



SLOVENSKI STANDARD SIST ENV 12538:2003

01-oktober-2003

Medical informatics - Messages for patient referral and discharge

Medical informatics - Messages for patient referral and discharge

Medizinische Informatik - Nachrichten für Zuweisung und Entlassung von Patienten

Informatique de santé - Messages pour l'adresse d'un patient a un professionnel de santé et pour la sortie du patient

(standards.iteh.ai)

Ta slovenski standard je istoveten z: **ENV 12538:1997**

<https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe-0e14447ff12c/sist-env-12538-2003>

ICS:

35.240.80	Uporabniške rešitve IT v zdravstveni tehniki	IT applications in health care technology
-----------	--	---

SIST ENV 12538:2003

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ENV 12538:2003

<https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe-0e14447fff2e/sist-env-12538-2003>

EUROPEAN PRESTANDARD

ENV 12538

PRÉNORME EUROPÉENNE

EUROPÄISCHE VORNORM

March 1997

ICS 35.240.70

Descriptors: data processing, information interchange, data transmission, medicine, messages

English version

**Medical informatics - Messages for patient referral
and discharge**

Informatique de santé - Messages pour l'adresse
d'un patient à un professionnel de santé et
pour la sortie du patient

Medizinische Informatik - Nachrichten für
Zuweisung und Entlassung von Patienten

STANDARD PREVIEW
(standards.iteh.ai)[SIST ENV 12538:2003](https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe-0e14447ff2e/sist-env-12538-2003)<https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe-0e14447ff2e/sist-env-12538-2003>

This European Prestandard (ENV) was approved by CEN on 1997-02-09 as a prospective standard for provisional application. The period of validity of this ENV is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the ENV can be converted into an European Standard (EN).

CEN members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

TABLE OF CONTENTS

Table of contents	1
Introduction	2
1 Scope	4
2 Normative references	5
3 Definitions and abbreviations	6
4 Requirements	9
5 Communication roles and supported services	10
5.1 General	10
5.2 Message groups	10
5.3 Communication roles	10
5.4 Communication roles and General Message Descriptions	11
5.5 Communication roles and supported services	12
5.6 Message origination rules	12
6 Domain Information Model	14
6.1 Introduction	14
6.2 Domain Information Model diagrams	16
6.3 Textual description of objects, their relationships and attributes	21
6.4 Textual description of common attribute groups	52
7 General Message Descriptions	56
7.1 Introduction	56
7.2 New specialist service request GMD	57
7.3 Specialist service request modification GMD	68
7.4 Specialist service request cancellation GMD	76
7.5 New specialist service report GMD	80
7.6 Specialist service report modification GMD	90
7.7 Specialist service report cancellation GMD	99
7.8 Attribute Layer	102
Annex A: How to read the models (normative)	123
Annex B: Relating the models to actual requests and reports (informative)	128
B.1 Introduction	128
B.2 Requesting specialist services (referral)	128
B.3 Reporting of the provision of specialist services	132
Annex C: Example scenarios of message use (informative)	135
C.1 Specialist services requests	135
C.2 Specialist service reports	137
Index	139



FOREWORD

This European Prestandard has been prepared by Technical Committee CEN/TC 251 "Medical informatics", the secretariat of which is held by IBN.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this European Prestandard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

[SIST ENV 12538:2003](#)

<https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe-0e14447fff2e/sist-env-12538-2003>

INTRODUCTION

The increased use of data processing and telecommunications capabilities has made possible the interchange of information in machine readable and machine processable formats. As automated interchange of information in healthcare increases, it is essential to provide appropriate information interchange standards.

