Advanced EHR Coding

The Essential Ingredient to insure an effective EHR implementation

A White Paper By:

Mark R. Anderson, CPHIMS, FHIMSS
Healthcare IT Futurist
AC Group, Inc.

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AC group INC.

Executive Summary:

We believe that no one should be stuck with an EHR system that just isn't working for them. Imagine being able to switch from any EHR to any EHR freely without losing vital patient data & encounter notes. The concept is unique, but with an overall national EHR failure rate over 60%, physicians need the option of selecting new products without the risk of losing their patient's data.

In fact, during the past three years, over 50,000 physicians have purchased a new Electronic Health Record (EHR) product for their medical practices. Once implemented, the EHR vendors have claimed that the average medical practice will achieve a quick return on investment by reducing the time spent looking for information by an average of 22%, improving coding and reimbursement by an average of 6.8%, and improving workflow throughout the medical practice. The EHR vendors have claimed that once automated, most medical practices could eliminate more than 92% of their internal paperwork and will be able to implement procedures to scan in more than 97% of paper that comes in from outside sources.

However over the past five years, most medical practices have not realized the majority of the cost savings that were promised by the various EHR vendors. One reason for the lack of initial operational improvement and cost savings is the lack of discreet patient information in the EHR when the physician initially starts using the EHR software. In fact, once a medical practice goes live on the EHR, 99% of the patient's clinical information is still embedded in an older EHR or in the patient's paper chart, not in the new EHR. The reason, most EHR vendors do not offer adequate "data conversion" capability from one system to another is due to the complexities involved in discrete data conversions.

Apart from having resources, processes and infrastructure, these complexities include extracting data elements such as Patient Demographics, Insurance, Appointments, Past Medical History, Family History, Social History, Surgical History, Medications, Allergies, Vitals, Immunizations, Images, Scanned Documents, Lab Results and Encounter Notes. Once the data is extracted, conversion process begins by translating each record into a format readable by the new EHR. Each EHR stores data in its own individual format (database files, text documents, photos, etc.) that comprise patient medical records. Upon completion of a conversion, EHR vendor needs to test if the final data meets the technical specifications of their EHR and ensure that patient charts get displayed accurately in the new system.

The actual use of EHR is still in question. As shown on Figure 1, the 2010 CDC/NCHS national Ambulatory Care Survey projects that almost 50% of physicians have already purchased some type of EHR product, but only around 10% are using the product as a fully functional EHR product. Around 25% of physician practices are using an EHR as a basic input system. This means that 15% of all providers have purchased an EHR and are NOT using the product at all. Part of the reason is usability, identified slowdown in patient care, and many of these systems have crashed over time and data was lost. When this occurs, physicians lose trust in the EHR solution.

The purpose of this white paper is to discuss the value of "data conversion" prior to going live on a new EHR product and to introduce the concept of "advanced data conversion" via electronic means.

Figure 1. Percentage of office-based physicians with electronic medical records/electronic health records (EMRs/EHRs): United States, 2001–2009 and preliminary 2010

NOTES: Any EMR/EHR is a medical or health record system that is either all or partially electronic (excluding systems solely for billing). The 2010 data are preliminary estimates (as shown by dashed lines), based only on the mail survey. Estimates through 2009 include additional physicians sampled from community health centers; prior 2008 combined estimates were revised to include those physicians (4). Estimates of basic and fully functional systems prior to 2006 could not be computed because some items were not collected in the survey. Fully functional systems are a subset of basic systems. Some of the increase in fully functional systems between 2009 and 2010 may be related to a change in survey instruments and definitions of fully functional systems between 2009 and 2010 (see Table for more details). Includes nonfederal, office-based physicians. Excludes radiologists, anesthesiologists, and pathologists.
SOURCE: CDC/NCHS, National Ambulatory Medical Care Survey.

