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Standard Guide for Implementation of a Voluntary Universal Healthcare Identification System[1]

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1. Scope

1.1 This document describes the implementation principles needed to create a Voluntary Universal Healthcare Identification (VUHID) system. The purpose of this system is to enable unambiguous identification of individuals in order to facilitate the delivery of healthcare.

1.2 The VUHID system should be dedicated exclusively to the needs and functions of healthcare.

1.3 The VUHID system is designed to represent no, or at least minimal, increased risk to healthcare privacy and security.

1.4 The system should be as cost-effective as possible.

1.5 The system must be created and maintained in a way to provide sustained benefit to healthcare.

1.6 The system should be designed and implemented in a manner that ensures that it can operate indefinitely.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

E1714 Guide for Properties of a Universal Healthcare Identifier (UHID)

2.2 *Other Standard:*

AIIM Standard PDF417 Bar-coding

3. Terminology

3.1 *Acronyms:*

3.1.1 *2D*—two dimensional

3.1.2 *CDO*—care delivery organization

3.1.3 *EMPI*—enterprise master patient index

3.1.4 *MO*—managing organization

3.1.5 *OVID*—open voluntary healthcare identifier

3.1.6 *PVID*—private voluntary healthcare identifier

3.1.7 *VUHID*—voluntary universal healthcare identification

4. Summary of Guide

4.1 The VUHID facility described in this guide is responsible for issuing unique personal healthcare identifiers to any cooperating EMPI facility (defined below) upon receipt of an authenticated request. The issued identifiers must be consistent with Guide E1714 and, as appropriate, would consist of both 'open' OVIDs (Open Voluntary Healthcare Identifiers) as well as PVIDs (Private Voluntary Healthcare Identifiers). This document will refer to any identifier issued by the VUHID, whether OVID or PVID, as a VUHID identifier. OVIDs are used to provide linkage of healthcare information for circumstances where the identity of the associated person is meant to be freely accessible. PVIDs (which exist in various privacy classes) permit linkage of various healthcare data items where the identity of the associated individual is *not* meant to be publicly available.

4.2 The VUHID system should be created as a secure high-availability server on the Internet which communicates exclusively with cooperating EMPI facilities using secure communication techniques. The VUHID facility issues identifiers and is responsible for maintaining policies and procedures relating to various classes of PVIDs. It does *not* store patient identification, demographic information, or clinical information and for this reason does not represent a security or privacy vulnerability. (See Section 12 for a description of how this approach is implemented when issuing a new identifier.) The VUHID facility should receive requests for information relating to a given identifier and distribute those requests to all cooperating EMPI facilities in order to fulfill the information sharing goals associated with unambiguous patient identification.

4.3 The identifiers issued by the VUHID facility can be used, consistent with the policy established for each identifier class, by all of the participating healthcare facilities interacting

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

with a cooperating EMPI to facilitate storage, linkage, and exchange within that system.

4.4 The VUHID facility should be controlled by a managing organization that is dedicated exclusively to the benefit of the healthcare industry.

5. Significance and Use

5.1 This standard describes a proposal to provide unambiguous personal identification for any patient who requests it. In today's world of specialized healthcare and mobile patients it is typical for clinical information on a single patient to reside in a variety of locations, some using manual data storage techniques, but an increasing number using electronic means. In order for a clinician to provide safe and appropriate clinical care in this environment it is necessary to be able to aggregate appropriate clinical information on a specific patient in order to gain an accurate and comprehensive picture of that patient's clinical situation. This implies that all information relating to each patient should be identified in a unique manner to facilitate the process of accurately aggregating appropriate information.

5.2 The converse of the need for data aggregation is the patient's need to protect the privacy of their information. Unless patients are confident that they can avoid inappropriate sharing of clinical information they will not readily share that information with caregivers. Thus, the same system that supports unambiguous linkage of all information concerning a patient must also play a role in protecting the privacy of that information.

5.3 The proposed patient identification system must be able to avoid or overcome the numerous objections that have prevented implementation of a universal patient identification system in the past including issues related to:

5.3.1 *Technology*—The proposed system must be technically feasible in a manner that promotes scalability, availability, and ease of implementation.

5.3.2 *Integration with Existing Systems*—To the maximum extent possible the proposed identification system should work seamlessly with existing information systems.

5.3.3 *Cost-effectiveness*—The proposed system should balance the costs and benefits required to implement a fully functional voluntary universal healthcare identification system.

5.3.4 *Political Feasibility*—Because many different constituencies have a vested interest in a universal patient identification system, it has been a significant challenge to gain consensus on how to implement such a system.

5.3.5 *Gradually Implementable*—In order to minimize the impact associated with its implementation, a desirable property of a voluntary universal healthcare identification system is that it be gradually implementable over time.

5.3.6 *Acceptable to the General Public*—A voluntary universal healthcare identification system must be accepted by the general public as a beneficial, effective and non-threatening capability.

5.4 Experience has shown that a healthcare identification system will only be feasible if it is dedicated exclusively to the needs of healthcare. It is only in this focused environment that it has been possible to create a consistent, feasible, functional, and effective design for such a system.

6. Anticipated VUHID Benefits

6.1 A universal healthcare identification system that is not used will offer no benefit. Since the VUHID is designed as a voluntary system, this is a significant risk if the system is not perceived by its potential users as offering sufficient value. Here is a partial list of the benefits that should accrue to people who choose to participate in the VUHID system.

6.2 *Increased Convenience*—Giving your VUHID card to a provider organization should eliminate the need to repeatedly provide a list of identifying demographic information. Instead, this information will be pulled automatically from the cooperating EMPI system.

6.3 *Improved Data Sharing*—Use of VUHID identifiers will enable clinical information to be more readily shared both within organizations and between organizations. In addition, the existence of private identifiers will enable more granular data sharing based on a variety of policy- and patient-specified principles.

6.3.1 *Locally*—The use of a VUHID should permit convenient and error-free linkage of information across all of the provider facilities operating within the domain of a cooperating EMPI facility.

6.3.2 *Nationally*—The use of VUHID should permit rapid, virtually error-free and comprehensive retrieval of any information stored within any cooperating EMPI that is participating in the VUHID network.

6.4 *Decreased Incidence of Medical Errors*—The use of VUHID identifiers permits comprehensive and virtually error-free linkage of medical records stored across a wide and heterogeneous mixture of healthcare provider facilities. Making this information available to a physician can greatly decrease the risk of inadvertent medical errors.

6.5 *Decreased Risk of Identity Theft*—Use of a VUHID identifier, particularly use of a PVID, means that an identifier, not the patient's identity, is at risk should the information be misused by a recipient or otherwise mishandled.

6.6 *Improved Control of Healthcare Information Privacy*—The ability to use various classes of PVIDs to link clinical information means that a person participating in the VUHID system has the ability to exercise precise control over various types of medical information.

6.7 *Improved Support for Clinical Trials*—Patients that participate in clinical trials can use a separate PVID to ensure that the clinical information needed for the trial is not linked to the remainder of their medical record.

7. Functions Supported by the VUHID System

7.1 Recruit cooperating EMPI facilities.