Application for the Davies Recognition Program

Ambulatory Care Practices

Section A: Identifiers

1. **Name and Title of Submitter:** Jeffrey L. Harris, M.D.
2. **Practice Name:** Wayne Obstetrics and Gynecology
3. **Address:** 371 Peachtree Street
4. **City:** Jesup **State:** GA **Zip Code:** 31545
5. **Telephone:** 912-530-7301 **Fax:** 912-530-7302
6. **E-mail:** **harr1174@bellsouth.net** **Website:** N/A
7. **Number of Physicians in Practice:** 1
8. **Number of FTEs:** (list by staff category) 1 provider; 9 staff members.

    a. Executive Office Manager- 1 FTE
    b. Assistant Office Manager- 1 FTE
    c. Administrative Staff- 3 FTEs
    d. Nursing Staff- 4 FTEs

Commercial/employment relationships: Wayne Obstetrics and Gynecology serves as a beta test site for JMJ Technologies, to test new releases.

Annual Number of Patient Encounters: In 2004 there were 6,000 direct encounters and 3651 indirect (includes telephone encounters); so far in the first three months of 2005 there have been 2,205 direct encounters and 1,957 indirect encounters

EMR Implementation Team: Antonia B. Harris, MSW- Executive Office Manager
Lena Flener- Assistant Office Manager
Teresa Morris, RN- Senior Clinical Nurse
Jeffrey L. Harris, MD- Physician

Section B
Wayne Obstetrics and Gynecology

I. The Organization

Wayne Obstetrics and Gynecology is a solo physician practice established in August 2003. Prior to that time, the physician had been an independent practitioner leasing space in another office from October 2001 to July 2003. The physician is board certified in both Obstetrics and Gynecology and Family Practice, devoting over 90% of his practice to obstetrics and gynecology. The practice is located in a single facility at 371 Peachtree Street, Jesup, Georgia. The physician admits all patients to Wayne Memorial Hospital, located 1 mile from the practice location. The practice is supported by one Executive Office Manger, an Assistant Office Manager, three Administrative staff (two front office and one billing) and four Nurses (one RN and 3 LPNs). As a smaller practice, the Executive Office Manager performs day-to-day management. The Executive Office Manager and Physician perform long term planning with input from the entire staff.

Patient population:

Age:	Number of Patients:
0-19	210
20-29	633
30-39	491
40-49	401
50-64	337
65-on	179
Total	2274

Top Ten Insurance Companies:

Name:	Number of Patients:	Percent of All Patients
Medicaid	759	32.04
Blue Cross/Blue Shield	336	14.18
Medicare	270	11.40
State Merit	246	10.38
Georgia Health Partnership	87	3.67
Tricare	73	3.08
Blue Cross Federal	71	3.00
CBCA	63	2.66
United Healthcare	60	2.53
PLI	35	1.48
Top Ten Totals	2000	84.42

II. Management

A. Business Objectives: The organization made the decision to implement an EMR record system prior to opening the practice. This decision was based on multiple factors. Initially research was begun by reviewing multiple vendors listed by the American Academy of Family Physicians on their website. Further guidelines were obtained from several practice management resources. Using the goals and expectations listed below, the various vendors' information was screened and the list of candidates reduced to five products. Each vendor's representatives made presentations of their products, with JMJ Technologies, Inc. EncounterPro® EMR being selected as the EMR system for the practice. The goals and expectations used to select the EMR system were:

1. **Enhance the Quality of the Patient Care Visit**: Implement an EMR record that would enhance the quality of the patient care visit. It was felt that the old paper record system used when the physician was leasing space in another office did not enhance quality care. There was no visibility of patients when they arrived at the office, how long they were waiting in the lobby, or how long they would wait for the physician in the exam room. Communication of tasks between different staff members was inefficient. In short, it was felt that patients were not satisfied with their visit secondary to patient flow issues and were choosing to leave the practice and find other physicians for their medical care. Goal: Decrease requests to switch physicians to less than one patient per month.

