

Are You Having an Identity Crisis?

Patient Data Accuracy and Safety

A fundamental step in assuring the delivery of quality healthcare is in correctly linking patients to their health information. Most institutions today use one of two methods to accurately link patient data. One is the use of a UPI or universal patient identifier and another is the use of statistical matching based on a series of personal attributes. Adding to this already complex issue are organizations growing, merging, and forming new relationships, so the ability to maintain a single view of a patient's information is becoming increasingly more difficult and information is becoming fragmented across multiple databases.

These fragmented records can have a negative impact on registration and billing systems, but more significantly treating patients with incomplete information can expose patients to medical errors and patient safety challenges. How frequent are these errors? Conservatively, the national average is five to seven percent of medical records being created are fragmented, meaning other records already exist for these individuals. Even at the lowest end of the spectrum, a five percent error rate means that one in twenty patients is being treated with incomplete medical information.

Fragmentation of a patient's health history and not finding all key elements of a patient's record can lead to missing or incomplete information about medical conditions, previous surgeries or procedures, and medications or allergies; in turn leading to patients at risk for potential adverse events.

Missing or incomplete information can also lead to inefficiencies, such as the cost of reordering diagnostic tests and to delays and errors in treatment. Such inefficiencies are estimated to annually cost the healthcare system billions of dollars.

Nearly all Admission Discharge and Transfer systems (ADT) and many practice management systems fall short in providing comprehensive and accurate reporting of duplicate medical records.

As a result, many organizations have a false sense of security believing their systems are identifying and reporting on all their duplicate records. Not all identification methods are created equal.

Six Common Errors

We've identified the top six most likely areas frequently missed when identifying potential duplicate or incomplete records.

Name reversal: Identical matches except for the last name

1	First Name	Last Name	First Name	Last Name
	LOGAN	SMITH	SMITH	LOGAN

Married/Maiden: Identical matches except for the last name

2	First Name	Last Name	First Name	Last Name
	MARY	SWIFT WHITE	MARY	SWIFT

Nick names: Commonly used nickname databases are not usually available within a health information system

3	First Name	Last Name	First Name	Last Name
	WILLIAM	JONES	BILL	JONES

Date of Birth: Simple data entry errors that transpose numbers

4	DOB	DOB
	12/12/1956	12/21/1956

Social Security Number: Simple data entry errors, everything matches except for one or two digits.

5	SSN	SSN
	123-45-6789	123-45-6798

Typos: Missing characters, wrong characters or mangled data.

6	First Name	Last Name	First Name	Last Name
	THOMAS	SMITH	THOMAS	SMTH

Here is a typical example of two records that may be the same individual.

SSN	First Name	Last Name	Gender	DOB
123-45-6789	JOHN	DOE	M	1/11/1950

SSN	First Name	Last Name	Gender	DOB
123-45-6789	JOHN	DOE	M	11/1/1950

Matching Accuracy

There are many types of record detection tools available today. Matching accuracy should be defined by the performance achieved against all types of potential matching errors. A person analyzing the entries would logically question the similarities in the above example and may research further to conclude the records are for the same individual. However, current technology systems do not imitate human thought processes with a hundred percent accuracy and may not have the ability to identify this example as a duplicate record.

The healthcare industry is aggressively moving towards advancing the use of electronic health records (EHRs), electronic medical records (EMRs), personal health records (PHRs) and health information exchanges (HIEs). This in itself will place a tremendous burden on ensuring patient identity is kept intact. The impact will be far reaching not only financially, but also administratively and most importantly clinically as it impacts patient safety and quality care. Every organization should require that correctly linking patients to their health information is a major priority.



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About ABILITY

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