# ETHICAL AND SOCIETAL ISSUES

## When Systems Development Fails

Systems analysts and developers carry a significant amount of responsibility on their shoulders. Information systems play an important role in the success of today's businesses, and a faulty system can mean the end of a business or worse. When information systems mean life and death to clients, much more is at stake than a business's reputation.

Such was the case with a major healthcare organization, which for the sake of anonymity is called HCO in this article. In 2004, HCO decided it would be more economical to handle all of its kidney transplants itself rather than using a nearby university medical center. HCO built a new kidney transplant center to handle their kidney transplant patients and named a director. The director began to transfer all the patient records from the university medical center to the new center—over 1,500 patients in all.

However, rather than coordinating with the university medical center to transfer patients and their data from one information system to the other, HCO decided to forgo the usual systems development process and rush the transition.

The staff at the previous medical facility found themselves ill-equipped to process and transfer the large number of patient records to the new center in the necessary amount of time. They discovered that the data in many patient records was incorrect, and until they corrected it, the center's staff could not process the patient records. Managing kidney transplants is complex and time sensitive. Kidneys are in rare supply and those eligible for transplants spend time on a waiting list, hoping they will be called before their own kidneys give out. Due to the glitch in data transfer, hundreds of patient records were lost.

To make matters worse, the new transplant center was understaffed and underfunded. Because it did not have proper information systems, the staff at the new center maintained medical records primarily on paper. They did not have a system to determine if any patient records were lost in the transfer, nor could patients use a system to voice concern or lodge a complaint.

Over two years, patients whose records had failed to transfer to the new facility were still waiting for the call for a new kidney that would never come. Finally, based on a whistleblower's story, a local TV station and newspaper began pressing the new center to reveal why patients were waiting longer than usual for transplants. The investigation quickly led to formal litigation against HCO on a number of counts, not the least of which was HCO's failure to adhere to five state and 15 federal regulations mostly dealing with the management of patient records. The state Department of Managed Health Care (DMHC) has concluded that the problems experienced by HCO and its patients are due to "lack of effective planning" and that the absence of proper information management posed "potentially life-threatening delays in care."

In fact, "potential" appears to be "actual" as further investigation shows that in the first year of operations, twice the typical number of patient deaths were caused by an extended wait for kidneys. Professionals in the transplant business say that this is the worst problem the industry has ever seen.

Eventually HCO abandoned its plans for a new center and returned all of its kidney patients to their previous care. The organization has paid $2 million in fines to the state Department of Managed Health Care (DMHC) and volunteered another $3 million in contributions to a transplant education group. Meanwhile, over 50 patients and families of people who died waiting for kidneys are suing the organization in separate cases, mostly for negligence or wrongful death.

As investigators sort through this case seeking an explanation of exactly what went wrong, those involved are accepting some blame, but also pointing fingers at each other. One thing is clear: Had proper systems development practices been put into place, the new kidney transplant center would be operational, patients lives would have been saved, and the reputation of the previously well-respected HCO would still be sparkling.

### Discussion Questions

1. What went wrong at HCO? Who paid the price?
2. How is HCO responding to its mistakes, and how might it further regain its good reputation?

### Critical Thinking Questions

1. What legitimate reasons might HCO's director provide for the failure of the new center? Is there any acceptable excuse? Who within HCO is ultimately to blame?
2. What other life-threatening or life-saving information systems are at risk of similar catastrophes?

**SOURCES:** Gage, Deborah, "We Really Did Screw Up," *CIO Insight*, May 14, 2008, *www.cioinsight.com/c/a/Past-News/QTEWe-Really-Did-Screw-UpQTE*; Kaiser Permanente Web site, *www.kaiserpermanente.org*, accessed July 12, 2008.