Issues Relevant to Ambulatory Revenue Cycle Management Systems:

Ambulatory Focused Supplement to the HIMSS “Re-engineering the Revenue Cycle for the Emerging Medical Consumer” White Paper

HIMSS Financial Systems
Ambulatory Revenue Cycle Management Work Group

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Executive Summary

The 2007-2008 HIMSS Financial Systems Revenue Cycle Management (RCM) Task Force developed a white paper titled “Re-engineering the Revenue Cycle for the Emerging Medical Consumer” which addressed key changes in revenue cycle operations and the impact of information technology environments. Following publication of this white paper, a work group formed from the HIMSS RCM Task Force to expand on issues and topics specifically relevant to the ambulatory or physician practice revenue cycle arena. Consequently, the 2009-2010 HIMSS RCM Ambulatory Work Group developed this white paper as a supplement to the original HIMSS 2008 RCM white paper.

The Ambulatory RCM Work Group’s efforts remained consistent with the HIMSS RCM Task Force’s objectives and perspective on the current state of the discipline as identified below:

“The focus of this research effort is to identify the current state of the revenue cycle process best practices, summarize the industry forces most likely to affect future revenue management, and identify both current and future technology trends. These activities demonstrate the significant financial opportunities that may result when clinical and revenue cycle systems are linked together for optimum effectiveness and efficiencies across the care continuum.

The industry today is in a state of transition in meeting the challenges and demands placed on providers around information flow and financial management. This transition is required in order for the industry to successfully develop the next generation of solutions. This paper provides an overview of the current status and the future of revenue cycle management…”

Key findings of the HIMSS Ambulatory RCM Work Group are outlined in two broad categories, operational and environmental.

Operational

The following best-practice efforts and technologies are required in ambulatory group practices that strive to be as successful as possible in today’s revenue cycle environment:

- Implementation of point-of-service electronic eligibility verification;
- Adoption of an integrated electronic medical record (EMR)/practice management systems (PMS);
- Implementation of consumer-oriented “Web portal” technology that promotes price and quality transparency;
- “Sweep” self-pay patients for Medicaid coverage;
- Connecting to hospital revenue cycle systems to exchange up-to-date patient information;

• Implementation electronic remittance processing for as many payers as possible; and
• Utilization of optical character recognition software to process remaining paper remittances.

Environmental

The following action steps or responses to major environmental issues that should be considered by ambulatory group practices that desire to be successful in today’s revenue cycle environment:

• Adopt an integrated EMR/PMS and leverage the American Recovery and Reinvestment Act of 2009 (ARRA) funds to reimburse expenditures. Adoption of EMR/PMS will facilitate a practice taking maximum advantage of available ARRA stimulus funds.
• Decide between the “Medicare” and “Medicaid” ARRA stimulus funds, based on professional advice.
• Begin activities with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) ICD-10-CM compliance activities including gap analysis, design, development and internal testing. This should begin no later than January 2011, but ideally as soon as possible.
• Complete HIPAA Version 5010 transaction code set internal testing by December 2010, so testing among trading partners can begin by January 2011.
• Pay careful attention to future clinical-quality reporting requirements when evaluating stand-alone EMR systems (clinical-data systems only) that will interface with existing PMS software applications.
• Begin activities as soon as possible supporting the final rule for Medicare and Medicaid Programs; Electronic Health Record Incentive Program which features the meaningful use requirements.

Ambulatory Work Group: Promulgation of Original Goals

The Ambulatory Work Group defined the ambulatory environment as physician group practices ranging from five to fifty members for this white paper. Three topics were identified at the onset of the work group’s efforts as being especially relevant to this targeted ambulatory environment:

• Eligibility verification to ensure payment and use of information technology (IT) at front office points to ensure the provider is eligible for reimbursement for the patient’s upcoming services;
• Denials process which includes management of the denials processes to improve accounts receivable (A/R) results; and
• Workflow management tools to improve employee productivity and effectiveness.

