Davies Award Application

Samuel Goldstein, MD
Sports Medicine & Orthopedic Specialists, PC
880 Montclair Road, Suite 577
Birmingham, Alabama 35213
205.595.6757 fax: 205.595.0472
sgoldstein@bsmos.com www.bsmos.com

Physicians: #4
FTEs:
Clinical Staff:

RNFA, CRNP, RN	#3
ATC, OPA, OT	#4
X-ray	#2

Billing/Clerical:

Management/ Billing	#2
Billing	#1
Reception/ Telephone	#3

No commercial/ employment relationships with any vendor of our EHR system (AllMeds). Dr. Goldstein is a minor corporate stockholder of our computerized x-ray system (Stryker).

Annual Patient Encounters 20,000

Samuel Goldstein, MD
Cherie Miner, MD
Denise Goldstein, RNFA
Jason Davidson, OPA, OTC

Baptist Sports Medicine and Orthopedic Specialists was founded in August of 2000. Dr. Goldstein, an Orthopedic Surgeon with a practice emphasis of sports medicine established a solo practice on the campus of Baptist Medical Center- Montclair in Birmingham, Alabama. Dr. Goldstein had been in a large orthopedic group for eleven years in the same area. The practice was established to provide a new type of service with an emphasis on athletes and care of injuries in an active population.

Dr. Miner associated with the practice on a part time basis in July of 2001. Dr. Miner had recently completed a fellowship in Primary Care Sports Medicine. In June of 2003, Dr. Miner began full time practice with *Baptist Sports Medicine.*

Drs. Miner and Goldstein originally practiced in the main Birmingham office. A satellite location was also served one day a week in a city approximately ninety miles away.

In September of 2003, after careful consideration, our EHR, AllMeds was implemented in our Birmingham office. Six weeks later, we began our EHR in our satellite office via an internet connection to our server in our main office. The satellite office was later closed in March of 2004 to consolidate our operations.

In June of 2004, Dr. James Flanagan, an Orthopedic Surgeon, joined *Baptist Sports Medicine.* Dr. Flanagan had been in a large group practice in the area for twenty years. Drs. Miner and Flanagan became partners in *Baptist Sports Medicine* in June of 2004.

In August of 2004, Dr. Renee Riley, an Orthopedic Surgeon, became associated with our practice. Dr. Riley had completed an Orthopedic Residency followed by a Sports Medicine fellowship in Birmingham.

In April of 2005, the practice name was changed to *Sports Medicine and Orthopedics Specialists, PC* to promote affiliations with hospitals in addition the local Baptist Health System.

The practice serves the Birmingham metro area with a population of slightly more than one million. We are team physicians for the local professional arena football league team. We also are team physicians for twenty high schools and middle schools in the area. Coverage is provided to our schools through affiliations with area hospitals and physical therapy groups. Certified athletic trainers are on site full time at these schools. We also have a large referral base of area primary care physicians and former patients.

Our practice mix is currently approximately 50% Sports Medicine and 50% General Orthopedics.

In early 2002 it was evident that with the rapid growth of the new practice, medical records and charts were becoming a major burden. A multiple depth chart filing system was beginning to fill. Dr. Goldstein began to research EHR and several systems were evaluated.

With a satellite office, charts were being transported weekly in private vehicles. Records were often being faxed to the satellite office when patients presented without an appointment.

Several factors were considered in the decision to purchase an EHR. The cost of the initial system investment was the most obvious. The cost savings of eliminating $1800 per month in transcription cost was an important primary objective. Other considerations included the availability of charts with an EHR. The doctors would have access to the charts at home. Multiple users could access the record simultaneously for billing and clinical applications. No FTE would be required to locate charts that were misfiled or located at various places in the office.

Other considerations included the ability to utilize our clinical personnel to enter data for the physicians. Our clinical staff is highly educated and skilled. Our clinical assistants were already performing histories and physicals on our patients. They would then present their findings to the physicians. Many times, they were in patient rooms with another patient when the physician was ready for their presentation. This would slow the progress of our clinic. With EHR, the physicians could review the information entered and this would make the office more efficient. In summary, the assistants were being underutilized with our paper charts and the physicians were doing all of the dictation.

We also wanted to have the ability to respond promptly to our referring physicians. The ability to easily fax office notes to these doctors was an advantage of EHR.

