

# Geisinger Leverages Patient Identification to Drive M&A Success

## At a Glance

- Product: EMPI
- Large integrated health system
- Single Epic EMR System
- 30,000 employees
- 1,600 physicians, 13 hospital campuses, 2 research centers and 583,000-member health plan

## ⊗ Challenge

Health system growing through acquisition wants precise patient ID matching across all locations

Duplicate records may exist within acquired hospital, and also between it and acquiring health system

Eliminating duplicates is essential to providing coordinated, quality care and efficiency

## ✓ Solution

De-duplicate patient medical records of acquired hospitals before merging them

Identify duplicates that exist between the acquired hospital and acquiring health system

Extend service to regional HIE, promoting accuracy in patient records across a still larger geographic footprint

## A National Model of Evolution and Care

### Overview

Geisinger, one of the nation's largest integrated health services organizations, serves more than 3 million residents throughout 45 counties in central, south-central and northeast Pennsylvania, as well as southern New Jersey. The physician-led system is comprised of approximately 30,000 employees, including 1,600 employed physicians, 13 hospital campuses, two research centers, and a 583,000-member health plan - all on a unified EMR platform.

Fundamental to Geisinger's success is its vision of becoming a national model for high-quality and cost-effective medical care. With an estimated \$12.7 billion positive impact on the Pennsylvania and New Jersey economies, Geisinger is widely recognized for its innovative use of the electronic health record and the development of innovative care delivery models.

Geisinger has grown substantially and rapidly by acquiring other area hospitals. To unify electronic medical records (EMRs) and streamline care coordination throughout the Geisinger network, each hospital that comes onboard and all of its physician practices switch to an Epic EMR system. Provided that every patient is uniquely identified and correctly matched to one and only one record, this brings tremendous benefits in information sharing and care coordination across organizational boundaries.

## The Need to Unify and Accurately Match Patient Records Across Acquired Hospitals

The challenge is that most hospitals use only the basic patient identification features embedded in their EMR and EHR systems, which can produce duplicate record rates of up to 20 percent due to changes in demographic information or manual data entry errors. Even when the acquired entity's system is de-duplicated, patients most likely received care from both the acquired hospital system and within Geisinger, each with their own, separate associated records.

### Solution

Geisinger needed to de-duplicate each acquired hospital's patient records, and then compare the cleaned records with Geisinger's database for further de-duplication and record linkage. Geisinger's goal was ensuring its medical record numbers match one-to-one for every patient when the acquired system went live with Epic.

# EMPI Solution Overview

NextGate's EMPI enables healthcare organizations to uniquely match records across disparate systems and locations into a single, longitudinal view of patients for accurate, real-time data exchange. Interoperability afforded by the EMPI delivers formidable clinical, operational and financial efficiencies, including:

- Automation of duplicate record clean-up
- Streamlined patient registration
- Reduced duplicate diagnostic and lab procedures
- Decreased number of denied medical claims
- Enhanced support for patient portals

## Enabling Enterprise-wide Access to an Accurate, Comprehensive Record of Care

To achieve its vision, Geisinger turned to NextGate's Enterprise Master Patient Index (EMPI) to de-duplicate and resolve patient records at each acquired hospital prior to go-live. To begin, the entire patient database was loaded into the EMPI, where sophisticated patient matching algorithms linked medical records together under an Enterprise Unique Identifier (EUID). The system then produced a report that displayed potential matches for unlinked patients, enabling Geisinger's EMPI team the ability to quickly reconcile.

The Geisinger team then produced a report for that facility so that it could merge all duplicate medical records. "I've continued to be amazed at instances where NextGate's EMPI identifies potential duplicates that turn out to be the same patient," said Deann Jones, Supervisor of EMPI at Geisinger. "NextGate even identified one case where patients who were twins had been accidentally merged into the same record so that we could properly separate those records."

**Geisinger's goal was to ensure its medical records matched one-to-one for every patient when the acquired system went live with Epic.**

Once the database has been de-duplicated, the Geisinger team imports it and runs reports against its own database, uncovering patients who have received care in both health systems – even when records don't match exactly. "We've had instances where a female patient received care at one hospital as a child without a recorded Social Security number, and in another after marrying," said Jones. "NextGate will spot the same first name and birth date, and flag it. As the problem can be in either system, it's a great way to clean up our database as well."

**"NextGate is amazingly innovative. Over the years, we've seen them continually improve the master patient index and tweak algorithms with each upgrade. It just keeps getting better."**

- Deann Jones, Supervisor of EMPI

Geisinger 

## About NextGate

NextGate is the global leader in identity modernization and data transformation in healthcare. With over 100 customers in nine countries, NextGate is revolutionizing the consumer care journey by resolving isolated, unstructured health and lifestyle data and establishing a trusted, single identity across the continuum. Our identity and data integrity solutions connect the digital ecosystem at scale to deliver a unified experience for care providers and their patients. NextGate's market-leading, HITRUST-certified Enterprise Master Person Index (EMPI) is deployed by the world's most progressive health systems, state and government agencies, and health information exchanges for meaningful, data-driven improvements in care quality, safety and delivery.