

Bulletin: [Fall 2003 \(Volume 12, Issue 3\)](#)

## Computer Ease

### **ComputerEase: Tracking Resident Work Hours: Available Software Is Not Yet Ideal, but It's Helpful**

By: John R. W. Kestle, MD MSc



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## **AANS Neurosurgeon in Action** formerly AANS Bulletin

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"An ideal system would be completely passive and would allow more detailed tracking of activity inside the hospital."

A new reality began July 1. We are all now responsible for tracking our residents' work hours and ensuring compliance with the new regulations mandated by the Accreditation Council for Graduate Medical Education (ACGME).

In order to do this in the Department of Neurosurgery at the University of Utah, a number of options involving commercial time-tracking software were considered.

### **Among the Options**

One option from Time America Inc. is an Internet-based data collection system called NETtime. The company manages the data and provides customized reports as requested. The cost includes set-up fees, a monthly fee of \$50 per clock, and hourly charges to write customized reports.

A second option is a product called TimeClock. It can be installed on a network, so that data entry may be accomplished at a number of stations and pooled for analysis.

A third option is to have residents track their hours on paper and then have the data entered into a tracking system. Either of the electronic methods allow a number of options for data entry. For example, the data can be entered via magnetic bar codes, keypunch pads or by desktop icons on a personal computer.

### **Using TimeClock**

At the University of Utah, we chose to purchase the TimeClock system. It is installed on the local university network so that data can be entered from networked personal computers at the adult and pediatric hospitals in our residency program. The cost of this system depends on the number of users (25 users, \$2,000).

This system is accessed through a small desktop icon. When residents arrive at work in the morning, they "clock in" by clicking on the icon. They are then presented with a short menu, which asks them whether they are on call that day or not. When they leave the hospital they click on the icon again to "clock out." This system will handle shifts that last past midnight, and it will count the work hours after midnight toward the previous day's total hours.

A number of reports are available from the database. A report that details time-in and time-out

each day for each resident is easily obtained. In addition, summary reports are available that show total hours per week or hours by job code. The latter report allows us to determine the hours worked while on call, off call and/or post call. The system also can be configured to report time off, so that we can check whether residents have been off for 10 hours between shifts and whether they have had one 24-hour period off each week.

### **A Glitch in the System**

The main hurdle has been compliance: It has been an uphill battle to get everyone to use the system regularly. A software glitch does not allow a user to clock in the morning if they have forgotten to clock out the night before. Therefore, residents get behind on their data entry until the system administrator can enter the missing data.

Another option that we are presently considering is to have residents record their data on weekly time sheets and then have the data entry done by the system administrator. The data recording and reporting features would be the same, but our informal input for the residents suggests that this might be easier for them than clocking in and out on the desktop each day.

In summary, keeping track of resident work hours represents a change in the usual daily routine that now appears to be part of our lives. The software available to assist us with compliance is not yet ideal, but it is a step in the right direction. An ideal system would be completely passive and would allow more detailed tracking of activity inside the hospital. This may be doable in the future using hand-held computer-based or pager-based wireless communication technology. In the meantime, the commercially available systems are helpful and reasonably priced.

**John Kestle, MD**, is associate professor in the Department of Neurosurgery at the University of Utah.

For more Information

- NETtime (Time America Inc.) [www.timeamerica.com](http://www.timeamerica.com)
- TimeClock Plus (Data Management Incorporated) [www.timeclockplus.cc](http://www.timeclockplus.cc)
- "ACGME's New Requirements: An Overview" (*AANS Bulletin*, Summer 2003, [www.AANS.org](http://www.AANS.org).)

Article ID: 18649