The original project of discovery and cost analysis was primarily performed by Dr. Goldstein. Investigation and research of the various EHR systems available was a prolonged process. Analysis of the cost of paper records and transcription costs was quite easy. Our practice had been tracking our increasing transcription cost since inception. The cost of materials for paper charts annually was a relatively easy bookkeeping exercise.

All employees were to be held accountable to the success of implementation of EHR. At the time of the decision to move to EHR, the practice had two physicians and three full time clinical assistants; one Registered Nurse- First Assistant, one Certified Orthopedic Technologist, and one Orthopedic Tech. Other employees included a Licensed X-ray Technician, a receptionist, a billing clerk and a business manager.

Dr. Goldstein, Dr. Miner and Denise (RN-FA) were in charge of the clinical implementation and patient flow organization during the transition to EHR. The business manager and billing clerk were responsible for the transition of the clerical part of the office to EHR.

During the search for our EHR system, many products were evaluated. A few were primarily systems that organized dictated notes. These were quickly discarded as the limited functionality of these systems was a significant problem. Several template driven

systems were considered. One of the most important factors was the need for a system to be applicable to the specialty of Orthopedic Surgery and Sports Medicine. Many systems were evaluated that were intended for Primary Care Physicians. These were also quickly eliminated as they required too much work on the practices part to build logical templates for our specialty.

After careful consideration, we decided to partner with AllMeds for our EHR. It was important that the chosen EHR vendor provide to us the comfort level that transition to EHR was as much their responsibility as ours. This vendor not only had a program that would function with the properties we felt needed by our EHR; they also seemed intent on making the program work in our office.

The AllMeds program is a template driven system with additional possibility of limited free form typing or dictation. The program is based on the familiar SOAP note format. The system could track CPT codes performed and ordered in the office. This allowed us to track and read our x-rays within the EHR system. Additionally, coding compliance was addressed with the systems ability to track information "bullet points" that gives the practitioner a suggested visit CPT code. Notes to referring MD's, physical therapy orders, and orders for MRIs and other tests can be faxed directly from the system. Medications, Allergies, Past, Family, Social Histories and Review of Systems information could be entered. Medication prescriptions are cross checked for Allergies, Medication, and disease interactions. Prescriptions can be faxed or printed directly from the system.

Our desire was to become as completely paperless as possible. The AllMeds system also contains a messaging "e-mail" type application that allows us to avoid the need for notes for prescription refills and other patient calls. We also wanted the system to assist us in the flow of patients through the office. We needed the ability for the system to track where the patient was located in the office. This allows the physician to know who is ready to be seen and the location of that patient. The system that was chosen for our practice had all of these abilities and is user friendly enough that we could easily mold the system to fit our practice pattern.

With the assistance of the AllMeds sales and implementation team, we evaluated our hardware needs for their system. The desire was to have a single source for our computer needs. Although this is not a specialty of the AllMeds Company, they were willing to provide much needed support for the hardware when possible.

Our decision to avoid an "off site, internet based program" required the purchase of a local server and firewall. These were configured by a local information technology vendor. Additionally, this vendor configured our network and HIPPA compliant security for the network.

Our original thought was to use Tablet PCs to allow the clinical staff to be mobile with the ability to enter data in patient rooms or work areas as we desired. Each clinical assistant and MD had similarly configured Toshiba Tablet PCs. Firewalls were purchased and configured for each of the physicians' homes to allow the doctors to connect to the

office network. The AllMeds program was also available on all of the existing PC's in the office.

Our original interface was with our billing system. Our system at the time was a UNIX based system from a local company, Medisys. The system was not on the HL7 platform. An interface was written to transfer patient demographics and insurance information from this billing system to our EHR. There was no two way transfer of information back to our billing system.

One implementation problem that was significant concerned our wireless network. Our main office is located in a large professional building. Our IT Company had a very difficult time securing and configuring our network to avoid cross-over signals from two other wireless networks in our building. This caused a problem during implementation with stability of our system. Later, a more experienced IT person had to be hired to complete our wireless network installation. He was able to provide us with a stable network.

The satellite office maintained at that time was also a slight problem. A firewall was installed at that location. The office was in a small, rural town and the only high speed internet access available was a satellite service. This was as difficult to configure as the local wireless network. Stability of the connection at our satellite office was initially a problem.