Advanced Data Conversion:

Data Extraction services are available even if the previous EMR software vendor is no longer in business or no support is available. Practices need the ability to ''extract'' data from whichever system currently being deployed, and 'convert', or reformat it, to meet the new software's specifications. This frees the physician using the legacy EMR system as a history archive.
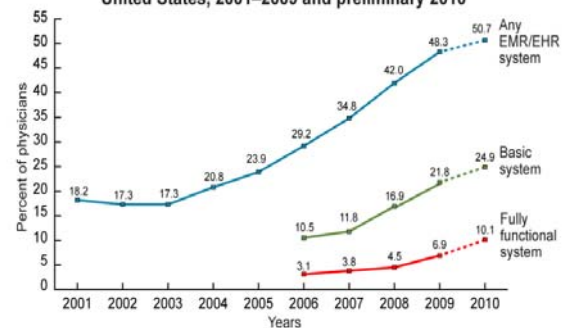
When considering converting from one EHR software product to another, medical practices must consider the amount of discrete data that they would like to move from their current computer systems to their new computer systems. In most cases vendors offer patient demographic data conversions, but rarely do they offer conversions of clinical data. Also, most vendors assume that no discrete data can be converted from the legacy systems. Of course, this means that the physician has no discrete data about the patient, only scanned images.

What would happen if an EHR vendor started offering "advanced data conversion" via electronic transfer of data from multiple sources? The answer is obvious. The medical practice would achieve EHR go-live sooner and would achieve operational improvements and cost savings in a shorted amount of time. Therefore, Physicians need to be in charge of determining their data conversion needs and controlling the implementation and go-live process.

In fact, our 2011 survey on successful EHR implementations showed that physician productivity was 69% higher if the EHR was populated with discrete data before the medical practice went "live" on the new EHR product. Based on these third party validated statistics, a medical practice should _**not sign**_ a contract with their new EHR vendor until the vendor has provided pricing and a data conversion methodology that meets the needs of the medical practice.

Most vendors will provide data conversion services and will provide the practice with an estimated cost to convert prior practice data. However in 87% of the contracts we reviewed in the last 8 years (476 contracts), the vendors do not provide adequate "descriptions" of what they plan on

converting. In 72% of the contracts, "data conversion" only included "Patient Demographics" with no real definition on what is actually included. Only 5% of the vendors, including NextGen and eClinicalworks provide a more detailed definition of "Data Conversion" and yet they do not cover all the modules various specialties require.

A recent "Data Conversion" survey conducted by AC Group during October through December of 2011 showed that most vendors (94%) are not providing adequate data conversion capabilities to insure that patient clinical data is available in the new EHR on the go-live date. The reasons for the lack of data conversion are:

- 76% - the physicians did not asked the vendor to convert the data

- 65% - the costs were too high to convert clinical data

- 58% - the clinical data was not available electronically

Through education, all three of these top reasons for not converting prior data over to the new EHR can be eliminated. Let's review all three reasons for a lack of adequate data conversion:

First Statement: 76% - the physicians did not asked the vendor to convert the data

When evaluating a new EHR product, physicians should spend more time discussing data conversion capabilities with the various EHR vendors that they are considering.   Based on EHR vendor feedback, we determined that in 76% of the cases, physicians are not asking the appropriate questions relating to data conversion and based on physician satisfaction surveys, 72% of physicians are not satisfied with the EHR product during the first three to six months after go-live.   The main reason – 68% of the physicians indicate that the EHR slowed them down because the physician had to access the paper chart too many times to find prior medical data about the patient.

We must start by educating Physicians on the clinical and financial value of converting data from any current software application to a new software application.   Before considering multiple "data conversion" methodologies, a medical practice should answer the following questions

1. Do you want data for all patients or only a sub-set of active patients?

2. How much of your existing historical data would you like to be converted from the older system? All of the existing data? Two years worth of existing active data? The patient's last three to five visits?

3. Can the new vendor accept prior patient discrete data and if so, in what format?

Once a medical practice has answered these questions, the next step is to provide the potential new vendors with the medical practice's "data conversion matrix requirements".

Second Statement: 65% - the costs were too high to convert clinical data

Second, why is the cost so high for data conversion? The main reason is that the EHR vendors are not experts in data conversion and have limited access to knowledge regarding other EHR products that they are replacing. We believe that the best option is to identify 3rd party vendors that specialize in data conversion.

One such company is ELLKAY, LLC based in Teaneck, NJ. (http://www.ellkay.com). ELLKAY, a leader in healthcare connectivity solutions, offers a full range of PM to PM as well as EMR to EMR Data Extraction and Conversion services, leveraging over 20 years of experience working with over 100 healthcare software vendors. Their suite of data conversion service provides a worry-free and cost effective way to migrate priceless patient demographic and discrete clinical data from one system to another.

