



A Singular Solution for the Identification and Resolution of Duplicate Records

The Problem



Fragmentation of a patient's medical history under different medical record numbers has become a major concern of healthcare providers. Incomplete medical history has been responsible for critical errors related to patient care and patient safety. Healthcare providers overwhelmingly agree that this increased risk to the patient is not acceptable. Already, the healthcare industry has spent untold millions of dollars attempting to solve this problem. Due to the high cost required to identify and resolve duplicates in electronic systems, combined with the inordinate amount of time required consolidating physical charts, hospitals are desperate for an affordable and permanent solution.

The Solution



BASEmatch is a powerful, yet affordable, tool for achieving and maintaining a duplicate-free Master Patient Index. Elimination of duplication in the Master Patient Index helps safeguard the patient, clinicians, and hospital by ensuring that clinicians are aware of each patient's complete medical history. BASEmatch expedites duplicate resolution by simplifying the review process and automating electronic merge functions while retaining the most current demographic information. This frees valuable HIM resources for other pressing projects. A permanent cross-reference of all migrated numbers ensures that history for retired numbers can always be located. Far from a one-time only solution, refresh capabilities provide the ability to always maintain a clean system.

Key Benefits and Features



- **Comprehensive Identification of Duplicates**

BASEmatch identifies duplicate records by analyzing the full Master Patient Index using a sophisticated probabilistic scoring algorithm. MediBase's proven algorithm determines whether there is sufficient evidence of duplication. Data normalization, phonetic mapping and transposition checking are just a few techniques employed to maximize the chances of finding duplicate patient and guarantor records. This process enables the cumulative evidence to be quantified into a single score used to determine which pairs are presented for resolution.

- **User Friendly Presentation**

On the BASEmatch online review screen, suspected duplicate pairs are displayed side-by-side. Colors visually cue the reviewer as to the relationship of each data element. The colors green, yellow and red in a "traffic light" approach illustrate identically matching data, partially matching data, and data conventions that imply the pair may represent different individuals. Warnings are displayed if there is a possibility of twins or family members. From the online review screen, the user can elect to merge the duplicate pair, reject the pair as not being duplicates, or refer the potential duplicate pair for supervisory review.

- **Automated Merge in Host Systems**

Once acknowledged as the same person, BASEmatch establishes a "smart" interface link to the host person index systems and performs all existing online merge and update functions ensuring that the patient's electronic history is consolidated. This non-invasive approach guarantees compatibility with the primary system as well as attached downstream systems.

Prior to performing the required merge and update functions, "smart" logic verifies that there are no situations in the host system that signifies the merge should not occur. Recent visit activity on the retiring number is the most common reason a merge is postponed. The interface also verifies the age of the demographic data for both the surviving and retiring numbers to determine which set of information to retain once the merge is processed. Regardless of which data is newer, exception logic in the interface ensures that default data values are not retained over non-defaulted data values.

- **Perpetual "Refreshing" for a Permanent Solution**

BASEmatch provides for periodic "refreshes" of the system so that newly introduced duplicates can be detected and resolved quickly by hospital staff before they manifest into more serious problems.

- **Permanent Cross-Reference**

A permanent cross-reference and online inquiry function ensures that hospital staff can always locate retired medical record information either by the surviving or retired number.

- **Physical Chart Consolidation**

Reports are generated to notify affected departments of all merge activity. The reports assist with managing the consolidation of physical charts and films.

- **Environment Flexibility**

Two versions of BASEmatch are available depending on the enterprise configuration. The IBM mainframe version operates in both MVS and DOS/VSE environments. The Client/Server version operates in all Windows environments.

- **Powerful Conversion and System Consolidation Tool**

As institutions consolidate into larger enterprises, BASEmatch provides a powerful mechanism for isolating and linking patients from multiple systems. This minimizes the risk of introducing huge numbers of duplicates into the enterprise system as a result of a conversion.

Sample Notification Screen

Identifier	Data Element	Value
060384272	ID Number	00016837
78956415	DOB	78956415
00VYES, L.L.LUNN	Name	MAY S. L.L.LUNN ALICE
12421964 98yrs old	DOB Age	12421964 98yrs old
RT 1 BOX 728	Address 1	RT 1
	Address 2	
PLANTATION WOODS	City	PLANTATION WOODS
VA 40618308	State	VA 40618308
078880429	Zip	078880429
P/W F/W	Sex	P/W / M / Y
	Age	98 / 103 / 107
	State	
	City	
	Zip	
	Birth Place	
3 Visits from 06/03/1961 to 07/18/1992	Visits	1 Visit from 03/03/1976 to 03/28/1976



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