Dear Dr. Jeff:

We used to complain endlessly about the failures of local hospitals to send adequate, or sometimes any, transfer information when sending patients to our facility. But now that they have switched to electronic health records, they send hundreds of pages, always repetitive and usually filled with medical errors and misinformation. Do you have any suggestions?

Dr. Jeff responds:

“To err is human; to really foul things up requires a computer.” The anonymous author of this common observation was simply reflecting the near-universal frustration with the failures of computerization to improve human communication. Although computerized medical records may have simplified billing and coding and facilitated data collection for medical research, there is little evidence that they have improved clinical care. Billions of dollars invested in such systems and millions of hours of valuable time from virtually every category of health worker allocated to training and use have not produced the promised dividends. The frustration of clinicians transformed into poorly trained ward clerks with limited typing skills continues to escalate.

Understanding the causes for these frustrating outcomes might help to correct some of the problems, whereas others may be beyond help. Among the underlying issues are the failure of those at the highest level who funded these systems to mandate a single, universal system and to address the ease with which errors can enter the system with multiple replications; the virtual inability to correct mistakes once they enter the medical record; and ongoing poor communication between hospitals and the long-term care system. Although skilled nursing facilities have made progress in communicating significant health information to hospitals, particularly when the INTERACT tools are used, information transfer in the reverse direction remains problematic.

Of course, 20th century paper records allowed multiple opportunities for errors due to imprecise or illegible handwriting. Hured professionals with notoriously poor handwriting often produced notes that only they could read, and sometimes notes they couldn’t. Discharge summaries and transfer documents completed by hand were time-consuming, so they were posted, omitted, or completed in a highly abbreviated form. But they are also, obviously, the product of human effort and therefore subject to the usual skepticism and review.

Electronic health records (EHRs) appear, however, with the apparent authority of the printed word. Due to the cut and paste function, an error can be repeatedly entered in ways that clinicians would never have done if actually writing the words. When every hospitalist note and multiple consultation notes contain histories and physical examinations that are word-for-word identical, it is clear that only one was actually done. Repetition appears to carry authority, no matter how bizarre the error, while the actual source of the information is obscured. Healthy skepticism of every single word in transferred charts is absolutely necessary to prevent e-iatrogenic errors.

**Chart Lore**

For example, an 80-year-old patient transferred from a major medical center to our facility after an episode of pneumonitis. Two-hundred pages of printed records accompanied her. Every note after the initial admission history contained the “information” that she had total right hip replacement at age 19 – including notes from consulting pulmonary and cardiology specialists, a physiatrist consultation with daily therapy notes, and daily progress notes from three different hospitalists. None had questioned why the otherwise healthy young woman would have needed her hip replaced (much less why it might have been done when still an experimental procedure) or had been concerned that her long-healed right thigh scar was not compatible with a joint replacement.

A single question revealed that she had been struck by a car while crossing the street, necessitating a pinning of her right hip. The morphing from “pinning” to “replacement” started as an error in her chart two admissions previously.

Even wonderful new technologies are not necessarily implemented in the most efficient fashion. Years, even centuries, may be required to resolve connectivity issues. Some systems will need to be scrapped or totally rebuilt. Others will require patches. Late adopters of EHRs may benefit from the connectivity improvements that will come. But the forces of change may not allow most facilities to wait that long. Regional Health Information Organizations were mandated with the intent to overcome these issues, but they have largely been unsuccessful due to a long list of obstacles, some technical, some involving governance, some related to HIPAA restrictions and security concerns. A few countries with national health insurance programs have apparently been able to overcome the technical issues. Not so in the United States.

**Potential Solutions**

Fortunately, there are some potential solutions. Hospitals have incentives to improve this process as rehospitalization penalties increase in the coming years. Most hospitals still have very little understanding of the needs or processes of LTC facilities, but many will be open to meetings to discuss how the transfer process might be changed to improve overall communication. Computers can be programmed not to “Print All” but rather “Print SNF” or some similar instruction. Operative notes are virtually always accurate, and surgical descriptions of what was performed may be very helpful. A dictated discharge or transfer summary is also invaluable.

Information for one patient may not be relevant or useful for another. For example, a single chest x-ray report may be very helpful information for one patient, whereas 24 reports from portable x-rays done on a patient in the intensive care unit confirming tube locations would not.

Some facilities have opted for solutions that appear more time consuming but are more useful. First is the “warm handoff” or handover,” jargon for one human being personally speaking to another. The warm handoff, which is standard for transfers within the hospital, ensures that valuable patient care information can be rapidly exchanged and provides an opportunity to ask questions. Management of tubes, dressings, special patient needs, and psychosocial or family dynamics can be identified early, and patient care can be improved. Unfortunately, person-to-person communication among physicians is generally more difficult to arrange, particularly when the post-acute admitting physician is not on-site at the time of transfer, and the referring physician is already off shift by the time the resident has arrived and is being evaluated.

Another potential solution is to install the same portals to the EHR on post-acute units that are used for affiliated physician offices or outpatient clinics. Only minimal data would then be necessary at the time of transfer. Although this may require some staff training in the EHR systems that major referral hospitals use, it allows multiple luxuries. The records can be queried if, after admission, new issues arise. For example, although it is important to know what dose of steroids a resident was receiving at the time of transfer, it is also important to know whether that dosage represented a tapering process and whether the resident had been on steroids before hospital admission. “Read-only” access and a secure connection might be the maximum required.

Computerization holds great promise, but we are living in the age before that promise is realized. Our patients deserve better. In this period of transition, we still need to find ways to provide it for them.

By Jeffrey Nichols, MD

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**Garbage In, Garbage Out**

**Failures in Connectivity**

As SNFs and home care agencies adopt EHRs, there is little hope that the ability to share data directly with hospitals will improve anytime in the foreseeable future. Many major hospital systems, including most hospitals that have achieved the stage 7 completely paperless status, are using Epic, which lacks an LTC component. Software systems that thrive in long-term care, although effective in the completion of required documentation, such as Minimum Data Set and the Outcome Assessment and Information Set, are not compatible with any popular hospital EHR systems.

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Dr. Nichols is president of the New York Medical Directors Association and a member of the CARING FOR THE AGES Editorial Advisory Board. Comment on this and other columns at www.caringfortheages.com under “Views.”