Patient Identification Debate: The History of the National Patient Identifier and Alternatives for Accurate Patient Authentication

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by Vicki Wheatley, MS, RHIA

Despite a lack of funding or government mandate, debate and discussion about a national patient identifier (NPI) continues.

The NPI was one of four identifiers included in the original HIPAA objectives as part of a comprehensive plan to achieve uniform standards for the exchange of health data. Originally, the NPI was expected to reap many benefits, including reductions in administrative costs and improvements in the quality of patient care, and in 1998 the Centers for Medicare and Medicaid Services published a notice of intent to define the NPI.

However, in the FY 1999 appropriations act, Congress denied funding for continued work on the unique health identifier "until legislation is enacted specifically approving the standard."[1] In the meantime, opponents of the NPI have raised concerns about privacy and the potential for identity theft, as well as the complexity and cost associated with the technological and administrative infrastructure required to support a national identification system.

The Call for a Patient Authentication Standard

The need to accurately identify and authenticate patients remains, however. In October 2005 the Commission on Systemic Interoperability called for a national patient authentication standard in its report "Ending the Document Game: Connecting and Transforming Your Healthcare through Information Technology." Commission members agreed that a national patient identifier would be the most direct way to link patient records but acknowledged that any method of authenticating patients is rife with privacy concerns, costs, and significant management issues. The group declined to recommend a specific method for identifying patients in its report but did call for Congress to "authorize [the Department of Health and Human Services] to develop a national standard for determining patient authentication and identity."[2]

David Brailer, MD, PhD, national coordinator for health information technology, said that although the Department of Health and Human Services is still working on the infrastructure, policies, and standards for the nationwide health information network, it has already decided not to base the network on a national ID.[3]

Alternative Models

The most frequently proposed alternative to a national identifier is a patient indexing system that relies on common identifying data elements to establish a patient's identity and link his or her records within the healthcare system. This combination of elements would include data such as name, date of birth, gender, and address. As any HIM professional or hospital registrar can attest, even a unique identifier, such as the Social Security number, needs to be combined with other identifiers to be certain the correct patient has been identified.

Patient indexing systems work like an Internet search engine or an old-fashioned library card catalog. The search begins with minimal information on a subject, and the search algorithm or indexing system leads to additional information. The index contains pointers that allow the searcher to find additional information stored separately. In the healthcare system, this separation of identifiers from medical records helps ensure security and confidentiality of the clinical information without compromising the ability to find it. Access to actual medical records should require strict user authentication and audit trails.

Canada Health Infoway is an example of a recently implemented indexing system for nationwide patient identification. The New Zealand Ministry of Health also took the index approach when the New Zealand National Health Index was established

more than 20 years ago.

Connecting for Health, the public-private health IT collaborative created by the Markle Foundation, supports the use of an index model based on probabilistic person-matching technology. The organization believes such a system eliminates the need for a national ID and provides an accurate method for linking patients with their data.[4]

In February 2006 Connecting for Health announced that it had completed a series of tests demonstrating a successful prototype for exchanging electronic health information in three states on three independent networks.[5] Clay Shirky, technical director for Connecting for Health and an associate teacher at New York University, advocates the use of a record locator service rather than a single patient identifier. The service uses a patient indexing model to identify patients and link medical records.

"We have demonstrated that the Connecting for Health Record Locator Service...is a viable means of supporting a federated and decentralized approach to identifying and exchanging health information in a secure and private manner," Shirky noted in a press release. "Even so, we recognize that there are many challenges remaining in making nationwide health information exchange a reality."[5]

What the Future Holds

No one has yet identified a definitive solution for completely accurate patient identification. However, the concept of master patient indices linked to one another and to clinical records seems to have growing support as a realistic means of addressing interoperability and data sharing. The data in master patient indices are the foundation for electronic health records, regional health data exchange, and the nationwide health information network. Looking ahead to the challenges of expanded patient matching, HIM professionals should lead their organizations' efforts to improve data quality in the enterprise or hospital master patient index by developing standards, investing in technology, and reducing errors.

Notes

1. National Committee on Vital and Health Statistics. "Second Annual Report to the Congress on the Implementation of the Administrative Simplification Provisions of the Health Insurance Portability and Accountability Act." Available online at www.ncvhs.hhs.gov/yr2-sum.htm.
2. Commission on Systemic Interoperability. "Ending the Document Game: Connecting and Transforming Your Healthcare through Information Technology." October 2005. Available online at http://endingthedocumentgame.gov.
3. Brewin, Bob, and Nancy Ferris. "Master Index Pitched as Patient ID Alternative." *Government Health IT*, September 12, 2005. Available online at http://govhealthit.com/ article90745-09-12-05-Print.
4. Ibid.
5. Markle Foundation. "Connecting for Health Prototype Successfully Moved Electronic Health Information among Record Systems in Three States on Three Independent Networks." Press release. February 8, 2006. Available online at www.connectingforhealth.org/news/pressrelease_020806.html.

Resources

American Health Information Community work group information is available at www.hhs.gov/healthit/ahic.html.

Connecting for Health reports and articles are available at www.connectingforhealth.org.

HIPAA administrative simplification regulations are available at the Centers for Medicare and Medicaid Services Web site at www.cms.hhs.gov.hipaa.

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