
Health Informatics — Identification of subjects of health care

Informatique de la santé — Identification des sujets de soins sanitaires



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

- an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;
- an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years at which time it must either be transformed into an International Standard or be withdrawn.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

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Introduction

The health care system relies heavily on the ability to uniquely and accurately identify a person when they attend for care. The introduction of computerization into this process requires the clear specification of all elements of information used to support the procedural as well as the computerized identification of a subject of care so that the current person is associated with previous health information and to support communication between health care professionals. Developments in the health care system and the emergence of health networks have amplified the importance of collecting, sharing and exchanging data concerning individual subjects of care between different health care providers and between different information systems.

More effective communication between health care professionals is key to securing closer co-operation, improving the handling of subjects of care in terms of quality and continuity of care, and prevention and promoting health system efficiency.

Reliable identification of the individual has always been a critical part of the health care process. The ability of computerized systems to support and enhance the manual process of identification is vital in addition to the ability of these systems to identify individuals when communicating patient information electronically. High quality identification is necessary to ensure that health care professionals have access to patient information, facilitating closer co-ordination and continuity of care and improving service in terms of prevention and follow-up. Modern service delivery networks result in greater flows of subjects of care and services across national, functional, jurisdictional and professional boundaries. However, high quality identification can be very complex in a more integrated health care environment.

Within health care service delivery environments, the process of positively identifying subjects of care entails matching data supplied manually and/or electronically, or through hard documentation by those subjects of care against data the service provider holds about those subjects. This process occurs both manually, increasingly with computer support, and electronically where systems have to communicate information about individuals securely and accurately. Impediments to high quality identification include variable data quality, inadequately considered manual identification processes, differing data capture requirements and mechanisms, and varying data matching methods.

This Technical Specification identifies the data elements and relevant structure and content of the data used to manually identify individuals in a health care setting and provides support to the identification of individuals in a consistent manner between systems that will support the natural changes in usage and application of the various names used by people over time.

This Technical Specification addresses the business requirements of identification as well as the data needed to improve the confidence of health service providers in subjects of care identification. It defines the data used to identify subjects of care, and the business processes associated with this activity, whether computerized or manual. This Technical Specification is intended to be used both to support the processes of the identification of subjects of care by individuals and computerized identification in automated matching systems.

Usage

Within a health care service delivery context, the process of positively identifying individuals entails matching data supplied by those individuals against data the service provider holds about them.

The ability to positively identify individuals and to locate their relevant details is critical to the provision of speedy, safe, high quality, comprehensive and efficient health care. The benefits of positive identification include the following:

- less time wasted and inconvenience generated in hunting for and/or re-gathering information about the individual, which translates to more efficient health care;

- more complete and accurate information on which to base potentially life-critical clinical decisions;
- fewer duplicate entries for an individual leading to less duplication of testing and prescribing;
- safer treatment from having clinical details for the right individual.

The delivery of health care is undergoing a paradigm change, brought about by changing consumer expectations, technological advances, economic pressures, socio-demographic change and changes in the patterns of health and ill health in communities.

These changes include the following:

- a shift from institution-centred care to subject-centred care, together with greater empowerment of the subjects of care;
- greater emphasis on continuity of services supporting quality and safety, health promotion and maintenance;
- more integrated health care, in which organizational and administrative barriers are invisible to subjects of care.

These new service directions will necessitate a much greater flow of information on subjects of care and services across functional, jurisdictional, administrative and professional boundaries. In a more integrated health care environment, positive identification is no less critical, but is much more complex. Population mobility and multiple points of access to the health care system lead to the accumulation of subject-related data in a variety of fragmented, unrelated repositories. Positive subject of care identification is recognized around the world as a critical success factor for health care reform.

There are many barriers to successfully identifying individuals in health care settings, including the following.

