

Children's Medical Center

Dallas, Texas

Challenge

After installing an expensive electronic health record (EHR) system, Children's Medical Center Dallas realized the system was only as good as the data running through it. The problem was the system had many duplicate records. Physicians were concerned stating: "We can't find our patients!"

Solution

Just Associates cleaned up the dirty data and performed a patient access assessment to identify the root causes of duplicates and helped Children's prevent the creation of future duplicate records.

Services Provided

- MPI Clean-Up
- Patient Access Consulting
- Technical Consulting-Cerner

Results

Solving both the current and future problems around duplicate records helped Children's improve the quality of patient care and increase physician acceptance of the new EHR. The duplicate record rate was initially reduced from 22.0% to two tenths of 1% (0.2%) and eight years later it remains an exceptionally low 0.14%. The 5 FTEs initially tasked with resolving duplicate records have been reduced to less than one FTE.

Studies in Success

Duplicate Records Compromise EHR Investment

Identifying and resolving causes
yields long term benefits



Children's Medical Center in Dallas made a major financial commitment to an EHR, but when the data from the old master patient index (MPI) was loaded into the new system, big problems arose. Because the new system's search routine was programmed to deal only with exact matches, something as minor as a misspelled name, or even the lack of a space or a comma between a first and last name, yielded a separate medical record.



Patient Access Consulting

The Patient Access Consulting project focused on further determining the causes of the duplicate records and included several actions which contributed to drastically reduce the number of duplicate records created:

- Evaluating the EHR's incoming and outgoing interface feeds for accuracy.
- Analyzing user creation rate patterns to identify those staff that required more training
- Completing a comprehensive process review of all registration and scheduling areas including review of policies, procedures and training manuals
- Developing policies and implementing procedures such as standard naming conventions
- Training registration staff to better collect accurate patient data

When physicians or the medical staff searched those records, previous medical histories, x-rays, laboratory and test results might or might not be available, depending on how the data had been entered.

Essentially, vulnerable young patients were “lost” in the system. A survey of doctors showed 45 percent encountered duplicate records, 25 percent said the duplicate rate was affecting the quality of care their patients received, and 30 percent said they re-ordered tests because of lack of access to previous records.

To deal with the brewing disaster, the hospital instituted an emergency clean-up, assigning the equivalent of five full-time staffers to the task of reconciling duplicate records and activating a “Hot Line” to receive reports of duplicate records in the system. But despite working around the clock, seven days a week, the clean-up staff was not solving the real problem. They were fixing past mistakes, but the Cerner system continued generating more duplicate records every day.

When Just Associates, Inc. arrived on the scene, the hospital was buried under 250,000 duplicate records that took 10 months of clean-up, consulting and training to resolve. The clean-up included an external data analysis using sophisticated person matching algorithms to identify possible duplicates. Just Associates' staff of fully trained, experienced Patient Identity Experts reviewed the possible duplicates and validated and merged those confirmed to be the same person. Data integrity issues were thoroughly analyzed, quantifying the causes of each and generating action plans to address every cause.

Duplicate records are costly

For the Children's Medical Center, the results were encouraging, not only from a care delivery standpoint but also due to the significant cost-savings that can be realized. A study conducted on Children's data showed that on average, a duplicate medical record costs the organization more than \$96. The study also showed that in 4 percent of cases involving confirmed duplicate records, there was an impact on clinical care.

The most common issue was delay in initiating treatment in the emergency room. Other quality issues included duplicate tests ordered due to lack of access to previous test results, and a delay in surgery due to lack of patient history and physical results. On average the repeat tests or treatment delays added \$1,100 to the cost of the patients care. Additionally, nearly 11% of the duplicates were associated with bad debt.

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.