

Kofax White Paper

Electronic Health Records

End-to-End Document Capture is Key to Health Care

Health care organizations and governments around the globe are facing an unprecedented need to improve health care quality and cut costs at the same time. Historically, the health care industry has been viewed as and acted very “local”; based on economic, cultural and regulatory standards. But today, even with regional differences, the challenges of health care organizations are increasingly similar, and common themes and threats are becoming more and more obvious: cost, quality and transparency.

Undoubtedly, the globalization of health care has begun, with the industrialization of health care about to take off. Over the next decade, as in other industries, best practices based on regional initiatives will emerge and be adapted globally, such as health record management, access to information or care programs, funding models and innovative technologies. These emerging practices will be targeted at ensuring safe, quality health care and reducing cost, and will encompass governments, hospitals, health plans, health care institutes, health care payers and service organizations around the world.

These changes are occurring at a time when patients have more and better access to health information than ever before through Internet-enabled cell phones, computers or handheld devices. Patient-to-patient interactions are increasing via social

networking platforms and Web sites that enable patients to share their experiences and information about diseases. Some Web sites even provide access to health care services at home by Web or telephone.

This growing consumer access to a wide variety of health care resources is creating pressure to create electronic health records (EHRs) and electronic medical records (EMRs), making all relevant patient information accessible at the point of care. EHRs and EMRs are becoming more common, thanks to large investments by key players. For example, Microsoft Corp. offers HealthVault, and Google launched Google Health. Both products allow users to manage their personal health records and other information online—once they have been transformed into electronic format.

Governments are also creating pressure and incentives to adopt EHRs and EMRs. In February 2009, for example, United States President Barack Obama signed the Health Information Technology for Economic and Clinical Health (HITECH) Act as a part of the US economic stimulus package. To qualify for funds under this Act, providers need to show “meaningful use” of EHRs, which must include patient demographic and clinical health information (such as medical history), provide clinical decision support, support physician order entry and capture information about health care quality. The Act provides \$17.2 billion in incentives through Medicare and Medicaid to help providers adopt EHRs. Large hospitals can receive payments for a 4-year period starting in 2011, and physicians can receive incentives up to \$44,000.

The US is not alone in the move to an EHR system. Governments worldwide have identified the management of patient records as a key way to increase efficiency, cut administrative costs and improve care.

In the United Kingdom, for example, the British National Health Service and other providers are turning to electronic patient records to manage costs in the face of declining funding. In the European Union, citizens using a health insurance card can receive non-hospital medical care anywhere in the EU and be reimbursed up to the benefit level in their home country.

These and other similar government initiatives give health care providers an ideal opportunity to automate and modernize.

EHRs Benefit Patients and Health Care Organizations

In their efforts to reduce cost and improve medical treatment, health care professionals at all levels are moving from paper-based records toward EHRs.

Likewise, individual departments within health care facilities are also moving to digital information, as are related organizations that have a vested interest in the data locked within health records, such as insurers, regulators, suppliers, government health agencies and state human services departments.

Many of these organizations have found that document capture enables them to make this transition from paper to digital quickly and successfully. Document capture takes paper and other documents, transforms them into appropriate electronic formats, automatically classifies and extracts the information, and then delivers that information into workflows, databases and other relevant business systems. Document capture can cut medical record processing time, reduce manual record-keeping, help protect patient privacy and give health care providers faster access to critical information at the point of care.

Insurance claim forms and explanation of benefit (EOB) forms have been some of capture's earliest targets. And as the biggest health care payer in the US, Medicare's familiar CMS-1500 is one of the most commonly scanned forms, driving the adoption of forms processing technology to automatically extract data from medical forms.

As individual departments and processes move to document capture, health care organizations hear the cries for similar improvements in other areas. When they see the accounts payable department processing its invoices with minimal human labor, then the human resources, admissions and records departments soon follow. Likewise, when one facility in a health care network adopts document capture, both patients and caregivers expect ready access to that information across all campuses. As more and more providers and their partners respond to government and patient demands for better service, EHRs have become an expectation—and document capture has become a best practice for delivering them.

Health Care Relies on Data Accuracy, Availability and Quality

A health care provider must contend with a wide variety of documents from the moment a patient enters a facility. Insurance and identification cards are recorded at the front desk. Patient charts are accessed, marked and filed. Doctors give written prescriptions. Diagnostic results are recorded. Lab requests are made, or specialists consulted. Test results are returned. Claim forms are issued to insurers and EOBs are sent back. Payments are received.

