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Dr. Seidman and Members of the HIT Policy Committee,

Thank you for the opportunity to testify on the present and future state of Meaningful Use.

East Alabama Medical Center (EAMC) began its journey to Meaningful Use several years before Meaningful Use was a CMS incentive program. We had a deep commitment to quality patient care, and believed an electronic health record (EHR) would help EAMC enhance the quality of patient care provided as well as improve patient safety. We wanted an EHR to allow multiple caregivers simultaneous access to the chart, to provide reminders and prompts for caregivers, and to produce legible records. In addition, we wanted to have an electronic history of patient preferences, medical problems, and procedures. Finally, we desired to have the ability to search the chart electronically and to pull discrete data elements for reporting. In 2005, EAMC began implementation of the electronic health record with the implementation of Cerner Millennium. By early 2009, all of EAMC's nursing documentation was electronic and CPOE was being used; however, we still had some need for a paper chart. We had begun a project, "Path to Paperless", to finish the conversion of paper orders and paper documentation to electronic. Later in 2009, we were introduced to the idea of Meaningful Use. EAMC decided to refocus its electronic health record strategy to include meeting Meaningful Use.

The senior leaders of EAMC led the strategy to incorporate Meaningful Use into the EHR strategy (Appendix I – EAMC IT Strategic Vision). In January 2010, Tommy Chittom, CIO, dedicated time to

reading the entire Medicare and Medicaid EHR Incentive Program Proposed Rule. EAMC's CEO, Terry Andrus, embraced the concept and personally took the initiative to understand the implications of Meaningful Use. To ensure that EAMC implemented Meaningful Use in a timely manner, monthly Progress to Goal meetings began in October of 2010. The Progress to Goal meetings were set up to help the senior leaders guide the implementation of Meaningful Use. The Senior Leadership Team divided the Meaningful Use measures, each taking responsibility for meeting them. We set a goal to attest to Meaningful Use in FY 2011. EAMC dedicated one full-time employee to investigate and implement the Meaningful Use requirements. This employee was able to develop reports to track our progress. As a result, EAMC was able to attest to the Alabama Medicaid Agency on April 27, 2011 and to Medicare on July 11, 2011.

The Stage 1 Meaningful Use requirements were full of opportunities and challenges. Because of our early adoption of an integrated electronic health record, some of the measure thresholds were met or exceeded before July 2010. We had processes in place to capture the following core measures: Drug-Drug Interaction Checking, Drug-Allergy Interaction Checking, Active Medication List, and Medication Allergy List. Additionally, EAMC had a strategic goal surrounding CPOE implementation.

Core Objectives

Our greatest challenges for the core objectives included Problem List, Clinical Quality Measures, Electronic Copy of Health Record, Electronic Copy of Discharge Instructions, Exchange of Clinical Information among Providers and Security Risk Analysis.

Problem List

Prior to Meaningful Use, EAMC could not indentify one process to capture problems or one group of interested parties to own the problem list. At that time, very few physicians were using structured documentation. Infection Control and the diabetes nurses were adding some information to the problem list. However, this method did not allow the hospital to meet the minimum threshold for Meaningful Use. In order to meet the minimum threshold, an interdisciplinary approach to entering and maintaining the problem list was developed and included:

- "Reason for Visit" collected on all ED patients at triage
- Case Management began documenting problems
- Captured nursing history elements in the problem list, such as COPD and Asthma

As we implemented a new Anesthesiology system, Dr. Gary Bridges and Dr. Tom Stokes built structured documentation tools that substantially helped achieve the problem list requirement. Before Meaningful Use, EAMC could not engage EHR users in the benefits of the problem list. We are now able to see, at a glance, the patient's problems and utilize that information in daily care of the patient.

Clinical Quality Measures

EAMC embraces quality care and quality measurement. Prior to Value Based Purchasing, EAMC was a top decile performer in the CMS/Premier Hospital Quality Initiative Demonstration. EAMC has achieved and sustained high performance in the Core Measure topics for the last decade. Although, the case management and quality departments have been collecting concurrent data, EAMC was not prepared for this challenge. Two barriers existed for our success. First, our data submission process did not include discrete data directly from our electronic health record. All data submitted to CMS and Joint Commission were abstracted from the paper chart or from the electronic record into a web tool provided by our core measure vendor. Secondly, the Venous Thromboembolism (VTE) subset of

measures had not been fully implemented in the institution. Case Management was actively collecting data on VTE for surgical patients, but not on all medical patients. In order to meet these criteria, EAMC had to implement a software solution from our EHR vendor to collect the data in our EHR.