Most of the above problems occurred concurrent with installation and implementation. This was obviously very frustrating for all involved. Although our EHR vendor, AllMeds, was not responsible for all of these issues, they were very helpful in the resolution and technology assistance in solving these problems.

The implementation of our EHR can best be described as a re-tooling of the practice of patient care and documentation. Our vendor started with training one month prior to implementation. Prior to this training, an AllMeds representative visited our practice for one day to observe our patient flow to better assess our training needs and plan implementation. The formal training session was a two day event on a Friday and Saturday. The office was closed and the phones were off to allow all employees full involvement in the training.

The entire staff, at the time seven employees and two physicians, learned all of the basic functionality of the system. Groups were then divided into front office and clinical staff for more intensive training in specific aspects of the EHR program. The physicians began building stored outlines for rapid entry of history, physical exam and plans for specific diagnoses.

Following this initial training, the next few weeks were utilized for outline building and practice sessions during free time. All employees were encouraged to practice as much as possible on the system utilizing fictitious patients.

Our Clinical Manager contacted several other EHR users to determine an appropriate plan for implementation. Based upon her research, it was decided that patient visits should be limited to about one half of normal for the first two weeks. A gradual increase could then begin with full patient numbers after four to six weeks.

In spite of the above recommendations, the Managing Physician refused to believe that this was required. The number of patients to be seen on the date of implementation was not adjusted significantly. This would later be a decision that we regretted.

We held several meetings in small groups as managers and the full group of office staff to discuss the adjustments that were required in the practice. New information intake forms were needed. These were designed to match the data entry for the EHR. These new forms were utilized with all new patients three weeks prior to our "Go-Live" date. This allowed us to collect some data that we could enter into the system upon implementation that would save time with these patients first follow up visit.

Patient flow issues were also discussed in regards to how we would utilize staff to enter data and examine patients. During this pre-planning time, decisions were made as to how we would handle patient messages, phone calls, and who would scan and assign outside information.

After weeks of planning, we felt that we were ready for the new system to begin. There was excitement and some anxiety, but we all couldn't wait for our "Go Live" day. Like lambs being lead to slaughter, we had no idea what we were really facing.

On our "Go Live" day, a Wednesday, AllMeds had two trainers at the office to assist with our first days. One trainer worked primarily with the front office staff and the other worked with the clinical staff.

We quickly realized that our Registered Nurses research was correct. We should have reduced our patient numbers by one half. Every patient was a like new patient. All information had to be entered into the EHR system, regardless of the patient type. Even a simple fracture follow up case, usually a three minute visit and a thirty second dictation took over fifteen minutes to just enter the data.

Dr. Miner and Dr. Goldstein quickly grabbed the Dictaphones to keep up with the patients. Approximately one fourth of the first days visits were entered fully into the EHR. The rest were either dictated only for later transcription or partial data was entered into the EHR and dictation was done. After a day without a lunch break, the staff regrouped to assess our progress and plan. The decision was made to limit patient visits for the following two weeks. Thankfully, Thursday was an operating day for Dr. Goldstein and that day was a little easier as there were fewer patient visits.

Friday, usually a very casual short office day was a little better as the patient numbers were limited. All patients seen that morning were entered into the EHR system.

Another major issue on implementation was the documentation of patient calls and follow up. AllMeds has a messaging system that allows our telephone encounters to be handled entirely by EHR. A phone message is routed via an e-mail type system to the Registered Nurse who answers patient calls and requests. An issue that we quickly discovered was how to document a call in progress.

It is easy to document a call that has been handled, but no one had experienced how to document a call back that was in progress or how the call was addressed. Another problem was that the documentation of a call back was cumbersome in that a visit type of a "phone encounter" had to be started separately for each call and the information typed and re-typed with each encounter. The AllMeds staff was not able initially to help with this documentation problem. We were not the first AllMeds users, and we wondered how other practices could get by with the poor telephone call documentation process. They seemed initially to lack understanding of our frustration in the need to track the phone encounters that were in progress.

In spite of all of the problems, our excellent office staff remained committed to the EHR system. The AllMeds staff was committed and supportive, but we felt as though they too were learning from some of our problems.

At the time of our start up, we were using a wireless network and the clinical staff was entering data on laptops. As mentioned previously, there were other wireless networks in the building, and conflicts arose that caused our laptops to temporarily drop off our network. When our wireless network was installed, it was not noted that other wireless was located in proximity and this caused significant problems our first seven to ten days. We had several times where we would be disconnected from the network, which caused our computers to freeze and stop workflow completely.