2. **Improve Accuracy and Thoroughness of Documentation**: Implement an EMR record that would improve both accuracy and thoroughness of documentation. Goal: Appropriately increase CPT coding level by 10%.

3. **Decrease Exposure to Medical Liability:** As an Ob/Gyn physician, the risk of medical malpractice claims and the rising cost of medical malpractice premiums made it imperative to incorporate an EMR system that would decrease exposure to medical claims. Part of this goal was to use the EMR to efficiently and accurately transmit prenatal data from the office to the hospital labor and delivery suite. Goals: 1) Institute a fax transmittal system of prenatal information flow sheets between the office and hospital and 2) no malpractice claims filed against the practice.

4. **Decrease Lost Productivity and Eliminate Paper Records**: Implement an EMR record that would allow the office to go "paperless" and decrease lost productivity associated with paper records. Another issue was overtime work after hours and on the weekend completing paper charts and other associated paperwork. Goal: 1) Stop using paper records within 6 months of implementing the electronic medical record system and 2) eliminate the need to complete charts after work and on the weekend.

5. **Improve Process Efficiency:** Implement an EMR record that would improve process efficiency to expand the number of patients that could be seen. Paper charts required considerable time to locate, required time to refile or pull to insert lab or radiology results. Paper charting was slow, and recall of past data was time consuming. These issues hampered the ability to expand the patient appointment schedule to increase visits and meet patient needs for timely care. Goal: Increase patient visits by 10% within 2 years of implementation by increasing available appointments without increasing the number of hours worked.

6. **Reducing costs and increasing profits:** This would ordinarily have been a goal of a practice implementing an EMR system. However, as a new practice, this goal actually took the form of cost avoidance. Goal: Avoid the normal costs associated with using paper medical records, including supplies for paper charts, employee hours for chart pulls and re-filing, transcription costs, and chart storage space.

B. Project Organization: Roles and Responsibilities: The Executive Office Manger and the Physician performed research and product selection jointly. The Physician, Executive Office Manager and Assistant Office Manager performed coordination of the implementation. Training was the responsibility of the Assistant Office Manger and the RN. Ultimately the Physician is responsible for ensuring the success of the implementation.

II. Implementation:

A. Product. The EHR system used is EncounterPRO® from JMJ Technologies, Inc. in Atlanta, Georgia (www.jmjtech.com). EncounterPRO is the only EHR, of which I am aware, that is based on a workflow management system that allows the customization and streamlines collaboration among providers and staff in ways that greatly improve practice efficiency. For example, while the physician is in the exam room with the patient, in addition to documenting, he is also directing and delegating tasks to other staff members. Staff members can prepare for procedures before the physician leaves the room. They quite frequently pass each other, the physician on the way out, a staff member on the way in. The physician can go immediately to the next patient, while a staff member immediately performs the procedures. The staff member does not have to be found and told what to do. The EHR's workflow management system takes care of that.

Functionality: The EHR's data sets include problem lists, procedures, review of systems, medical and nursing diagnosis, medication lists, allergies, demographics, diagnostic test results, radiology results, health maintenance alerts, and E&M coding. The clinical and patient narratives can be captured by free text, template-based text, dictation, or voice recognition.

Results Management: The EHR manages laboratory, radiology, and referral reports. It supports images, waveforms, scanned documents, pictures, and sounds. It also keeps track of tests for which no results have come back. It generates reports of tests still open, and reports overdue tasks and assigns staff responsibility for these overdue items.

Order Entry and Management. The CPOE system encompasses electronic prescription writing, lab orders, X-Ray orders, nursing entries (Vitals Screen), and referrals. All orders are highly configurable and can be part of the workflow. Buttons can be placed on any screen to order items automatically. For instance, the workflow can either bring up pick lists or automatically order labs and tests. Each assessment can have its own configurable order list.

