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Health informatics — Identification of subjects of health care

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National foreword

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This publication is not to be regarded as a British Standard.

It is being issued in the Draft for Development series of publications and is of a provisional nature. It should be applied on this provisional basis, so that information and experience of its practical application can be obtained.

Comments arising from the use of this Draft for Development are requested so that UK experience can be reported to the international organization responsible for its conversion to an international standard. A review of this publication will be initiated not later than 3 years after its publication by the international organization so that a decision can be taken on its status. Notification of the start of the review period will be made in an announcement in the appropriate issue of *Update Standards.*

According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into an international Standard, to extend the life of the Technical Specification or to withdraw it. Comments should be sent to the Secretary of the responsible BSI Technical Committee at British Standards House, 389 Chiswick High Road, London W4 4AL.

The UK participation in its preparation was entrusted to Technical Committee IST/35, Health informatics.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Date	Text affected

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TECHNICAL SPECIFICATION

ISO/TS 22220

Second edition
2011-12-15

Health informatics — Identification of subjects of health care

Informatique de 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.

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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.

ISO/TS 22220 was prepared by Technical Committee ISO/TC 215, *Health informatics*.

This second edition cancels and replaces the first edition (ISO/TS 22220:2009), which has been technically revised.

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Introduction

0.1 General

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 present person is associated with previous health information. Computerization is also important in supporting 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, as is 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, electronically or through hard documentation by those subjects of care against data the service provider holds about them. 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. In addition, it 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 and 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. It 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.

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0.2 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:

— 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;

— more complete and accurate information on which to base potential data use and disclosure decisions.

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:

a) a shift from institution-centred care to subject-centred care, together with greater empowerment of the subjects of care;

b) greater emphasis on continuity of services supporting quality and safety, health promotion and maintenance;

c) 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.

Below are some examples of the many barriers to successfully identifying individuals in health care settings.

1) Variable data quality and changes in key identifying information over time.

2) The patient's capacity to provide information. In a health care environment, it is important that the identification system can 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.

3) 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 so that the data being associated with any given individual, and upon which clinical decisions are made, are appropriately associated and suited to the flexibility of the health care setting.

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4) The need to respect the wishes of the subject of care. The system should be able to accommodate the wishes of an individual who prefers that others not know their full name, or who prefers to be known by a preferred name or nickname. The system should be able to communicate the formal name when required to other systems but also to ensure that the preferred name is used so as not to cause unnecessary stress to the subject of care, or confuse family and friends.

Where permitted by law, data matching can 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 might vary according to local needs.

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

0.3 Responsibilities

The positive and unique identification of subjects of care within and between health care organizations is a critical event in health service delivery, with direct implications for the safety and quality of health care.

It is important that responsibilities for the quality, capture, storage and use of identifying data for subjects of care, including implementation of this Technical Specification are clearly and unambiguously assigned within the organization, and documented in relevant policies, procedures and work instructions.

Users of this Technical Specification should refer to relevant privacy legislation, codes of fair information practice and other guidelines so as not to breach personal privacy in their collection, use, storage and disclosure of subject of care information.

0.4 Training

Relevant staff should receive training that highlights the nature, importance and health benefits of high quality procedures for the capture, storage and use of health identifying data and the safety implications of errors and duplications of subject of care information.

0.5 Business processes

Business processes associated with the capture, storage and use of subject identifying data should be designed and continuously improved to ensure that accurate, consistent and complete data collection, communication and storage practices are used.

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Health informatics — Identification of subjects of health care

1 Scope

1.1 General

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 capturing subject of care identification in health care settings, and the wide variety of manual and computer enhanced procedures used for this process.

It provides guidance on the application of these procedures 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 might 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 might 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 is envisaged that this Technical Specification will be used by health and health-related establishments that create, use or maintain records on subjects of care. It can be used, where appropriate, for collecting data when registering subjects of care or potential subjects of care and when reporting patient information to other systems, clinical and administrative.

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Informative guides for business processes associated with capture, storage and use of subject identifying data are included in Annexes A to F.

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 3166-1:2006, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

AS 4846, *Health care provider identification*

AS 4590-2006, *Interchange of client information*

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

HL7 V2.4, Health Level Seven Standard Version 2.4, *An application Protocol for Electronic Data Exchange in Healthcare Environments*, Health Level Seven Inc., Ann Arbor, Michigan, 2000

HL7 V3, Health Level Seven Standard Version 3, *Core Principles and Properties of Version 3 Models*, Health Level Seven Inc., Ann Arbor, Michigan, 2005

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

NOTE Individual data elements are defined in subsequent sections.

3.1
capture
deliberate action, which results in the registration of a record into a record keeping system

3.2
subject of care
SOC
subject of health care
any person who uses, or is a potential user of, a health care service

NOTE Subjects of care may also be referred to as patients, health care consumers or subjects of care.

3.3
subject of care identifier
SCI
unique number or code issued for the purpose of identifying a subject of (health) care

3.4
information system
organized collection of hardware, software, supplies, policies, procedures and people that stores, processes and provides access to information

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3.5
record
recorded information, in any form, including data in computer systems, which is created or received and maintained by an organization or person in the transaction of business or the conduct of affairs and kept as evidence of such activity

3.6
registration
act of giving a record a unique identity in a record keeping system

3.7
storage
function of storing records for future retrieval and use

4 Components of data elements

4.1 General

This Technical Specification includes recommendations concerning the data elements most likely to affect the quality of identification of subjects of care. Data elements are expressed in terms of the following interrelated components. Individual organizations should identify the elements of most relevance for identification in their cultural and health setting environment.

Data concepts described in this Technical Specification are listed in Figure 1, which does not show the interrelationships between the sections, nor all the data elements that comprise these concepts, nor data structures.

