Patient Safety Tip of the Week

June 27, 2017 Texting – We Told You So!

Our May 24, 2016 Patient Safety Tip of the Week "Texting Orders – Is It Really Safe?" and our January 2017 What's New in the Patient Safety World column "Joint Commission Thinks Twice About Texting Orders" decried the use of texting for orders. We lauded The Joint Commission's decision to reverse itself and maintain the ban on texting orders. We identified the following areas of concern regarding texted orders:

- Bypassing clinical decision support tools
- Taking the easy way and avoiding CPOE as a shortut
- Ordering in a vacuum (without important clinical information in the chart that might impact orders)
- Promoting telephone tag
- Failure to allow the recipient to ask appropriate questions
- AutoText/AutoCorrect issues
- Security issues
- HIPAA issues

See those previous columns for details on each of those concerns.

Secure text messaging does have numerous opportunities to improve communication in healthcare and we advocate its use in certain situations (for example, it can be extremely useful in helping to prevent alarm fatigue, though keep in mind the unintended consequences we noted in our February 9, 2016 Patient Safety Tip of the Week "It was just a matter of time…"). But texting also presents problems beyond just orders.

A new study (Luxenberg 2017) looked at a sample of text messages on an internal medicine service at UCSF. They reviewed 575 text-page messages relating to 217 patients. Most of the text messages were from non-physicians to physicians. They identified 3 main problematic themes:

- Lack of standardization
- Range of urgency
- Communication gaps

Lack of standardization was a big problem, particularly as it related to vital signs. For example, a text message might provide a blood pressure reading but no heart rate. Others might have actual blood pressure recordings whereas others simply state "hypotensive". Very few of the text messages used a **structured format**, such as SBAR, that we so often use in handoffs and other communications.

The vast majority (93%) of text messages were non-urgent. But most did not indicate the **degree of urgency** or the **expected response**. For example, some text messages had a tag "FYI" (for your information) but actually asked a question in the body of the text message for which a response was expected.

Other features of texted messages left gaps in communication. For example, use of **uncommon abbreviations** is a concern (eg. "prn hydral given"). Also, some text messages were **missing words** or used **odd syntax**.

In 2015, Nguyen and colleagues did a systematic review of the literature on use of technology for urgent clinician to clinician communications (Nguyen 2015). The technologies included 2-way pagers, smartphones, email, and blogging. They did find high rates of satisfaction following implementation of the new technologies and smartphones were generally perceived more favorably than 2-way pagers. However, there was scant evidence for actual improvements in patient care. They also identified some barriers and downsides to use of these modalities, including:

- In some cases, it was too easy for personnel to send messages
- Often the messages were not truly urgent
- There were significant delays for some modalities, depending on the system on which the messages are sent
- Nurses often felt there was a reduction in face-to-face contact and, hence, less opportunity for meaningful communication and clarification
- Some clinicians felt a loss of autonomy
- Messages that went both to housestaff and attendings simultaneously were sometimes perceived as reducing housestaff responsibility
- Shifts in culture were required
- Some, particularly older physicians, had a relative lack of understanding of the technology systems

In the editorial accompanying the Luxenberg study, Mandl and Khoon (Mandl 2017) note that "health care team members tend to overuse these modalities, even when nonsynchronous communication would suffice. Notably, this problem, recognized for decades within medicine, has been amplified throughout society, as people spend their days and nights interrupted by Facebook messenger, email, texts, and Snapchats." They do, however, note that there may be help on the horizon. They discuss how technologies such as natural language processing (NLP) and voice recognition may improve the ability to make such communications both more structured and more relevant.

We've all seen how the 140 character limit on Twitter can result in **communications taking place void of context**. And there is no doubt that texting has become so easy that we often do it without adequately considering the consequences. So we need stricter rules about what sorts of information are appropriate for texting and platforms that provide some structure to those communications.

In our May 24, 2016 Patient Safety Tip of the Week "Texting Orders – Is It Really Safe?" we warned that some orders may be given without adequate background on the patient's

condition or lab values. One of the text messages in the Luxenberg study was "Advise; May I have a 24 h extension on patient's IV?" Even assuming that the text somehow provided the correct identification of the patient, how can a physician safely answer that question without more detailed knowledge about that patient?

