



Aging in Place Technology Watch
Extending Your Knowledge and Reach



**Creating a Circle of Caring
Text with Vaporstream®**



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A GROWING CHALLENGE: CARE PROVIDER AND RECIPIENT COMMUNICATION

In the late stages of life or during a health crisis, too often individuals with complex health care needs are provided care within a fragmented and poorly coordinated delivery system.¹ There are visible communication gaps between and among well-intended professionals – physician, specialist, nurse, aides, pharma and payers. This communication gap can harm and confuse the consumers of health and care services – the family members, other care providers and the patients themselves. Urgency may mandate a rapid response, but regulation and volume overwhelm the participants and produce a permanent and poorly managed trail – that may not be HIPAA compliant and worse, may be out of date by the time a message is read. The unfortunate result includes:

- **HIPAA violations.** Over 30% of doctors have received Personal Health Information via text messaging, violating HIPAA, and inadvertently leaving a trail.²
- **Delayed response.** Email's store and forward paradigm results in too little read, and what is seen can be read far too late. From a patient's perspective, email access is particularly limited. A few years ago, a Harris poll reported that only 12% of consumers had email access to their physicians and further, email is not always secure.³
- **Missed feedback opportunities.** Only 28% of doctors have portals to share information with patients, and only 15% of those recently surveyed use email to communicate with patients.⁴



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- **Communication risks.** Pagers (and their associated costs) are still in wide use in hospitals for a variety of reason, including low cost, reliable networks, and one-way limited purpose. In comparison, smartphone use presents hospitals and staff with multiple risks, today, including data breaches and unprofessional sharing of information between staff members. ⁵

Plain Old Text Messaging (POTM) is outdated and inadequate

Benefits of use of text messaging as a direct-to-recipient health guidance tool has been the subject of [white papers](#) and initiatives related to pediatrics, [maternal health](#), and behavioral modification, such as [smoking cessation](#). But in the context of care providers communicating among themselves and with consumers, the benefits can be outweighed by risks and problems. Like **POTS** (Plain Old Telephone Service) via voice carriers, Plain Old Text Messaging (POTM), typically SMS via a smartphone, is not only plain. POTM is not secure and is unmanageable for communication among groups – with risks to participants from content expiration and sharing of sensitive personal health information (PHI), personally identifiable information (PII) and medical images. What are the issues with using POTM?

- **Liability.** POTM can be a liability issue associated with inadequate control of text messages – including sharing too much information without adequate controls and failing to delete information whose use has expired. The fine for a single violation of HIPAA, for example, is \$50,000. ⁶
- **Confusion about legitimacy.** As with consumers, professionals value the convenience and immediacy of text messaging. [Nielsen Survey conducted in 2015](#) indicated doctors may have been reluctant to admit to its use, even for appointment or medication-related

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reminders. But policy makers have been uncertain about its use for medical orders. Recently, however, the Joint Commission, which accredits health care organizations, approved the use of secure text messaging platforms.⁷ Despite technology evolution, and a variety of vendors that meet or exceed the security requirements established by the commission, the CMS reversed the position in January 2017, citing the level of security was ‘unclear’ for the use of text messaging medical orders.⁸

Consumers want to participate in critical discussions about care

Patients and their families are already participants in the digital age – and they want to extend that to greater engagement with their care providers.⁹ But there is a gap between the consumers’ interest and willingness to use electronic tools with their physicians – and the physicians’ own willingness.¹⁰ Would the use of secure text messaging help close that communication gap?