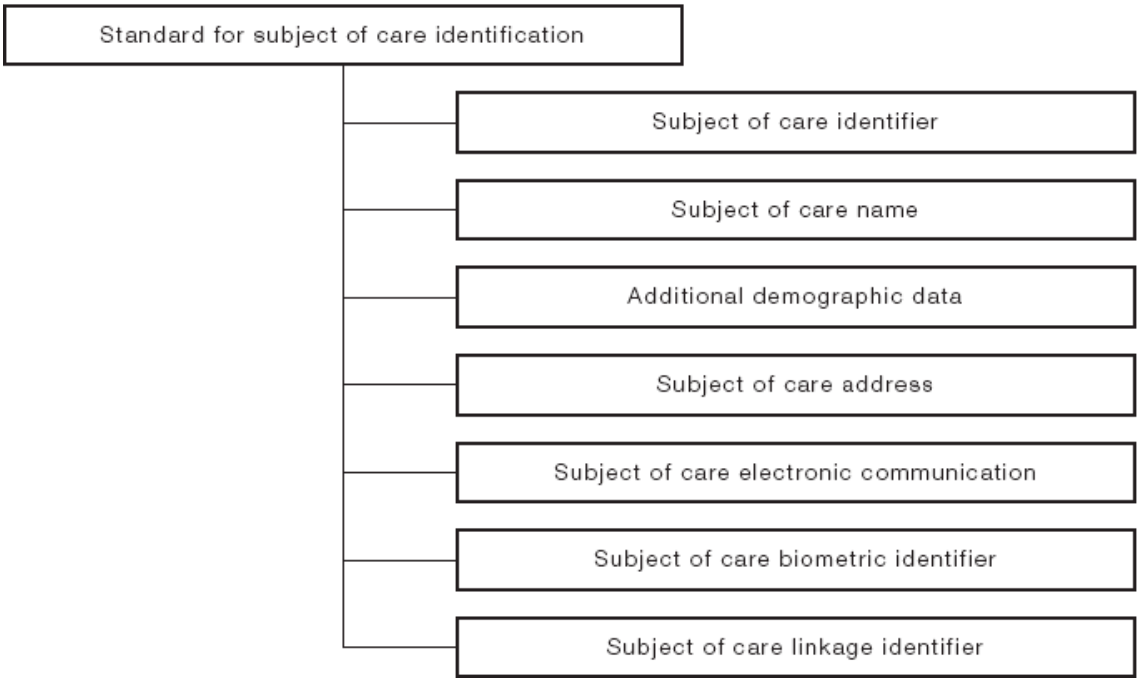

Figure 1 — Data elements and interrelated components

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4.2 Data element structure

4.2.1 General

Each data element has been defined according to a set of metadata components based on ISO 11179-3. Most components (definition, data type, representational class, data domain, etc.) describe essential features of the structure of a data element. Some components, such as collection method and comments, describe additional, non-essential features and may be left blank where appropriate.

4.2.2 Synonyms

Synonyms are alternative names for this data element.

4.2.3 Definition

This is a statement that expresses the essential nature of the data element and its differentiation from all other data elements.

4.2.4 Source standards

These are details of established data definitions, or guidelines for data elements, that have been cited in this Technical Specification and are listed in the Bibliography.

4.2.5 Data type

It is recognized that different representations of the values shown in this Technical Specification might be required. Where possible, the data types are described in a manner consistent with HL7 data types. The list below provides examples of data types used in this document.

— Boolean-literal (true/false).

— Number, e.g. ISO/IEC 11404 (only used in this Technical Specification where arithmetic operations are performed).

— Character string.

— Text or unconstrained text.

— Coded text (from an agreed vocabulary or value domain).

— Constrained text (where the text is associated with a formal terminology). The difference between the coded and constrained text is the relationship to a formal, structured terminology, as opposed to a code set, or list of values.

— Unique identifier.

— Dates/times.

Though there are other data types, they are not required within this Technical Specification and thus have not been included.

4.2.6 Data domain

This refers to the values or codes acceptable for representation of the data element. The data elements contained in this Technical Specification are either free text or coded. For each data element that is coded, a code value, a descriptor of the code value and, in some cases, an alternative code (generally an alphabetic code) are provided. The code should be used for communication of this data value, the descriptor is the title of the code value and the alternative code is provided for collection of the data where the use of alphabetic code values is preferred at the point of data collection or for screen viewing. For example, the data domain for the data element “sex” is shown in Table 1 below:

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Table 1 — Example of data domain representation

Code	Descriptor	Alternative code
1	Male	M
2	Female	F
3	Indeterminate	I
9	Not stated/inadequately described	N

4.2.7 Guide for use

This is additional guidance to inform the use of the data element.

4.2.8 Verification rules

These are quality control mechanisms that restrict the collection, storage or transferral of non-valid data.

4.2.9 Collection method

This contains comments and advice concerning the actual capture of data for the particular data elements in order to achieve uniformly high quality data.

4.2.10 Comments (optional)

This is any further information relevant to data element collection or storage.

4.3 Summary structure

Table 2 provides a summary guide to the structure of the data elements defined in this Technical Specification. This table indicates that for a given individual there may be multiple identifiers, names, addresses, electronic communications and biometric identifiers, but one set of core demographic data. Each of these data elements is established from a sub-set of data elements.

Table 2 — Summary of data element structure

Section of document	Data elements	Opt.[a]	Data type	Repeat data element[b]
5	Subject of care identifier	R	Text	Y
6	Subject of care name	R	Text	Y
7	Additional demographic data	O	Text	N
8	Subject of care address	O	Text	Y
9	Subject of care electronic communications	O	Text	Y
10	Subject of care biometric identifier	O	Text	Y
11	Subject of care linkage	O	Text	Y

[a] Whether the data element is optional (O) or required (R).

[b] Whether yes (Y) or no (N).

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5 Subject of care identifiers

5.1 General

This clause includes data elements that jointly comprise a unique identifier for subjects of care. It also outlines subject identifiers.

The combination of the subject identifier and the health care organization, the type of identifier and the name given to the identifier in the organization is one way to indicate unique identification of the subject of care.