ELLKAY has been successful in completing over 2,500 data conversions with over 100 different healthcare software vendors over the past 20 years.   In twelve data conversions that we have reviewed, ELLKAY was able to meet the practice's data conversion requirements and was able to complete the project 65% faster than the EHR vendor had originally estimated.   Additionally since ELLKAY specializes in data conversions, ELLKAY was able to complete the data conversion for 50% of the initial data conversion costs estimated by the EHR vendor.

Third Statement: 58% - the clinical data was not available electronically

One area of going concern is that most vendors tell practices that data is not available electronically, thus there is no way to convert the data into the new PM or EHR software products. Based on AC Group's evaluations, we found that a large percentage of prior patient medical information is actually available electronically today. There are numerous sources of electronic discrete data that can be obtained to insure that patient data is available in the EHR at go-live.

For example:

- Patient Demographics, guarantor, and patient insurance information are available from the current Practice Management Software (PMS) product.

- The patient's last visit date and reason for last visit can be obtained from the PMS' CPT-4 code list inside the patient encounter database.

- The patient's problem list can be obtained from the PMS' ICD-9 encounter database.

- The patient's encounter prior encounter dates and reason for visits can be obtained from the PMS' CPT-4 code list inside the patient encounter database.

- The patient's prior medical and surgical history can be obtained from the PMS' CPT-4 code list inside the patient encounter database.

- The patient's prior immunizations can be obtained from the PMS' CPT-4 code list inside the patient encounter database.

- The Patient's prior Laboratory Results are available from LabCorp, Quest, and Local Hospitals. Most organizations maintain between six months and two years of prior lab results in LOINC code format.

- The Patient's active and discontinued medications are available from the SureScripts PBM electronic Network.

- The Patient's prior dictated and transcribed reports are also maintained electronically for a period of time. Note check with your transcription company on their retention time. The transcribed reports can be electronically posted into the EHR based on the encounter date without manual scanning. Additionally, through the use of "Discrete Reportable Transcription (DRT)" technology, vendors can now run a prior transcribed clinical note through a DRT software application and the DRT application can generate a flat file of discrete data following SNOMED CT standards. This DRT capability can then export patient specific discrete data from the actual note including problem lists, vital signs, immunizations, prior medical, social and family history, ROS, HPI, Physician Exam, assessment, education information, and final disposition of the patient.

Summary:

Based on AC Group's sixteen levels of data conversion, over 65% of the EHR vendors only offer Level 1 data conversion capability. Around 25% of the EHR vendors provide three levels of data conversion while only 12% provide more than six levels of data conversion. Only 3% provide more than six levels and as of December 15th, not one of the 65 vendors we evaluated offered more than nine data conversion levels.

We believe practices should only consider EHR vendors that can provide a minimum of eight levels of data conversion. The eight levels should include:

1. Expanded Patient Demographics information
2. Patient Prior Problem List
3. Patient Prior Procedure list
4. Patient Active Medications
5. Patient Prior Immunizations
6. Patient Prior Lab Results
7. Patient Prior Encounter Data
8. Patient Prior Office Notes
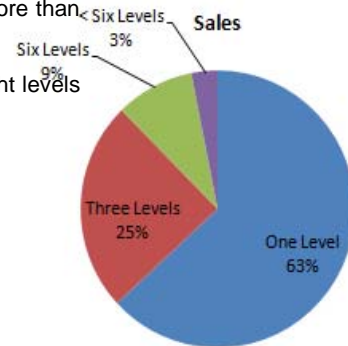
To gain a minimum of eight levels of data conversion, practice may want to look to companies like ELLKAY for their data conversion needs, since ELLKAY specializes in PMS and EHR data conversion. Additionally, to assist the average medical practice, AC Group has prepared a matrix of seventeen (17) different types of data conversion options. Starting on page four (4), we have provided a description of the sixteen "Types" of data conversion, "examples of data to be converted" and the "Value Proposition" for converting the data from the prior systems to the new system – ways never considered by EHR vendors in the past.

More About the Author:

Mr. Mark Anderson, CEO of AC Group, Inc. is one of the nation's premier IT research futurists dedicated to health care. He is one of the leading national speakers on healthcare and physician practices and has spoken at more than 850 conferences and meetings since 2000. He has spent the last 37+ years focusing on Healthcare – not just technology questions, but strategic, policy, and organizational considerations. For the past eight years, Mr. Anderson has spent the majority of time in the evaluation, selection, and ranking of vendors in the PM/EHR healthcare marketplace and during those seven years has published a semi-annual report on the Digital Medical Office of the Future. His EHR evaluation decision tool has been used by more than 25,000 physicians since 2002.