The work group maintained focus around these three topics above but found the need to elaborate on each of these as they completed this work effort. The following reflects the work group’s elaboration of these three key topics.

• Eligibility verification tools:
  – This includes a variety of tools (Web portals, smart cards, etc.) that private payers and the Centers for Medicare and Medicaid Services (CMS) are advancing to enable front office employees to verify eligibility before rendering of patient care services.
• Denials:
  – A denial means something has failed somewhere in the value chain. Denial information can serve two purposes:
    • Denial information can be used to collect the immediately denied claim, fix and re-submit the claim, and/or do nothing else with that denial information. This option does not include a “root-cause analysis” to fix underlying problems which created the denied claim.
    • Denial information can be used to correct problems in the value chain, find the cause of the denial, and then change the business process at the failure point. Failure points can range from the front office functions, encounter functions and other activities such as batching, coding and claim scrubbing. The use of root-cause analysis can lead to elimination of future denied claim problems.
  – Once the problems are discovered in the value chain, tools can be applied and processes changed which will prevent the denial of future claims.
• Workflow management:
  – This includes review and analysis of current workflow and processes that can lead to business process and workflow redesign as well as application of technology tools to facilitate the activity.

Operational Issues

Pain Points in Ambulatory Revenue Cycle Workflow

Many may still perceive the revenue cycle as beginning at the conclusion of a patient encounter. Today, the ambulatory revenue cycle or value cycle begins long before the provider completes billing, and continues until funds are deposited in the provider’s bank account.

The ambulatory value cycle starts at the point of appointment scheduling. Much of the information directly impacting patient check-in can potentially be lost at appointment scheduling. For example, insurance information captured at appointment scheduling allows for automated insurance verification to take place behind the scenes, making the check-in process more streamlined.

Several steps in the value cycle should occur before the formal billing process. These steps all have potential for revenue leakage or loss and slow down the collection of revenue. Information technology provides several mechanisms to minimize these problem areas.

Pre-Encounter

At patient check-in, several events can eventually cause denials and slowdowns. The trouble areas lie primarily in the area of information collection and verification.

Information collection errors occur when demographic and patient identifier data are incorrectly captured. This will lead to a denial, which in conventional processes will not occur until several weeks after the encounter. Working such a denial is extremely time-consuming, as it requires front office intervention to contact the patient and correct the errors.
Verification errors are a failure to confirm coverage and eligibility before the encounter. In many ambulatory practices, collection of payer information consists of a photocopy of the patient’s insurance card. Verification failure leads to a first-level denial at minimum and complete denial in the worst-case scenario. Complete denial results in the specific encounter to be categorized as self-pay (payment responsibility by the patient and/or guarantor) or no-pay. Information technology can quite effectively intercept and limit these error types. The single step of electronic coverage verification can serve to confirm both coverage and demographic data. Thus, any information collection errors may be caught and corrected at check-in, rather than many weeks after the patient was seen. Two primary mechanisms are available to accomplish this task. The most common in today’s context is online verification at a given payer’s Web portal. Physician front office employees log on, enter the insured’s identifying information, and coverage is immediately verified. As the payer also provides demographic information, physician office staff can confirm the information the patient presents.

The primary problem with this approach is the issue of proprietary interfaces. Each payer has its own workflow for verification, which necessitates employee training for each insurance plan. Some payers, notably CMS, have automated this process with card-swipe machines. Unfortunately, this convenience is usually limited to Medicare and Medicaid patients.

Some private payers are rolling out automated verification, but this still does not address the issue of proprietary interfaces. In the medium term future (1-2 years), up-to-date systems may eliminate the proprietary interface problem. Such systems will offer employees a uniform workflow for all coverage verifications. The issue of proprietary interfaces will be managed through custom electronic data interchange (EDI) specifications. System vendors, in collaboration with payers, are doing the bulk of the work to customize the EDI steps. This medium term solution, however, is currently limited to coverage verification.

