Truman Medical Centers/ University Health

Kansas City, Missouri

Headquartered in Kansas City, MO, Truman Medical Centers/University Health (TMC/UH) is an academic medical center providing quality healthcare to the Kansas City community and beyond while providing innovative instruction that prepares doctors of the future to administer cutting-edge care to patients. The nationally recognized health system has received numerous honors, including 10 appearances to date on the CHIME Digital Health Most Wired list for its use of health IT to improve care delivery, and Leader Status designation from the Human Rights Campaign in recognition of its policies and practices ensuring the equity and inclusion of lesbian, gay, bisexual, transgender and queer (LGBTQ) patients, visitors, and employees.

TMC/UH includes two acute care hospitals and University Health, the only freestanding specialist and surgery center in downtown Kansas City, as well as primary care clinics throughout Jackson County. Nearly half of all the babies born in Kansas City are delivered at TMC/UH's two birthing centers—Truman Medical Centers Health Sciences District and TMC Lakewood—and University Health 2: Women's Health and Primary Care. The organization is also home to Kansas City's largest behavioral health program and the one of the busiest Level 1 Trauma Centers in Kansas City, MO.

Studies in Success

Just Associates IDSentry™ Helps Truman Medical Centers/University Health Accelerate, Enhance Duplicate Identification & Resolution

Just Associates is a healthcare consulting firm that provides superior value to clients through improved data integrity. We have the process expertise and systems knowledge to deliver tailored, value-added solutions that improve your financial outcomes and business processes, support delivery of quality patient care, and meet your diverse stakeholders' expectations through improved patient matching.

A More Efficient Way of Identifying Costly Duplicate Records

While EHRs are incredibly powerful at managing overall patient populations, many utilize strict matching rules on name and demographics, or they leverage rudimentary "fuzzy logic" algorithms that don't hold up when multiple data discrepancies arise. Certainly, the robust enterprise master patient index systems (EMPIs) that have entered the picture are doing a good job of reducing record duplicates. But because EMPIs solve multiple problems beyond duplicate record identification, there are times when these systems are like the proverbial "sledgehammer used on a tack."

Challenge

Despite the serious patient safety and financial implications of mismatched patient records, electronic health record (EHR) systems are still producing duplicate rates as high as 12% across the healthcare industry, thanks in part to inflexible matching rules and/or rudimentary "fuzzy logic" algorithms. The problems associated with duplicate records are wide-ranging, often beginning at registration and impacting multiple downstream systems. There, they can lead to numerous safety issues including delayed, lost or incorrect diagnoses and treatment, duplicative testing, wrong orders, and even wrong-site surgery.

The PatientID Now coalition recently *compiled statistics* demonstrating the dangers of duplicate records. In one survey, 86% of respondents said they had witnessed or knew of a medical error resulting from patient misidentification. At one hospital, 25% of clinicians surveyed indicated that the duplicate record rate affected the quality of care their patients received and 30% reported reordering tests due to lack of access to previous records. Further, an average of 35% of all denied claims result directly from inaccurate or incomplete patient identification or information, costing the average facility $1.2 million each year.

To avoid falling prey to the same patient identification issues as its peers across the nation, TMC/UH sought to maintain a duplicate record rate in its master patient index (MPI) below 2%. However, with no credible means for tracking duplicates, there was no way to know with certainty whether the organization was hitting that benchmark.

Exacerbating the problem, TMC/UH had just one data integrity specialist on staff responsible for identifying and remediating duplicate records. Because the process was primarily manual, it was also painstakingly slow, averaging about four minutes per record and about 18 merges per day. Further hampering efficiencies was the fact that duplicate reports came in across multiple channels: help desk tickets, email, the organization's SharePoint site and, of course, the reporting mechanism built into its EHR system.

"We also had to wait for IT to send us the duplicate report from Cerner, which we then dropped into a spreadsheet to work from," said Anna Brown, Director of Health Data & Integrity for TMC/UH. "As a result, we weren't finding duplicates as quickly as we would have liked."

Brown knew a better, more efficient way was needed both to identify and eliminate duplicates and to accurately track creation rates—all while lessening the burden placed on her lone data integrity specialist. She turned to IDSentry™, an advanced patient matching solution designed by the HIM experts at **Just Associates.**

IDSentry: Advanced Patient Matching

What makes IDSentry so powerful is an advanced algorithm that identifies duplicates when multiple discrepancies exist across patient names, addresses, birthdates, Social Security Numbers, gender, and other demographic data. And, because IDSentry is delivered as a Subscription Service offering, costs are predictable, affordable, and lower than a full-function EMPI. For most healthcare organizations, IDSentry can reduce overall costs when compared to more costly alternatives.

Solution

Designed specifically for acute care hospitals and integrated delivery networks whose EHR systems use basic or intermediate fuzzy-matching techniques, IDSentry leverages a powerful advanced algorithm that identifies more true duplicates than other systems—even when multiple discrepancies exist across patient demographic data. It also offers superior workflow features that reduce required resources and accelerate productivity.

IDSentry works by first creating an interface with a hospital's source system across which to convey new, updated, and merged patient registration and demographic data (i.e., Personal Identifiable Information or PII.) The PII is interfaced through HL7 messages sent from the hospital's system to IDSentry to create a mirror-image of patient demographic records. Without storing visit or encounter-level data, the IDSentry database utilizes previous name, birthdate, Social Security Number, address, phone number and other demographic data fields for advanced duplicate record detection. An HL7 merge message can also be sent from IDSentry to the source system to merge confirmed duplicate medical records.

Ultimately, IDSentry identifies more "real" duplicates than EHRs that use only basic or intermediate patient matching algorithms. Even more compelling, however, is the cost/benefit ratio. Since IDSentry is delivered as a subscription service, healthcare organizations benefit from a total cost of implementation, support and use that is offset significantly by reduced overall organizational costs of repeated patient testing, emergency room delays and claims denials—all of which can quickly add up to hundreds of thousands of dollars per year.

Results

The most immediate benefit of IDSentry was the ability to track TMC/UH's actual duplicate rate, which Brown was surprised to discover was closer to 4% than the targeted 2%. But it did not take long for that figure to drop, hitting an all-time low of 0.8% during one month before settling in between 1% and 2%.

"By going into the export section of IDSentry and pulling out the numbers of what was done each month, I can report what our actual rate is. The standard is around 2%, so the goal is to keep our rate under that. Being able to come up with a number and have the data to back it up is helpful," said Brown.

TMC/UH now not only had an accurate way of tracking duplicates in real time —without waiting for reports from IT or to come across email or through the help desk—but with IDSentry they were able to streamline and accelerate the overall duplicate resolution process, trimming it down from four minutes per record to under three minutes, with approximately 850-950 records merged each month.

These efficiencies have also allowed TMC/UH to expand the data integrity specialist's core responsibilities. For example, the position now manages the data flowing in from the recently implemented emergency medical services (EMS) systems.

Next up will be leveraging the information IDSentry provides to proactively address the creation of duplicates through targeted refreshers, education and/or training on proper procedures.

"When things settle down, we will start to provide proactive feedback to departments that need it," said Brown. "We could not do that without IDSentry."

303.693.4727 | www.justassociates.com