The subject of care identifier may also be known as:

— patient ID (HL7);

— person identifier;

— unit record number (URN);

— medical record number (MRN);

— local subject identifier;

— subject identification number;

— enterprise identifier;

— area identifier;

— province/state/territory identifier;

— unique identifier (UID);

— unique health identifier (UHID).

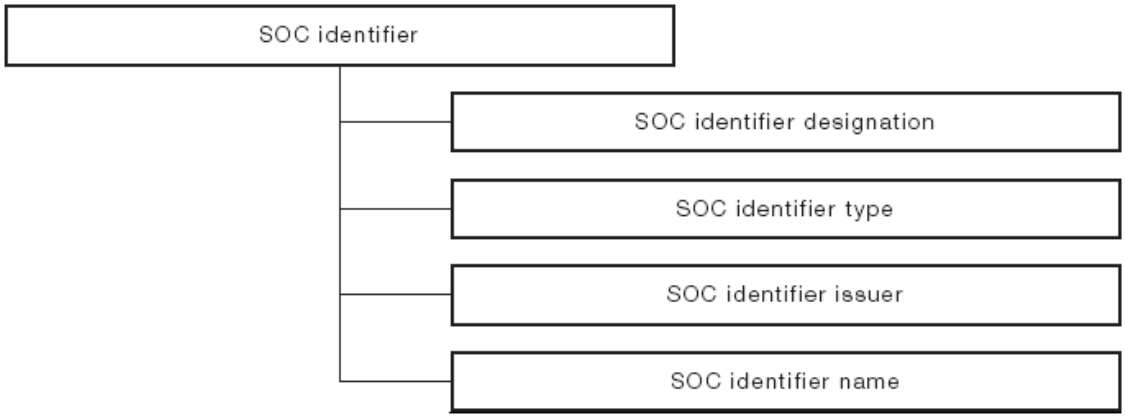

Figure 2 — Data elements for subject of care identifier

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Table 3 indicates the data elements used to describe a subject of care identifier. There may be multiple identifiers collected for any one individual. Most subjects of care will have more than one identifier. Each health care organization or health care activity may designate a specific identifier as the one for use in their environment. This identification process would require the specification of the identifier type, identifier issuer and identifier name to be used within that organization/purpose.

Table 3 — Subject of care identifier data elements

Clause/ subclause	Data element name	Opt.[a]	Data type	Repeat data element[b]	Example
5	Subject of care identifier	R	Unique identifier	Y	
5.2	Subject of care identifier designation	R	Unique identifier	Y	12345678
5.3	Subject of care identifier geographic area	R	Coded text	Y	N (National)
5.4	Subject of care identifier issuer	R	Unique identifier	Y	
5.5	Subject of care identifier type	R	Coded text	Y	

[a] Whether the data element is optional (O) or required (R).

[b] Whether yes (Y) or no (N).

Table 4 provides examples of the identifiers used at a number of organizations for Joe Smith.

Table 4 — Example of subject of care identifiers

SOC identifier designation	SOC identifier geographic area	SOC identifier issuer	SOC identifier type
99876543	1 (local)	AB1345 (The Hill Regional Hospital)	01 (unique identifier for issuer)
NCB 913452	1 (local)	AB1345 (The Hill Regional Hospital)	02 (specialty number — pathology)
XYZ123	2 (area)	ABC4 (Northern Area Health Service)	01 (unique identifier for issuer)
998AAB990	4 (national)	SSA (Social Security Agency)	01 (unique identifier for issuer)
99812341	3 (state/province)	ABC (ABC State Department of Health)	01 (unique identifier for issuer)
3344 2256 2235 3	4 (national)	DOHAU (National Department of Health Australia)	01 (unique identifier for issuer)

The combination of any of the items along one line of Table 4 represents a subject of care identifier. For example, at The Hill Regional Hospital, the medical record number may be identified as the number to be used within that organization as the main identifier.

Some identifiers assigned by government agencies or other regulatory bodies to subjects of care may be for special purposes (billing or claiming benefits). Therefore such identifiers should not generally be used for purposes other than these special purposes. The individual requirements of legislation in individual countries should be applied.

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5.2 Subject of care identifier designation

Synonym

Patient identifier number

Health care client identifier number

UR number

Definition

A number or code assigned to a person by an organization, establishment, agency or domain in order to uniquely identify that person as a subject of health care within that health care organization, establishment, agency or domain.

Source standards

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

HL7 V2.4, Health Level Seven Standard Version 2.4 (PID-3 Patient identifier list)

Data type

Unique Identifier

Data domain

Identifier code according to issuer rules for identifier generation.

Guide for use

Individual agencies, establishments or collection authorities may use their own alphabetic, numeric or string coding systems.

The combination of the subject of care identifier designation, subject of care identifier type, subject of care identifier issuer and subject of care identifier name uniquely identify the person.

ASTM E1714-00 should be used as a guide to the properties of subject of care identifiers.

Validation rules

Field may not be blank.

Collection method (informative)

The following criteria and characteristics of the subject of care identifier (SCI) are adapted from ASTM E1714-95, *Guide for Properties of a Universal Healthcare Identifier (UHID)*.

Atomic: the SCI should be a single data item. It should not contain sub-elements that have meaning outside the context of the entire SCI, nor should it consist of multiple items that are taken together to constitute an identifier.

Content free: the SCI should not depend on possibly changing or possibly unknown information pertaining to the subject of care. Including content in the SCI will make it impossible to assign the “correct” identifier if that information is not known. It also leads to invalid situations if the information changes, e.g. what happens to an identifier based on sex if the subject has a sex change procedure.

Longevity: the SCI system should be designed to function for the foreseeable future. It should not contain known limitations that will force the system to be restructured or revised radically.

Permanent: once assigned, an SCI should remain with the subject of care. It should never be reassigned to another subject, even after the subject's death.

