Professional E-mail Communication Among Health Care Providers: Proposing Evidence-Based Guidelines

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Abstract

E-mail is now a primary method of correspondence in health care, and proficiency with professional e-mail use is a vital skill for physicians. Fundamentals of e-mail courtesy can be derived from lay literature, but there is a dearth of scientific literature that addresses the use of e-mail between physicians. E-mail communication between providers is generally more familiar and casual than other professional interactions, which can promote unprofessional behavior or misunderstanding. Not only e-mail content but also wording, format, and tone may influence clinical recommendations and perceptions of the e-mail sender. In addition, there are serious legal and ethical implications when unprofessional or unsecured e-mails related to patient-identifying information are exchanged or included within an electronic medical record. The authors believe that the appropriate use of e-mail is a vital skill for physicians, with serious legal and ethical ramifications and the potential to affect professional development and patient care. In this article, the authors analyze a comprehensive literature search, explore several facets of e-mail use between physicians, and offer specific recommendations for professional e-mail use.

As of January 2014, 87% of American adults use the Internet.[1] A 2004 study of health care professionals found that 64% use e-mail to communicate with each other for work-related purposes.[2] According to the Pew Research Internet Project, 18- to 29-year-olds are the most frequent e-mail users, so we can expect this figure to increase as more young physicians enter the workforce.[1] Simultaneously, the Internet is becoming increasingly accessible with the rising prevalence of smartphones and portable handheld devices.[3] As e-mail is now a frequent method of workplace correspondence, it is imperative for users to have an understanding of appropriate etiquette and proper professional e-mail use.

Physicians use e-mail for a multitude of purposes: to obtain consults, both formal and "curbside"; communicate with patients; collaborate on scholarly projects; perform administrative duties; and conduct routine communication. E-mail technology also expands the scope of telemedicine, allowing for remote consultation, radiographic assessment, and patient care. Facile e-mail use and appropriate e-mail communication skills are vital to this growing field.

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The Case for Evidence-Based E-mail Guidelines for Physicians

Imagine receiving an e-mail from a colleague. There is no subject line. It is written in all capital letters, uses abbreviations or slang terminology and poor grammar, employs questionable humor, and even includes sensitive patient details. Its origin is from a personal e-mail account, not a professionally affiliated account, and its signature line is more suitable for informal communications than workplace correspondence (see Box 1 for an example). Although this is an extreme example, such an e-mail demonstrates several features that may be deemed unprofessional, and even illegal, while highlighting the challenge of using e-mail in a professional setting.

These issues are of tremendous importance when e-mail is used for communication between physicians and patients. Maintaining a professional rapport through electronic correspondence and ensuring the security and confidentiality of transmitted patient data are paramount concerns. The American Medical Association (AMA) and American Medical Informatics Association (AMIA) recognized these challenges and have published consensus guidelines for physician-to-patient e-mail use.[4,5]

Despite the attention paid to physician-to-patient e-mail use, there are no evidence-based guidelines addressing the use of e-mail among physicians.[3] Many online sources and lay publications promote guidelines for professional e-mail etiquette; however, these guidelines may not address the unique needs of physicians. Serious legal and ethical issues may arise when e-mail is used between physicians that are not fully covered by simple etiquette. Our goal is to briefly summarize the literature relating to professional e-mail use between health care providers, to discuss the challenges of e-mail use within health care, and to offer our recommendations for professional e-mail use.

Developing the Guidelines: A Literature Search

To inform our development of professional e-mail guidelines, a comprehensive search of the literature was performed by one of us, an experienced medical librarian (T.W.E.), using the following databases: Ovid MEDLINE, PubMed (for non-MEDLINE records), Embase, the Cochrane Library, CINAHL, PsycINFO, Communication

Box 1

Before-and-After Examples of Workplace E-mail Communications, Illustrating Unprofessional and Professional Tone and Components

Example 1: Inappropriate use of workplace e-mail

From: doctorawesome@aol.com
To: orthorules@hotmail.com

Hey

THIS IS JOE FROM THE ER. GOT A PT FOR U!! HAHA I KNO U ORTHO DOCS LOVE A BROKE BONE, AND THIS ONE HAS 2 LOL! TIB/FIB FRACS. 60 yo named Ned Carson, fall dwn stairs