Electronic Copy of Health Record

EAMC had previously developed a process in our EHR to produce an electronic copy of our health record due to Recovery Audit Contract requirements. The only challenge was capturing the request data. We designed a documentation tool in the EHR to capture the date of the request and the date of receipt. We began offering an electronic copy to anyone who requests a copy of his or her health record. Some patients are very interested in an electronic copy, while others are still resistant to the idea.

Electronic Copy of Discharge Instructions

EAMC added nursing documentation to the EHR in 2006. However, the discharge process was still a paper process except in the emergency department. By beginning the journey to Meaningful Use early in 2010, EAMC identified the deficiencies and added this measure to our strategic plan for 2011. In March 2011, EAMC implemented a new discharge process and documentation tool to collect this information. Due to the aforementioned ability to produce an electronic copy of the health record, we could produce the Discharge Instructions electronically. Meeting this measure has had several positive effects. The positive effects included our nurses liking the process better than the previous process, electronic discharge instructions are available in multiple languages, and our patients have electronic and paper access to better, clearer information than they did before. We have already seen an increase in our HCAHPS scores regarding the quality of discharge information.

Exchange of Clinical Information among Providers

Exchange of Clinical Information among providers challenged the institution on how to interpret the language of Meaningful Use. Specifically, Medicare and Medicaid EHR Incentive Program Final Rule (CMS Final Rule) does not align completely with the Office of the National Coordinator for Health Information Technology Standards and Certification Final Rule (ONC Final Rule). We realize that the ONC Final Rule was expected to lay the groundwork for future stages of Meaningful Use. The CMS Final Rule states the eligible hospital must perform one test of the certified EHR technology's capacity to electronically exchange key clinical information. The CMS Final Rule does not state that a Continuity of Care Document was required to meet the measure. The ONC Final Rule does state that the Certified EHR has the capacity to produce a Continuity of Care Document. Due to this confusion, EAMC spent a great deal of time discussing the requirements and researching the opinions of our vendors and other hospitals. In addition to the confusion regarding the need of the Continuity of Care Document, EAMC also received very confusing opinions in the definition of "exchange". Vendors and other hospitals define exchange as a one-way delivery of information. EAMC really believes that exchange is defined as a function of a bi-directional sharing of information. EAMC is very interested in exchanging information with other entities and we are proactive in the development of Alabama's Health Information Exchange. Once we felt secure in our understanding of the measure, we were able to exchange clinical information with a local physician's practice EHR.

Security Risk Analysis

Information security is an everyday problem. EAMC has been conducting security risk analyses for many years. As part of the Meaningful Use process, we spent many hours interpreting exactly what was required. We went through several different audits to be sure we had met the requirements. Additional clarity in this requirement would be very helpful. Meeting this requirement has had a positive

influence on IT security at EAMC. The security committee membership was expanded, extensive audits and "cleanups" were completed. Education to all users was significantly expanded. We also have improved some processes that were identified as problematic in our security audits. While this is an ongoing effort, we were pleased that we were spurred to action on some difficult issues.

Menu Objectives

For the menu options, EAMC chose to submit data on Generate List of Patients, Medication Reconciliation, Reportable Lab Results, Advanced Directives, and Drug-Formulary Checks. The most challenging menu options include Clinical Lab Data, Summary of Care Record, and the Public Health Measures.

Clinical Lab Data

EAMC has been resulting clinical lab data as discrete elements for many years. On initial investigation, we believed that this measure was met and easily reportable. However, we identified some unique lab tests that were resulted as scanned images, not discrete results. We were unable to determine a good methodology for the denominator requirement of number of lab tests ordered whose results are expressed in a positive or negative affirmation or as a number. Additional clarity of test that should be included would be appreciated.