Unambiguous: whether represented in automated or handwritten form, an SCI should minimize the risk of misinterpretation. Where using string identifiers, it is important to be aware of possible confusion with the number “0”, with the letter “O” and the number “1” with the letter “I”.

Unique: a valid subject of care identifier designation should identify one and only one subject of care.

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5.3 Subject of care identifier geographic area

Definition A code representing the geographic area within which this identifier is used.

Source standards Not applicable.

Data type Coded text.

Data domain

Code	Description	Alternative code
1	Local subject identifier	L
2	Area, region or district identifier	A
3	State/province/territory identifier	S
4	National identifier	N

Guide for use Codes 1–4 are recommended for storage and the alternative codes are suggested for collection of data where the full descriptor cannot be displayed.

The fields can be a multiple occurring field, one occurrence per group of subject of care identifier fields. This is one of the essential elements required for inclusion in a subject of care identifier.

The combination of the subject of care identifier (designation, subject of care identifier geographic location, subject of care identifier issuer and subject of care type) uniquely identifies a client.

1) Local subject identifier: the unique identifier assigned by an organization for use within a specific site or small group of sites local to an area or city.

2) Area, region or district identifier: the unique identifier assigned by an organization for use within a specific area, such as a health region or district.

3) State/province/territory identifier: the unique identifier assigned by an organization for use within a specific political boundary such as a state or territory or province, such as a provincial health care identifier.

4) National identifier: the unique identifier assigned by an organization at a national level to identify a health care client, e.g. health insurance number or national health identifier.

Verification rules Not applicable.

Collection method Not applicable.

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5.4 Subject of care identifier issuer

Synonym Patient Identifier Assigning Authority (HL7 PID 3.4)

Definition The organization, agency or provider that allocates a subject of care identifier designation.

Source standards HL7 V2.4, Health Level Seven Standard Version 2.4: Health Level Seven Inc., Ann Arbor, Michigan, 2000. (STF-2 ID code <assigning authority>)

HL7 V3, Health Level Seven Standard Version 3: Health Level Seven Inc., Ann Arbor, Michigan 2005 (Authority Name)

Data type Unique identifier.

Data domain Unique identifier of the issuer of the subject of care identifier.

Guide for use It is desirable that this field be represented using established, formal identifiers to assist in communication between organizations. As such an identifier does not always exist, implementation might require that the field be free text. Where an established identifier exists for a health care service provider who issued the identifier, the unique identifier of that organization should be used in this field.

Verification rules Not applicable.

Collection method (informative) Not applicable.

5.5 Subject of care identifier type

Synonym Identifier type code.

Definition The type of the identifier within the organization, e.g. unique patient identifier, health care card, pension card.

Source standards HL7 V2.4, Health Level Seven Standard Version 2.4: Health Level Seven Inc., Ann Arbor, Michigan, 2000 (PID-3.5 — Identifier Type Code)

Data type Coded text.

Data domain The type of identifier to be established within the health care organization.

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Guide for use Each organization that issues health care identifiers should identify the code to be used for each type of identifier they issue.

Subject of care identifier names could include the following examples.

01 — Unique identifier within this organization (to be used where only one number is used for identification within the organization).

02 — Medical record number, patient record number, UR number.

Service specific numbers for numbers issued by a specific service, e.g.:

21 — radiology

22 — pathology

23 — pharmacy

Examples of identification numbers indicating card types:

31 — top level cover card

32 — medium level cover card

33 — lowest level cover card

51 — Insurance/finance/pension number

82 — research purpose number

Verification rules Not applicable.

Collection method (informative) Not applicable.

6 Subject of care name

6.1 General

The subject of care name is a composite data element that is captured through the combination of name title group, given name group, name usage group and name suffix group.

There may be more than one name recorded for each subject of care. At least one name should be captured. There may be multiple titles, given names, suffixes and name usage for any name. Only one name can be the person's preferred name at any given point in time.

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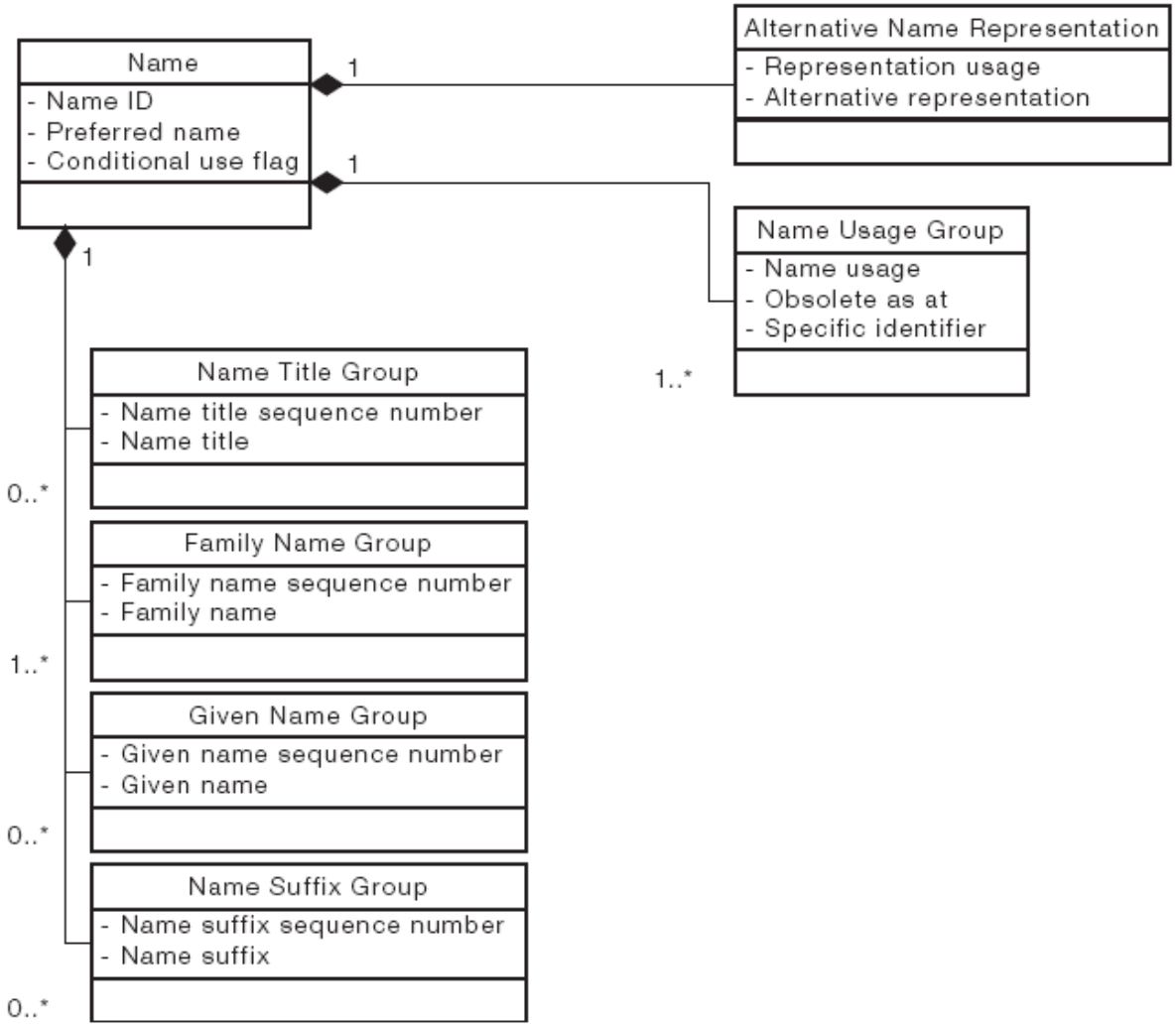

