Physicians Improve Quality of Care, Save Valuable Time, and Increase Reimbursements through EMR System

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Treat and Release, the “walk-in” primary care division of the University Physicians Group, found itself burdened by the mountains of paperwork required for each patient encounter. So, they implemented iMedica’s PhysicianSuite, an electronic medical records (EMR) solution that streamlines the entire patient visit, from check-in through billing. From the beginning UPG staff found that the system’s intelligent engine and vast knowledgebase helped them provide more thorough and efficient medical care for their patients. They also discovered that the system’s accurate coding process increased their rate of reimbursement from insurers. And, with iMedica’s anytime, anywhere access, the doctors are now free to leave the office earlier.

Situation

At a seven-day-a-week, walk-in medical office in Brooklyn, New York, things can get quite hectic. The Treat and Release Center, a division of the University Physicians Group (UPG), maintains a full-time staff of three physicians, one nurse, three medical assistants, one office manager, and five receptionists to treat 400 patients each week.

To provide the highest quality of clinical services in this fast-moving environment, the physicians need to be able to get their hands on patient charts quickly and be assured that they are accurate, complete, and legible. When physicians write a prescription, they need to be sure that it will cause no harm due to a patient allergy or drug-drug interaction. For every condition they treat, they need to record the right ICD-9 code; for every test or procedure they order, they need to select the proper E/M code; and, they have to be sure these codes correspond with each other, or insurance companies will reject the claim. Finally, they need to make sure that everything they do is recorded accurately and legibly.
To finish processing the visit, there's more paperwork to be done in the back office. If the doctor has dictated notes, they need to be transcribed. Instructions need to be sent to the labs. The pharmacies often call for verification and to check whether the medication meets the required insurance “formulary”. The record for every patient encounter has to be sent to a coder to be checked, put into the proper format, and invoiced to the appropriate insurer. Because of the many potential glitches along the way, understandably, only 60% of doctors’ services typically end up being reimbursed.

At UPG, Medical Director Dr. Jeffrey Hyman realized that this traditional pen and paper system was bogging the office down. “It occurred to me that the FedEx guy knew more about where any package was floating around the globe than I knew about my patients’ records,” he explains. And, the office’s charting system was getting so cumbersome that they were going to have to rent out a warehouse to store it. At that point, Dr. Hyman realized that UPG could no longer afford not to seek out a better solution.

Solution

Electronic Medical Records (EMR) is an up-and-coming industry with considerable competition. For over four months, Dr. Hyman considered as many as ten EMR vendors. In the end, he settled upon PhysicianSuite from iMedica, a Microsoft Certified Partner. PhysicianSuite is a wireless charting, coding, and prescription solution modeled after physician work patterns at the point of care. It is made up of an intelligent clinical agent and a vast knowledgebase covering nearly 20 medical specialties, as well as complete sets of ICD9 and CPT codes and a comprehensive drug database. PhysicianSuite orchestrates the activities of the entire care team, including physicians, nurse practitioners, residents, nurses, medical assistants and administrators.

“I was impressed with how much iMedica could do for us,” says Dr. Hyman. “Not only would it streamline our charting and billing processes, but it would improve the quality of care that we could give to our patients through its huge medical knowledgebase. We were also reassured by iMedica’s commitment to customer satisfaction and support. It is one of the few companies that goes that one extra step.”

Architecture

PhysicianSuite is a hybrid client/server/ASP solution. The typical setup at the user end has iMedica’s PSDoctor module running on wireless laptops with Microsoft® Windows® XP Tablet PC Edition or Microsoft Windows 2000. (The program can also be accessed by handheld device via Pocket PC.) The laptops can operate offline, or connect via a wireless network to the central server running the PSManager module on Microsoft Windows 2000 Server. PSManager serves as the record repository and performs a number of administrative functions. Clinic data is then encrypted and sent via an Internet connection to iMedica.net, which serves as the first off-site data repository and backup system. This site, in turn, is connected to two backup facilities, one on the east coast and another on the west coast, for accessibility and disaster recovery purposes. Each installation of PhysicianSuite can support up to 1000 concurrent users.

iMedica developed PhysicianSuite using an all-Microsoft development environment, including Microsoft Visual Studio® 6.0, the Microsoft .NET Framework 1.0, and the Microsoft Mobile Internet toolkit. “We derive a good deal of development efficiency
because of the way these tools work seamlessly with each other,” says Dr. Charlie Koo, Chief Executive Officer of iMedica. “iMedica can focus on serving customer needs within the healthcare sector while relying on Microsoft to help ensure the robustness of the development environment and technical direction.” Dr. Koo adds that the connectivity of Microsoft software allows iMedica to integrate PhysicianSuite with other systems such as Practice Management Systems (PMS), Lab Information Systems (LIS), and Hospital Information Systems (HIS) in an average of four to six weeks, compared to the four to six months that users expect.