Besides serving at the CEO of AC Group, Mr. Anderson served as the interim CIO for the Taconic IPA, VP of healthcare for META Group, Inc., the Chief Information Officer (CIO) with West Tennessee Healthcare, the Corporate CIO for the Sisters of Charity of Nazareth Health System, the Corporate Internal IT Consultant with the Sisters of Providence (SOP) Hospitals, and the Executive Director for Management Services for Denver Health and Hospitals and Harris County Hospital District. **Mr. Anderson's expertise includes:**

- Electronic Health Records, Electronic Medical Records, and Practice Management Systems
- Personal Health Records with emphasis on community and regional PHRs
- HIE connectivity models and the associated technology standards and related key market leading vendors
- Familiarity with/knowledge of CCHIT certified software and NIS testing.
- Strong understanding of the Payer/Provider/Consumer (Member) Health Information Technologies (HIT)
- Numerous speeches on ARRA 2009, HITECT, and CMS impacts on HIT
- Understanding of the business process relating to the facilitation of clinical data exchange.
- Clinical and Operational Transformation, necessary to insure effective technology implementations

His experience includes 15+ years as a Hospital CIO, 20+ years working with physician offices, 7 years in the development of physician-based MSOs and IPAs, 17 years with multi-facility Health Care organizations, 15 years Administrative Executive Team experience, 6 years as a member of the Corporate Executive Team, and 9 years in healthcare turnaround consulting. Mr. Anderson received his BS in Business, is completing his MBA in Health Care Administration, and is a Fellow with HIMSS. Additionally, he serves on numerous healthcare advisory positions and has developed programs including:

- Developer of the Six-levels of Healthcare IT for Hospitals and the Physician Office
- Researcher and producer of the 2002-2011 PMS/EHR functional rating system
- Advisory Board and Content Chairman – Future Healthcare, 2007-10
- National EHR advisor to HBMA. 2008-2011
- National Speaker at HIMSS, 1976, 1985, 2000, 2002, 2003, 2006, 2008, 2009, 2010, 2011
- Advisory Board and Content Chairman – Physician and Hospital Bonding Summit, 2008 - 10
- Advisory Board and Content Chairman - Healthcare IT Outsourcing Summit, 2002-08
- Advisory Board and Content Chairman - Patient Safety and CPOE Summit, 2002-06
- Advisory Board and Content Chairman – Consumer Driven Healthcare Conference, 2003, 2004
- Advisory Board and CPOE Chairman - Reducing Medication Errors, 2003, 2004, 2005
- Advisory Board of TETHIC 2003, 2004, 2005
- Advisory Board of NMHCC 2000, 2001, 2002, 2003, 2004, 2005
- Advisory Board of TCBI Healthcare Conference 2000 - 10
- Advisory Board of TEPR and MRI, 2000-09
- Advisor to Future Healthcare Magazine
- Past President of Local HIMSS Boards – Houston, Tennessee, Southwest TX, Kentucky
- Editorial Board of Healthcare Informatics 2001 - 06
- Judge, MSHUG ISA, 1999-2005, TEPR Awards, 2001-2009, TETHIE 2003-05, HDSC 2003-05
- National HIMSS Chapters Committee 2001 - 04
- National HIMSS Fellows Committee 2001, 2002, 2004
- National HIMSS Programs Workgroup Committee 2001, 2002, 2003, 2004, 2007
- Chair HIMSS HIE Education Task Force - 2007-08
- Member of HIMSS RHIO Best Practices - 2007-09

Mr. Anderson can be reach by phone at 281-413-5572 or by email at mra@acgroup.org

More about AC Group, Inc.

AC Group, Inc., formed in 1996, is a healthcare technology advisory and research firm designed to save participants precious time and resources in their technology decision-making. AC Group is one of the leading companies, specializing in the evaluation, selection, and ranking of vendors in the PMS/EMR/EHR healthcare marketplace. For the last seven years, AC Group has produced an annual report on the Digital Medical Office and the

use of Technology by physicians. This comprehensive report includes detailed reviews of the Mobile Healthcare, Document Imaging, and EMR marketplace. The report also includes the most comprehensive evaluation of vendor EMR functionality to date - more than 5,000 questions.   This evaluation decision tool has been used by more than 25,000 physicians since 2002. Additionally, AC Group has conducted more than 300 PMS/EHR searches, selections, and contract negotiations for small physician offices to large IPAs since 2003.