Computer systems are now used by many healthcare professionals for the storage and processing of information. Healthcare professionals request specialist services from one another by a process commonly called "referral". The request for a service is usually accompanied by a relevant subset of the information held by the requesting healthcare professional about the referred patient. The recipient of a referral request usually reports on the progress and outcome of the requested service to the requester and to other healthcare professionals involved in the care of the patient. These reports may be made when the requested service is completed (commonly referred to as "discharge") or at other significant points in the delivery of the requested service. The information that is transferred in the requests and reports passing between healthcare professionals typically forms part of the administrative and clinical record of the patient held by each of the communicating parties. Electronic transfer of these requests and reports reduces the need for manual data entry and the risk of transcription errors. It also results in greater efficiency leading to better healthcare provision. Standards are required to facilitate electronic transfer of requests for and results of the delivery of healthcare services between the many systems currently used.

Implementation of this European Prestandard will therefore :

- a) facilitate the electronic transfer of requests for specialist services from requesting healthcare parties, to healthcare parties providing specialist services;
- b) facilitate the electronic transfer of reports of specialist services from healthcare parties providing specialist services to requesting healthcare parties and to other healthcare parties involved in the care of a patient;
- c) reduce the need for human intervention in information interchange between applications used by specialist service providers and those used by other healthcare parties;
- d) minimise the time and effort required for the introduction of information interchange agreements;
- e) reduce the development effort required by suppliers to allow communication between a wide range of applications in this field;
- f) reduce (in consequence of the foregoing) the cost of information interchange between specialist service providers and parties requesting specialist services.

When implementing information exchange based upon this European Prestandard data protection and secrecy principles must be guaranteed according to the laws actually in force in the different CEN member countries.

The method by which this European Prestandard has been developed is based on the recommendations of the CEN Technical Report "Investigation of Syntaxes for Existing Interchange Formats to be used in Healthcare" (CR 1350:1993), and as extended in the First Working Document produced by PT3-025.

This standard is intended for use by message developers. Its provisions are directly relevant to suppliers of computer systems for use in diagnostic service departments, hospitals, general practices, clinical departments and specialist clinics. Its provisions are also relevant to those planning, specifying, procuring or implementing information systems for use in hospitals, general practices, clinical departments and specialist clinics.

The main normative provisions in this European Prestandard are expressed in clauses 4 and 5 and apply to the General Message Descriptions (GMDs), clause 7.

The symbols used in this Prestandard have the meaning as defined in normative annex A for the purposes of this Prestandard only. Informative annex B provides additional explanation to the General Message Descriptions. Informative annex C gives a number of example scenarios of message use.

A supplementary document to this pr-ENV, called "Generic EDIFACT message implementation guide", provides in its first chapters the method and conformance information on how the EDIFACT messages meet the requirements of the General Message Descriptions of the pr-ENV.

1. SCOPE

1.1. This European Prestandard specifies general messages for electronic information exchange between computer systems used by healthcare parties requesting specialist services or receiving reports from specialist service departments.

1.2. Examples of requests for healthcare specialty services include:

- referral of a patient from a GP to a hospital clinical specialist;
- referral of a patient for direct entry for an open access procedure;
- referral of a patient for direct entry onto an operation waiting list;
- referral of a patient for emergency hospital admission (acute referral);
- referral of a patient for treatment by a paramedical specialist;
- referrals within a hospital from one specialist to another (tertiary referral);
- referrals between hospitals or GPs and a community health service provider.

1.3. Examples of reports of healthcare specialty services include:

- issue of a report including the planned action and information relating to appointment and patient transport arrangements;
- issue of a preliminary discharge report following a patient's admission to hospital;
- issue of a final discharge report following a patient's admission to hospital;
- issue of report arising from a single out-patient attendance by a patient (this may be considered to include attendance at a daycare facility);
- issue of a report summarising a series of out-patient attendances;
- issue of a report giving information about a patient when no immediate patient contact occurred (for example, to communicate the result of investigations that were not available at the time of an earlier report, or to make suggestions about treatment when no direct treatment occurred);
- notification of a referral by one specialist to another specialist (tertiary referral notification);
- notification of the admission of a patient to hospital;
- notification of the death of a patient in hospital.