And one issue not addressed in any of the studies mentioned above is whether texting actually might increase telephone time. We suspect that the terse nature of text messages might actually lead to **telephone tag** since clarification of some questions and responses may require such phone communication.

We also suspect that the issue of **dangerous abbreviations** will become a significant issue if texting becomes widespread. The character limitations will undoubtedly lead to attempts to shorten words (for example, drug names) or otherwise use abbreviations that should not be used. Theoretically, a good secure texting platform might incorporate mechanisms to prevent some dangerous abbreviations but, frankly, there are simply too many possibilities for complete capture.

Lastly, don't be surprised if rudeness and lack of respect begin to appear in texted messages. We certainly see that people say things online that they would never say in face-to-face interactions. And then there's the issue of what becomes **part of the medical record**. Our take is that any text message handled in a hospital's formal secure texting system would be captured and become part of the electronic medical record. So a physician's annoyed response "why are you interrupting me with that!" now becomes part of the record that might later become discoverable during a malpractice action.

See some of our other Patient Safety Tip of the Week columns dealing with unintended consequences of technology and other healthcare IT issues:

- June 19, 2007 "Unintended Consequences of Technological Solutions"
- May 20, 2008 "CPOE Unintended Consequences – Are Wrong Patient Errors More Common?"
- June 17, 2008 "Technology Workarounds Defeat Safety Intent"
- August 26, 2008 "Pattern Recognition and CPOE"
- September 9, 2008 "Less is More….and Do You Really Need that Decimal?"
- December 16, 2008 "Joint Commission Sentinel Event Alert on Hazards of Healthcare IT"
- February 2009 "Healthcare IT The Good and The Bad"
- March 3, 2009 "Overriding Alerts…Like Surfin' the Web"
- October 2009 "A Cautious View on CPOE"
- November 24, 2009 "Another Rough Month for Healthcare IT
- April 20, 2010 "HIT's Limited Impact on Quality To Date"
- March 22, 2011 "An EMR Feature Detrimental to Teamwork and Patient Safety"
- January 24, 2012 "Patient Safety in Ambulatory Care"
- June 26, 2012 "Using Patient Photos to Reduce CPOE Errors"
- June 2012 "Leapfrog CPOE Simulation: Improvement But Still Shortfalls"

- July 17, 2012 "More on Wrong-Patient CPOE"
- January 2013 "More IT Unintended Consequences"
- April 30, 2013 "Photographic Identification to Prevent Errors"
- October 8, 2013 "EMR Problems in the ED"
- March 11, 2014 "We Miss the Graphic Flowchart!"
- October 2014 "Ebola Exposes Fundamental Flaw"
- January 2015 "Beneficial Effect of EMR on Patient Safety"
- March 2015 "CPOE Fails to Catch Prescribing Errors"
- March 31, 2015 "Clinical Decision Support for Pneumonia"
- August 2015 "Newborn Name Confusion"
- December 2015 "Opioid Alert Fatigue"
- January 12, 2016 "New Resources on Improving Safety of Healthcare IT"
- January 19, 2016 "Patient Identification in the Spotlight"
- February 9, 2016 "It was just a matter of time…"
- April 5, 2016 "Workarounds Overriding Safety"
- May 2016 "Name Confusion in the Pharmacy"
- May 3, 2016 "Clinical Decision Support Malfunction"
- May 24, 2016 "Texting Orders – Is It Really Safe?"
- August 23, 2016 "ISMP Canada: Automation Bias and Automation Complacency"
- November 22, 2016 "Leapfrog, Picklists, and Healthcare IT Vulnerabilities"
- January 2017 "Joint Commission Thinks Twice About Texting Orders"
- February 28, 2017 "The Copy and Paste ETTO"
- March 2017 "Yes! Another Voice for Medication e-Discontinuation!"
- April 2017 "How Much Time Do We Actually Spend on the EMR?"

References:

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Mandl KD, Khoon E. Pagers and Beyond in an Era of Microcommunications—What Is Old Is New Again. JAMA Intern Med 2017; Published online June 19, 2017
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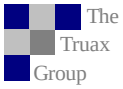

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