In the long term (3+ years), the entire monetary relationship between patient, provider and payer is anticipated to be identified and understood at the point of patient check-in through real-time adjudication (RTA). With RTA, demographic, coverage and actual benefits information will be available before the patient encounter occurs. RTA’s primary attraction is the immediate delivery of benefits information. At check-in, the potential claim is provisionally adjudicated, meaning that the provider will know exactly how much money will be coming from the payer. The rest of the price of services (co-pay and balance billing) can be collected from the patient before the encounter occurs.

Post-Encounter

Several issues can lead to revenue leakage and A/R slowdowns in the period between the completion of a patient encounter and submission of a bill to a payer. The most common cause of ambulatory revenue leakage is the “dropped bill.” A “dropped bill” is when an encounter occurs, but the bill never arrives at the payer and payment is never rendered to the provider. This occurs most often in practices with paper scheduling and “super bill” charge diagnosis-capture systems. In these instances, providers’ billing workflow is separated from patient chart (medical record) completion. If a paper bill is lost or separated from the patient chart, often there are little
to no reconciliation measures in place to catch the unbilled care. If the patient encounter is not billed, it cannot be reimbursed. The entire encounter will have been provided for free.

Accounts receivable slowdowns occur primarily for reasons of demographic data errors as already outlined and with coding problems. Payers are becoming much more stringent in their treatment of over coding and miscoding. Ironically, information technology and data mining are enabling this added scrutiny. If a Common Procedural Terminology (CPT-4) code is unusual for a patient encounter, it may be flagged by the payer. Examples of unusual coding that triggers these flags can be due to gender, demographics and type of services normally provided. Additionally, mismatches between service code(s) and diagnosis code(s) may be flagged.

The minimum inconvenience for this will be a first-level denial. Alternately, the payers may appear to arbitrarily down-code the service and pay the lesser amount. Additionally, a cluster of coding irregularities may increase the possibility of Recovery Audit Contractor visits also known as RAC audits.

As with mismatches between CPT-4 codes and diagnosis codes, technical errors on bills can cause denials and delays. Technical errors most likely originate in post-encounter clerical processes. Examples of technical errors include incorrect provider identifier, overlooking a field in the HCFA-1500 claim form and even typographical errors. A payer motivated to postpone payment will use any of these issues to deny a claim.

An integrated EMR/PMS will facilitate management of these types of issues and errors. The dropped bill problem is managed seamlessly. Encounters that remain without closure (i.e., no billing) will be caught by daily practice activity reporting. Integrating scheduling and rules based pre-bill claims scrubbing will also greatly decrease downstream denials.

Coding issues can be more complicated. A quick benefit of an EMR implementation is the elimination of mismatches between CPT-4 codes and diagnoses. If a provider checks an ICD-92 box that is normally not associated with the CPT, the EMR can be set up to ask for confirmation. Management of errors is far better at the point of the patient encounter than weeks later with a denied claim. An EMR system can “monitor” the relation of coding to face-to-face time with a patient encounter more closely than can a paper-based billing system. If the provider codes a higher level than appropriate for time spent with the patient as documented in the EMR, the EMR may produce an alert asking the provider to confirm the higher code. While this may satisfy the payers, it may cause adjustments in cash flow budgeting for the providers.

Using an integrated EMR/PMS system, technical and clerical errors will be mostly eliminated. Almost all integrated EMR/PMS systems can submit claims electronically. Best-practice systems “pre-scrub” claims to ensure that claims meet payer edits and errors that cause arbitrary denials are eliminated. Data errors with the National Provider Identifier (NPI), date of service, and patient information such as social data, demographic data, and insurance information are caught and corrected before claim submission.


**Consumer-Based Model**

Revenue cycle stakeholder collaboration is necessary for support of a true consumer-based model. In a pre-service model, payers and employers need to provide timely and accurate information to providers and consumers. This type of model will allow consumers, patients and providers to identify financial responsibility and make payment arrangements as necessary prior to rendering actual patient care services.