Later

Joe

DR. JOE ACULA

ER PHYSICIAN

"A flower cannot blossom without sunshine, and man cannot live without love." —Max Muller

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Example 2: Appropriate use of workplace e-mail

From: EMphysician@hospital.edu
To: orthodoc@hospital.edu
Subject: consultation

Dear Dr. Smith,

Good evening, I wanted to consult you regarding a patient (see encrypted attachment for name and medical record number). He is a 60-year-old male, with a history of hypertension who fell down three steps today at home, sustaining a displaced right tibia-fibula fracture. Please call me directly if you need additional information. Thank you.

Regards,
Joe Acula, MD
General Hospital Emergency Department
555-555-5555

& Mass Media Complete, and Google Scholar. Searches were conducted between October 3 and 12, 2012, and all databases were searched from inception. We also reviewed bibliographies of relevant studies for additional references. Database-specific subject headings and keyword variants for each of the three main concepts—electronic mail, communication, and physicians—were identified and combined (detailed search strategy available upon request). We limited results to the English language, but no other limits were applied. Ultimately, 4,185 titles and abstracts were independently reviewed by two of us (T.M. and J.A.) for relevance. We identified 15 articles that directly discussed interprofessional physician e-mail use: 9 editorials or commentaries and 6 journal articles.

Benefits and Drawbacks of E-mail Use in an Inpatient Setting

We identified three studies that surveyed physicians and nurses using e-mail for communication in an inpatient setting. O'Connor and colleagues[6] performed a survey of providers within an intensive care unit communicating by e-mail over an encrypted cellular network via portable handheld device. Wu and colleagues[7] performed a mixed-method assessment of nursing and physician communication via handheld wireless device on an inpatient medicine service. A third survey-based study by Singarella and colleagues[8] assessed physician opinions on e-mail use and also analyzed the content of e-mails sent. Across all studies, survey respondents reported that response times were more rapid and e-mail was easier to use than alternative methods such as written correspondence, phone calls, and paging. Over 90% of those surveyed by O'Connor and colleagues[6] felt that patient care was improved as a result of e-mail use because of the efficiency of e-mail communication.

Several negative impacts of e-mail use were also identified by survey respondents. E-mail was deemed to be less efficient when subject matter was complex, requiring more than one initial e-mail and reply. There was also frequent discordance between senders' and recipients' perceptions of a message's urgency. Singarella and colleagues[8] noted that e-mail users uniformly assumed a more casual tone and were more apt to make grammatical errors than those communicating by telephone or in writing. The most frequently cited negative impact in these studies was a reduction in face-to-face communication which potentially weakened interpersonal relations.[6–8]

A further concern is the security of transmitted patient information. Although these studies explored the use of e-mail on handheld devices provided by the hospital, none commented explicitly on how these devices were encrypted and secured. None of the studies specify if the messages sent on these devices assume a formal place within the patients' charts or electronic medical records (EMRs). Discussion of a patient's condition with a "casual tone" or in an e-mail fraught with grammar errors is concerning if these e-mails are considered a part of the EMR. If e-mails are not included within the patient record, care must be taken to document these communications when they lead to a change in management plan or affect the patient's clinical care.

The question of e-mail use in the inpatient setting highlights both positive and negative elements of workplace e-mail. In the studies we reviewed, users of e-mail for communication within

inpatient teams felt that e-mail improved their efficiency and had a positive impact on speed and ease of communication. However, issues with professionalism were identified in all three studies. Primary areas of concern were the casual tone of e-mail use, the lack of timely response to e-mails perceived as urgent, and the resulting decrease in verbal communication. We believe that these studies emphasize the need to maintain professional formality in workplace e-mail communications, and we suggest that e-mail should be avoided when the issue is complex or time-sensitive. In addition, when e-mail is used specifically for the purpose of communicating secure patient data, specific hospital guidelines should be in place to ensure the confidentiality of these transmissions and to address the appropriate documentation of these transactions within the patient medical record.