Figure 3 — Relationships of name data elements

Figure 3 indicates the data elements available for the combination data element of name. Table 5 shows a summary example outline of each of these elements. For any given purpose, specific elements of the name might be used, such as for communicating with a patient or for messaging an order. This Technical Specification does not attempt to identify the elements for these purposes but the elements are required to clearly and specifically specify a name.

Figures 4, 5 and 6 provide examples of possible name data elements in Australia.

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Table 5 — Subject of care name data elements

Clause	Data element name	Opt.[a]	Data type[b]	Repeat data element[c]	Example[b]
6	**Subject of care (SOC) name**	**R**	**N/A**	**Y**	**N/A**
6.2	**Family name group**	**R**	**Text**	**Y**	**N/A**
6.2.2	Family name	R	Text	N	Brown
6.2.3	Family name sequence number	R	Number	N	1
6.3	**Preferred name**	**R**	**Boolean-literal**	**N**	**N**
6.4	**Conditional use**	**O**	**Code**	**N**	**3 misspelling**
6.5	**SOC name title group**	**O**	**N/A**	**Y**	**N/A**
6.5.2	SOC name title	R	Text	N	Dr
6.5.3	SOC name title sequence number	R	Number	N	1
6.6	**Given name group**	**O**	**N/A**	**Y**	**N/A**
6.6.2	Given name	R	Ext	N	Mary
6.6.3	Given name sequence number	R	Number	N	1
6.7	**Name suffix group**	**O**	**N/A**	**Y**	**N/A**
6.7.2	Name suffix	R	Text	N	Jnr (Junior)
6.7.3	Name suffix sequence number	R	Number	N	1
6.8	**Name usage group**	**O**	**N/A**	**Y**	**N/A**
6.8.2	Name usage	R	Code	N	1 reporting
6.8.3	Name usage start date	R	Date	N	01042006
6.8.4	Name usage end date	O	Date	N	22062006
6.8.5	Usage identifier	O	Unique identifier	N	113456 Insurance Company unique ID for this person
6.9	**Alternative name representation**	**O**	**N/A**	**Y**	**N/A**
6.9.2	Representation usage	R	Code	N	
6.9.3	Alternative representation	R	Text	N	

[a] Whether the data element is optional (O) or required (R).

Required (the group may be required or, where the group is optional, the individual data elements within the group may be marked as required. In this case, where the group exists the required elements should be present.

[b] N/A = Not applicable.

[c] Whether yes (Y) or no (N).

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EXAMPLE 1 Event 1 produces name ID number 1: an unnamed newborn girl, registered as her mother's daughter with the name Baby 1 of Jane Jones. This name is a temporary name.