This can be achieved only by payers, including Medicare and Medicaid, making electronic information available in real-time on the following factors at minimum:

- Coverage
- Co-payments
- Non-covered services
- Out of pocket limits

The critical component for this model is that information needs to be transparent and real-time to support best practice ambulatory revenue cycle management practices.

Benefits of successful deployment of this model vary by the stakeholder group. A common benefit is achievement of real-time information accessibility for all parties. Other benefits identified by stakeholder group follow:

- **Payers**: Increased real-time, first-pass claims payment rates, which creates consumer and provider loyalty;
- **Providers**: Decreased denials, which creates increased cash flow and decreased bad debt; and
- **Consumers**: Increased access to pricing, quality and benefit coverage information in a real-time fashion which facilitates consumer pre-service financial planning.

Stakeholders can achieve these benefits only through “Web portal” technology with the following capabilities:

- **Continuous, real-time communication**: Consumers and providers access up-to-the-minute, real-time information; and
- **Consumer and provider education**: Education should begin at the time of enrollment and contract initiation and should be dynamic and continuous. Many health plans do only a perfunctory account set-up orientation, and then provide only occasional information such as with newsletter-type information to their members and physician providers.

Providers also have reciprocal obligations to consumers and payers in order to make a pre-service consumer-based model work, including:

- Delivering accurate, real-time information on cost and quality;
- Keeping consumer-facing portal content current; and
• Making pricing transparency (fee) information available.

Eligibility

Small- to medium-sized physician practices are not the only entities having difficulty optimizing eligibility and denials management processes. The perspectives and challenges faced by a large clinical outsourcing company are illustrative of the challenges of this segment of ambulatory revenue cycle management. The organization, with several thousand physicians, manages physician billing and collections processes through a centralized financial services division. Although these approaches are not completely analogous to the traditional primary care or specialty practice business environment, there is still widespread applicability.

It is important to note that the eligibility process tends to be geared towards verification, not identification, particularly for commercial payers. Provider groups may only submit specific insurance company information which they have for each patient, and will receive confirmation whether the patient is covered (which basically amounts to a ‘Yes’ or ‘No’ response). Patients who do not present coverage information at the point of service are assumed to be self-pay.

Commercial Payers

Commercial payers and clearinghouses do not offer provider groups the ability to submit a patient record and retrieve patient health insurance information. Anecdotally, it is assumed that payers are guarding or protecting their eligibility rolls from others. The lack of willingness to share information, however, creates significant collection delays, increases billing costs, increases collections costs and serves to frustrate patients. To obtain insurance information from patients who did not provide it at the point of service, providers must initiate contact with the patient, usually through a patient statement. Furthermore, payers have little incentive to offer an identification service, as time is on their side, particularly due to timely filing limits.

For the large organizations, the commercial insurance verification process has largely been dismantled for a majority of payers. It became apparent that the cost-benefit ratio was not beneficial. Some payers, however, do remain part of this process, because they are willing to provide information online that is helpful in the billing process.

Medicare

Medicare processing was initially a front-end process, in which all Medicare patients were verified via an electronic process. Over time, it became clear that a “back-end” process provided greater efficiency and lower cost. Thus, the “front-end” Medicare-eligibility process was dismantled. Instead, a “back-end” process was used to process only patients with claim rejections related to eligibility and coverage. By targeting only those “denied” patients for the eligibility process, the organization saved money and used the eligibility service vendor to obtain managed care organization (MCO) data to facilitate claim filing to the correct Medicare MCO.
**Medicaid “Sweep”**

The profiled organization “sweeps” self-pay patients for Medicaid coverage. This process has proven extremely useful and has a positive cost-benefit. Because a facility may typically treat only patients who reside in one or two states, it is a fairly straightforward process to check every self-pay patient for Medicaid coverage.