How E-mail Composition May Affect Professional Reputation

Our literature review also pointed toward further consequences of unprofessional versus professional e-mail use. A study of surgery residents published in the *Journal of Surgical Education* sent 100 e-mail examples to physicians in training.[9] The most negatively rated features were the presence of a colored background, atypical fonts, lack of a subject line, and lack of a formal salutation. E-mails containing these negatively perceived characteristics were "likely to result in a negative perception of the sender and delays in response time." Conversely, respondents were more likely to perceive senders as professional and pleasant when they sent e-mails that employed positively perceived features such as a descriptive subject line, formal greeting and closing line, and proper grammar and spelling.

This study demonstrated that attention to e-mail composition is critical to professional reputation. E-mail wording and formatting affected not only the receivers' perception of the sender but also the likelihood of a timely response. Therefore, we recommend that medical students receive training in composing professional e-mails and timely feedback when unprofessional e-mail characteristics are identified. Further, physicians should be aware of poorly regarded e-mail features and strive to avoid them in work-related e-mails.

A Call for Formality

The studies summarized above confirm the importance of appropriate e-mail use and raise crucial issues of basic etiquette, professionalism, patient confidentiality, and legal concerns. The majority of scholarly articles that we reviewed discussing appropriate use of e-mail are opinion based or anecdotal and offer commonsense recommendations for professional e-mail use that address some of the above concerns. These guidelines mirror the common professional e-mail use guidelines suggested in business literature and make intuitive sense. In specific, authors recommend maintaining a high degree of formality when using e-mail for work-related correspondence and note that current e-mail use is predominantly casual.

We believe that observing these commonsense etiquette guidelines and erring towards formality in work-related e-mail communications is best practice. Some specific suggestions relating to formality include avoiding background colors, unusual text patterns, abbreviations, and "emoticons." E-mails should be proofread for proper grammar and spelling prior to sending.[10–17] See Box 1 for a revised e-mail that incorporates these recommendations.

HIPAA, EMRs, and Protected Patient Data

The U.S. Department of Health and Human Services defines protected health information as all "individually identifiable health information" that is stored or transmitted in any form, including electronic.[18] Persons or institutions who fail to ensure the confidentiality of protected health information are subject to criminal penalty. However, the Health Information Portability and Accountability Act (HIPAA) makes no clear specifications as to which privacy features (such as encryption software or secured networks) are considered adequate. This leaves ambiguity in the use of e-mail for transmitting patient data. For example, you may open an appropriately encrypted e-mail within your personal e-mail and then save that message to your inbox or to your personal laptop, or you may inadvertently forward an e-mail containing protected patient data to an unintended recipient. Smartphones and other personal handheld devices present additional concerns—for example, if you bring your hospital handheld device home with you in the evening or check your work-related e-mail in a public location. The privacy of even securely encrypted data is of concern in an age of hacking, computer viruses, and piracy.

The AMIA and AMA attempted to address some of these inconsistencies by establishing guidelines for the use of e-mail in physician-to-patient communication.[4,5] Although these guidelines were not specifically targeted to physician to physician communication, they are the only available evidence-based guidelines that discuss the protection of electronically transmitted patient data. More and more physicians are using e-mail to discuss patient care or to share clinical information; therefore, these guidelines are pertinent to inter-professional e-mail use as well as communication between physicians and patients.[2]

AMIA recommends that printed guidelines should exist within each practice that clearly detail the security mechanisms in place. No correspondence containing protected patient data should occur outside of these established security mechanisms. AMIA further suggests that e-mail should never be left open on a workstation screen, that e-mails containing patient data may never be forwarded without written permission from the patient, and that all e-mails containing patient data be clearly listed as confidential in the subject or top of the e-mail message.

Anecdotal accounts suggest that e-mail containing protected patient data is routinely being exchanged between physicians via e-mail with none of the above safeguards in place. All of us, for instance, have personally received unsecured patient information via e-mail during the preparation of this article. This is clearly a tremendous professional liability as well as a medicolegal risk. We recommend that every institution provide clear guidelines for acceptable methods of transmitting secured patient data via e-mail, based on the AMIA/AMA guidelines, and that physicians take every effort possible to ensure the security of patient data when discussing patients via e-mail.