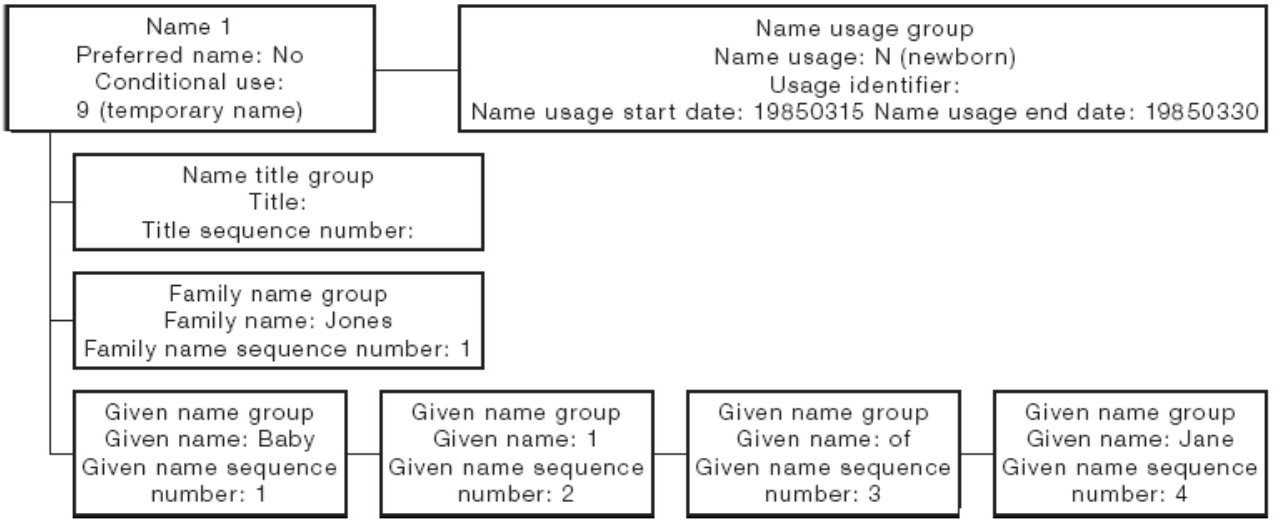

Figure 4 — Example of newborn name

Event 2: The same subject is admitted as a child who now has a name in normal use. This name is also used when claiming benefits from the health insurance company. The example above remains with two changes (the “obsolete as at” date and the preferred name has changed, and a new name set has been added).

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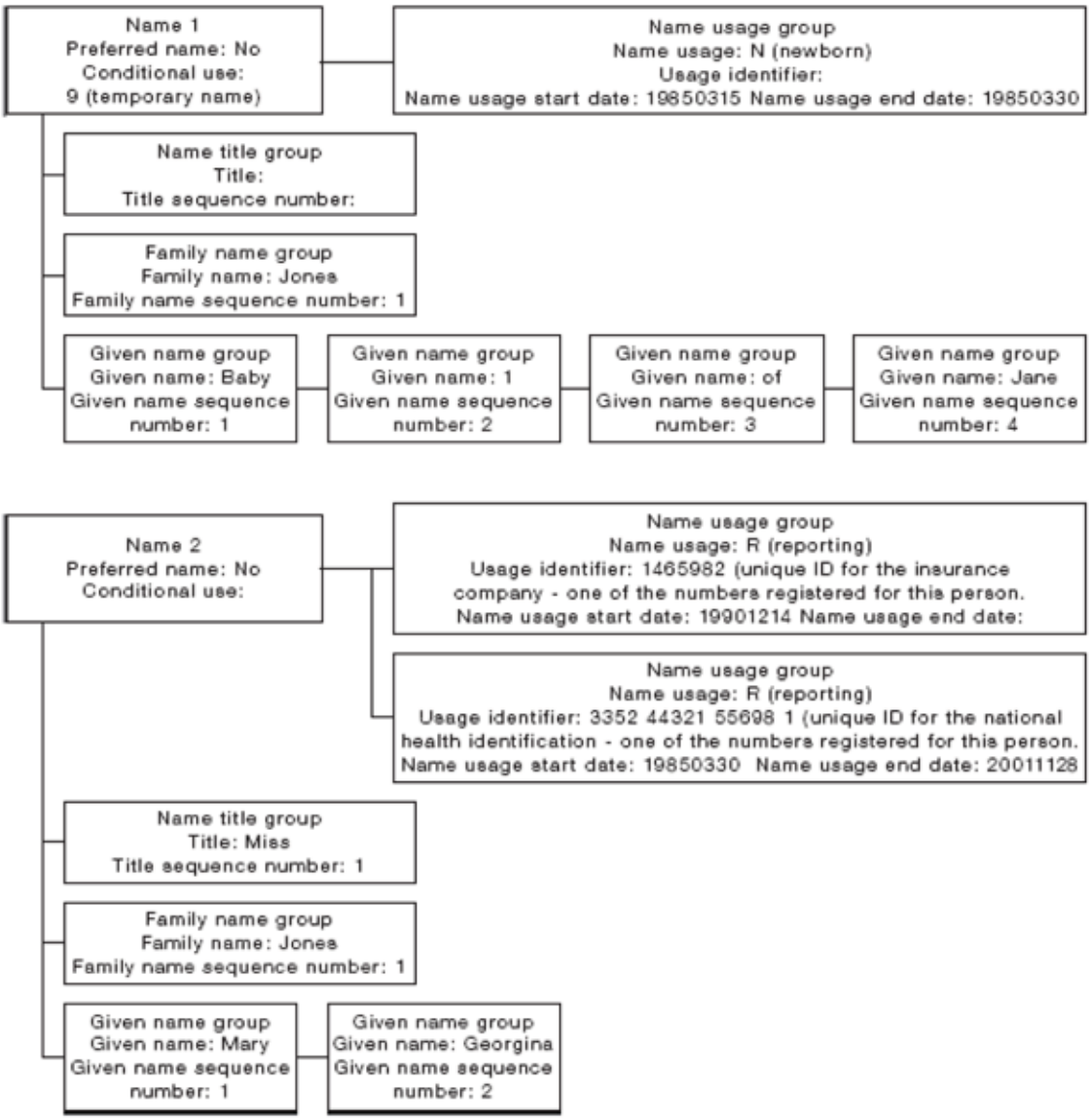

Figure 5 — Name example 2

Event 3: Mary Jones (now a teenager) has decided that she would rather be called Marie but her old name is still the name for reporting for her insurance company so the name usage of her second name is changed and a new preferred name is entered.