An additional “back-end” Medicaid eligibility process is also used. Candidate patients are those for which the organization receives certain Medicaid-eligibility and coverage rejections. These patients are sent through the Medicaid eligibility process to facilitate retrieval of MCO information, which usually provides the correct claim-filing information.

**Supplemental Processes**

Additional downstream processes take place which facilitate retrieval of third-party coverage:

- Remote access to partner-hospital patient accounting systems allows for authorized and secure inquiry to identify patient coverage that may have been supplied after the service date.
- Electronic interfaces, typically using Health Level 7 (HL7) standards and supported by encrypted Internet connections, facilitate the flow of updates of patient demographic and third-party coverage information from hospital systems.
- Patient statements include messages directing patients to a secure Web site to submit third-party coverage information, as well as space for patients to write-in coverage information for submission via mail.

**Denials Management**

Denials management presents significant challenge for billing operations. Despite the standardization enabled by HIPAA, payers still fail to uniformly identify rejections. Certain payers use their own rejection codes and some payers use generic rejection codes followed by more specific remark codes. Revenue systems are not easily configured to managed “one-off” requirements that may differ from payer to payer.

Consequently, the full benefits of electronic remittance advice processing may not be realized. Often, provider groups may be forced to pay for software customizations, or manually input remittance data that could not be electronically loaded, due to disparities caused by payers’ use of “non-standard standards.” In the best-case scenario, however, implementation of Claim Payment 835 transaction file can greatly improve the ability to manage denials. An 835 transaction (835) is an electronic data file that contains information explaining the claim. It is the electronic version of the Explanation of Benefits (EOB) printed on paper. All 835 files must use Claim Adjustment Reason Codes (CARC) and Remittance Advice Remark Codes (RARC) outlined by HIPAA. As providers increase the number of electronic payers, the chances for “denial interpretation” and user error decrease.

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A critical step in the revenue cycle process is to credit the appropriate account when the provider receives reimbursement. The payer sends money to the provider, but this funding, in and of itself, is not enough. To be of value, certain information must accompany the money. Typically, remittance information would include patient identifier, provider identifier, date of service, amount paid, reasons for partial payment, etc. The provider’s patient accounting department uses this information to post the payment correctly and to credit the patient’s account.

HIPAA promulgated a set of standards that establish the form of this information. This remittance information is generally referred to as the 835 transaction. The HIPAA standards specify that this information arrives at the provider in the same format, regardless of which payer sends it. Presumably, this reduces the administrative burden on the provider, as all pertinent data are located in the same place, regardless of who sent the information. Indeed, this is true. In a properly configured system, the 835 transaction file arrives from the payer, the data is imported into the provider’s accounting system, and all necessary posts and credits are accomplished automatically.

The unfortunate reality is that many payers do not send this information as an 835 transaction. The reasons vary. The most commonly cited reason is that the payer’s old (legacy) system is not set up to send information in this format. It is not uncommon for providers to receive an envelope in the mail with the claims payment information printed on a piece of paper.

Compounding the chaos is the fact that each payer has its own proprietary layout on that piece of paper. An EOB from payer A might have the patient’s name in the upper right corner, while an EOB from payer B might have this same information in the upper left corner. For a provider who has contracts with 50 different payers, this means there could be up to 50 different EOB forms to understand, with the patient name in 50 different places. Clearly, this creates an enormous unfunded administrative burden.

Advances in document imaging technology have provided solutions to this problem. Optical character recognition (OCR) software can recognize printed characters and convert this information into electronic data. Effectively, the patient accounting office scans a paper EOB form, and the OCR software processes the scanned image. The OCR software then produces an 835 transaction data file. This software can be “trained” to recognize any of the formats of the various paper EOBs sent by payers. The benefits of this approach are manifold. Labor costs to extract claim data are reduced immensely. Additionally, error rates are also substantially reduced.