Communication: The EHR has an internal messaging system that allows for increased communication among members of the healthcare team. It creates TO-DO items for the providers that are attached to both the history of the TO-DO item and the patient's chart. Messages are routed through workflow or by selecting specific recipients.
For example, a message can be sent to oneself to call a patient in two days to check on his/her progress. Alerts also provide for communication to office personnel outside of the medical record about special problems. Examples of such alerts could include a duplicate name alert, billing alert, and please get new address and phone number alert, etc.

Patient Support: The EHR has a patient take-home report that includes all care instructions, a summary of all labs or tests ordered by the doctor, and a list of all medications and instructions. The program also has extensive patient education workflow capabilities.

Administration: The EHR is integrated with a billing/scheduling system that supplies information about appointments, schedules and patient demographics. It also has a third-party interface showing the front office staff which specialists and labs are covered by what insurance companies.

Reporting: Structured data permits queries against open and closed assessments, drug history, family history, etc. This is a powerful tool to construct reports that provide key and essential patient information, both for a single day or over a longer period of time. For example, each obstetrical patient has an OB AP report that collects new OB patient information and an OB flow sheet that exceeds ACOG flow sheet charting with the information it contains. These reports are customizable by the individual practitioner and automatically updated with each patient visit, giving the physician an immediate overview of all care provided for the patient during their pregnancy.

Technology: Application and User interfaces. EncounterPRO is a client-server application that runs on Microsoft Windows® 2000 Server and Microsoft SQL Server™ 2000. The EHR fully interfaces with more than 20 practice management systems A Lab interface is also available from the vendor. The EMR user interface is akin to the touch screen-oriented systems in restaurants: one screen at a time, with only the most relevant data displayed and options presented (although, of course, a user can always jump out of a

particular screen sequence to accomplish an arbitrary task), and the sequences can be tweaked through the workflow management to make such occurrences are infrequent. The document scanning system operates on the concept of a "holding area," separating the process of acquiring a file from the process of placing that file into a patient's chart. Any administrative or clinical person can do scanning into a file.

Practice role in managing technology: The technology has had very few issues that require "management." As a new practice, we purchased our server and all other hardware through JMJ Technologies. We chose to blend a combination of flat touch screen Wyse solid state terminals in the front office and exam rooms with Acer tablet PCs for the doctor and nurses. This combination has worked well to enhance patient flow and provide superior provider satisfaction by providing a choice of input devices. JMJ Technologies support and technical staff have worked well with the physician to provide management of the technologies. There have been no serious issues with the hardware or software. Integration with the practice management system has been accomplished easily. Management at the local office has been accomplished with a minimum of time and effort. HIPAA compliance has been greatly enhanced with the EMR product.

B. System Implementation: As a new practice, the first step was to implement the practice management system and become familiar with its use. This was performed in August 2003. As a new practice, entirely new hardware was required. JMJ Technologies with Vantage Med and the practice itself coordinated this hardware implementation. During this step paper records were used. By October 2003 the practice was ready to implement the EMR. EncounterPro training was performed on site for one week during which the practice went live with the system by the third day. All documentation has been performed in EncounterPro ever since, with all use of paper records stopped within three months. As a new practice, the staff was eager to use the EMR. After the first week of on-site training, further assistance and training was performed via web-based training or on the phone. Since "old habits" had not been formed, there was no resistance to the transition to an EMR record system.

C. Current State: The practice has successfully used EncounterPro since October 2003. The practice serves as a beta test site for the product. EncounterPro is the sole platform for all medical record keeping in the office. It is a fully functional EMR that captures patient visits, telephone calls, prescriptions, suggested coding levels, and tracking of labs and other results. Paper records from outside sources (other offices and the hospital) are scanned into EncounterPro, keeping the office paperless. Retrieval of data is easily performed at each visit via the EMR. The physician and entire staff are highly enthusiastic about the system and continue to refine and develop local templates to match the practice's workflow, style, and preferences.