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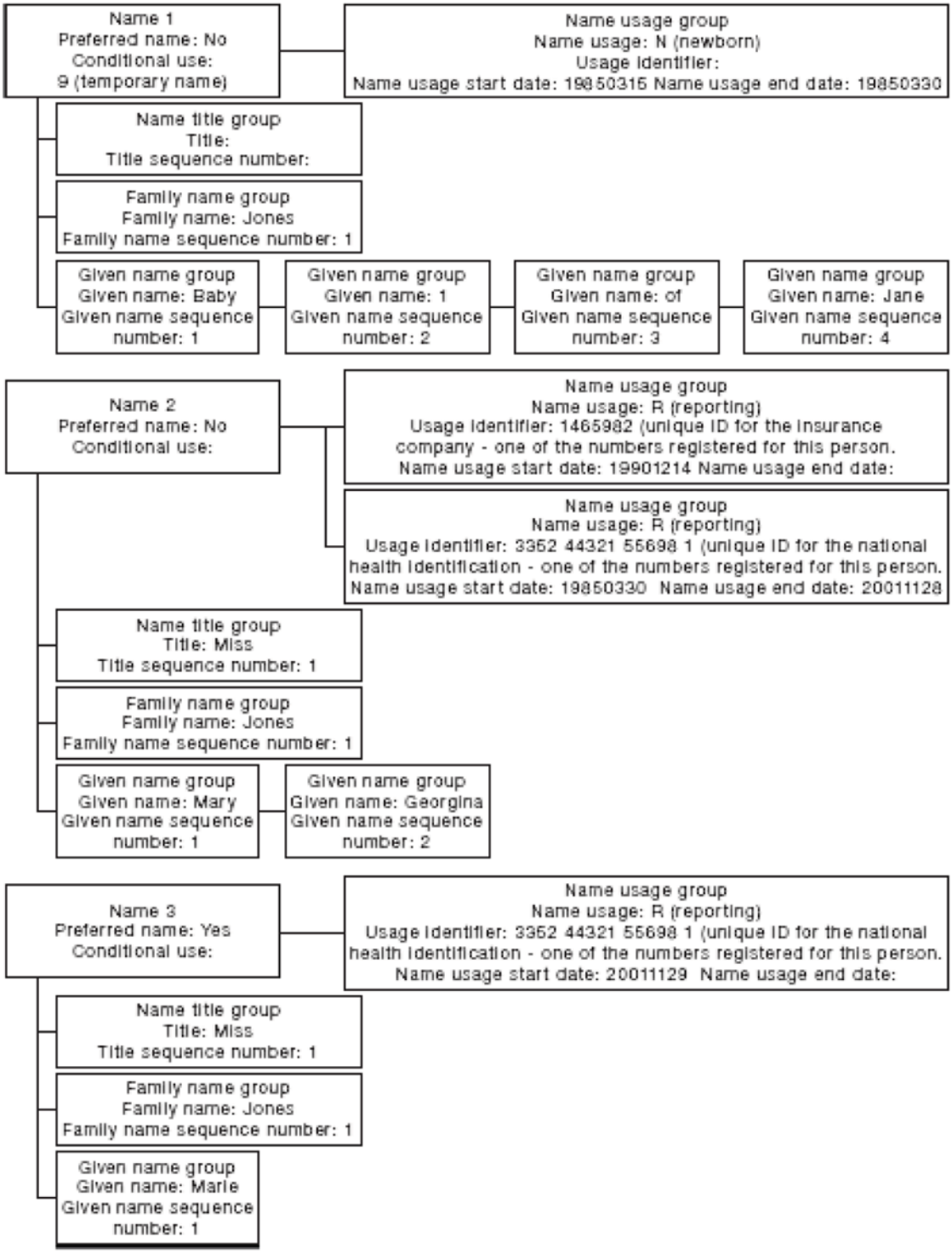

Figure 6 — Name example 3

EXAMPLE 2 Name with alternative representation/s.

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6.2 Family name group

6.2.1 General

This group includes each family name element of a specific family name set and indicates the sequence within which the names should be used. The group includes family name and a family name sequence number. Subject of care name is the combination of name title (and sequence number), family name/s (and sequence number/s), given name/s (and sequence number/s), name suffix/s (and sequence number/s) and usage information such as preferred name, name usage and name conditional use.

6.2.2 Family name

Synonyms Surname

Last name

Definition The part of a name a person usually has in common with some other members of his/her family, as distinguished from his/her given names.

Source standards HL7 V2.4, Health Level Seven Standard Version 2.4: Health Level Seven Inc., Ann Arbor, Michigan, 2000 (PID-5 Patient name, in part)

Data type Text.

Data domain Not applicable.

Guide for use Mixed case should be used.

The family name should be recorded in the format preferred by the subject. The format should be the same as that written by the subject on a (pre-) registration form or in the same format as that printed on an identification card, to ensure consistent collection of name data.

Where a person uses two names as a family name each name should be registered as a family name within the group (e.g. for Von Schreider, enter as family name sequence 1 — Von and family name sequence 2 — Schreider).

It is acknowledged that some people use more than one name (e.g. formal name, birth name, married or maiden name, tribal name). Depending on the circumstances, each name should be recorded with the appropriate name usage (see 6.8).

A subject of care should generally be registered using their preferred name as it is more likely to be in common usage and more likely to be used on subsequent visits to the health care establishment and will therefore make identification more accurate and easier.

Use this field to record only the family name. It should not be used to record any other related information, including “cancelled” or “duplicate”.

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Verification rules

Alphabetic characters, hash (#), punctuation (.',-), special symbols below (though the list is not all inclusive) and spaces.

Eth	ð
Tilde	ñ
Grave	ò
Acute	ó
Circumflex	ô
Diaerisis	ö
Stroke	ø
Macron	ā
Breve	ă
Caron	č
Cedilla	ņ
Double acute	ő
Dot	ụ
Ligature	Æ
Ring	Å

Collection method (informative)

The following question format might assist with data collection:

— What is your family name?

— Are you known by any other family names that you would like recorded? If so, what are they?

— Please indicate, for each name above, the “usage type” of family name that is to be recorded, e.g. identity card name, other (any other name that you are known by).

NOTE Whenever a subject of care informs the establishment of a change of name, e.g. following marriage or divorce, the former name should be recorded as an other name (see name usage). Previous family names should not be deleted or overwritten.

EXAMPLE 1 Mary Georgina Smith informs the hospital that she has been married and changed her family name to Jones. Record Jones as her preferred family name and record Smith as an other name.