**Environmental Issues**

*The American Recovery and Reinvestment Act (ARRA) of 2009*

The American Recovery and Reinvestment Act of 2009 (Pub.L. 111-5) (ARRA) is the economic stimulus package enacted by the 111th Congress and signed into law on February 17, 2009. The Act is intended to provide a stimulus to the United States economy in the wake of the country’s
economic downturn. It includes many provisions intended to promote the widespread adoption of healthcare information technology. Key provisions are outlined below:

Office of the National Coordinator on Health Information Technology (ONCHIT): Strategic Goals

- Electronic exchange and the enterprise integration and use of health information, including establishment and governance of the nationwide health information network (NHIN).
- Utilization of an electronic health record (EHR) for each person in the United States by 2014.
- Privacy and security protections for the electronic exchange of personally identifiable health information.
- Security methods for authorization, authentication and encryption of health information.
- Use of health information technology in improving the quality of healthcare, reducing medical errors, reducing health disparities, improving public health and improving the continuity of care among healthcare settings.
- Evaluation of open source health information technology systems for "federal safety net providers."
- Additional goals and programs will be announced supported by grants and loans over time.

Meaningful Use

Financial incentives are tied to "meaningful use" of certified EHRs by physicians and hospitals. "Meaningful use" was further defined by the Secretary of Health and Human Services by the end of 2009. Meaningful use in the act includes:

- Use of EHR technology in a meaningful manner which for physician incentives shall include the use of e-prescribing.
- Electronic exchange of health information to improve the quality of care such as promoting coordination of care.
- Reporting on clinical quality measures (which shall become more stringent over time).
- Medicare physician incentive program for adoption and meaningful use of certified EHR technology

The quicker providers establish meaningful use of certified EHR technology, the greater their total incentive payment.

Analysis – ARRA’s Health IT Provisions Impact

The Health Information Technology for Economic and Clinical Health Act (HITECH) are provisions in ARRA in Title XIII. The Congressional Budget Office (CBO) estimates that $20 billion will be spent on HITECH which will, among other things, accelerate adoption of EHRs. The acceleration will deliver the United States health system a net savings of 0.3% between 2011
and 2019, or greater than $60 billion in savings. While this is a good return, 0.3% will not by itself substantially dampen the trajectory of health care spending.\textsuperscript{4}

The CBO projects that without the stimulus package "about 45% of hospitals and 65% of physicians will have adopted qualifying health IT in 2019. CBO estimates the incentive mechanism would boost these adoption rates to about 70% for hospitals and about 90% for physicians."\textsuperscript{5}

CBO's savings estimates are based on the acceleration of benefits including "reducing the number of inappropriate tests and procedures, reducing paperwork and administrative overhead, and decreasing the number of adverse events resulting from medical errors. Health IT could also improve the quality of care provided to patients by improving the information available to clinicians at the time of treatment, by encouraging the use of evidence-based medicine, and by helping physicians manage patients with complex, chronic conditions. The use of health IT could also increase some costs because improved adherence to treatment protocols could increase the amount of care provided."\textsuperscript{5}

John Glaser, VP/CIO for Partners Healthcare, has pointed out that "meaningful use" will need to be clearly spelled out in 2009, leaving only one year for implementation in order for physicians and hospitals to realize the full benefit of the incentive programs. "This is a tall order," said Glasser. "And it means that providers should start moving now (if they aren't already) even though the dust has yet to settle."\textsuperscript{6}

**ICD-10-CM**

Final rules were published on January 16, 2009 for compliance to HIPAA ICD-10 codes and the related electronic transactions.\textsuperscript{7} The relaxed compliance dates from those initially identified in the proposed rule offer no reason to relax. The healthcare industry will switch to ICD-10 on October 1, 2013. Encounters and discharges occurring before October 1, 2013 will use ICD-9, and those occurring on or after that date will use ICD-10. The final rule suggests that compliance activities (gap analysis, design, development, internal testing) should begin no later than January 2011.