1.4. The messages are also applicable to modifications or cancellations of previously issued requests or reports.

<https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe->

1.5. While the messages specified in this European Prestandard may convey clinical and administrative information concerning patients, the way in which this information is treated in this European Prestandard does not constrain the development of future standards for the electronic healthcare record or for other clinical and administrative messages.

1.6. The provisions of this European Prestandard have been validated in the for the purposes described above (see 1.2 to 1.4). However since the messages described in this Prestandard are designed for the general cases of referral to specialist service providers and the subsequent reporting by these providers, the user must decide for themselves whether or not these messages meet their particular requirements. It should be noted that a European Prestandard has been produced for laboratory requests and reports and further Prestandards are being produced for other specific domains. The user should identify whether these messages are more appropriate to their requirements.

1.7. This European Prestandard is not applicable to messages related to healthcare specialist services exchanged between healthcare purchasers and providers principally for the purposes of authorising or expediting payment.

1.8. This European Prestandard excludes graphical or image information that forms part of a request for or report of a specialist healthcare service.

1.9. This European Prestandard does not support positive acknowledgement at the application level nor negative acknowledgement or error indication at the application level.

This supporting document contains message implementation guidelines for the Implementable Message Specifications (IMSs). They should be considered an essential component of the IMS providing a generic EDIFACT implementation specification for use in Europe.

Specifically these chapters cover :

- A general description of how the mapping from GMDs to EDIFACT is carried out.
- A structure table indicating how the defined IMSs meet the relationships defined in the GMDs.
- Data tables indicating how the defined IMSs support the objects and attributes of the GMDs

The supporting document is not a constituent part of this pr-ENV.

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST ENV 12538:2003

<https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe-0e14447fff2e/sist-env-12538-2003>

2. NORMATIVE REFERENCES

This European Prestandard incorporates by dated or undated reference, provisions from other publications. These normative references are cited in the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments and revisions of any of these publications apply to this European Prestandard only when incorporated in it by amendment and revision. For undated references the latest edition of the publication referred to applies.

- | | |
|----------------|--|
| CR 1350: 1993 | Investigation of syntaxes for existing interchange formats to be used in Healthcare |
| ENV 1064: 1993 | Medical Informatics - Computerised Electrocardiography Interchange Format |
| ENV 1068: 1993 | Medical Informatics - Healthcare information interchange -Registration of coding schemes |
| ENV 1613 | Messages for exchange of laboratory information |
| ISO 639: 1988 | Symbols for languages, geographical areas and authorities |
| ISO 646: 1991 | Information technology - ISO 7-bit coded character set for information interchange |
| ISO 2382: 1987 | Information processing - Vocabulary
Part 4: Organisation of data |
| ISO 3166: 1988 | Codes for representation of names of countries |
| ISO 4217: 1990 | Codes for the representation of currencies and funds |
| ISO 5281: 1977 | Information interchange - Representation of human sexes |
| ISO 6523: 1984 | Data interchange - Structure for the identification of organisations |
| ISO 8601: 1988 | Data elements and interchange formats - Information interchange -Representation of dates and times |
| ISO 8859:1987 | Information Processing - Registration of graphics characters subrepertoires - Eight-bit single byte coded graphic character sets
Part 1: Latin No 1 |
| ISO 9735 | Electronic data interchange for administration, commerce and transport (EDIFACT) -
Application level syntax rules. |

iTeH STANDARD PREVIEW
(standards.iteh.ai)
SIST ENV 12538:2003
<https://standards.iteh.ai/catalog/standards/sist/6a286cb-d594-402a-941e-0e14447ff2e/sist-env-12538-2003>

3. DEFINITIONS AND ABBREVIATIONS

For the purposes of this standard, the following definitions (listed in alphabetical order) apply :

3.1. clinical information : Information about a patient, relevant to the health or treatment of that patient, that is recorded by or on behalf of a healthcare professional.