IV. Value

Success In Meeting the Business Objectives:

1. **Enhance the Quality of the Patient Care Visit:** Implement an EMR record that would enhance the quality of the patient care visit. EncounterPro consistently captures all documentation accurately and effectively. The workflow plans are tailored for each type of patient seen in the office (obstetrics, gynecologic, annual exams, family practice) assuring that key elements of the present illness, history and physical are addressed and documented. Work plans contain required laboratory tests for specific conditions, assuring that key tests are not forgotten. Each specific diagnosis has its own individual "pick list" of orders that have been tailored by the doctor to reflect his practice, assuring that medications, tests, education, and follow-up plans are accurately documented for each patient. These lists serve as ready reminders to all the staff of the care elements required for each patient and diagnosis, reducing the chances of errors or forgotten tasks. Since implementation of this record system, patient requests to transfer records (other than patients moving out of the area) have consistently been less than one per month.

2. **Improve Accuracy and Thoroughness of Documentation:** Implement an EMR record that would improve both accuracy and thoroughness of documentation. Prior to implementation of the EMR, documentation in the paper records was often accomplished at lunch, after work or on the weekend. Audits of the records showed that we were barely adequate to justify coding levels and they were sometimes difficult to read. After implementation of the EMR, all documentation is done in "real-time", often before the patient leaves the office. The need to document during lunch, after work hours or on the weekend has been eliminated. Review of CPT coding levels was compared during the years 2003 to 1st quarter of 2005 for New Office Visits (CPT 99201-99204) and Established Office Visits (99211-99214). (See attachment 1 and 2) The most significant finding was an increase in coding from level 2 to level 3 visits of nearly 17% for Established patients and an 8% increase in level 4 visits for New patients, more than meeting the goal of a 10% increase in coding level.

3 **Decrease Exposure to Medical Liability:** 1) A process was implemented to fax copies of the OB AP report and OB flow sheets to the hospital for all obstetrical patients. This has greatly improved the quality and timeliness of information available at the hospital, even at nights and on the weekend. 2) Implement an EMR record that would decrease exposure to medical liability. Subjectively it is quite apparent that the quality of documentation has vastly improved with the EMR. There are a growing number of articles in the literature discussing the merits of EMR from a liability point of view. An objective example of the value of the EMR regarding liability came in June 2004 when the physician's malpractice company wanted to append his policy to include a rider precluding performance of vaginal births after cesarean deliveries (VBACs). The physician had two patients who had already had successful VBACs in previous pregnancies who were again pregnant and want to delivery by VBAC again. When the physician appealed to the insurance company to allow the VBACs, all he sent

the insurance company were records printed directly out of EncounterPro. A representative from the insurance company called and stated that this was the first time his company had not needed to call and request additional information, and that not only could he allow these two patients to deliver via VBAC, they removed the "no VBAC" rider from his policy. No liability suits have occurred since implementation of the EMR system, meeting our goal.

4. **Decrease Lost Productivity and Eliminate Paper Records:** Implement an EMR record that would allow the office to go "paperless" and decrease lost productivity associated with paper records. All in-house records are electronic. Any in-house paper documents (consent forms, HIPAA, etc) are scanned into the EMR. Out of house records (hospital, other doctor's offices, etc.) are also scanned into the system. Paper records have been retired and moved out of the office. Records are instantly available for review via the EMR. Staff personnel can focus on patient friendly service, calling results both normal and abnormal to all patients and other administrative tasks rather than spending time pulling and filing paper records. Paper records were discontinued three months after implementation of the EMR system, well ahead of the goal of six months. The number of work hours to document patient encounters by the provider decreased by an average of four hours per week while simultaneously increasing the number of patients that were seen by 225%.

5. **Improve Process Efficiency:** Implement an EMR record that would improve process efficiency to expand the number of patients that could be seen. Patient visits have increased from average of 311 patients per month in 2003 to 500 patients per month in 2004 to 735 patients per month in 2005. Two additional FTEs of staffing were added to meet the increased clinical demands of more patient visits. No additional members were required to maintain the EMR due to the increased productivity.