Summary of Care Record

Summary of Care Record was challenging because of the lack of definition of the contents of the summary of care record and the definition of the transitions of care. The CMS Final Rule does not address the expected contents of the summary of care record. However, the ONC Final Rule does state the minimum requirements. The CMS Final Rule clarified the definition of transitions of care as the

movement of a patient from one setting of care (hospital, ambulatory primary care practice, ambulatory, specialty care practice, long-term care, home health, rehabilitation facility) to another. At EAMC, this definition of transitions of care would include most all inpatient discharges. As we pproach Stage 2 of Meaningful Use, we encourage more clarification and definition. This measure will require significant process change at EAMC in order to accomplish this goal.

Public Health Measures

Alabama Department of Public Health was not initially ready to accept any data electronically from an EHR. EAMC choose to test our ability to submit reportable lab results electronically. Historically, Infection Control and the Laboratory departments have faxed the reportable lab information or entered it into the Public Health web portal. We did complete one test of the electronic submission of reportable labs.

Clinical Quality Measure Alignment

Clinical Quality Measures have been one of the most challenging requirements of Meaningful Use. EAMC has traditionally been a leader in clinical quality. We believe in a proactive approach of concurrent chart review and identity of improvement opportunities. For many years, the case management and quality departments have been collecting, analyzing and reporting data on Acute Myocardial Infarction (AMI), Congestive Heart Failure (CHF), Pneumonia, Surgical Improvement and Stroke. The data are reported at all levels of the organization and all outliers are examined. Physicians receive quarterly individual compliance rates with peer comparisons. This is one of the methods used to gain physician engagement and alignment.

Emergency Department (ED) throughput was one subset that EAMC had been reporting internally, but not externally. Meaningful Use magnified the importance of the measure. Over time, the publication of ED throughput results will improve performance nationwide.

The methodology for reporting on hospital-wide VTE was new to EAMC. VTE prevention order sets and processes were in place but not fully utilized. Prior to Meaningful Use, VTE was reported to CMS and Joint Commission in our surgical population, but not on all patients. This subset did not align with any of our other required or voluntary data submission commitments.

Healthcare Information Technology Standards Panel (HITSP) developed the VTE submission standards. Data Specifications for NHQM (National Quality Health Measures) have traditionally been administered and developed jointly by CMS and Joint Commission. The development of the VTE data specifications through a different organization resulted in a different logic model and documentation. We believe that these differences delayed the accurate development of questions and answers for the care providers and accurate data reports for improvement. At this point, we do not feel confident in the data to report and defend the data to physicians.

Hospital facilities would be better served if all quality measure requirements were aligned. Alignment should include all quality improvement organizations, including CMS, Joint Commission, Agency of Healthcare Research and Quality (AHRQ) and Meaningful Use. As a result, we would recommend that the next roll out of quality measures include those measures that are required by CMS and Joint Commission.

We realize that AMI, CHF, Pneumonia and Surgical Improvement initiatives were developed with a paper or hybrid medical record in mind. This would be a great opportunity for those measures to be further developed for the electronic health record.

Vendor Challenges

One vendor challenge that we have faced is the modular certification verses the Complete EHR certification. Our vendor passed certification by naming specific modules in their certification. If you do not own these modules, you cannot use the complete EHR certification number. We felt we owned the complete EHR. However, we did not own one of their specified modules in their named certification. We could and did complete all of our core and menu measures without the use of that module, but we had to purchase it in order to get the certification number.

Cost to implement

Since we first signed a contract for our current EHR, EAMC has spent about $60 million on clinical information systems in capital expenditures, maintenance, and people to support these systems. Another $21 million was spent to support our information systems for registration, billing, and business operations. We estimate that in order to meet Stage 2 of Meaningful Use, it may be necessary to spend another $4 to $5 million for Closed Loop Medication Administration, Health Information Exchange, and Physician Practice EMRs. Most of this is cost EAMC had already planned to expend for healthcare automation, but the stimulus dollars provide welcome assistance toward these expenditures.

The industry for healthcare software companies and healthcare consulting services is booming because of Meaningful Use. Attractive salaries are offered to analysts who have experience with implementation of EHRs. EAMC has lost several analysts to this demand, which challenges us to complete our

implementation with less experienced analysts. In turn, we have had to increase our dollars allocated to provide expensive training and education to our new analysts.