We also had planned to use these tablet PCs to enter data in the patient rooms. This was our original reasoning to utilize a wireless set up. We felt that we could put the laptops on the exam table and continue to face the patient while data was being entered. Our thought was that turning our back on the patient to enter data at a desktop would be too impersonal. We quickly realized that we were so unfamiliar with the program, that entering data in the patient room was impersonal even with the laptops. The laptops have been used almost exclusively in our workstations since the second day of EHR.

The next week, we continued to struggle and learn new things about our EHR. We were getting better, but the implementation remained very difficult. We were working long hours and late into the evening after patients had left the office to complete the data entry. It seemed by Wednesday that mutiny was imminent. At noon, the office closed for lunch. The managing partner ordered lunch for the staff and an "emergency office meeting" was called.

The options were posed to the office staff. Should we continue to try to switch immediately to an all electronic record? Should we use the system partially? Should we

just slowly transition to the new system doing some patients in the EHR and some with the old dictation system? Should we abandon the project of EHR altogether?

The decision was unanimous, “Let’s just go all the way with this and get the bad days over with”.

In the research done by our RN, we were told that we would hate the system for six weeks. For three months, we would dislike it, but become more tolerant. After three months we would become proficient. At six months we were told we would never be able to do without EHR. After one weeks time, we were just hoping to survive to the next day.

Our initial plan was to implement EHR at our satellite office in Ft. Payne, Alabama as soon as possible. The decision was made to delay implementation for at least one month due to our difficulties at our main office. We continued to use Dictaphones and transcription at the satellite office. This office was only open one day per week, so the use of our old charts was very limited.

As the weeks progressed we became more proficient in our use of the EHR system. The office staff was very dedicated, and we found that in six weeks we were back to handling our usual number of patients and we were leaving the office on time. Although were continuing to experience some technical networking issues, the main office and the satellite office were functioning normally.

The above mentioned learning curve was significantly shortened in our office due to a dedicated and hard working staff. We were actually proficient with the system at six weeks and knew that we could never go back to the archaic system of paper charts.

We decided that our old charts would be kept intact. We did not scan all of our old charts into the EHR system. This would have been both time consuming and would waste unnecessary data storage space. In an orthopedic practice, our patients will be cured of their injury in many cases. Most of our patients average four visits and are then discharged to be seen only if another problem occurs. We have scanned important information including prior operative notes and test results into our EHR as patients return for follow up visits. Initially, this involved scanning information from almost all follow up patients seen. After three months, we were scanning information from three to four charts per day. Currently, this is required approximately once a week. Our charts are now kept in a locked closet, alphabetized, requiring about sixteen square feet of space on fixed shelves.

Our office has utilized the EHR system since September of 2003. We use every aspect of the EHR system. Our messages are all handled within the system. All outside paper correspondence in scanned into the “patient chart”. We have absolutely no transcription done and the only increased work load is on our paper shredding company that has to dispose of all of the paper that we receive from outside sources.

The AllMeds system like most EHR is a work in progress. There have been frequent updates of both content and programming functionality. The company has been extremely responsive to user ideas, including many from our practice, which have been added as updates over the past nineteen months. These updates have improved the efficiency and documentation of the system.

In March of 2004 the satellite office in a rural Alabama was closed. EHR was functioning well at the off site location. The decision to close that office was unrelated to EHR.

In April of 2004 we added computerized x-ray to our practice. The decision was based upon the desire to computerize all of the data storage of the practice and a planned physician addition would have required an additional x-ray employee to handle the filing. With computerized radiography, we could save the additional expense of the employee and achieve the benefit of electronic x-ray storage.

The cost analysis of adding computerized x-ray revealed that considering film and processing cost, filing time, and the additional employee that the system would pay for itself within five years. At that time, we did not plan on adding a fourth busy physician. The interface for the Stryker Image Portal X-ray system and AllMeds was handled by both companies. The installation and implementation of computerized x-ray required two days of training for our x-ray technician. This was done with regular patient care in progress and we did not have to adjust our practice significantly. The interface allowed us to both document our x-ray order as a procedure in our EHR and the patient information to flow to the x-ray program to avoid duplication of data entry.

