



## Duplicate Prevention

*Automating and streamlining the avoidance of duplicate records*

### Benefits

- ▶ Accurately identifies and maintains unique patient records
- ▶ Verifies patient address demographics
- ▶ Reduces costs to maintain patient records
- ▶ Facilitates regulatory compliance
- ▶ Improves patient care and safety
- ▶ Increases patient satisfaction
- ▶ Improves efficiency and accuracy in submitting claims and bills
- ▶ Prevents medical identity fraud with palm vein and iris authentication

### Implications of Duplicate Patient Records

One of the key challenges in today's healthcare environment is identifying duplicate patient records and preventing the creation of duplicates for existing patients.

Duplicate records may cause financial and clinical issues including:

- Treating patients with missing/incomplete information or delaying treatments, which affects patient safety
- Repeating lab and radiology tests, resulting in higher costs
- Listing a single patient multiple times in the master patient index, leading to increased costs to consolidate/correct multiple patient records
- Providing incorrect claims information or sending patient bills to invalid addresses, causing delays in patient payments

ARGO conducted a study—in conjunction with an independent consulting firm—on the Costs of Duplicate Patient Records. The study analyzed 1 million records from a 1,065-bed, multi-hospital system. Results indicated that 4.8 percent of duplicate records had a negative clinical impact on care decisions. The study also found that for each 1 percent in duplicates avoided, this healthcare organization could save an average of \$143,000 annually.

Further, according to the American Health Information Management Association, the average duplicate rate for hospitals is 10 percent, which represents a significant opportunity to reduce costs.

### How ARGO Detects/Prevents Duplicate Records

To address these issues, **ARGO Duplicate Prevention**, part of the **ARGO Enterprise Master Patient Index (EMPI)** solution, automates and streamlines the avoidance of duplicate records. ARGO incorporates biometrics, card readers, probabilistic algorithms, natural language processing, and machine learning to accurately locate and maintain unique patient records.

ARGO incorporates these techniques and algorithms into existing workflows to prevent record duplication at the time of scheduling and registration. ARGO's advanced search capabilities locate records despite discrepancies in existing data or search criteria.

### Improved Patient Identification

As part of Duplicate Prevention, organizations may leverage biometric palm vein or iris scanners. These identification and verification technologies, along with ARGO's advanced patient search methods, offer the highest level of patient record accuracy and duplicate record prevention. These methods also help prevent medical identity fraud.

The ARGO solution allows registration staff to:

- Identify and verify patients using iris or palm vein identification
- Read driver's license content (data populates search fields and initiates patient searches.)
- Scan images of identity cards such as driver's licenses and insurance/customer loyalty cards
- Scan images of picture IDs for future visual authentication

## ARGO Duplicate Prevention

- Search and compare records leveraging ARGO matching algorithms
- Perform real-time address verification with third-party services

Using these functions, providers decrease identification errors, typos, and transpositions. They also help overcome communication difficulties and language barriers.

### Simplified Access to Multiple Systems

Active Integration monitors the provider's existing systems and presents ARGO patient search features at the appropriate point in the workflow. This enables registrars and other registration staff to use ARGO's advanced search algorithms without logging into a separate system. This technology also allows registrars to identify, verify, and update current patient demographics based on information retrieved from a driver's license or a third-party data validation source.

Duplicate Prevention integrates with multiple systems including:

- Front-end registration
- Scheduling
- Clinical systems
- Ambulatory systems
- Back-end systems housing patient data such as data warehouses or health information exchanges
- Third-party data validation sources

### Highly Accurate Matching

ARGO is committed to EMPI solution excellence and accuracy. One way ARGO has demonstrated this accuracy is through independent testing, which showed a significant increase in the number of valid duplicate records identified by ARGO's matching algorithms versus traditional probabilistic matching systems.



## DUPLICATE PREVENTION

- Probabilistic Search
- Active Integration
- Registration and Scheduling  
Desktop Integration
- Driver's License Scanner and Reader
- Biometric Authentication

