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Clinical Quality Hearing

Health IT Policy Committee and Health IT Standards Committee

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Distinguished Members of the Committee, my name is Dr. Diane Gilbert Bradley, and I am the Chief Quality and Outcomes Officer at Allscripts Healthcare Solutions. Allscripts is the largest provider of Electronic Health Record and revenue cycle management software, and more than 180,000 physicians, 1,500 hospitals and many thousands of other healthcare providers in clinics, post-acute care facilities, and homecare agencies utilize Allscripts solutions to automate their daily activities and connect their clinical and business operations. As a Physiatrist (a doctor specializing in Physical Medicine and Rehabilitation), the need to redefine quality outcomes with our patients and the importance of the entire interdisciplinary team has served me well as I work with Allscripts' clients to disseminate the best practices found. Thank you for the opportunity to share with you today my perspectives on quality improvement opportunities stemming from Electronic Health Record adoption, along with possible solutions for the related challenges.

The delivery of healthcare in this country is evolving rapidly and in a phase where providers and software developers alike must be integrating new processes and information into our systems and workflows – it means things are kinetic, but we must remain flexible in order to encourage innovation. One area in which this is particularly true is in clinical quality measurement. In recent years, we've collectively experienced many improvements in meaningful data collection as we move away from claims-based data to data collected as a part of the clinical workflow of patient care. In addition, as health IT systems are more broadly adopted, the system users are helpful in identifying new ways of improving care with the intelligent use and assistance of the technology. The socio-technical component emphasized in the Institute of Medicine's report on health IT and patient safety features prominently here, too – clinical quality measurement and the maximization of clinical decision support capabilities to prompt quality improvement requires not only the appropriate technology but also a commitment on the part of the healthcare professional to making changes in how they record, report and analyze data. Accordingly, I'm pleased to share my perspectives on how health information technology can contribute to clinical quality improvements.

Question: How can Health IT better support quality measurement and improvement and what factors are limiting the technology's ability to support it?

Clearly, medicine is ever-evolving, and new medications and treatment options are brought to market on an almost continual basis. Of course, providers do their best to stay informed about and leverage these new treatments in the interest of improving patient outcomes, but when it comes to reporting on their activities to demonstrate that what they're doing is working for their patients, they are challenged by quality measure specifications that are inconsistent with today's modern clinical practice. Many measures applied today to evaluate provider performance were defined years ago, which in the life cycle of both medical treatment and health information technology, is a lifetime. As a result, providers, when appraised against those 2009 specifications, appear to "not conform" to the quality measure. Additionally, because we're now in a cycle of rapidly evolving performance measures, quality measure stewards and vendors alike are increasingly challenged to stay atop of the frequent changes.

One lesson we have learned from Stage 1 that I wanted to mention, too, has been that IT staff have been hugely impacted by the responsibility of training providers and validating adherence to the defined criteria. The continued expansion of the scope of quality measures will further stretch these resources, and this process needs to be carefully managed to mitigate the burden during this time of rapid change in the industry.

It's also important to discuss the fact that there are many disparate systems (including EHRs, laboratory and radiology) that do not conform to the standard nomenclature (SNOMED, LOINC, etc) defined within a given quality measure. As a result, IT staff and software vendors are forced to find alternative mechanisms to capture the required code set and continue exhausting resources beyond their scope. While setting requirements for quality measures at the provider level is important, I would strongly suggest that it is even more important for mandates to be set at the system level (EHR, lab/radiology vendor, etc) to ensure that all code systems are adhered to across the spectrum of healthcare.

Providing CEU's to providers to learn more quality measures. With the rapid implementation of EHR systems across the country, providers are burdened with attending training courses that do not offer incentives, other than learn an EHR. Incentivizing providers with CEU's to attend training courses on quality measures, will help relieve the burden on IT staff from having to train providers about quality measures and at the same time ensuring that messaging is consistent across the spectrum.

Question: How can the quality lifecycle be accelerated?

This is a great question because it is important not only in proving the value of health IT but also delivering the return on investment that the government has made in advancing the adoption of such technologies. While analytics is the most mission-critical missing link, it is currently also the weak point in the quality life cycle.

Traditionally, quality improvement efforts have been about applying proven techniques and disciplines retrospectively to facilitate analysis, understanding, redesign and implementation of necessary changes to processes. Those changes were generally guided by data-driven insights reflecting key metrics of success, and in clinical settings, those insights were derived from coded information, generally ICD and DRG-based, and then occasionally supplemented with clinical insight from chart reviews or EHR-data extractions.

