including what is commonly referred to as “remote presence.” Simply put, the Internet makes medical specialists available *virtually* anywhere. This is not a new concept and it has been tried before with limited success, although it is only recently that the convergence of technologies has made the application practical. Past experiments with Telemedicine and Remote Presence have not had the benefit of the now widely available increases in Internet bandwidth, nor the tools to support an “ad-hoc,” on-call system to allow medical professionals to be immediately called into case review. Until recently, it

has not been possible to solicit the expertise of a specialist not physically present without advanced preparation, and that would not be considered “on-call.”

After getting past the logistical issues of how to make all the connections work, there remained the issue of how to secure patient privacy. Routine transactions like sharing medical files, such as X-Rays, CT Scans, doctor files, etc., become problematic when transmitted over an Internet that is open to snoopers, with the danger that interception by a third party may result in a law suit for HIPAA rule violations. The U.S. Government has been communicating over the Internet for a long time, using various data encryption techniques, but even the U.S. Government has not had the ability to establish an on-demand, on-call, immediate voice, video and data sharing link -- with the exception of sessions with pre-established and pre-planned end-points.

It’s true that there has been a proliferation of on-line meeting options. Major players include Microsoft and Cisco, through their respective subsidiaries, but their offerings tend to cater for the individual consumer with something less than a sophisticated, weapons-grade security connection. By their very nature, such solutions exist to maximize profits from each cell connected to the network, and as a vehicle to advance the progress of in-the-cloud applications. Newcomer AdriaComm has taken a different approach, with a product named ICUNOW™ that is aimed specifically at the government and healthcare industries, backed by two patents, and designed to place control of online communications under the direct control of the entities in charge (instead of the service providers). It applies the same level of high encryption security for all communications of voice, video and data, and is compliant with HIPAA regulations.

With the AdriaComm solution specialists having access to the Internet can be called into consultation at a moments notice. You won’t be calling a doctor at 1:00 AM in London, England, without some pre-negotiated arrangements, but it is not unreasonable to think that various doctor associations can be formed, where specialists can agree to be on-call, from anywhere in the world, at whatever time is agreeable.

AdriaComm is soon to release an encrypted recording feature that will allow all doctors to record all voice conversations, video and data displays used during a collaborative session, where multiple specialists may be called into conference, on an on-call basis. A documented session of worldwide medical experts, where consensus of opinion is reached, can be a powerful element in malpractice defense cases and in some circumstances can even help to avoid a trial. This kind of global collaboration has not been possible until a technique called “one-to-many” was brought into play, where multiple parties in a secured collaborative telemedicine video conference can each present visual data screens or pictures; furthermore, they each can point, draw, type and interact with other members’ data and video that is being shared

“It like a syzygy,” says Ned Krtolica, CTO for AdriaComm, referring to a phenomenon in astronomy where the alignment of three or more celestial bodies in the same

gravitational system forms along a straight line. “Easy availability of higher speed Internet connectivity, a technology breakthrough in secure point-to-point session control and lastly, the need for the technology.” In practice, the Internet can now be used to alleviate the burdens of defensive medicine while providing a genuine benefit to patients, and without skirting the laws of privacy.

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