

EFFICIENT DIGITIZATION OF MEDICAL RECORDS



A prerequisite to delivering patient-centered care in the post-HITECH era

If nothing else, the Health Information Technology for Economic and Clinical Health (HITECH) Act and the Meaningful Use incentives that stemmed from it have had a significant impact on the adoption of electronic medical record (EMR) systems by healthcare organizations. According to [HealthIT.gov](https://www.healthit.gov), 96 percent of all non-federal acute care hospitals, including 99 percent of large hospitals (more than 300 beds) and 97 percent of medium-sized hospitals (more than 100 beds) now use EMR technology. So that means paper is a thing of the past in healthcare, right? Hardly. Despite the move toward digitization, paper is still a fixture in all corners of a healthcare enterprise — especially in the health information management (HIM) department.

EMRs have only gained widespread use within the past decade. Prior to that, paper medical charts were the norm. Many of these historical charts continue to be stored and maintained by health systems for compliance purposes. Moreover, many of these historical records have yet to be connected to and reconciled with the existing electronic records for the same patients.

In addition, just because a hospital leverages EMR technology doesn't mean it extends to every aspect of the facility's clinical operations. It also has no bearing on the paper practices of that hospital's care partners.

For example, the physician groups, physical therapists, psychiatric care providers, home care and long-term care facilities hospitals work with may still use paper-based processes. Therefore, clinical documents including referral letters, clinical narratives, treatment notes and more are often sent to hospitals in paper form.

According to a recent IDC report¹, the top reasons hospitals, clinics and healthcare organizations keep using paper include:

- **Incompatible document management systems or technology** – most notably between the organization and outside facilities – leaving default paper processes as the most appropriate workaround.
- **Workflows that still require paper documentation**, most notably patient check-in forms, records requiring signatures, consent forms and many others.
- **Prescriptions and pharmacy records**, the majority of which remain paper-based. For instance, only 10 percent of responding hospitals indicated that prescriptions were electronic.
- **Faxes**. Hospitals report they still receive and send up to 1,000 pages a month by fax. Interestingly, these hospitals report that while faxing may be an antiquated technology, many are behind in implementing new technology and have to keep focusing on what works for them.

THE HIGH COST OF MAINTAINING PAPER

So, paper is still a reality in healthcare — and a costly one at that — from both a monetary and quality-of-care perspective. For example, according to [TriplePundit](#), the average four-drawer filing cabinet costs about \$25,000 to fill and \$2,000 annually to maintain. These costs, combined with the manual labor required for the search and retrieval of paper files means the average hospital spends approximately \$1.6 million per year to manage and store paper records.

Paper is also a key contributing factor to the astronomical administrative costs that inflate U.S. healthcare spending. According to a [popular study](#) by the *New England Journal of Medicine*, 25 percent of all U.S. hospital spending consists of administrative costs. That equates to more than \$294 billion per year and \$1,059 per capita.

The HITECH Act may also make it costlier for healthcare providers to maintain paper records. In the past, hospitals had the option of charging patients for copies of their medical records. However, the Act now places clear limitations on this practice. Only reasonable cost-based fees can be applied such as labor for copying, supplies and postage. Hospitals can no longer charge for search and retrieval, documentation or review.

While significant, the monetary costs of managing paper may actually be the lesser of two evils. Maintaining disparate paper and electronic records for the same patient can lead to a fragmented medical history that can impact clinical decision making and care.

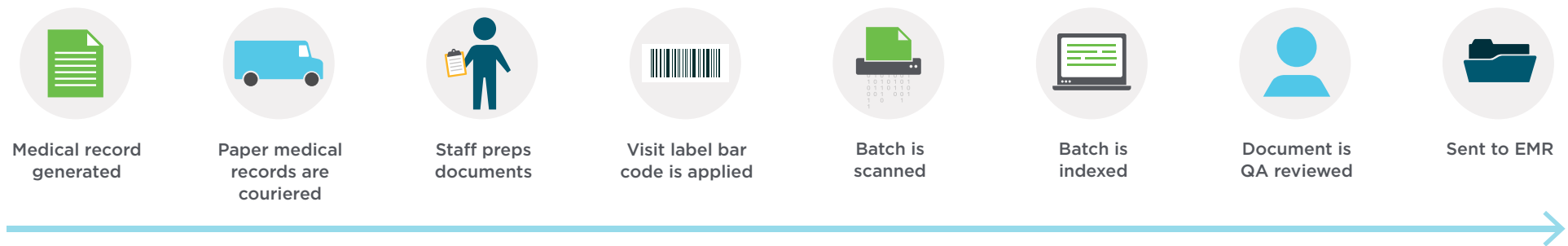
Johns Hopkins patient safety experts found more than 250,000 deaths per year (or 10 percent of all U.S. fatalities) are attributed to medical errors, making it the third leading cause of death in the country. What percentage of these deaths may have been the result of incomplete, missing or inaccessible patient information? One can only speculate.