An additional area of uncertainty is the documentation of e-mail correspondence. E-mail is routinely used within the

workplace for obtaining consults, sharing interesting cases, providing changeover, and discussing general patient care.[2] In the studies of inpatient team e-mail use, the transmitted messages were not necessarily included in the EMR. These undocumented conversations become a concerning "blind spot" within the EMR or paper chart if patient care decisions result from those interactions. In the event that these messages are included verbatim in the EMR, care must be made to ensure that the content is professional and formal in nature, which was not the case in the studies that observed inpatient team e-mail use.[6–8] Additional research is indicated to fully understand the legal and ethical risks of using e-mail for the transmission of patient data and to provide guidelines for appropriate documentation of e-mail correspondence within the patient medical record—electronic or print.

Avoiding the Potential Ambiguity of E-mail

Another concern noted throughout the literature and also addressed in the AMIA/AMA guidelines is the increased potential for misunderstanding when communication occurs primarily over e-mail. With no facial expression, vocal inflection, or opportunity for real-time clarification, elements such as humor may easily be misinterpreted, and an angry or firm e-mail may come across more harshly than intended.

A benefit of e-mail is that it is fast and convenient. The downside to this accessibility is that it is very easy to compose an emotional e-mail in the heat of the moment or a thoughtless e-mail carelessly that may not convey your intended message. The AMIA task force cautions that "irony, sarcasm, and harsh criticism should not be attempted in e-mail messages" because "the impersonal nature and ambiguity of e-mail often results in real or imagined exaggeration of animosity toward the recipient."[5]

The casual nature of e-mail may also predispose clinicians to send offhand or glib e-mails. While unprofessional remarks are never appropriate in a work setting, there is an added danger to expressing these sentiments by e-mail. Comments that once would have been a casual aside now may be stored on a hard drive forever, or within a patient's EMR, or forwarded in error to an unintended recipient. Kane and Sands[5] note that "'deleted' messages containing disparaging, flippant, or incriminating remarks have come back to haunt physicians." It is important for clinicians to be aware that even personal e-mails may be stored on a central hospital hard drive, monitored, or available for retrieval by cellular service providers.

Summary of Recommendations

On the basis of analysis of the available literature as well as our personal observations, we suggest a formal set of evidence-based guidelines for the use of e-mail in a professional setting:

1. Proofread each e-mail for proper spelling, grammar, and punctuation.[11,13,15–17]
2. Use a meaningful subject line that is descriptive of e-mail content.[10,12,13,15–17]
3. Avoid background colors, patterns, all capitals, and unusual fonts.[9–12,14,16,17]
4. Avoid humor that may be misinterpreted.[11–13,15]
5. Don't send an e-mail to the wrong person; be especially careful with reply all and mass forwarding.[11,12,15–17]
6. Don't send emotionally charged e-mails; consider a direct conversation for complex or sensitive topics.[11–13,17,18]
7. Transmit protected patient data cautiously using a private or secured computer or handheld device via an encrypted, secured network. Avoid sending such data to or from a public e-mail service such as Gmail, Yahoo, or Hotmail.[4,5]

Concluding Remarks

The topic of e-mail communication between health care providers has been broadly discussed but, to our knowledge, is underresearched. Our review of the literature did not reveal any formal guidelines or curricula for e-mail use among physicians. Although e-mail is fast and convenient, this accessibility has led to a decrease in formality and increase in errors and unprofessional behavior. E-mail recipients form perceptions of e-mail senders based on the format, content, and tone of their e-mails. An e-mail that is perceived as unprofessional may be less likely to receive a response or may receive a different response than one that follows etiquette guidelines. In addition, serious medicolegal and ethical concerns arise when e-mails contain patient data or unprofessional remarks. The appropriate use of e-mail has the potential to affect one's professional reputation and to influence clinical, and potentially legal, outcomes. The recommendations we make for interprofessional e-mail use are based on the literature review and analysis above.

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