6. **Reducing costs and increasing profits:** With the implementation of an EMR from the start of the new practice, there were several cost avoidance items achieved. First, in the design of the new medical office building, a records room was not built. This resulted in an avoidance of the cost of that square footage. Minimal paper records were purchased (only to have on hand for a few months as the EMR was implemented). At least one FTE of clerical support was not hired because there was no need to maintain paper records and filing.

V. Lessons Learned

1. **Research:** Research, research. The project managers reviewed more than 20 EMR products before selecting EncounterPro. No single system is perfect, and different systems work better for different practice specialties and physician styles. There is a vast amount of information available for research. Be patient and do your homework.

2. **Preparation:** The office staff had input all along on this project. The project managers were careful to explain how the EMR would benefit the patients and the staff. By the time implantation was planned the staff was eager to receive the product.

3. **Training:** Training is almost as important as what product you select in the first place. The training with EncounterPro was outstanding; it made charting patient encounters using the EMR possible the very first week. Make sure you understand how your staff will be trained (on site or web-based), how much training you will receive, and who will help when you have questions after the training is over. Assure that your EMR is committed to ongoing training as you acquire new staff or your system is upgraded.

4. **Support:** An EMR and the hardware that runs it are complex and expensive. Assure that your EMR company is committed to strong, on-going support of your site. Make sure they respond promptly, answer all your questions, and help in a timely manner.

5. **Innovation:** Using an EMR system today, places a medical practice at the forefront of new medical technology. By implementing an EMR at the same time as beginning the new practice, we were able to capitalize on many efficiencies as mentioned above. The new staff had not learned "the way we always did it" and was very eager to learn the new technology without being afraid of an EMR. Wayne Obstetrics and Gynecology serves as a beta test site for JMJ Technologies. We are able to provide input and feedback to suggest improvements and change. By receiving new updates first, we are able to try the new improvements and add our own individual input to the new processes. This has lead to an environment that embraces change and improvement, a situation that has benefited us far beyond just the EMR.

6. **Startup:** In this practice startup included purchasing hardware, practice management software, and EMR software. Assure that everyone understands their respective roles in the setup process to avoid any confusion or delays.

7. **Design of office layout**: Understand what it is exactly you want to accomplish with your EMR system. As a new practice, we chose a hybrid model of fixed terminals and portable tablet PCs. This has worked well for our practice. Plan adequate space for a dedicated server room that is secured, properly cooled and dust free (not a converted closet). Plan for the location of wireless access points and adequate wiring for all fixed workstations.

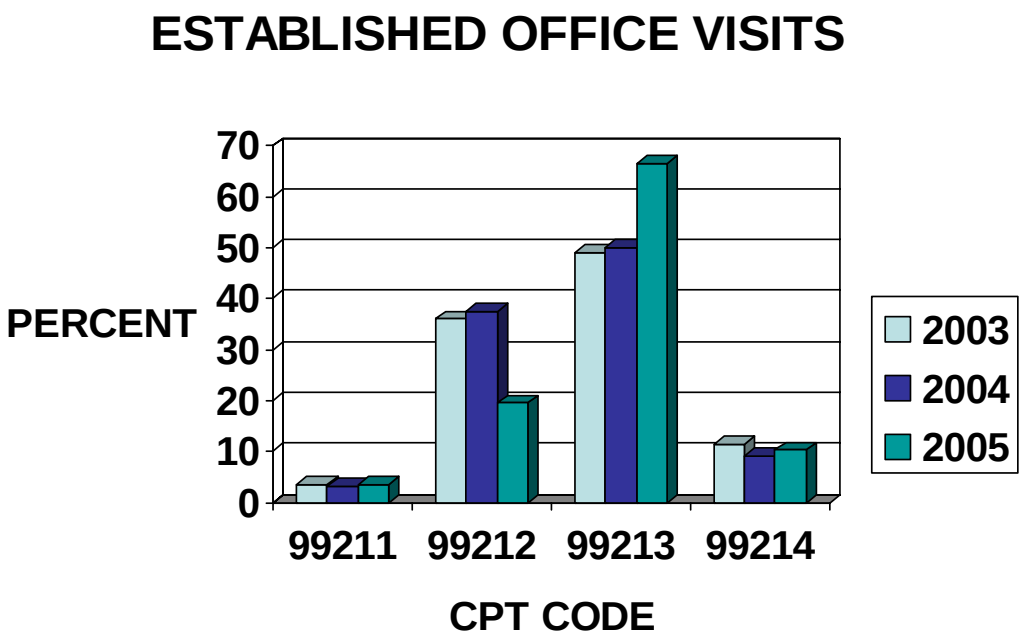
Summary:

