MEDarchon

Curbside Consultations and Inter-Institution Secure Messaging: 3 Questions to Consider

Secure messaging applications vendors are trying to meet the need in healthcare of messaging between clinicians at different institutions. Some vendors promote as a selling feature a large provider network of users who use their application, insinuating ubiquity and ease of access to providers. Other vendors enable delivery of messages outside a health system by providing a mobile browser invitation sent via unsecured SMS. A last class of solutions only provide *intra*-institutional messaging and the user must find a work-around (which often entails falling back on non-secure SMS). Does this feature matter and if so, what's the right feature set for a healthcare institution?

No doubt clinicians do seek opinions from other clinicians. In fact, the practice of seeking advice from another colleague without that clinician seeing the patient (termed "curbside consult") dates to at least the 1980s.[1,2] Clinical studies have shown that primary care physicians seek 3.2 curbside consults per week while specialists provide 3.6 per week on average.[3] Not all physicians engage in this practice (in fact, 30% do not) with those in practice longer tending to avoid it. Importantly, curbside consults have historically been more likely to occur in person or by telephone call than by electronic means. Also importantly, only 4% of respondents in a survey of 705 clinicians indicated that they sought curbside consults outside of their medical group or hospital.[4]

Our suggestion is that, before opening unfettered inter-institutional clinician messaging, consider these three questions:

1. Is it the right thing to do legally?
2. Is it the right thing to do financially?
3. Is it the right thing to do for patient care?

Legal Implications

Given the fines and reputational damage associated with security breaches, HIPAA regulations must be the overwhelming concern for healthcare organizations as they are examining communication tools and policies. Without going too far into the weeds of the regulations, it is clear that HIPAA permits an organization to disclose PHI for purposes of "its own treatment…activities."[5] This definition of treatment includes, to some extent, consultation between providers and the referral process. However, providers must take care to ensure that the actions of their physicians meet not only the standards required by HIPAA but also those of any applicable state and local regulations and their own health system's privacy and security policies. HIPAA and the Office of Civil Rights give organizations some latitude in establishing policies that dictate what roles have a need to access data. Many have implemented policies that dictate disclosure of PHI only to those members of the patient's care team, as a means of meeting the HIPAA 'minimum necessary' requirement. Especially in the case of physician consults occurring informally, outside the organization, conflicts can arise between the definition of treatment in the HIPAA regulations and a hospital's interpretation of the minimum necessary rule; and the result of such a conflict could lead to some grey area, and physician confusion regarding the permissibility of the practice.

Therefore, hospitals and healthcare providers should take care to implement a communication tool that not only allows them to comply with HIPAA security and privacy requirements, but also supports their own internal policies of keeping protected health information within the organization or its referral network.

In the case of informal physician consultations, one must also think about the implications of unknown or uncredentialed physicians participating in the care of patients at an institution. As we discuss in question #3 "Patient Care Implications," there is reason to worry about providing unfettered access to an institution's communication platform to any and all outside providers. The physician providing a curbside consult is not generally

considered to be part of the physician-patient relationship and is therefore typically not going to be the target of any lawsuits resulting from said consult (note: that this has not prevented informal consultants from being sued in multiple jurisdictions and risk managers discourage the practice).[6,7]

To be clear, our opinions on this matter should not be taken as legal advice, but we believe the responsibility for, and consequences of, the medical advice given and treatment decisions made as a result of an informal consult will (and should) almost certainly fall squarely on the healthcare institution providing treatment. Ease of communication is essential, but in the healthcare space it is equally as important to have some degree of insight into, and governance over, where and from whom physicians seek advice and information, and with whom they are sharing protected health information.

Financial Implications

The primary financial implication to consider is the cost of potential referral leakage, which is of growing importance in the era of accountable care. A Massachusetts study suggested that physicians may refer as little as 35-45% of their business by revenue to a partner hospital.[8] Mission Point estimates that every percent of leakage prevented equates to $1M in additional revenue for the average health system. Significantly, high margin services such as cardiology, gastroenterology, dermatology and surgery are the most common services sought for curbside consults.[3,4]

In addition to the cost of leakage, we believe one must additionally contemplate the cost of enabling inbound curbside consults if the institution employs physicians. A 2.5 year study in a 1500 bed academic teaching hospital found that the time spent on informal infectious disease consults consumed 0.2 FTEs.[9] As high salaried specialists are typically the role consulted, the costs of the consults can quickly multiply. Interestingly, the authors also determined that the hospital could have generated 77,000€ had formal

consultations been provided. Translating this from its setting in France to America could result in substantially more missed revenue for the average US hospital.

Patient Care Implications

A 2008 European study assessed compliance and impact on patient safety for 627 infectious disease consultations that were provided formally (n=443, 70.7%) and informally (n=184, 29.3%).[10] Importantly, this was a post hoc analysis of a prospective cohort study and was not powered to examine efficacy endpoints. The study found no significant differences between formal and informal consultations on ensuring compliance with recommendations, requiring additional consultations, improving early clinical status, reducing inpatient mortality or shortening length of stay.

However, formal consults did trend toward improving compliance, reducing subsequent consults and shortening length of stay. Unfortunately, almost all (n=181, 98.4%) of the informal consultations occurred in face-to-face or telephone interactions and only three occurred via electronic methods. At best, this study suggests that telephone curbside consults may be safe although this conflicts with other studies in the clinical literature.