The fundamental driver for ICD-10 is financial: the inability for ICD-9 to support the growing number of high-priced medical procedures.\textsuperscript{8}

ICD-10 will be used where ICD-9 is used today. More specifically, ICD-10-CM (Clinical Modification) will be used for diagnosis coding and ICD-10-PCS (Procedure Coding System) will be used for inpatient hospital procedure coding. CPT and Healthcare Common Procedure Coding System (HCPCS) codes will continue to be used in an ambulatory setting.

According to HHS, ICD-10 will:

- "Support value-based purchasing and Medicare’s anti-fraud and abuse activities by accurately defining services and providing specific diagnosis and treatment information.
- Support comprehensive reporting of quality data.
- Ensure more accurate payments for new procedures, fewer rejected claims, improved disease management, and harmonization of disease monitoring and reporting worldwide.
- Allow the United States to compare its data with international data to track the incidence and spread of disease and treatment outcomes..."\(^9\)

HHS contends that "ICD-10 will also improve claims processing and payment, and, through the use of health care technology that utilizes ICD-10, assist health care practitioners in making treatment decisions by more precisely matching diagnoses and procedures to the appropriate code."\(^{10}\) For example:

- Pressure ulcers are a common condition in elderly Medicare beneficiaries with chronic illnesses. Under the current ICD-9-CM system, healthcare practitioners can identify the severity or location of a pressure ulcer but the coding system cannot link those elements if the patient has more than one ulcer. Under a single ICD-10 code, a patient’s medical history will identify the severity and location of each pressure ulcer.
- ICD-9 has only one code for angioplasty, the widely used procedure for widening a narrowed or obstructed blood vessel. ICD-10 provides 1,170 coded descriptions, with a granularity that pinpoints the location of the blockage and the device used for each patient.
- ICD-9 codes do not provide sufficient detail to distinguish whether a condition occurred on a patient’s left or right side. ICD-10 will improve care by providing that basic type of information.
- ICD-9 includes separate codes for medication errors and other external causes of injury, which are reported separately from the actual condition. Under ICD-10, information about medication errors and external causes of injury will be embedded in the code for the condition. Therefore, “a single, more informative code will provide a ready source of information to help medical professionals prevent medical errors and improve quality of care.”\(^{11}\)

Physician Quality Reporting Initiative (PQRI) and other quality measures will also be affected by these standards. CMS makes it clear in the final rule that there will be ICD-10 updates to the quality measures in regulations to follow. CDC and CMS are good sources of information on

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ICD-10-CM\textsuperscript{11} and ICD-10-PCS\textsuperscript{12} guidelines and cross-mappings, even including a mapping from ICD-10 (international) to ICD-10 (US).

**HIPAA 5010 Electronic Transaction Standards**

The HIPAA electronic transaction standards also get a refresh with a compliance date of January 1, 2012. The 5010 version transaction code sets supports the ICD-10 code sets and applies to claims, claims status, remittance, eligibility and referrals/authorization. In addition to ICD-10 support, 5010 changes "include structural, front matter, technical, and data content improvements...[and] address...unmet business needs including...providing on institutional claims an indicator for conditions that were 'present on admission.'” The target date for covered entities to complete internal testing is December, 2010, so testing among trading partners can begin January, 2011.

The National Council for Prescription Drug Programs (NCPDP) standard for electronic pharmacy related transactions is upgraded to version D.0 to better support Medicare's Part D prescription drug benefit claims processing, including coordination of benefits. The compliance data is also January 1, 2012. In addition, Version D.0:

- "Provides more complete eligibility information for Medicare Part D and other insurance coverage.
- Better identifies patient responsibility, benefits stages, and coverage gaps on secondary claims.
- Facilitates the billing of multiple ingredients in processing claims for compounded drugs.”\textsuperscript{13}

Eight years after the original HIPAA rule was issued, use of electronic transactions remains low.\textsuperscript{14} This suggests a major industry challenge in updating the electronic transactions and preparing for cutover to ICD-10.