**Implementation**

iMedica installed the PhysicianSuite system at UPG’s Treat and Release Center and trained the doctors and staff within one month. All existing demographic records that were available in the office's AHS Practice Management System were ported over to PhysicianSuite, and new patients were entered directly into the system.

PhysicianSuite improved the flow of the patient visit at the UPG Treat and Release Center from beginning to end:

- The solution gives physicians an extremely flexible user interface to accommodate their individual working styles. Leveraging Windows XP Tablet PC Edition, PhysicianSuite allows UPG staff to input data via touch screen, point-and-click, dictation/voice recognition, handwriting recognition, or keyboard.

- iMedica’s intelligent engine is also designed to learn specific user patterns, so it automatically adapts to each physician’s habits without requiring additional time for customization or configuration. “We were amazed at how fast the PhysicianSuite adopted to our own individual approaches to practicing medicine,” says Dr. Hyman.

- Because of the wireless infrastructure, physicians can carry their Tablet PCs anywhere, as they would a paper chart. “The ability to be online from within the patient exam room also allows us to access pertinent data on the Internet to review with patients,” adds Hyman.

- The application mimics the way physicians work through a patient encounter from chief complaints to diagnoses, patient plans, and instructions. Furthermore, as a physician diagnoses the patient’s condition, the system offers context-sensitive information for next step and treatment options.

- Along the way, the application helps the physician to rapidly generate encounter notes, prescriptions, medical orders, patient instructions, and consult letters in a fraction of the time it takes with pen and paper.

- There is no longer a need to hire outside coding services: the system automatically tracks the doctor’s actions throughout the visit and checks to ensure that the services have been coded at the appropriate E/M level with all the correct ICD-9 links in place.

- PhysicianSuite automatically passes this coding through the backend to the office’s practice management system, which generates an accurate superbill. “Clean data into the insurance companies means faster reimbursements,” says Dr. Hyman.

- Finally, patients leave the office with a printout detailing their visit and treatment plan, with an attached printed copy of their prescription and any patient information booklets ordered up by the physician.
Benefits

The first thing that Dr. Hyman and his colleagues, Drs. Michael Conrad and Molly Poole, noticed when they started using PhysicianSuite was how much the system supported their patient flow. “PSDoctor glides us through the H&P of our patient encounters and directs us to the appropriate E/M code as well as the correct ICD-9 code seamlessly,” he says. They also appreciate how the system automatically checks their prescriptions against drug-drug interactions, alerts them to any allergy conflicts, and checks that the medications comply to the patient’s insurance formulary.

Furthermore, iMedica’s Health Maintenance Engine helps UPG doctors to enforce quality clinical practices by alerting them to check for HEDIS requirements and allowing them to customize maintenance plans for patients within specific diagnoses. “For example, I have set up the system to check that every woman over the age of 50 is reminded to get a mammogram, and that all diabetics have their Hemoglobin A1C monitored every three months, as well as many other documented procedures,” says Hyman. “Now, I am automatically alerted when this preventive health maintenance is due. As a result, I would say I have managed to improve my rate of compliance to these datasets by 80%. PhysicianSuite has definitely improved my level of patient care.”

Lower Costs, Increased Reimbursement

This improvement in patient care alone has made PhysicianSuite worth the investment. But in less than a year, UPG has also begun to see clear business benefits from the system:

- By eliminating many of the inefficient steps of the traditional pen-and-paper process, UPG estimates that its staff workload has already been reduced by approximately 15%.
- As a result, the office’s operating costs have gone down by 10%.
- Because PhysicianSuite has made their coding more appropriate to the level of service performed, UPG has also seen its reimbursement rate go up by 15-20%.

One of the benefits that Dr. Hyman appreciates most is that he can now do his deskwork anywhere, anytime. “HIPAA privacy regulations stipulate that we cannot take paper-based patient charts out of the office. But PhysicianSuite is secure and password-protected, so now I can just pack up my laptop and bring all my charts home, while staying fully HIPAA-compliant. And, iMedica’s “InBox” feature collects all my incoming lab results and messages, so I can bring them home as well and do my call-backs from the kitchen table.”

“Because of iMedica, I now get to go home an hour and a half earlier,” he concludes. “That means a lot to me and my family.”

Encouraged by these results, UPG is extending its PhysicianSuite system to three more of its offices. “Through the combined efforts of Microsoft, iMedica and The University Physicians Group, this solution is helping our physicians obtain their goal of delivering quality medicine efficiently,” explains Albert Esposito, Executive Director of UPG.