Patient care, customer service and profitability all benefit when these document-intensive processes are transformed into efficient digital processes that integrate

paper and electronic records. Whether through a low-cost scanner in the admissions office to capture insurance and identification cards, or a high-volume, back office scanning system to process medical records and claims, document capture has a role throughout the health care system.

Here are just a few of the document-driven requirements that health care organizations have to address:

- Capturing admissions forms, ID and insurance cards.
- Scanning patient records.
- Transmitting lab instructions.
- Filing insurance claims (CMS-1500 and UB-04).
- Processing EOB forms.
- Processing supplier invoices.
- Meeting FDA (US), NHS (UK) and other regulatory obligations.
- Complying with record retention policies and privacy regulations (such as HIPAA in the US).
- Allowing doctors and administrators simultaneous access to patient clinical records while controlling varying levels of security.
- Incorporating X-rays, EKGs, MRIs, test results and supplemental documents with patient records.
- Providing access to patient records from remote locations to prescribe treatment.

A Holistic View of Health Records

In its treatment of patients, the medical community is moving toward a holistic approach that extends beyond the ailments that affect the body—encompassing emotional and spiritual well-being, diet and exercise as parts of a complete approach to health.

Likewise, the health care industry has recently been striving for a holistic view of health records. Rather than approaching document capture at the individual department or provider level, or targeting specific

document types for capture, there is a collective move toward a broader approach. When document capture and EHRs are used consistently across the health care spectrum—by providers, insurers, regulators and patients themselves—the benefits expand exponentially.

Getting Ready for EHRs with Kofax

Under pressure to simultaneously reduce costs, provide high-quality care and comply with government regulations, hospitals and health care providers can no longer settle for labor-intensive, error-prone manual paper handling. Doctors and physicians need electronic access to all patient-related data at the point of care, wherever that may be. Fast access to accurate data is not just important for compliance and audit reasons—it can often save lives by enabling doctors and other health care providers to

- Answer inquiries almost immediately
- Transmit research data or lab instructions within seconds instead of days of physical mailing
- Access a true, real-time electronic record
- Get a holistic picture of patients with a few mouse clicks

Automatically Capture and Digitize Any Patient-related Data

As an integral part of health records management, Kofax enables health care organizations to capture any type of patient-related document, in any format, at any stage of the patient's involvement with the organization. Documents can be scanned in large volumes at a central processing facility, individually at a desktop, or at a remote office.

Kofax understands the complexity of patient- and health-related data. For example, test reports and lab instructions can be extensive and include multi-page graphs and images where every line item and dot is

important. That is why our leading scanning and capture technology ensures the best possible image quality and readability.

Kofax can then automatically classify and separate the scanned documents by type and patient ID; extract the relevant information; transfer it to your existing health information systems (HIS), ECM systems and databases; and trigger workflows to ensure that the right information is at the right place at the right time—at a doctor's computer, at the lab, or in the administration department.

By automating the identification and separation of documents, Kofax lets you use high-speed scanners and other capture devices at the speeds for which they were designed, avoiding time-consuming and costly sorting, labeling and barcoding.

The streamlined and automated capture of patient documents minimizes errors and inaccuracies, increases productivity and ensures high data accuracy and availability, allowing you to focus on what is most important: your patients.

Meet Security Standards and Regulatory Compliance

Privacy and other regulations make data security, process transparency and auditability top priorities. As soon as patient data enters the Kofax system, it is in a secure IT framework where access can be controlled and alerts can be sent automatically if discrepancies are found or important data is missing. Kofax enables you to monitor and report each touch point of sensitive patient data from the moment it is received until it is transferred to your database, ECM, or HIS system.

In addition, Kofax uses a combination of built-in redundancy, failover and error-correction so your

automated data capture system is always available. Even if a portion of your network fails, your remote locations can continue to capture and process patient data. Reliable failure processing is done automatically, without human intervention.

Transform Health Records into Electronic Health Records

Kofax turns health records into Electronic Health Records by:

- Capturing, classifying, extracting and validating any document or form, regardless of format or type.
- Delivering outstanding image quality for any scanned document.
- Automating the capture of patient-related content from any device, from any place, paper or electronic.
- Extracting appropriate information from varied content sources.
- Automating the straight-through processing of patient and health data by your workflows and HIS systems.
- Auditing the processing of all documents from point of receipt through to archiving.

The result is:

- Increased health data quality by eliminating manual, error-prone processes.
- Streamlined processes for capturing patient- and health-related data across your organization.
- Significantly increased efficiency across the entire health care organization, so physicians can see more patients per day.
- Improved availability of patient data at the point of care.
- Significant cost reduction by eliminating paper storage and paper mailing.
- Improved health care quality.