The workflow tracking portion of the computerized x-ray program continues to be a problem. This functionality remains useless as all needed data does not flow from our EHR to our x-ray program. For this to function in our practice, the patient room number and the specifics of the x-ray needed (left or right) must be part of the workflow in the x-ray system. This interface and content update is yet to be a part of the Stryker system. Stryker recently purchased the E-Trauma x-ray system. We are hopeful that this workflow issue will be resolved soon.

In June of 2004, another busy well established Orthopedic Surgeon joined our practice. This occurred with approximately two months of planning and negotiations. Due to his sudden practice change, we had little preparation time to assimilate this new doctor into our practice. He did go to AllMed's home office for training on the EHR system two weeks before joining our practice. However, he joined our practice before we could hire and train adequate staff. In spite of this, his records have been entirely done in the EHR. This required an effort similar to our start up in EHR. There were many late hours and again our dedicated staff worked hard to train new people and work through this transition.

In July of 2004 we changed our practice management program to an HL7 program that allows two way communications with our EHR. This was done to allow our coding and billing to be simplified and utilize the data being entered in the EHR. Our EHR tracks the

information necessary to suggest appropriate coding for office visits and consults. The coding was being done in the EHR, but we still needed superbills and data had to be entered manually into our practice management system.

After consideration was given to several software companies, we purchased a practice management system from MicroMD. The interface for information flow to and from MicroMD to AllMeds was already in use in another practice. The fact that there was already a working interface between the two systems greatly influenced our decision to buy MicroMD.

The introduction of MicroMD to our practice could best be described as a disaster. The training was poor. The interface was inconsistent. We believed that the system could do more than it actually could do. Our billing and collecting personnel quickly became overwhelmed and along with the new physician addition managing the problems became almost impossible.

AllMeds continued to work as much as possible to correct any interface problems that were present, but the functionality of the MicroMD product was not what we had understood that it would be. Thankfully, a new version of MicroMD was planned for November of 2004. This we were assured would solve our problems and for the most part, this has been true. We now are able to code the visit in AllMeds, our EHR, and the visit ICD-9 and CPT information will electronically flow into our billing system. Additionally, patient appointments and demographics flow from our billing system to our EHR. There remain some inconsistencies regarding insurance information flow, but for the most part the systems now work together.

In August of 2004 another Orthopedic Surgeon, a new graduate from a fellowship program was added to our practice. This was a long planned addition and staffing was in place for this addition. With this new physician, an AllMeds trainer came to our practice for two days of training. She was able to train on the first day and see a few patients on the second day. Her practice has steadily grown and she has utilized EHR entirely.

In late November of 2004 we began as a test site for a computer scan sheet for AllMeds. This sheet contained the questions from our Past History, Family History, Social History and Review of Systems form. The data entry of this information would take about five minutes. Now, the data is scanned into the system and loaded directly into the patient's digital record. This saves our clinical assistants a total of approximately two hours considering the number of new patients seen per day in our office.

In April of 2005, another satellite office was opened one day a week in the Birmingham area. This required approximately one hour of our IT specialists time for set up. We use our existing laptop computers that are transported to the satellite office. No additional expenses were incurred.

Our current patient flow begins when the appointment is made. The information from the practice management program interfaces with our EHR. A tracking screen in AllMeds allows the clinical staff to see the patient appointments for the day.

When a new patient presents to the receptionist, paperwork is given to the patient. Insurance cards are scanned into the practice management system. The patient fills out demographic information that is entered into the practice management system. The patient also answers a past history, family history, social history and review of systems questionnaire on a computer scan sheet for entry into our EHR. A digital photograph is taken of each patient that is associated with the EHR. The patient reviews our HIPPA documentation and signs an electronic signature in our EHR.

The front desk personnel will then scan the computer form ("bubble sheet") and associate it with the correct patient. When all information is ready, a ticket is printed in the clinical area at one of three workstations. This paper is used primarily as an x-ray order and a patient tracking sheet for the clinical staff.

The patient is then brought to a room by one of the clinical staff. We utilize a RN, a RNP, a RNFA, ATC and Orthopedic Technologists to take a history and examine the patients. One of these individuals will bring the patient to the room, obtain a history, perform a physical exam, and order appropriate x-rays. They will then enter current medications, allergies, and surgical history on new patients. They will also enter a chief complaint, history of the present illness and physical exam on each patient. They order the x-ray in the EHR and mark the same on our tracking sheet. In many cases, they also enter the diagnosis and print any patient information materials needed at this time.