NOTE : Clinical information about a patient may include information about the patient's environment or about related people where this is relevant.

[prENV 1613]

3.2. code meaning : Element within a coded set.

EXAMPLE : "Paris Charles-De-Gaulle" which is mapped on to the three-letter abbreviation "CDG" by the coding scheme for three-letter abbreviations of airport names.

[ENV 1068]

3.3. code value : Result of applying a coding scheme to a code meaning.

EXAMPLE : "CDG" as the representation of "Paris Charles-De-Gaulle" in the coding scheme for three-letter representations of airport names.

[ENV 1068]

[ISO 2382-1987], modified

3.4. coding scheme : Collection of rules that maps the elements of one set on to the elements of a second set.

[ENV 1068]

[ISO 2382-1987], modified

3.5. domain information model : Conceptual model describing common concepts and their relationships for communication parties required to facilitate exchange of information between these parties within a specific domain of healthcare.

[prENV 1613]

3.6. general message description : Subset of a domain information model prescribing the information content and semantic structure of a message used to meet one or more identified information interchange requirements.

NOTE : General message descriptions are independent of the syntax used for constructing an actual message. They provide statement of the information interchange requirements in a form that can be implemented using different syntaxes.

[prENV 1613]

3.7. healthcare coding scheme designator : Unique permanent identifier of a healthcare coding scheme registered for use in information interchange under the terms of the European Prestandard ENV 1068.

[ENV 1068]

3.8. healthcare organisation : Organisation responsible for the direct or indirect provision of healthcare services.

NOTE : A healthcare organisation may be used stand-alone or as a superstructure containing departments and sub-departments.

[prENV 1613]

3.9. healthcare party : Organisation or person responsible for the direct or indirect provision of healthcare to an individual, or involved in the provision of healthcare-related services.

[prENV 1613]

3.10. healthcare professional : Person who is entrusted with the direct or indirect provision of defined healthcare services to a patient or population of patients.

EXAMPLE : Primary care physician, consultant, therapist, dentist, nurse, social worker.

[prENV 1613]

3.11. healthcare service : Service provided with the intention of directly or indirectly improving the health of the people, populations or animals to whom it is provided.

[prENV 1613]

3.12. hierarchical general message description : A generalised message description presented as a nested hierarchy of related objects rather than as a network of inter-related objects.

3.13. implementable message specification : Specification of a general message description in a particular message syntax.

[prENV 1613]

3.14. interchange format : Specification of a message type according to a given message syntax, covering the identification of the message type components, their arrangement, representation and interrelationships.

[prENV 1613]

3.15. message profile : Specification derived from an implementable message specification by selecting its optional elements, appropriate to the specific business requirements of the communicating parties.

[prENV 1613]

3.16. message syntax : System of rules and definitions specifying the basic component types of messages, their interrelationships and their arrangement.

[prENV 1613]

3.17. message type : An identified, named and structured set of functionally related information which fulfils a specific business purpose.

3.18. organisation : Unique framework of authority within which a person or persons act, or are designated to act towards some purpose.

NOTE : Groupings or subdivisions of an organisation may also be considered as organisations where there is need to identify them for information interchange.

[ISO 6523-1984]

3.19. problem domain : Field under consideration in the modelling process.

EXAMPLE : Information interchange in clinical chemistry.
[prENV 1613]

3.20. specialist service report : Report of the treatment of a patient or the response to a request for specialist services for a patient by a healthcare party.

3.21. specialist service request : Request to a specialist healthcare service provider to provide healthcare services to a particular patient.

3.22. ABBREVIATIONS

The following abbreviations are used for the terms defined in this European Prestandard.

