



## Providing verified information in the Emergency Department

### FACTS

**Customer:** Bethesda Emergency Associates, Suburban Hospital, Bethesda, Maryland.

**Challenge:** Verification of physician documentation collected during patient care. Quick and easy transfer of information into a digital format.

**Solution:** eBC, a system developed by Bartcharts LLC and PSR, a Medical Edge company. eBC uses digital paper and pen to combine the power of digital technology with the ease of traditional pen and ink.

**Benefits:** Verification of information for billing and quality purposes. Ease of use for physicians. Low cost. Improved patient care.

### Transferring data without hassle

For physicians in the emergency department, getting documentation into the computer system quickly and easily is a major concern in their daily work. It is important to ensure that documentation is verified and contains correct and complete information. At the same time, learning new and complicated software is something busy medical professionals could do without.

A system using digital paper and pen has helped doctors at Bethesda Emergency Associates at Suburban Hospital in Bethesda, Maryland, to make documentation simple. The system is electronic, but physicians can learn how to use it instantly.

Developed by Bartcharts LLC and PSR and incorporating Anoto digital paper and pen functionality, the eBC system means that doctors can record patient information using familiar pen and paper and then transfer it directly into the system in digital format.

The eBC system is simplicity itself from the physicians' point of view. They simply print off the appropriate template from a computer at the beginning of their rounds, using the

Anoto print-on-demand function enabled by Oki Data printers. They complete the template during the patient encounter, documenting items such as medical history, exam, care, and diagnosis.

### No training required

The pen that the doctors use looks like a normal pen, and has a normal ballpoint ink cartridge. The difference is that it also has a special infrared camera which detects what the doctors are writing. The forms too may appear simple, but they are actually marked with a special Anoto pattern that enables the pen to pick up precisely what the physicians have written.

Periodically during their shifts, the doctors dock their pen through the computer's USB port. All the complete

documentation is then uploaded to the computer, and every stroke that has been made on the forms is translated on screen. The software then checks that all the necessary information has been entered, including verification of billing elements and quality of care markers.

Doctors have been very impressed by the system that BartCharts and PSR have developed.

"I've seen technological advances come and go throughout my career. None have been as easy to use or actually have improved my efficiency like this," says Robert R. Rothstein, MD, Medical Director of Bethesda Emergency Associates.

Justin Schaper, Director of Client Information Services for PSR, says that the average training time for physicians is just 10 –15 minutes.

"They are already used to using pens and forms for documentation," says Schaper. Rothstein goes even further:

"Within 5 minutes of sitting down with the digital pen solution for eBC I was documenting 100% of my charts."

### **Verification vital for billing**

The fact that all material is transferred and verified from the pen to the computer system has many advantages.

"eBC ensures that all documentation is completed, which is vital when the case gets to billing," says Schaper.

"It ensures that the signature is there, and that anything critical to the patient's condition is documented," he adds.

The fact that doctors are still using pen and ink makes the system a very low-risk way of handling data, in comparison to solutions that completely rely on digital technology.

"You always have the pen and paper records," says Schaper.

The eBC system is also much cheaper than traditional solutions, bringing savings that can be passed on to patients.

The success at Bethesda has led to further orders for eBC, which is due to be introduced at two new locations in the near future.

### **Partner**

PSR:  
[www.psrinc.net](http://www.psrinc.net)

### **Anoto Digital Pen and Paper technology**

*An Anoto Digital Pen looks and feels like a normal ballpoint pen. However, it contains an integrated digital camera, an advanced image microprocessor and a Bluetooth® transmitter. Any paper can be used with a digital pen, if the Anoto dot pattern is added to the layout before printing the paper. The Anoto dot pattern consists of numerous black dots that can be read by the digital pen, but are almost invisible to the naked eye. The pen reads the pattern and registers what and where the user writes.*