Hyphenated family names

Sometimes subjects of care with hyphenated family names use only one of the two hyphenated names. It is useful to record each of the hyphenated names as an other name. If the subject has a hyphenated family name, e.g. Wilson-Phillips, record Wilson-Phillips in the family name as the preferred name and record Wilson and Phillips separately.

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Collection method (informative)

Registering an unidentified subject of care

The default for unknown family name should be “unknown” in all instances and the name recorded as an other name. A fictitious family name such as Doe shall not be created, as this is an actual family name. When the subject's name becomes known, it shall be recorded as the preferred name and the other name of “unknown” shall not be overwritten.

Registering a pseudonym

This process might be required in order to mask the identity of an individual, e.g. in the case of HIV testing where the subject of care has the right of anonymity. This is the case in many jurisdictions. In this case, a pseudonym (fictitious or partial name) in lieu of their full or actual name is used. It is recommended that the subject be asked to record both the pseudonym (other name) in addition to a legally known name, e.g. identity card name. This requires the local system to be able to identify which name is to be used as the preferred name for the purpose of the test. This might require the temporary change of a name to preferred name, which is changed to an other name after the pseudonym use is over.

It is important to recognise that this is not total anonymity as there is a link to the usual identifiers of the individual. In a jurisdiction where a subject of care is allowed full anonymity, to register a pseudonym against a true identity would be to breach the anonymity. Where anonymity is required or permitted, no link can be made.

Registered unnamed newborn babies

When registering a newborn, the mother's family name should be used as the baby's family name unless instructed otherwise by the mother. Record unnamed babies with a name usage value of N (newborn).

Subjects of care with only one name

Some people do not have a family name and a given name; they have only one name by which they are known. If the subject has only one name, record it in the family name field and leave the given name field blank.

Registering subjects of care from disaster sites

Subjects treated from disaster sites should be recorded with a name usage of “other name”. Local business rules should be developed for consistent recording of disaster site subject details. Care should be taken not to use identical dummy data (family name, given name, date of birth, sex) for two or more subjects from a disaster site. For example, use of the surname “Unknown1”, “Unknown2” in the family name can be used to clearly differentiate between individuals. Some organizations use an injury description in the given name field to assist in identification. The use of a standard start to the name supports the use of search strategies that treat all names that begin in this way as “unreliable”.

If the family name needs to be shortened

If the length of the family name exceeds the length of the field, truncate the family name from the right (that is, dropping the final letters). Also, the last character of the name should be a hash (#) to identify that the name has been truncated.

Use of incomplete names or fictitious names

Some health care facilities permit subjects of care to use a pseudonym (fictitious or partial name) in lieu of their full or actual name. It is recommended that the subject be asked to record both the pseudonym (other name) in addition to a legally known name, e.g. identity card name.

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Collection method (informative)
(continued)

Baby for adoption

The word “adoption” should not be used as the family name, given name, or alias for a newborn baby. A newborn baby who is available or scheduled for adoption should be registered in the same way as other newborn babies are registered. However, if a baby born in the hospital is subsequently adopted and is admitted for treatment as a child, the baby is registered under their adopted (current) name, and the previous name should be marked as a usage type of name linkage forbidden by law. Systems should be built to ensure that this link is not used without authorisation.

Punctuation

If special characters form part of the family name they should be included, e.g. hyphenated names should be entered with a hyphen.

Hyphen

There should be no spaces before or after a hyphen, i.e. between the last letter of “Wilson” and the hyphen, or a space between the hyphen and the first letter of “Phillips”.

EXAMPLE 2 Wilson-Phillips.

Apostrophe

There should be no spaces before or after the apostrophe, i.e. between the “O” and the apostrophe, nor a space between the apostrophe and “Brien”.

EXAMPLE 3 O'Brien, D'Agostino.

Full stop

There should be no space before a full stop, i.e. between “St” and the full stop. A space should be left between the full stop and “John”.

EXAMPLE 4 St. John, St. George.

Space

If the subject has recorded their family name as more than one word, displaying spaces in between the words, record their family name in the same way leaving one space between each word.

EXAMPLE 5 Van Der Humm, Le Brun, Mc Donald.

Alternatively, the parts of a family name can be recorded as different family names with a sequence number to indicate the order in which they are to be used. Local practice should dictate the method of use.

Prefixes

Where a family name contains a prefix, such as one to indicate that the subject of care is a widow, this should be entered as part of the family name field. When widowed, some Hungarian women add “Ozvegy” (the abbreviation is “Ozy”) before their married family name, e.g. Mrs. Szabo would become Mrs. Ozy Szabo. That is, “Mrs. Szabo” becomes a name usage of other name and “Mrs. Ozy Szabo” becomes the preferred name.

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Misspelled family name

If the subject's family name has been misspelled in error, update the family name with the correct spelling and record the misspelled family name as an other name in the name usage field with conditional use indicating that the name was a misspelling. Recording misspelled names is important for filing and identifying documents that might be issued with previous versions of the subject's name and for future identification of the subject, should they contact the health system again and have the same problem with spelling. Discretion should be used regarding the degree of recording that is maintained.

Alternative name representations.

In some environments, alternative representations of the name are used either as the primary representation (in preference to this field) or in addition to this field. This is a local implementation variation of this Technical Specification (see 6.9).

6.2.3 Family name sequence number

Definition An indicator of the order of use for family name/s.

Source standards HL7 V2.4, Health Level Seven Standard Version 2.4: Health Level Seven Inc., Ann Arbor, Michigan 2000

Data type Numeric.

Data domain

1 First family name within a name set.

2 Second family name within a name set.

3 Third family name within a name set.

4 Fourth family name within a name set.

5 Fifth family name within a name set.

6 Sixth family name within a name set.

7 Seventh family name within a name set.

8 Eighth family name within a name set.

9 Ninth and subsequent family name within a name set.

Guide for use To be used in conjunction with family name.

Multiple family names may be recorded for a given name. Each family name should have a family name sequence number recorded.

Verification rules Not applicable.

Collection method Not applicable.

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