DIM	Domain Information Model
GMD	General Message Description
GP	General Practitioner
HCD	Healthcare Coding scheme Designator
H-GMD	Hierarchical General Message Description
ICD	International Code Description
IMS	Implementable Message Specification

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ENV 12538:2003

<https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe-0e14447fff2e/sist-env-12538-2003>

4. REQUIREMENTS

- 4.1 Messages for transmission of requests for specialist healthcare services from specialist service requesters to those specialist service providers covered by the scope of this European Prestandard, shall enable electronic interchange of the semantic content defined in the General Message Descriptions for Specialist Service Request Messages in clause 7.
- 4.2 Messages for transmission of reports issued by those specialist service providers covered by the scope of this European Prestandard to specialist service requesters and other parties to receive copies, shall enable electronic interchange of the semantic content defined in the General Message Descriptions for Specialist Service Report Messages in clause 7.
- 4.3 Messages for transmission of information about the acceptance or rejection of specialist service requests, and the scheduling and preparation for the delivery of specialist services covered by the scope of this European Prestandard, shall enable electronic interchange of the semantic content defined in the General Message Descriptions for Specialist Service Report messages in clause 7.
- 4.4 Implementable message specifications (IMS) shall conform to the General Message Descriptions defined in this pr-ENV. They shall support both mandatory and optional objects, attribute groups and attributes as defined in the General Message Descriptions of this pr-ENV. They shall also support the relationships between objects as defined by the General Message Descriptions.
- 4.5 Implementable message specifications should be expressed in terms of a syntax which is an International Standard except where the healthcare user requirements cannot be met by using such a Standard syntax.
- 4.6 Unless the syntax in which an IMS is expressed specifically supports the types of relationships shown in the Generalised Message Descriptions, the IMS shall follow the structure of the appropriate hierarchical GMDs in clause 7. The precise order of the objects, attribute groups and attributes shown in the hierarchical GMD need not be followed where an alternative ordering simplifies implementation. However, to conform with this European Prestandard the relationships between objects and the overall nesting structure shall be as shown in the hierarchical GMD.

SIST ENV 12538:2003

<https://standards.iteh.ai/catalog/standards/sist/e6a288eb-d594-402a-94fe-0e14447fff2e/sist-env-12538-2003>

5. COMMUNICATION ROLES AND SUPPORTED SERVICES**5.1. General**

This clause defines the communication roles which shall comply with the specifications of this European Prestandard when exchanging referral and discharge information. It establishes the relationships between the communication roles and the General Message Descriptions, as well as the relationships amongst the General Message Descriptions (GMDs). Annex C (informative) specifies scenarios based upon which the communication roles, the General Message Descriptions and the supported services are derived.

5.2. Message Groups

The messages defined in this European Prestandard fall into two groups. Each group comprises specific *new*, *modification* and *cancellation* messages. The message groups are defined in Table 1.

Table 1. Message groups

<i>Group of messages</i>	<i>New message</i>	<i>Modification message</i>	<i>Cancellation message</i>
<i>specialist service request</i>	new specialist service request	specialist service request modification	specialist service request cancellation
<i>specialist service report</i>	new specialist service report	specialist service report modification	specialist service report cancellation

5.3. Communication roles

5.3.1 For each group of messages defined in this European Prestandard there are two key communicating roles: the message originating role and the message receiving role. These roles are assumed by three types of healthcare party: specialist service requesters, specialist service providers and copy destinations. A copy destination is a party who is neither the requester of the specialist service nor the provider but who, for any reason, is nominated to receive a copy by the message originator.

5.3.2 A communicating party has a message receiving role in relation to any message that they may receive in which they are referred to as a copy destination.

5.3.3 A single healthcare party may have different roles in relation to different types of messages. For example, a general practitioner may have a specialist service request originating role and a specialist service report receiving role.

5.3.4 A single healthcare party may have different roles in relation to the same type of message. For example, a person who undertakes to carry out examination and treatment of a patient may receive requests for these and may originate requests to other specialist service providers for further tests, second opinion, etc.