Regardless of the data source, the reliance on retrospective data and traditional redesign processes led to long periods of study reflecting insight from outdated data. It was NOT uncommon for an improvement-driven implementation to actually lag the problems it was designed to resolve by 6-12 months, and often more.

Improved analytics, however, can reduce the duration and increase the efficacy of that lifecycle in decisive ways. Optimized EHRs readily yield data through approaches as simple as SQL queries for quick extraction and subsequent analysis, and extended analytics solutions can sit atop the EHR to enable effectual, immediate extraction when questions are formulated, and facilitate quick analysis thereafter – fluidly and seamlessly. Where such analysis indicated an area of inefficiency or quality inconsistency between providers, implementation of improvements would then only be lagged by the ability to glean insights from the data and formulate improved processes.

Importantly, the data garnered through this type of evaluation would NOT be limited to charge-related elements, as most analysis is now, but rather reflect the capability to "see" clinically-pertinent data elements that reflect

- WHY decisions were made – for example diagnosis and disease process
- HOW they were made – such as CPOE orders, order sets, or verbal
- how QUICKLY they were executed – what were results turnaround times, or the time to dosing
- what OUTCOMES were achieved in both the short and longer term.

Healthcare analytics, as you know, is not a single dimensional process. In fact, there are THREE kinds of analytic capabilities that are facilitated under ideal conditions within a healthcare organization that can complement and maximize one another:

- **Retrospective analysis**, which is the ability to resolve recent or nagging challenges by examining data reflecting specific issues of clinical, efficiency, satisfaction or financial nature. These reflect the kinds of studies we traditionally associate with continuous improvement efforts – we see a problem and go after it by scrutinizing as much as possible. The lifecycle in the average case now is 3 months at a minimum, and that's assuming chart reviews are NOT relied upon because of the length of that process, but rather that ICD or DRG data is obtained and analyzed in fairly rapid order. Ideally, however, these could begin to transform to very short lifecycles, with questions posed and then data extracted in hours instead of months, and also from the EHR instead of chart reviews or the traditional reliance on ICD or DRG data.

- **Predictive, population-based analytics**, in which we study outcomes by disease process or population set to evaluate the comparative efficacy of current practice patterns, the impact of changes orchestrated, and discover areas for improvement. Currently these kinds of investigations are only conducted in world-class academic environments with enormous resources and staff who are trained with very specific skillsets, they are shared through peer-reviewed literature, and they have enormously long lifecycles. The positives are that in this way we all benefit from "how someone else did it," but we *don't* benefit from local relevance or analysis specific to our facility, clinical patterns or an ability to respond and implement. And most importantly, as currently employed, even healthcare organizations that are sophisticated enough to perform this kind of scrutiny are generally years behind in their ability to affect change from the analysis. Again, by partnering analytics software with EHRs, however, we can accelerate the lifecycle of these kinds of efforts to facilitate rapid data access and analysis, the presentation of clinically relevant and useful information to providers, and learning opportunities in a matter of weeks or months rather than years.

- **Real-time Analytics** – this, of course, is what we're all working towards. The two previous scenarios are both retrospective, which means that the problem we are solving for in any given instance already happened, and we're simply trying to design it out as quickly as possible. In the context of real-time analytics, however, an organization – or even an individual clinician – can gain insight into challenges and even resolve them BEFORE they are final outcomes. The best systems will enable this on a patient-by-patient level, or by disease process, or through any other slicing of the data from the EHR. Real-time analytics is the ultimate goal.

Any tool that delivers one of the three options I've described is superior to pretty much any of the options available in the past. Any tool that delivers only one or two will still require organizations to accept long lifecycles before achieving major improvements in healthcare. We are clear, however, that optimal Electronic Health Records and analytics tools enable all three of the above, and it will take a combination of that type of analysis for the industry to be able to execute on the payment and delivery system reforms necessary to heal our challenges.

Question: What is the role of Clinical Decision Support (CDS) in the quality lifecycle? How does CDS relate to quality measurement?

The implementation of best practices guided by Clinical Decision Support and the standardization of care based on clinical data has been shown to improve the quality of health of individuals and populations at many Allscripts client sites. Ideally, the clinical system helps the provider coalesce the information and then aggregate, filter, analyze and present it logically. With the right synthesis and the right information, the provider is better prepared to render optimal care.