Meaningful Use Stage 2 Proposed Measures

The measure of Care Team members needs more definition. How is the Care Team defined? Is it literally anyone who provided care or anyone who accessed the record? Is the focus on Health Insurance Portability and Accountability Act (HIPAA) or on providing ongoing care to the patient?

Virtual communication to the patients is an exciting new concept. We believe the electronic social media market is driving us to this request. Although we are always looking for additional ways to educate, evaluate, and communicate with our patients, the concept of virtual communication creates an uneasy feeling when we discuss security and privacy. We would like to see this concept developed, but not required until firm laws or processes are in place to protect patient's data.

The Electronic Prescribing objective presents a unique opportunity to align the physician incentive programs with hospital incentive programs. With the increasing demands on physicians, hospitals are required to become creative in engagement methodologies. Electronic Prescribing benefits patients in both the hospital setting and the practice setting. We recommend adding a requirement for Eligible Professionals who are actively working in inpatient care to be required to submit some Electronic Prescriptions via the hospital electronic health record, if available.

The new requirement for hospital to provide structured electronic lab results to outpatient providers will be a difficult goal to achieve. We have been successful with a few outpatient providers to electronically submit discrete labs to the outpatient providers' EHR for a few years. Currently, we are

unable to receive a registration with attached orders from a foreign system to our registration system. In order to accomplish this requirement, we will need to examine our registration barriers and investigate community MPI options.

Closed Loop Medication Administration will require a large capital investment. Much of the incentive money received to date will be absorbed by this objective. We believe it will be the most challenging objective in Stage 2. We are concerned about our ability to implement this considering the need for all medications to be barcoded, the need for expanded wireless capability, and the challenges of providing the right hardware solutions to ensure nurse compliance. Furthermore, we believe that many smaller hospitals will not be able to meet this requirement due to this extensive capital investment.

Stage 3 Proposed Concepts

Nationally Endorsed Drug-Drug Interactions with higher positive predictive value and ability to record reason for overriding alert is a concept that our physicians would greatly appreciate. With the increase of CPOE, alert fatigue and frustration is becoming more prevalent. A nationally endorsed list will lead to fewer alerts that have more influence on patient care.

While the Information Reconciliation ability for patients is a good concept, we are not sure the majority of patients will understand the concept unless the Information Reconciliation is limited to registration data only. Although we believe the patient is critical to the accuracy of the information, many times the patient is incoherent or otherwise unable to comprehend the details of the medical record. Patient education will always be the key to patient knowledge and understanding.

Patient Engagement

As the landscape changes, and as comfort with the internet and social networking grows, we expect patients to enjoy being able to have easier access to their medical record, reminders of needed procedures and follow-up, and more direct ability to communicate electronically with their caregivers. Meaningful Use for Eligible Providers is giving patients a taste of "portals" and new methods of communicating. We look forward to these changes both as providers and as consumers of healthcare. However, the HIPAA challenges will be daunting with increased patient engagement. How do you make the record accessible and ensure privacy simultaneously? This is our constant challenge.

Accountable Care

Accountable care increases our desire to create a more meaningful partnership between physician and hospital providers. Currently, the eligible hospital needs physician cooperation to meet Meaningful Use requirements (CPOE, physician documentation, etc.). As EAMC views the EHR landscape, nurses, pharmacists, respiratory therapists, physical therapists, etc. have all significantly changed processes related to the EHR. Physicians have, too, in terms of viewing—but our frontier is to encourage/require physicians to get on board and significantly change their interaction with the record. This will be very challenging. Incentives for hospitals do not necessarily drive physician behavior.

Effect on other Strategic Initiatives

As mentioned earlier, EAMC was working on its "Path to Paperless" in 2009 when it learned about Meaningful Use. EAMC postponed this project. Since we were already meeting the required threshold for CPOE, we reduced our effort at going fully CPOE in order to focus on more challenging criteria like problem list and electronic discharge instructions. As we look forward to several more years of Meaningful Use and with the uncertainty of Stage 2 and Stage 3, we may find that our goal of becoming paperless will be further delayed. We anticipate further alignment and standardization across the

nation as the national incentives collectively influence the use of EHRs. The standards focus everyone in the same direction, which will result in improved communication and collaboration.

EAMC is only beginning to grapple with Meaningful Use and the implications for our physician practices. We are currently in contract negotiations for a certified EMR that we can deploy across several practices. We expect this implementation to be very challenging.

