

# The Children's Hospital

Aurora, Colorado

## Challenge

In 2007, The Children's Hospital (TCH) became the first in the nation to implement a fully integrated pediatric EHR system. However, the new electronic environment exposed patient identity issues that have been hard to rectify. With Epic and Initiate plus approximately 70 additional systems on the back end, patient identity management at TCH had become a daunting task.

Melinda Patten, director of health information management, joined the hospital in March of 2009. She inherited a backlog of duplicate records and overlays that was more than her department could handle.

## Solution

TCH had one fulltime staff member dedicated to identity patient access management issues and was looking for another line person to help. But Patten soon realized the real solution would be found only in the prevention of new issues, so she changed the focus of her candidate search.

Patten decided to create an unprecedented EMPI analyst role, and found Eric Williams, a non-credentialed graduate student majoring in healthcare management to fulfill it. At the same time, she enlisted the help of Just Associates of Denver, Colorado, a trusted partner in healthcare data integration and data integrity consulting.

## Studies in Success

### Rethinking Patient Identity Management

A new approach  
to common problems



Founded in 1908, The Children's Hospital in Aurora, Colorado is a renowned 314 bed, comprehensive pediatric care facility and Level 1 trauma center.

With a bustling main campus, 15 network of care facilities, two emergency care and three urgent after hours care locations, it is at the forefront of research and medical breakthroughs.

“I wanted someone who could do more than just manage duplicates and overlays — someone who could review and establish processes and communicate to our network of care sites.”

**Melinda Patten**

Director of Health Information Management  
The Children's Hospital



## 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.

Just Associates already had deep knowledge of TCH's systems, and was uniquely positioned to provide Williams with comprehensive training in EMPI, validity models, statistical aggregation, problem solving, system algorithms, and HL7 messaging concepts. Just Associates also provided detailed insight into the CORHIO data model and requirements for information sharing as well as the different systems used by other health information exchanges.

Finally, Just Associates created a complete presentation and educational materials for Williams to use when providing future patient access management training. “We had worked with Just Associates [on previous EHR and EMPI projects] and we thought that it was really important that they knew us and understood us already, and we didn't want to start over with someone else.”

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## Services Provided

- EMPI Consulting

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## Results

By all accounts, Patten's instincts paid off. Williams spent some time observing the busiest shift in TCH's ER, where he witnessed the patient registration process first hand. “I wanted to find out why the duplicates were occurring. Through research I found that there was a lot of human error, lots of misspellings of first and last names and transposed dates of birth,” said Williams.

Williams concluded that the majority of registration errors happen as result of the nature of emergency pediatric care. The hectic volume of patients with urgent and non-urgent medical needs, combined with cultural differences often result in a convoluted registration process. “We really are different here because mom and dad don't always bring the child in. Sometimes it's the grandparent or someone else. They don't always know the child's social security number and addresses. These pieces of information help us match the correct child to the correct medical record. And often the child doesn't have a social security number, and they aren't always from this country,” said Patten.

With a better understanding of process and the expertise of Just Associates, Williams made key modifications and improvements to TCH's existing Duplicate Medical Record Number Report, providing actionable information to supervisors for the first time. This report enables supervisors to quickly identify errors made by their teams, pinpoint the individual responsible for each error and see the date in which the error was made.

Now Williams provides customized training to specific supervisors and offending individuals, ensuring that everyone understands the impact of common mistakes and how to prevent them. Williams also created and distributed a naming conventions reference sheet to remind registrars of best practices. The result of his efforts was almost immediate. “We have seen a reduction in our duplicates for the first time in 8 quarters — a reduction of almost 10%” said Williams.