

The Missing Link in Clinical Communications: the Patient

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Maintaining effective communication across the spectrum of care is crucial to the quality and efficiency of care delivery, yet communication disconnects plague the healthcare industry. Poor clinical communication has been a prime cause of medical errors as detailed in successive Institute of Medicine reports. The problem may be far worse - a report by Johns Hopkins School of Medicine lists medical errors as the third leading cause of death in the U.S.¹

The clinical communication problem is twofold: first, there is a failure to maintain a closed-loop channel of clinical communication between stakeholders of the care continuum. Those communication gaps may occur within the enterprise (between clinical departments), during handoffs to ancillaries and external stakeholders (for example labs and independent physicians), and between organizations that share responsibility during the course of patient care.

The second aspect of the problem is perhaps the more urgent - failure to communicate effectively with the patient. The causes are several fold: mixed electronic data formats that fail to convey critical patient information internally; ineffective communication channels and data formats between unrelated clinicians (particularly with free text); and a lack of ownership of the patient across the chain of clinical data custody.

The failure of closed-loop, peer-to-peer communication is a well-documented problem, the issue of ineffective or absent patient communication less so. It is not an intractable problem, and it should not be allowed to jeopardize patient outcomes. Although many states have enacted patient "Bill of Rights" legislation, there remains a huge disconnect in the provider-patient dialogue. The standard of care is simple: provide a mechanism that allows providers to share critical information with patients - as soon as patients need to know. But today, communication isn't happening. A survey of family

medicine physicians found that errors in communication accounted for 70% of all errors in that specialty², and in another survey 30% of physicians reported that they did not always notify patients of abnormal results.³ Quality of care isn't the only consequence - communication problems are a causative factor in up to 80% of medical malpractice cases.⁴

Every transaction-based industry in the country - including shipping companies like FedEx and UPS, airlines like Delta and United, retailers like Walmart and banks like Wells Fargo - assign each transactional event with a unique "confirmation" number to identify, track and manage all activity related to that event. The confirmation number streamlines processes, tracks each event across handoffs, removes bottlenecks and eliminates errors. All advanced industries manage and communicate transactional activity via this same method - except for healthcare.

Medical communications are a generation behind any other mature industry. It is a crippling, industry-wide flaw that has consequences for workflow, duplication and waste. It is a leading contributor to medical errors, care mis-coordination and provider and patient frustration. It consumes scarce capital. Minimizing these communication disconnects among clinical team members could directly reduce medical errors, increase patient safety and improve healthcare quality.

To illustrate the problem, consider a typical chain of custody - and the communication disconnects that often occur - with medical test results. Today, healthcare has no chain of custody mechanism to associate a Lab, X-ray, Pathology, or Surgical report to a patient communication or outcome. It is impossible to communicate codified recommendations with current EMR, LIS (Lab Information Software), and HL-7 documents. There is no digital solution via current interoperability standards like HL-7 (Healthcare Software industry standard) or SMART on FHIR for a pathologist to send

a recommendation for further treatment or for a radiologist to communicate that a patient may have cancer and needs further evaluation. There is no way to link patient communication to a specific report or event - it can only be linked to a proprietary EMR patient number - and even a link to an EMR patient number does not affirm complete communication.

Medical communications are fertile ground for standards, but existing standard types do not deliver closed-loop functionality. Today's patient record is an accumulation of activities and transactions between clinicians, patients, and insurers. The data generated may contain both coded and uncategorized information - including free text and images. There are vocabularies that provide specific codes for clinical concepts such as diseases, problem lists, allergies, medications, and diagnoses that might have varying textual descriptions in a paper chart or a transcription. Examples of terminologies are LOINC for lab results; SNOMED for clinical terms; and ICD for medical diagnoses. But there are no corresponding codes or unique identifiers to track medical communications that do not conform to a standard lexicon - things like chain of custody, alerts, notes, recommendations, and instructions. These unstructured communications often detail critical information about lab results, radiology imagery, or professional assessments. However, too often this information fails to be effectively shared and acted upon, and at the end of this broken information loop is the patient. Pat Godbey, MD, CEO of Southeastern Pathology Associates, explains: "in addition to the threat to quality of care, these communication gaps with the patient generate unnecessary workflow, avoidable liability and litigation, and irreparable harm to the doctor-patient relationship. The problem isn't one of omission - it's a failure to manage communication across the chain of custody - from diagnosis, to testing, to reporting of results, to sharing recommendations and alerts, and finally,

to making sure that treatment-critical information is shared with the patient - and these gaps are occurring far too often“.

So how can we fix this?

