

Feature Story | Electronic Document Management as a Component of the Electronic Health Record

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Since the early 1980s, the healthcare industry has been discussing the need for electronic health records (EHR). Indeed, in the past 20 years we have seen the industry move toward a completely computerized medical record. A variety of technologies have contributed to this evolutionary process, including point-of-care clinical documentation, clinical data repositories, and automated results. The cumulative effect has resulted in slow but steady progress toward a complete electronic health record.

Despite the industry's progress, most healthcare organizations (HCOs) continue to be plagued by paper-based health information. Most HCOs use a hybrid medical record: partially computer-generated and partially paper-based. Only a few HCOs have reached a completely electronic record. Wherever organizations lie on the EHR evolutionary timeline, they are learning that the technologies of electronic document management are a necessity. The goal of an electronic document management system (EDMS) is not only to eliminate paper, but also to manage all the organization's documents - computer-generated and paper-based.

A basic understanding of what an electronic document management system (EDMS) is must begin with an understanding of what it is not - an electronic health record (EHR). We know that an EHR is a far more encompassing tool designed to create and interpret patient health information, sharing the data and interpretive results with both patients and clinicians alike, supporting each in their respective healthcare decisions. While it is common to confuse the two, viewing them as one in the same is a fundamental mistake.

A complete EDMS consists of six key functions, described here:

Automated forms processing - Users electronically enter data into online, digital forms or scan existing paper forms for the purpose of electronically extracting any necessary information from the various forms.

E-Signature, document annotation, and edit - Users electronically sign, add notes, and edit documents as a core part of the document completion process. Unsigned documents are routed to appropriate users for their completion. Corrected or annotated documents are routed to individuals who review the changes for compliance and billing purposes.

Document capture - Users capture documents using a variety of technologies including scanners, e-forms, electronic transactions, cameras, voice, and video. The output of each of these media types is considered a document in its own right. However, the most common to be listed within this grouping includes scanned documents and ERM transactions (electronic feeds such as lab reports, dictated documents, patient bills, statements, and EOBs).

Document indexing, bar coding, character and form recognition, and forms redesign - all are driven by the desire to capture, in the most accurate and efficient method possible,

all relevant data associated with the identification of patients, service types, and document groups. Identification and classification of such documents with this degree of granularity would be too cost prohibitive without the use of these technologies.

Document retrieval, viewing, and distribution - Data that exists in an electronic form does not mean that it is, by default, well organized or easy to retrieve. Because of the hybrid nature and voluminous quantity of information associated with patient care today, the selection and implementation of an EDMS is simply a requirement of virtually every deployment of a modern EHR. Retrieval is accomplished using conventional departmental, local area, or enterprise-wide configurations and networked hardware or through non-conventional web-based models. Each has their own factors requiring consideration including cost, speed, staffing, and support.

Document management - While workflow is only one of the many attributes associated with document management, it is one that renders the greatest benefit to the HCO. Workflow is a critical component of an EDMS because it enables electronic routing and concurrent processing. In addition, many tasks traditionally performed within the health information management Department can now be performed from secure home offices or other locations within the healthcare facility. Workflow rules identify the tasks, how they are routed, and any condition between the tasks, as well as the sequences and dependencies between tasks. Record analysis, completion, and coding are three of the most recognized processes benefiting from the implementation of an EDMS workflow platform.

Each of these functions goes hand in hand to create an electronic document management system that provides the critical management tools needed to handle today's hybrid records. Through the development and implementation of products like the EDMS, the 20-year-old dream of an electronic health record is becoming a reality.

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