- **Why do providers text?** Text messages have a 98% open rate and a 45% response rate, according to recent studies. According to Johnson & Coker report, this is because 80% of doctors are carrying smartphones and find text messaging simple and quick to use, text messaging has become a privacy and data sharing point of contention in care delivery.¹¹
- **Families would like to text with providers of care.** But at times of health crises, the family is shut out of that circle of instant communication with care providers. And members of the care circle for that family have few tools to help them stay up-to-date without jeopardizing data privacy and security. Extending the use of text messaging to family caregivers and care recipients is increasingly viewed as necessary. With 10,000

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Baby Boomers enrolling in Medicare daily, home-based care spending is expected to grow more than 70% in the next three years and those baby boomers are bringing their consumer habits and demands with them – including their growing use of smartphones.¹² But using consumer-grade tools further exposes security and privacy risks.

- **Vulnerabilities abound in consumer-grade tools.** These all enable instant messaging group participation, including native SMS text, [Google Hangouts](#), [WhatsApp](#) (part of Facebook), [Facebook Messenger](#), and [iMessage](#). But the risk is in deployment, as with WhatsApp, failing to provide appropriate enterprise-grade security and related compliance needs.
- **Policy clarifications about securing text messages are necessary.** Because of the growing popularity of text messaging as a care provider/delivery tool, policy organizations attempted to issue recommendations to consider use of secure text messaging platforms. In 2013, HIPAA Texting Rules were updated and an FAQ was produced.¹³ By late 2014 HIPAA Journal published an update to explain the way in which secure text messaging could improve compliance with HIPAA.¹⁴ Further clarification is necessary and should require secure text when using text messaging to communicate PHI.

Beyond POTM – Securing the Circle of Caring Text

Participants in a communication exchange among care providers, payers and with care recipients and families should expect more from texting technology. Instead of traditional texting, participants should seek a **Circle of Caring Text** – a defined care-related community of participants/users whose



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communications are well-managed, secured, safeguarded and appropriately deleted as necessary and defined through a smart software platform. This Circle of Caring Text as supported by Vaporstream® offers these secure text messaging and management capabilities, enabling collaboration and communication in a secure and compliant manner at the point of care. In comparison to POTM, the Vaporstream Secure Messaging platform enables providers to (See **Figure 1**):

- **Communicate with Confidence:** Collaborate in real time to share knowledge, make decisions and provide superior care.
- **Safeguard Data:** Messages are streamed through the cloud. Encryption in transit and at rest eliminates the chance of PHI/PII and IP exposure.
- **Maintain Control:** The provider is in complete control of content, how messages are used and the conversation at all times. The sender has the ultimate ownership, able to shred or vaporize a message on demand from all devices.
- **Ensure Privacy:** Recipients cannot save, copy, print, forward or share texts, preventing the unintended use, proliferation or storage of information from occurring to ensure patient privacy is always maintained
- **Own Content Expiration:** Texts are ephemeral by nature and self-destruct automatically based on organizational policies, removing them from all devices.
- **Stay Compliant:** Archive a single instance of messages to YOUR “repository of record” to ensure a complete record is maintained for compliance purposes and continued access.



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Plain Old Text Messaging (POTM)	VAPORSTREAM SECURE TEXT
Messages are transmitted in the clear	Messages encrypted and streamed through the cloud
Control is lost once Sender hits send	Healthcare providers/senders control content and use at all times
Privacy of messages is not guaranteed	Recipients cannot save, copy, print, share or forward
Content is not managed and lives forever	Content has expiration settings
Content may not be compliant or archived	Content is archived in repository of record

Figure 1

The Circle of Caring Text: Example scenarios for use of Vaporstream

1. **Vaporstream for Hospice Care Scenario:** Doctor initiates a text conversation about the patient status and next steps in an end-of-life circumstance, and extended family and health providers communicate treatment steps and condition changes during end-of-life in-home hospice care, long-term care or hospital stay. For example (sample text stream):
 - **Doctor-to-charge-nurse:** Here is the new prescription for pain-medication you requested.
 - **Nurse to primary family member:** We have updated the pain medication and your mother will be resting comfortably now.
 - **Primary family member to nurse:** Thank you! I will be in later today to visit.
 - **Primary family member to siblings:** We've updated Mom's pain medication and she is not in any pain.