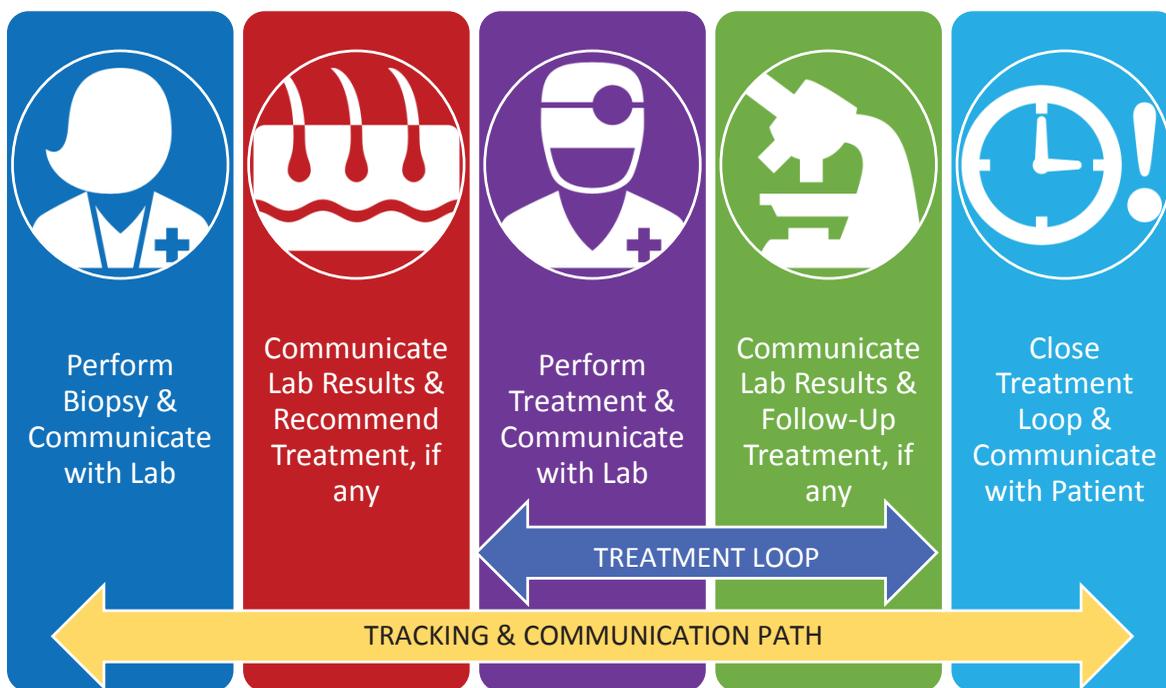
Here’s how:

First, we must recognize top-down solutions to data and communication integration in healthcare have been spectacularly unsuccessful - enterprise systems have proven to be incapable of establishing enterprise-wide closed-loop communications. The solution must

the unique confirmation number, and featuring specimen tracking, confirmation of results delivery, patient notification, follow-up and treatment completion.

In addition to the confirmation code, codes like HL7 must be redesigned at the department level to enable clinicians (like pathologists and radiologists) to attach “recommendation codes” reflecting their interpretation of the data and what is needed next for the patient. Using the confirmation code for each event enables the ordering physician or specialist to communicate both collaboratively and

treatment. Using a mobile App, patients can track the location of their specimens in real-time;” receive the results of lab tests with recommendations and be notified if additional treatment or surgery is needed. Every step of the lab-test-life cycle has time metrics built in to notify the patient, physician, pathologist or medical team when each cycle has been completed or if a task has not been completed. The result? No missed handoffs or alerts, closed loop information sharing, patients who are “in the game” and actively engaged in their treatment program.



proceed from the source - at the outset of a clinical event - and must address the complete array of inputs to each event. We can demonstrate the effectiveness of this solution with a common - but deeply flawed process: specimen tracking.

To enable complete, longitudinal clinical communication, a unique confirmation number must be created for every event that yields a pathology specimen. This clinical identification number can be shared among EMRs, Labs, Radiology, and patients on a web-based platform - delivering true clinical data interoperability. But given the constraints of vendor parochialism and legacy systems, this cannot be generated at the EMR level and to be effective must be shared throughout the care continuum. A web-based quality assurance system is ideal, based on

with the patient - clearly and succinctly - and at the same time to track every movement and location of specimens, imagery and test results.

With the confirmation code as a catalyst, patients are:

1. notified of every medical result or concern;
2. presented with the pathologist’s findings and recommendations;
3. advised when to schedule additional treatments or surgery, if needed;
4. informed that the treatment and surgery loops are closed.

Using such a web-based quality assurance system, hospitals, physicians, medical service agencies, and healthcare systems can assess in real-time the completeness for every patient communication and

When the lab, insurance carrier, patient, and practitioner share a common information protocol, it will change the calculus of clinical communication. Boutique, scalable, purpose-built solutions like the confirmation code will yield fewer communication errors and thus lower malpractice cost. However, the real value lies in an integrated engagement solution which transforms complex clinical information into easily understood concepts that promote action - in some cases life-saving action. The true beneficiary is the patient - a simple solution like the confirmation code enables the patient to follow through with medical recommendations, self-manage a chronic medical condition, and adopt healthy behaviors. ~

About the authors:

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