Quality measures are the yard stick by which healthcare, the organizations that provide the care and the providers that deliver the care are measured. Ultimately, a quality measure that's appropriately developed and tested represents the right thing to do for a given health-related situation and is seen by many as requirements for 'best practice.' CDS, then, provides the opportunity for the patient, care provider and/or care organization to provide and access the care defined by that quality measure. In fact, without CDS, it is difficult to ensure enough of the population is meeting the quality measure to determine efficacy.

An important element of a quality improvement process, beyond clinical decision support interventions and quality measurement is a regular analysis loop of the metrics that a healthcare organization uses to determine the health and well-being of its patient population. If, despite following the best practice quality measures and supporting those measures with CDS interventions the population is not healthy or the care is not within acceptable cost, the quality measures and interventions must be adjusted and changes implemented to support the new best practice.

An important factor in this conversation is that while it's self-evident that providers make the best decisions with access to the best information, the lines between "just right," "not enough" and "too much" information are thin, not to mention the issue of the appropriate timing of when to present the information. Too much detail and the physician is overloaded with irrelevant data. Too little, and they have to go looking for missing information. The "just right" information view is what is already under development in some place and ultimately where we're all going. Just as Google's web servers understand what information might be most relevant to a searcher based on one's previous behaviors, providers really want the EHR to do the same: "Show me just what I need, when I need it – and don't make me ask for it through some cryptic process!" Thus, as one

looks to the future, the EHR's role will evolve: while care providers go about their daily tasks, the system will collect enormous quantities of data about treatments, outcomes and practice patterns, analyze it, and present it to the provider at just the right time based on their personal preferences.

In fact, as decision support functionality becomes more robust, it is our vision that the EHR evolves from an electronic file cabinet to not the assistant, as some people describe it, but rather the mentor – a tool whereby the clinician's needs are anticipated and information is presented in a profound way so that the best decisions can be made and acted upon without the provider even noting where it came from. The information is just right, and the EHR part of it incidental.

Question: What is the Health IT vendor role in quality improvement programs?

Health IT vendors can have a substantial impact on the effort to affect continuous improvement in quality and performance by creating technology that is ubiquitous to healthcare organizations and thus the industry. The foundations for enabling continuous improvement are based on at least three complementary and IT-delivered capabilities:

- **Imbedding Evidenced Based Content** – As the volume of content increases, it is imperative that the Health IT vendors provide an easy vehicle to imbed that content into the workflow of the clinicians. This has been done more with physician order sets in many environments. Our experience with evidenced based content in a framework that supports the interdisciplinary team has shown that quality improves if we can guide the clinicians to perform the right assessment and critical thinking at the time of care.

- **Access to data** – In contrast to the usual health IT solutions that allow only for data capture and visual retrieval, an optimal solution allows users and user organizations to access and download data for further analysis and scrutiny. Continuous improvement requires powerful analysis at detailed levels, and traditional reliance on financial and utilization data alone (e.g. ICD, DRG) is insufficient to allow for real changes in processes, care or systems. To enable continuous improvement, health IT vendors and system administrators must make downloading data easy and ad hoc without "permission" or delay or hassle.

- **Analytics** – The more intuitive analytic capabilities are to IT solutions, the more effortlessly continuous improvement will thrive and become foundational to organizations and their users. While culture trumps IT every time, analytics are the IT capability that creates and sustains a culture of continuous improvement once it is established. Analytics convert data into information, and then into insight, which results in continuously improved outcomes for all involved.

- **Interoperability and system openness** – IT solutions that create or sustain information silos are counter-productive to real and sustainable improvement. Islands of IT result in islands of data and thus islands of performance, thereby inherently limiting achievement of organizational goals or the delivery of the most favorable patient outcomes. Patients and practitioners do not live on an island, however, and the reality is that systems which behave in isolation simply do not offer the same value to any of the stakeholders in the local or national healthcare ecosystem.

Question: Are there viable business models in which vendors can/should share risk and/or reward with providers?

Allscripts anticipates that as the market matures around value-based care, the relationship between provider and technology vendor will begin to increasingly shift to outcomes-based partnerships. In fact, agile vendors have already begun to structure contracts in ways that allow for risk sharing in return for higher downstream payment streams based on improved clinical and/or financial metrics. Historically, vendors have been unable to structure these types of relationships because providers were unable or unwilling to share baseline clinical and financial data models that are fundamental to contracting against improved outcomes. As providers are incited, though, to open their clinical and financial metrics reports in order to be able to participate in these new value based models, partnerships with vendors that are tied to outcome improvements will become the norm.

Thank you for your time and attention.