Most medical practices look at EMR systems with the goal of increased productivity and decreased costs as their primary objectives. Wayne Obstetrics and Gynecology took a different approach. We chose an EMR that was adaptable and flexible to the way we wanted to practice medicine. We believed that EncounterPro was the right tool to achieve our primary goals; improved patient satisfaction through enhancing the workflow in the office and decreasing medical liability by a superior product to document and capture clear, accurate, and thorough data. The most common comment in the office is, "I could never us a paper record again". Patients appreciate seeing their data accurately recorded in the computer and retrieved for review with them on subsequent visits. By focusing on these primary goals, both productivity and revenues have also greatly increased. The EMR is an integral part of Wayne Obstetrics and Gynecology. In the future we will refine the system. We are already working with JMJ Technologies to test new reports that identify patients past due for preventative medicine items such as pap smears, and mammograms as well as reports that predict which patients will be due for a preventative care item in the near future. The EMR will also have the capability to generate recall lists for specific tests. Most of all EncounterPro works in synergy with the physician and staff to meet the most important goal of all, the highest quality of medical care for all the patients of Wayne Obstetrics and Gynecology.

VI. Biography: Dr. Jeffrey L. Harris

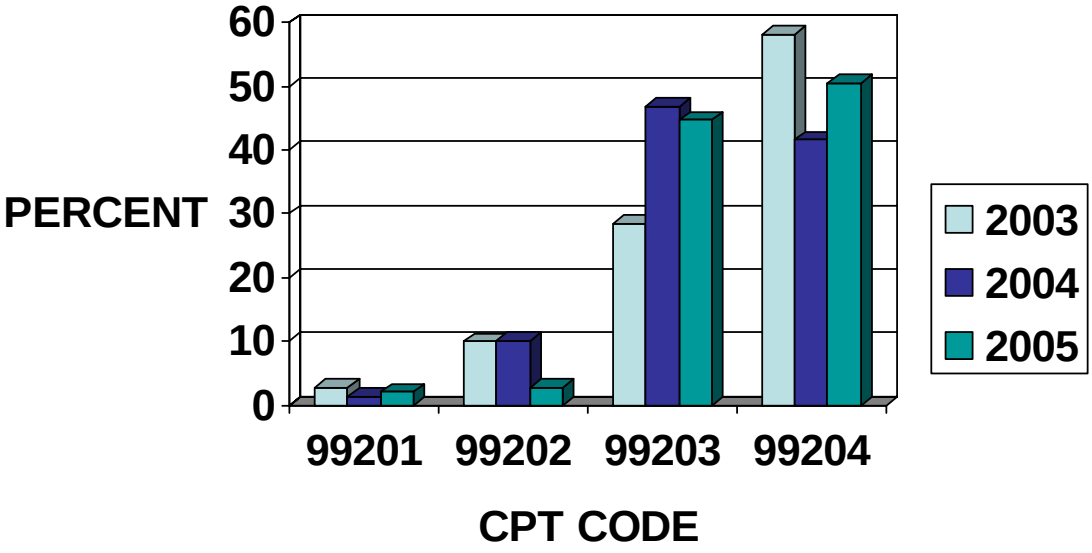
Jeffrey L. Harris, M.D. graduated from the University of Missouri-Kansas City in 1981. He successfully completed both a Family Practice Residency and an Ob/Gyn residency while serving in the U.S. Army. He is board certified in both Family Practice and Ob/Gyn. He served over 20 years in the Army in a variety of clinical and administrative roles, culminating his military career as Deputy Commander for Clinical Services at Winn Army Hospital, Fort Stewart, Georgia. He has been in private practice in Jesup, Georgia since 2001.