5.4. Communication roles and General Message Descriptions

5.4.1 The message types that may be sent and received by a communication party depend upon their communication roles. The following subclauses identify the originating and receiving roles for each of the message types specified in this European Prestandard. The main points are illustrated by figure 1.

5.4.2 Parties with a specialist service request originating role can send message instances based upon:

- the new specialist service request General Message Description;
- the specialist service request modification General Message Description;
- the specialist service request cancellation General Message Description.

5.4.3 Parties with a specialist service request receiving role can receive message instances based upon:

- the new specialist service request General Message Description;
- the specialist service request modification General Message Description;
- the specialist service request cancellation General Message Description.

5.4.4 Parties with a specialist service report originating role can send message instances based upon:

- the new specialist service report General Message Description;
- the specialist service report modification General Message Description;
- the specialist service report cancellation General Message Description.

5.4.5 Parties with a specialist service report receiving role can receive message instances based upon:

- the new specialist service report General Message Description;
- the specialist service report modification General Message Description;
- the specialist service report cancellation General Message Description.

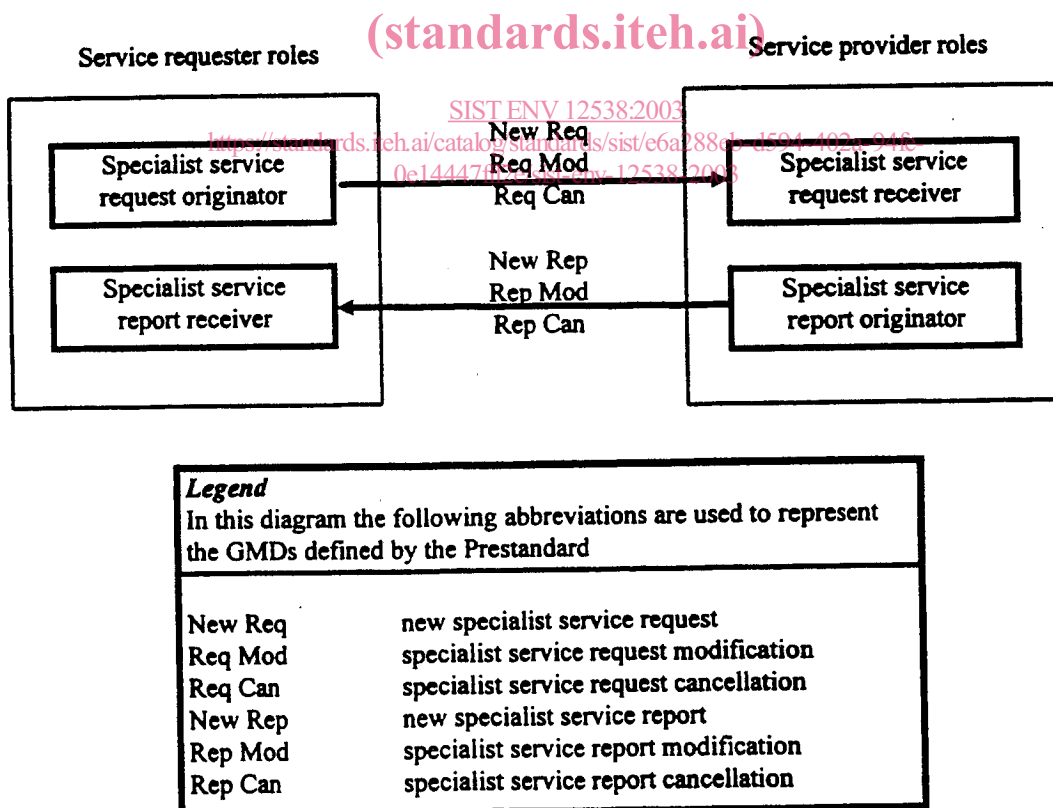


Figure 1. Relationship between communication roles and GMDs