East Alabama Medical Center appreciates the opportunity to provide input in the development of future Meaningful Use regulations.

Sincerely,

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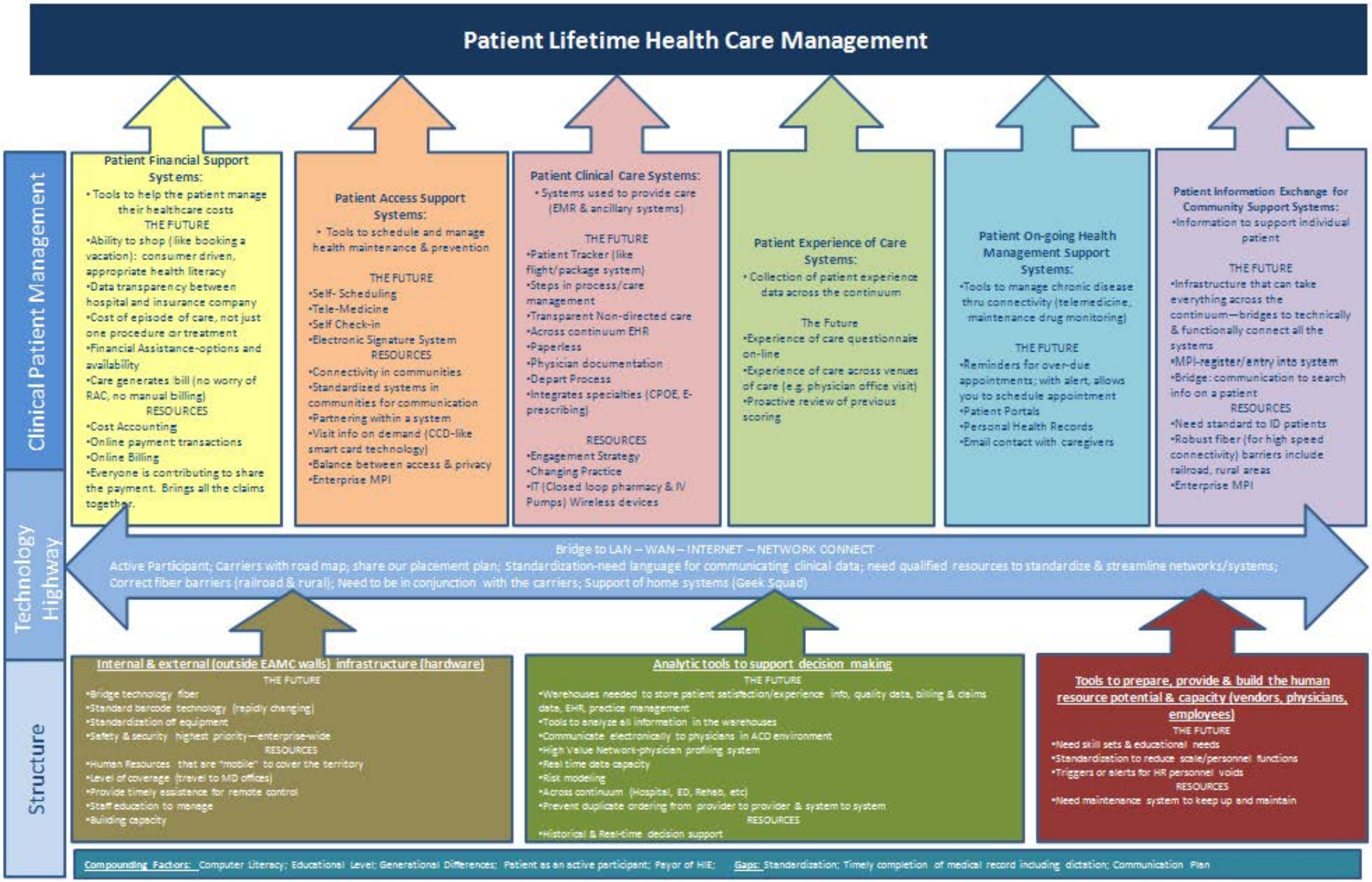
East Alabama Medical Center

Appendix I
EAMC IT Strategic Vision