Systems changes will be required across the health system to accommodate the coordinated cutover of the electronic transactions. Then, on a single date for the industry, process and system changes will go into effect to support two code sets (ICD-9 for events before the date and ICD-10 after). Many systems will require iterative major upgrades to effectively support these requirements, each with full deployment to their customer base in fairly tight timeframes.

\textsuperscript{11}Department of Health and Human Services, Centers for Disease Control and Prevention – National Center for Health Statistics. *International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM).* 2009.


\textsuperscript{13}National Council for Prescription Drug Programs. *Basic Guide to Standards.* Scottsdale, AZ; 2009.

Pay for Performance, EHR-PMS Architecture and Reporting

“Pay for Performance” has been a storm looming on the horizon of many practices’ long term plans. In the future, it is very likely that some component of care reimbursement will be conditioned upon demonstrable clinical outcomes. Under these requirements, providers must demonstrate, through reporting, that certain quality-of-care goals were met, and therefore are eligible for reimbursement.

To be valid, this reporting must be able to aggregate both clinical and business information. Most EMR vendors offer products that integrate both clinical and business data in the same system. Where quality-of-care information and billing information are in the same database, reports demonstrating a link between the two are easily created. In this circumstance, compliance with pay-for-performance requirements is straightforward.

The reality, however, is that many ambulatory practices currently manage their clinical and business data separately. Practice information is contained in silos. One silo contains the clinical information (usually on paper) and another silo contains the scheduling and billing information (usually electronically).

Because many practices are already comfortable with their existing scheduling and billing systems, they may typically look to purchase a system to manage clinical data only. The same silo structure will exist with this strategy, with clinical data residing within the new EHR system and business data residing within the legacy PMS system.

This architecture, though not ideal, is not necessarily bad, provided the interface between the two system databases is properly constructed. As part of the initial installation of the EHR, work is necessary to ensure that the EHR can communicate smoothly with the PMS system. This is a common approach, and has been successfully implemented numerous times.

Currently, most reimbursements in the ambulatory world are based on a limited set of data points such as with demographics, provider data, payer information and encounter CPT and ICD codes. Supporting data documenting quality is not yet part of payers’ requirements. When practices are evaluating clinical data management systems, it is tempting to address just the short-term need of interfacing practice management information and postpone interfacing clinical information.

Given the global cost constraints of an EMR transition, there will be economic arguments to limit the customization to an interchange of business data only. Effectively, the interchange will pass data of interest to the immediate business concern such as demographics, payer information and encounter information. The interchange will not be built to pull granular clinical data. It is this granular clinical data, however, that must be aggregated to provide quality of care reporting.

Therefore, when evaluating stand-alone EMR systems (clinical-data systems only) that will interface with an existing PMS, careful attention must be paid to future reporting needs. Common interfaces will address current needs, mainly just the data necessary for reimbursement in today’s world. In the future, however, providers will have to deliver reporting that aggregates business measures with quality of care metrics. This means that the interface will have to
manage both business and clinical data. A well-planned implementation will anticipate the data exchange needs of both today’s reporting environment and that of the future.

Conclusion

There are many RCM issues and topics specifically relevant to ambulatory or physician practice environments. The HIMSS Ambulatory RCM Work Group identified several of the key RCM issues in this paper.

The work effort expended by the work group demonstrates the following:

- Providers and their administrators should be aware of new and emerging operational issues that impact ambulatory revenue cycle management.
- There are looming environmental issues which ambulatory practices should immediately begin to address and evaluate ways information technology can be leveraged.

The conclusions of this RCM Task Force white paper remain completely relevant to the ambulatory arena:

The challenge faced in healthcare is to plan incremental changes in light of the long term goal to achieve enterprise integration, both within the provider organization and across strategic partners, which include patients and consumers. The industry is being challenged to change past approaches by leveraging new and emerging technology systems. It has never been more important to remember the quality and financial opportunities that will result when clinical and revenue cycle systems are linked together for optimum effectiveness and efficiencies across the care continuum.
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