Next, the physician either reviews the information with the assistant or merely reviews the information in AllMeds. The physician then enters the patient's room and obtains additional history and performs an additional physical exam. The physician then returns to the workstation to review any x-rays and other information including outside films or MRI or other studies. Any adjustments or additions in the documented history, physical exam, assessment (ICD-9 code), and plan are usually done at this time. The x-rays done in the office and outside films are documented and read within the EHR system. Patient prescriptions are printed from the EHR as this allows for cross checking for interactions from other drugs or diagnosis. Currently we do not fax our prescriptions as local pharmacies have been ambivalent about accepting faxed prescriptions. Any patient information material that has not been printed is then printed for the patient. CPT coding is done when all information has been entered and the patient is ready for discharge in most cases. Referral letters and physical therapy notes are faxed to providers at this time.

When the visit information is complete, the physician then posts the visit to billing. This actually is the function that moves the billing information from AllMeds to MicroMD. Either at this time or after an additional complete review of the record, the physician then marks the visit to sign. At the end of the day, the physician signs all charts electronically. Only those that have not been previously marked need to be reviewed.

The billing information that is transferred from our EHR to our billing system is reviewed and any necessary corrections are made. Modifiers are added in some cases. These modifiers can be done in our EHR system, but our insurance specialists are usually more correct than the physicians in this process. Once all corrections are made, electronic claims are then filed to most carriers.

All patient messaging is handled in our EHR. An e-mail type system in AllMeds is used for these encounters. Telephone messages for patient questions, insurance pre-certification inquiry or prescription refills are the most common messages. These are taken by front office personnel. A message is then generated and marked with a subject as urgent or routine. These messages are “attached” to a specific patient and “e-mailed” to the treating physician’s RN or primary clinical assistant. Emergent phone calls are not handled via “e-mail”.

We also utilize the messaging system while seeing a patient in the office to address a task that needs to be performed at a later time. Some examples include: when a pre-certification is required, a reminder to call test results, billing questions, or any general patient reminders.

When the nurse has a message, an icon on the computer screen notifies that a new message is in their box that requires attention. The RN will review the message, handle the call back or refill, then open a “phone encounter” visit type in AllMeds. The patient’s message and the action taken are documented in this visit type.

Our surgeons also use AllMeds for surgical procedure coding. The appropriate ICD-9 and CPT codes for major surgical procedures are placed in a “surgery” visit type and documented in our EHR. This allows for later association of the operative report dictated at the hospital or surgery center to the individual procedure. This assists billing personnel later when there are insurance inquiries. This also allows for a quick reference by the clinical staff during future patient visits. All surgical images are also scanned into the system and associated with the surgical CPT code.

As mentioned previously, all referring physicians receive a faxed thank you for their patient’s referral and a brief description of the findings of the visit and the plan for treatment including new prescriptions written for their patient. Our physical therapy prescriptions are faxed with each patient visit and these include ICD-9 and CPT codes when appropriate. This assists the therapists with their documentation and billing. All physician orders for tests are faxed directly from the system to the performing facilities.

Another function that the physicians find to be a great time saver is that the History and Physical required for hospital admission or outpatient surgery is generated from our EHR. The information usually from the visit prior to surgery is assembled by the program and printed. This replaces the need for a dictated History and Physical at the hospital.

By the full utilization of our EHR, our practice has become more organized and efficient. There are no lost charts. Physicians can review patient records from home. All patient

documentation and charges are done on the same date of the patient visit. Physicians do not take charts home for later transcription to be done.

The improved efficiency has been noted in many areas. Physicians no longer have to wait for the assistants to come out of a patient's room to obtain a history regarding the next patient to be seen. Several employees can be working in the same chart simultaneously. Prescriptions are documented in our EHR clearly and refills are easier to process.

The physicians are able to spend more quality time with the patient. Instead of serving the function of care giver and documenting everything, the physician performs less of the documentation and has more time for patient care.

Our billing staff has immediate desk top access to a patient's record to answer questions regarding procedures performed on a particular date of service. All medical record requests are easily handled with a function to print one or all office records.

Our coding is now supported by documentation. There has been a decrease in the number of Level 4 and 5 new patient visits that previously did not have necessary documentation to support these codes. With the ease of reporting to referring physicians, Consults of Level 2 and 3 have replaced office visits of lesser codes. Additionally, we were under coding on follow up patients consistently. Practice revenue from office visits has increased.

