Just Associates
MASTERING PATIENT IDENTITY

The Problem with Healthcare

Background

The emergence of Regional Health Information Organizations and Electronic Health Records is bringing discussions of healthcare data quality to the forefront. RHIOs, EHRs or any system designed to link or share healthcare information from multiple sources require the data to be clean and free of duplicate medical record numbers (MRNs) if expected to function properly and be accepted by clinician users. The problems with healthcare data are not new, rather, they are receiving more attention because of the negative impact they can have on today's healthcare IT initiatives. The effectiveness of RHIOs and EHRs is severely compromised if data integrity issues are not resolved.

Dirty Data

Most healthcare facilities have recognized that their Master Patient Index (MPI) has data integrity issues. The most common form of dirty data is duplicate medical record numbers assigned to one patient. The size of the problem varies among facilities but industry estimates put the number at somewhere between 3% to as high as 40+% of all record numbers in a system are duplicates. Other forms of dirty data include overlaps (one person has more than one enterprise identifier for him/her across an enterprise master person index), overlays (one person is assigned, in the master patient index, to another person's record) and erroneous (invalid and / or default data stored in key identifying fields).

Causes of Dirty Data

There are a number of reasons why duplicate record numbers are created. During the patient registration process human errors can occur including: misspellings, missing data, use of nicknames and typos/transpositions to name a few. Most health information management systems offer only rudimentary search logic for identifying patients during the registration process. These systems can fail to identify a patient, which can result in a registrar creating a duplicate record. Identity fraud can also result in duplicate records. Additionally, as facilities are bought and sold, disparate information systems and data sets are merged. Converting data sets can result in missing, default and corrupt data.

Finally, as MPI data integrity becomes compromised it is easier for more duplicates to be created. As a result, we have found that the rate of growth for duplicates within a MPI is not linear. When a database is cluttered with duplicates, duplicates grow at an ever increasing rate. This underscores the need to address the issue and perform a MPI Data reconciliation (MPI clean-up services) sooner rather than later.

Cost to an Organization

The cost of having duplicate records in an MPI is significant. Cost studies completed by the founders of Just Associates have shown that an institution's direct cost of

leaving duplicates in a MPI database is anywhere from $20 per duplicate to several hundred dollars. The lower cost reflects the organization's labor and supply cost to identify and fix the duplicate record. Higher costs reflect the cost of repeated diagnostic tests done on a patient because the patient's previous medical record could not be located, or not located in a timely fashion.

In addition to these direct costs, liability exposure can be significant if an adverse event occurs or patient care is compromised due to an organization's inability to find a record for a patient. A facility can inadvertently cause inappropriate billing which can lead to problems with third-party payors and governmental regulators such as delayed or denied payments and risk of fraud and abuse charges. Lastly, revenue cycle inefficiencies are prevalent in facilities with a significant number of duplicate medical records.

Implications

The implications of dirty data in a MPI are far reaching and underscore the need for MPI clean-up services:

Quality of Care: Quality of care can be compromised when proper access to previous clinical information is not readily available due to duplicate medical record numbers. At best, physicians may reorder expensive diagnostic tests when previous records are unavailable. At worst, clinicians may provide incorrect patient care, resulting in compromised clinical outcomes.

Patient Registration: As duplicate medical record numbers proliferate in a MPI database, registration staff must review numerous entries when registering a patient. Staff may be uncertain which medical record number to select for a particular admission. Often, a new MRN is created to avoid selecting an incorrect MRN. This results in creating even more duplicates in the Hospital Information System. An inefficient registration process costs a hospital time and can negatively impact patient satisfaction.

Revenue Cycle Impact: The lack of quality demographic data has a trickle down impact on all subsequent processes that require quality data.

1) Cash flow: Compromised patient demographic information may impede the ability to issue invoices to payers and patients. This can increase days in A/R and drain cash flow. While the reasons explaining delays in payment are many, we have found that as much as 10-15% of the delays can be attributed to incomplete demographic information.

2) Write-offs to bad debt: In addition to cash flow delays, there is an increased exposure for write-offs to bad debt expense.

3) Resending patient bills: Inaccurate demographic information can result in increased expense to re-send patient bills. While this may, at first glance, appear to be a nominal amount, in large healthcare organizations, the annual impact can be significant.

Healthcare IT Initiatives: Without careful attention to data integrity, many healthcare IT initiatives become compromised. A new HIM system will not function to its full

capabilities if it is loaded with data from an existing system ripe with duplicate records. Physician adoption of an Electronic Health Record (EHR) is put at risk if the system fails to accurately identify patients. A Regional Health Information Organization (RHIO) or Health Information Exchange (HIE) that links disparate data sets may result in a network filled with duplicates, overlaps and overlays frustrating its users' attempts to access accurate, timely and complete patient data.

HIPAA Compliance: Administrative Simplifications Standards in HIPAA of 1996 require that a facility uniquely identify a patient. A single medical record number for each patient in the facility's MPI database is the way to meet the unique patient identifier requirement.

Meaningful Use: Duplicate records can impact an organizations ability to demonstrate "Meaningful Use" and qualify for ARRA funding. By reducing the number of duplicate records in your database, you will have a more accurate measure of the unique records in your system. "Unique records" is a vital measurement in the demonstration of meaningful use. Eliminating duplicate records can actually get you closer to meeting Meaningful Use requirements.

To Clean or Not To Clean

AHIMA projects it costs $10-20 per pair of duplicates to reconcile duplicate medical record numbers. It costs the facility more if they don't reconcile these duplicates. The real cost of a duplicate can run up to several hundred dollars or even more in terms of repeat diagnostic tests, operational inefficiencies, revenue cycle impact and legal liability.

About Just Associates

Just Associates provides consulting services that decrease data integrity issues and minimize the ongoing costs of maintaining patient data quality. We focus on helping healthcare organizations identify and resolve these issues and ensure accurate patient matching.

For More Information

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