TRADITIONAL DIGITIZATION PRACTICES FALL SHORT

Many health systems realize the importance of digitizing paper healthcare documents and getting this information into the EMR. In most instances, this effort falls to the healthcare information management (HIM) department as part of its responsibility for maintaining the legal medical record at a hospital or healthcare organization. The problem is, oftentimes the digitization practices employed by these healthcare facilities are laborious, time-consuming and error prone in their own right.

For example, digitization requires manual sorting, batching and scanning. Many healthcare facilities even manually index and classify documents (according to document type, patient and visit). It takes a human an average of 40 seconds to read and determine what a medical document is, let alone manually enter indexing information. Both of these manual processes are also highly susceptible to human error. Finally, the HIM department usually reviews each scanned document for quality assurance (QA) prior to making it available in the EMR.

The following figure illustrates a common document imaging workflow:



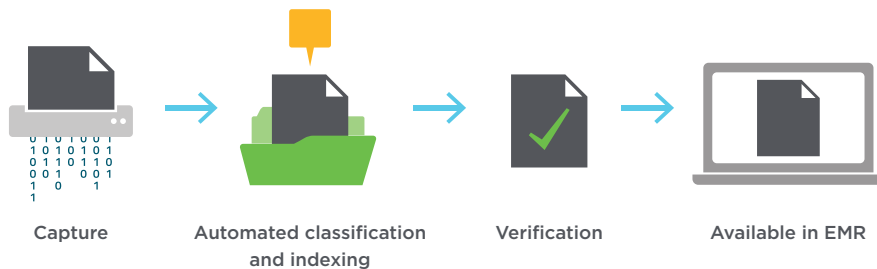
Again, the number of manual steps included in this workflow leads to a slow and inefficient process.

INTELLIGENT CAPTURE AND CLASSIFICATION AUTOMATE KEY DIGITIZATION STEPS

Luckily, intelligent data capture and document classification solutions are available to help automate many of the manual steps that can bog down the digitization process. [Modern intelligent data capture](#) solutions can capture, process and transform virtually any type of paper-based or digital document into useful and actionable information. By leveraging pattern-based recognition algorithms, these systems can learn from multiple data sets to continuously improve their accuracy and performance.

Intelligent data capture and extraction can be used to streamline the indexing process by automatically populating key indexing fields. Similarly, intelligent document classification technology helps automate the process of identifying and categorizing key document types. These solutions use optical character recognition (OCR) and pattern-based logic to automatically classify medical documents by identifying the key content characteristics (e.g. keywords, semantics, document layout, etc.). Any documents that can't be confidently identified by the software are placed in a folder for manual exception processing.

Intelligent classification technology can identify medical documents in as little as five seconds, as opposed to the 40 seconds it takes humans. This accelerated workflow, saves time and money while improving accuracy and consistency. The following figure illustrates the streamlined digitization workflow that can be achieved using intelligent classification:



With intelligent document classification, you'll:

- Automate key steps in the process, from scanning and delivering the image via workflow to exporting extracted data to the appropriate clinical or business system
- Extract much of the data needed to process any medical document
- Drastically reduce the need for exception handling and error correction
- Remove the most time-consuming steps related to document preparation and scanning
- Eliminate entry points for human error while cutting labor costs associated with manual processing
- Create consistent standards and rules to govern medical document types



Improve classification accuracy



Speed up classification time to EMR



Standardize content classification

In addition to these process benefits, intelligent document classification also provides several operational efficiencies. For example, a streamlined classification workflow can help shorten patient length of stay, reduce labor costs and improve the visibility of patient information to improve clinical decisions and outcomes. Perhaps most importantly, helping healthcare organizations slash the time they spend on medical records digitization gives staff members more time to devote to tasks that have a more direct impact on patient care and the overall patient experience.

ABOUT HYLAND HEALTHCARE

Benefits of [Hyland's medical records classification](#):

- Maintain existing architecture - no additional HL7 interfaces or import/export
- Workflow - leverage existing OnBase capture
- Imaging services - Hyland experts available to assist in indexing/verification
- Reporting capabilities - report on entire capture process
- Expand solution to enterprise - AP, mailroom, etc.

Learn more at [HylandHealthcare.com](https://www.HylandHealthcare.com)

Sources

1. IDC, Paper Volume In Hospitals Survey, November 2016

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