Customer Use Cases

Spectrum Health

Spectrum Health is a not-for-profit health system offering a full continuum of care through seven hospitals, more than 140 service sites and a 560,000-member health plan, well known for its comprehensive prevention, diagnosis, treatment and recovery services covering virtually every area of medicine. Based in West Michigan, the system handles more than 60,000 inpatients, nearly 200,000 emergency room patient visits, 143,000 urgent care visits and 34,000 outpatient surgeries annually. One of the nation's top integrated health care delivery systems, having earned close to 70 national awards for its clinical programs, community service and operations, Spectrum Health has 14,000 employees, 1,500 medical staff members and 2,000 volunteers, and provided nearly \$100 million in total community benefit during its 2007 fiscal year.

With its Kofax system in place, Spectrum Health has seen significant improvements in document classification accuracy, efficiency and productivity in its document imaging system. The number of documents processed increased from about 187,000 to 10.5 million annually. This has been accomplished without adding personnel, which was a key requirement for Spectrum Health. Inpatient files are now accessible electronically and immediately, and physicians have the option to obtain and electronically sign scanned documents directly from their computer.

Geisinger Health System

From its founding in 1915, the physician-led Geisinger Health System has grown to dozens of facilities serving 38 mostly rural counties in central and northeastern Pennsylvania. In 2002, its 600-plus physicians and thousands of staffers treated 30,000 inpatients at two

hospitals and an alcohol treatment center, and over 700,000 outpatients at 50 facilities. The resulting medical records, diagnostic reports, research analyses and business accounts generated tens of millions of pages of information.

Geisinger Health System has consistently improved its medical records management procedures over time. Medical information is captured through centralized scanning, combined with auto-indexing at the satellite clinics. Clinic personnel use their expertise to identify each document's type and print a barcoded header sheet for it. Behind the scenes, every time they print a barcode header sheet, it generates a workflow case in the enterprise workflow automation system so those documents are tracked through the system. All the indexing, such as type and number of pages, occurs at the clinics. When the documents arrive at central scanning, the system acknowledges receipt and creates the batches to be scanned with all their attributes: case name, number of pages, and number of documents. It does the matchups automatically. If there is a mismatch, the system alerts the operator, who can accept it or reject and fix it. The workflow system integrates cleanly and efficiently with the Kofax system so no one has to manually enter any of the attributes. Detailed data are transferred to the workflow system so progress can be monitored from scanning to recognition to quality control to release. The medical records procedures were so successful that Geisinger Health System reengineered its existing non-medical document workflows through the same system.

Remarkable Results

Other customers also report remarkable results:

- A hospital cut the time needed every week to process 800 Explanation of Benefits forms from 10 hours to 1 hour.

- A health plan now digitizes its patients' financial and medical records and makes them instantly available throughout its network of hospitals and clinics.
- A hospital doubled the number of documents it can process daily with no increase in personnel.
- A medical specialty practice eliminated the need to store patient charts offsite and pay for their retrieval.
- A home health care provider scans, indexes and digitally stores the 36 million pages it generates from 3 million home visits each year.
- A community hospital scans 15,000 pages daily of patient medical and insurance records.
- A mail order pharmacy filled 270,000 orders each month, while saving \$70k every month over prior fulfillment methods.

Powerful, Scalable, Secure

Kofax software offers scalability from departmental to enterprise systems, from local to global deployments, from front-office to back-office applications. Our market-leading technology provides a strong enterprise-wide platform on which to standardize all of an organization's document and forms capture processes.

From general office to industry-specific business processes, Kofax provides a unique blend of ease-of-use and customization, with learn-by-example technologies for automating document classification and extraction that are easy to configure. Systems can be trained to provide a high level of performance on day one, and can be retrained on-the-fly using on-line learning to increase performance as documents are processed in production. The result: greater ongoing cost savings; accelerated business processes; faster adaptation to new document types, regulations and codes; and easier maintenance.

About Kofax

Kofax plc (LSE: KFX) is the leading provider of document driven business process automation solutions. For more than 20 years, Kofax has provided award winning solutions that streamline the flow of information throughout an organization by managing the capture, transformation and exchange of business critical information arising in paper, fax and electronic formats in a more accurate, timely and cost effective manner. These solutions provide a rapid return on investment to thousands of customers in financial services, government, business process outsourcing, healthcare, supply chain and other markets.

Kofax delivers these solutions through its own sales and service organizations, and a global network of more than 1000 authorized partners in more than 60 countries throughout the Americas, EMEA and Asia Pacific.

For more information, visit www.kofax.com.