Attachments



Data from Ridgemark Practice Management System.

NEW OFFICE VISITS



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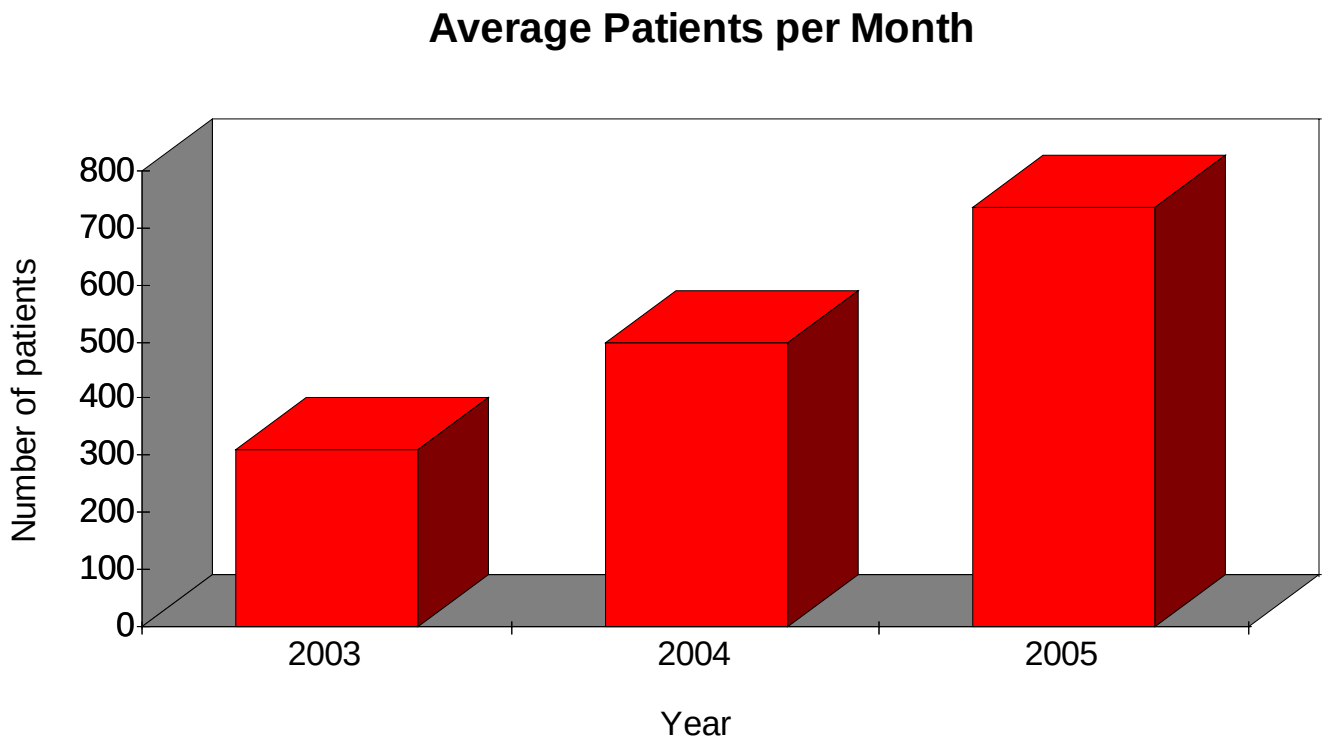

Data from EncounterPro EMR