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2. **Vaporstream for Home Health Scenario:** Visiting nurse examines patient at home and finds a new wound from a fall, takes a picture with the in-app camera. Follow-up includes collaborating with a physician on appropriate treatment plan and communicating with family members about the visit and change in care.
3. **Vaporstream for Home Infusion Services Scenario:** Administrator contacts doctor to confirm prescription for TPN nutrition. She then coordinates with specialty pharmacy on delivery, home-bound patient and visiting nurse for next appointment.
4. **Vaporstream for Senior Care Scenario:** The local family member invites long-distant family members into updates about changes in a care recipient's circumstances, including: updates on the individual plan of care, changes in medication, whether resident is eating meals with or without assistance; or whether resident is up and about walking, in physical therapy or has any other changes in mobility.



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Summary

There are visible communication gaps between and among well-intended professionals – physician, specialist, nurse, aides, pharma and payers. This communication gap can harm and confuse the consumers of health and care services – the family members, other care providers and the patients themselves. Vaporstream® enables the owners of the original text message to remain in control of conversation and the data that may be included within it. Care provider and payer organizations will better serve their constituents and customers by deploying Vaporstream® to truly provide a ‘Circle of Caring Text.’



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About Vaporstream

Vaporstream® empowers long term and post-acute care organizations (LTPAC) to securely leverage the efficiencies of modern day mobile messaging while ensuring the protection of sensitive information, compliance and confidentiality.

Built by compliance and security experts with over 30 years of experience in the content management industry, Vaporstream Secure Messaging provides a secure, ephemeral and compliant text messaging solution that enhances mobility, information governance and compliance initiatives. LTPAC organizations can now securely embrace text messaging to safely improve efficiency, ensure compliance and increase patient engagement.

Recognized for its patented ephemeral messaging platform and advanced security, Vaporstream's SaaS-based application offers the robust feature set and best-in-class infrastructure needed to meet the most complex requirements. With expertise serving regulated industries, Vaporstream enables healthcare organizations of all sizes to provide an improved care team (and patient) experience and more importantly - superior patient care - without jeopardizing security or compliance. To find out more, go to www.vaporstream.com.



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Footnotes

¹ <http://healthaffairs.org/blog/2017/02/14/lets-work-together-to-improve-care-for-older-adults-with-complex-needs/>

² <http://www.hieanswers.net/numbers-secure-text-messaging-market>

³

http://www.slate.com/articles/technology/future_tense/2014/06/telemedicine_e_visits_doctors_should_start_using_email.html

⁴ http://accountablecaredoctors.org/wp-content/uploads/2015/11/CAPP-SHP-Consumer-Survey_Full-Presentation_103015.pdf

⁵ <https://www.healthcare-informatics.com/news-item/study-90-percent-hospitals-still-use-pagers-and-overpay-maintain-legacy-technology>

⁶ <http://www.hipaajournal.com/texting-violation-hipaa/>

⁷ <http://mhealthintelligence.com/news/joint-commission-ends-text-messaging-ban-for-clinicians>

⁸ https://www.jointcommission.org/assets/1/6/Clarification_Use_of_Secure_Text_Messaging.pdf

⁹ <http://catalyst.nejm.org/patient-satisfaction-consumer-measurement-bedside-manner/>

¹⁰ <http://www.healthpopuli.com/2016/03/15/growth-digital-patient-engagement/>

¹¹ <http://hitconsultant.net/2012/06/05/texting-a-do-or-don%E2%80%99t-for-doctors/>

¹² <https://www.emarketer.com/Article/Majority-of-Baby-Boomers-Now-Own-Smartphones/1014927>

¹³ https://www.sdcm.org/Portals/18/Assets/pdf/HIPAA_Omnibus_Compliance_FAQ.pdf

¹⁴ <http://www.hipaajournal.com/secure-text-messaging-in-hospitals/>