A more telling study from Denver Health, examined differences in information completeness and resulting recommendations for 47 hospitalized patients who received both formal and informal consultations. This study found that informal consultations contained incomplete or inaccurate information in 24 of the 47 (51%) cases. Additionally, an independent reviewer found that curbside consults provided different care recommendations than those actually seeing the patient in 29 of the 47 (62%) cases.[11] Importantly, these curbside consults were done orally and better enabled questions than electronic media. This study is consistent with other reports from the clinical literature which have found inaccuracies with information transmitted and flaws in decision making during curbside consults.[12,13,14]

Summary

Our passion is promoting patient safety. From this perspective, the concerns around information completeness and impact on medical decision making are enough to recommend against enabling external curbside consults. While we believe any curbside consult is potentially dangerous, we recognize that it is a standard practice and likely difficult to change. At least with internal curbside consults there is the possibility for the consultant to follow-up in person in the following days. This also helps mitigate some of the other concerns that arise with curbside consults. Some organizations will inevitably still want this, and that is why we enable each organization to customize security settings in QUARC. However, we also believe we can provide a much better answer through our referral messaging system.

About the Authors

Baxter Webb, MBA, BSPH is the Founder and Chief Executive Officer of MEDarchon. He has extensive first-hand experience in healthcare with over 15 years spent in the clinical setting. He is an honors graduate of the UNC School of Public Health and the Vanderbilt Owen Graduate School of Management. Prior to founding MEDarchon, Mr. Webb led research and development activities for two bioinformatics companies: CP Diagnostics and Proventys. In these roles, he managed the largest study funded by the NIH for pulmonary embolism, gained the first CPT code issued to a commercial entity by the American Medical Association, and led a computerized decision support product through the FDA's 510k de novo process. He holds several patents, has presented research at six different national medical conferences, and has published over a dozen peer reviewed research articles.

Robert Shapiro, MD is the MEDarchon Chief Medical Officer. Dr. Shapiro is a summa cum laude graduate of the University of North Carolina and the 2nd Honor Graduate from the Medical University of South Carolina. He completed his residency in internal medicine at the University of Virginia while concurrently completing a Masters of Science in Clinical Research. In addition to guiding the clinical usability and functionality of MEDarchon products, Dr. Shapiro is currently pursuing a fellowship in interventional cardiology from Washington University in St. Louis.

Cassie Fleming, JD, MBA is the MEDarchon Corporate Counsel. Cassie is a graduate of the University of Alabama and the University of Alabama School of Law where she earned a Bachelor of Arts Degree in Economics and a Juris Doctor. She is also a Beta Gamma Sigma graduate of the Vanderbilt Owen Graduate School of Management. Cassie's experience includes project management, HIPAA compliance, risk management, and software licensing. Her legal background is in the field of civil litigation where she saw firsthand how costly missteps at the management level could be to an organization—both to the reputation and to the bottom line.

About MEDarchon

When starting MEDarchon, we looked at the shortcomings of EMRs and engineered our development process in such a way as to avoid their mistakes: we worked with care teams to study clinician workflows and built a solution that fit those workflows while helping to remove inefficiency. We also did extensive research on patient safety to fully understand the role that communication failures play in causing medical errors. As a result, we layered in functionality, usability and analytics designed to prevent medical errors caused by communication breakdown. Lastly, we have priced our solution in an affordable, straightforward manner that makes sense and provides a high return on investment. Quarc is the solution that can help healthcare systems improve the outcomes that matter to the business, to the patients, and to the providers.

MEDarchon Inc.

113 29th Avenue South, Nashville, TN 37212 |

www.MEDarchon.com

Info@MEDarchon.com

---

[1] Lee T, Pappius EM, Goldman L. Impact of inter-physician-communication on the effectiveness of medical consultations. Am J Med 1983; 74(1):106-12.

[2] Golub RM. Curbside Consultations and the Viaduct Effect. JAMA 1998; 280(10): 929-30.

[3] Kuo D, Gifford DR, Stein MD. Curbside Consultation Practices and Attitudes Among Primary Care Physicians and Medical Subspecialists. JAMA 1998; 280(10): 905-9.

[4] Keating NL, Zaslavsky AM, Ayanian JZ. Physicians' Expectations and Beliefs Regarding Informal Consultation. JAMA 1998; 280(10): 900-4.

[5] Summary of the HIPAA Privacy Rule. US DHHS Office of Civil Rights. http://www.hhs.gov/ocr/privacy/hipaa/understanding/summary/index.html

[6] Olick RS, Bergus GR. Malpractice Liability for Informal Consultation. Fam Med 2003; 35: 476-481.

[7] Kreichelt R, Hilbert ML, Shinn D. Minimizing the legal risk with "curbside" consultation. J Healthc Risk Manag 2008; 28(1): 27-9.

[8] Office of the Attorney General. Examination of Health Care Cost Trends and Cost Drivers. June 22, 2011. Available at: http://www.mass.gov/ago/docs/healthcare/2011-hcctd-full.pdf

[9] Denes E, Pinet P, Cypierre A, et al. Spectrum of advice and curbside consultations of infectious disease specialists. Med Mal Infect 2014; 44(8): 374-9.

[10] Sellier E, Labarere J, Gennai S, et al. Compliance with recommendations and clinical outcomes for formal and informal infectious disease consultations. Eur J Clin Microbiol Infect Dis 2011; 30: 887-94.

[11] Burden M, Sarcone E, Keniston A, et al. Prospective Comparison of Curbside Versus Formal Consultations. J Hosp Med 2013; 8: 31-5.

[12] Meyer AN, Payne VL, Weeks DW, Rao R, Singh H. Physicians' Diagnostic Accuracy, Confidence and Resource Requests. JAMA Intern Med 2013; 173(21): 1952-9.

[13] Day LW, Cello JP, Madden E, Segal M. Prospective assessment of inpatient gastrointestinal consultation requests in an academic teaching hospital. Am J Gastroenterol 2010; 105(3): 484-9.

[14] Myers JP. Curbside consults in infectious diseases: a prospective study. J Infect Dis 1984; 150: 797-802.