- Variable data quality and changes in key identifying information over time.
- The patient's capacity to provide information. In a health care environment the identification system must be able to cope with the fact that people's memories and capacity to communicate vary according to their mental and physical capacity and to their willingness to seek and receive care. Information is often provided by third parties (family and friends) who might know the person by a preferred name rather than by the person's formal name.
- Differing data capture requirements and mechanisms, and varying data matching methods. This Technical Specification provides a framework for improving the confidence of health service providers and subjects of care alike, that the data being associated with any given individual, and upon which clinical decisions are made, is appropriately associated and suited to the flexibility of the health care setting.
- The need to respect the wishes of the subject of care. If an individual prefers that others not know their full name, or that they be known by a preferred or nickname, then this should be able to be respected by the system, allowing the system to communicate the formal name, when required, to other systems, but also to ensure that the preferred name is used so as not to unnecessarily stress the subject of care or confuse family and/or friends.

Where permitted by law, data matching may be undertaken in a variety of contexts and settings, including for administrative purposes. However, the specific focus of this Technical Specification is the positive identification of subjects of care for health care service delivery purposes. It is recognized that implementations in different systems and national settings may need to establish the elements of this document best suited to these local needs.

It is recognized that this document may support national client registry projects in health care, but does not represent a registry content or structural specification.

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Health Informatics — Identification of subjects of health care

1 Scope

1.1 Introduction

This Technical Specification indicates the data elements and structure suited to accurate and procedurally appropriate and sensitive identification of individuals in health care in a face-to-face setting supported by computer technology, or through interactions between computer systems. It provides guidelines for improving the positive identification of subjects of care within and between health care organizations.

It defines demographic and other identifying data elements suited to capture, and the wide variety of manual and computer-enhanced procedures used for subject of care identification in health care settings. It also provides guidance on their application in the manual and the computer environment and makes recommendations about the nature and form of health care identifiers, the management organization to oversee subject of care identification, and computer support to be provided for the identification process.

There are additional factors to be considered in providing access to distributed subject of care data, including privacy, security and data transfer mechanisms. These are outside the scope of this Technical Specification. Application of this Technical Specification will increase the capacity for data access. Authorization of such access is determined by the application of legislation, organizational policies and guidelines and professional ethics.

It is recognized that specific applications may require additional data to fulfil their purpose. This Technical Specification provides a generic set of identifying information, which is application-independent. Implementations in different health care environments and national settings may require the establishment of data sub-sets or priorities.

1.2 Objective

The objective of this Technical Specification is to promote uniform good practice in:

- a) identifying individuals in a face-to-face or paper-based environment, as well as in and between automated systems;
- b) recording and reporting of subject of care identifying data;
- c) ensuring that data being associated with any given subject of care, and upon which clinical communication and data aggregation are based, are appropriately associated with that individual or organization and no other.

1.3 Application

This Technical Specification is primarily concerned with the use of subject of care identification data to support patient care. It should be used by health and health-related establishments that create, use or maintain records on subjects of care. Health care organizations should use this Technical Specification where appropriate, for collecting data when registering subjects of care or potential subjects of care and when reporting patient information to other systems, both clinical and administrative.

Informative guides are provided in the following annexes.

- a) Annex A (Collection of data) provides guidance on basic business principles for management of identification information collection.
- b) Annex B (Messaging) is provided to assist in the implementation of this Technical Specification in a messaging environment.
- c) Annex C (Data matching) provides guidance on manual searching for a subject of care within a master index. The use of appropriate and thorough searching techniques is important in ensuring that any existing client data will be linked to the relevant health care client.
- d) Annex D (Guide for implementation of subject of care master indices) provides guidance on master indices that form the key client directory within health care establishments. They are central to health care client identification.
- e) Annex E (Guidelines for searching for a subject of care).
- f) Annex F (Names — Condensed guide).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 2022, *Information technology — Character code structure and extension techniques*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO/IEC 11179-3, *Information technology — Metadata registries (MDR) — Part 3: Registry metamodel and basic attributes*

ISO/IEC 19785-1, *Information technology — Common Biometric Exchange Formats Framework — Part 1: Data element specification*

ISO/IEC 19785-2, *Information technology — Common Biometric Exchange Formats Framework — Part 2: Procedures for the operation of the Biometric Registration Authority*

AS 4846-2006, *Health Care Provider Identification*

AS 4590-2006, *Interchange of client information*

ASTM E1714-00, *Standard Guide for Properties of a Universal Health Care Identifier (UHID)*

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