Our transcription costs were $1800 per month with two physicians. With our current four physicians, this cost would be at least $3600 per month. In addition, the cost of the patient chart and dividers was approximately $1.50 per chart. We have seen 5000 new patients in the last nine months. The total cost of the above alone would be about $50,000. This does not include the cost of the additional employee that would be required to file and pull charts, find charts at various locations in the office, and hunt for misfiled charts. In most offices, this requires one person for every four physicians. Even at minimum wage, this would cost $25,000 per year in salary and benefits. Conservatively, this is $75,000 in costs eliminated by our EHR per year.

The total cost of our initial investment in a server, five tablet computers, firewalls, wireless transmitters, network installation and EHR program and training was $ 100,000. The addition of two physicians required purchase of additional licenses, training and equipment that totaled an additional $20,000. After the first year, we now pay about $1000 per month for maintenance, support and updates.

Our initial research yielded that EHR would pay for itself within 30 months. With the growth of our practice, our calculations indicate that the EHR will actually be at a financial break even point after only 20 months. As of this point, we are spending $1000 per month for our EHR versus over $6000 per month if we were still using paper charts.

Our office staff has grown from seven employees to fifteen. This increase can be attributed to doubling the number of physicians and patient encounters and the need for more support staff. This increase was not caused by the implementation of EHR.

We have only used the AllMeds staff for training our new physicians. All other new clinical and office staff has been trained by our experienced staff.

The success of the implementation of EHR at *Sports Medicine and Orthopedic Specialists* is due to total physician commitment and a dedicated office staff. Both of these qualities are absolutely necessary for any practice to be successful with computerized records.

Several of us attended an AllMeds user's conference eight months after our implementation. A few practices were having problems with their implementation and this seemed to be caused by poor physician support. Another cause of the problems was administrators' decisions to add staff to handle the change in patient flow as opposed to adapting current staff to accomplish the same tasks. One practice had almost doubled the number of employees without any added physicians.

Besides total physician commitment and a dedicated office staff, excellent Information Technology support is necessary. Many of our initial problems were due to an IT company that was unable to configure our network to be reliable and secure. After hiring a new IT consultant, these problems were eliminated. It is important to use an IT company that is familiar with network configuration and healthcare.

One must remember that an EHR vendor is usually just a software vendor. The integration of the medical record product with the billing system is imperative. A few vendors have products that will function as both systems. In our research, these products are not as complete in either one function. Dedicated research and questioning must be done of the EHR and practice management companies prior to any purchase being made.

The physicians and administrators of a practice must work together to purchase and plan for implementation of the new system. Changes in the workflow and employee responsibilities must be considered before implementation.

The advice we received from other practices using the system was extremely valuable. Don't ignore this advice! Remember, we did not initially reduce our patient numbers and this had to be done with haste. The physicians must understand, a one-half reduction in patient numbers for two weeks is the same as taking one week of needed vacation.

Part of the due diligence process includes a site visit to one or more practices that are using the computer program that you choose. One or more physicians and administrators must take the time to learn the issues that can only come from a site visit. This would be like buying a home without looking at it prior to purchase. Try it before you buy it. This is the only opportunity to evaluate patient flow and how the program works in a functioning practice. This also is a process that helps to plan for the changes needed in

patient flow after implementation. Several other AllMeds customers have visited our practice. We have received feed-back that the site visit was extremely helpful to these practices during their planning for EHR.

Our practice was the first all digital practice in the State of Alabama. Currently, a very small percentage of offices nationally are essentially completely “paperless”. All of our patient records and x-rays are stored digitally. Of course, our storage systems are protected by tape and redundant hard drive back-up.

Overall, our implementation of Electronic Health Records using the AllMeds system has been a tremendous asset to our practice. Our records are complete and accurate. They are completed and a referral letter is sent usually with minutes of the patient visit. Our coding is more accurate, and by including procedure and x-ray coding in the system there are fewer billing errors. The recommendation to all who are considering EHR is that it will not get any easier to implement this technology in the near future. Government mandates will require the technology within the next ten years or less. For a new practice, computerized records are an easy beginning. For an established practice, the longer you wait to implement EHR, the more difficult the process.

During implementation, we advise that weekends be used for rest and relaxation. After three to six months, give yourself a much needed vacation.