

INTERNATIONAL  
STANDARD

ISO  
10781

First edition

---

---

**Health informatics — HL7 Electronic  
Health Record-System Functional  
Model, Release 2.1 (EHR FM)**

*Informatique de santé — Modèle fonctionnel d'un système de dossier  
de santé informatisé, publication 2.1 (EHR FM)*

iTeh Standards  
(<https://standards.iteh.ai>)  
Document Preview

[ISO/PRF 10781](https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b949-9a8eb1d31773/iso-prf-10781)

<https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b949-9a8eb1d31773/iso-prf-10781>

**PROOF / ÉPREUVE**

---

---



Reference number  
ISO 10781:2023(E)

© ISO 2023

iTeh Standards  
(<https://standards.iteh.ai>)  
Document Preview

[ISO/PRF 10781](https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b949-9a8eb1d31773/iso-prf-10781)

<https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b949-9a8eb1d31773/iso-prf-10781>



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2023

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword .....	v
<b>0 Introduction.....</b>	<b>vii</b>
0.1 Notes to Readers .....	vii
0.2 Changes from Previous Release .....	vii
0.3 Background.....	viii
0.3.1 What are Electronic Health Record Systems? .....	viii
0.3.2 How were the Functions Identified and Developed? .....	viii
<b>1 Scope .....</b>	<b>1</b>
1.1 EHR-S Functional Model Scope.....	1
<b>2 Normative References.....</b>	<b>2</b>
<b>3 Terms and Definitions.....</b>	<b>2</b>
<b>4 Overview and Definition of the Functional Model (Normative).....</b>	<b>3</b>
4.1 Sections of the Function List .....	4
4.2 Functional Profiles .....	5
4.3 EHR-S Function List Components.....	5
4.3.1 Function ID (Normative).....	6
4.3.2 Function Type (Reference) .....	6
4.3.3 Function Name (Normative).....	7
4.3.4 Function Statement (Normative).....	7
4.3.5 Description (Reference).....	7
4.3.6 Conformance Criteria (Normative).....	7
<b>5 Anticipated Uses (Reference).....</b>	<b>7</b>
5.1 Development Approach: Functional Profiles .....	7
5.1.1 Scenario 1 – Group Practice .....	8
5.1.2 Scenario 2 - Hospital .....	8
5.1.3 Scenario 3 - IT Vendor.....	8
5.2 Examples of Current Use.....	8
5.2.1 Functional Profile for Clinical Research based on the EHR-S FM .....	8
5.2.2 AHRQ adopts Health Level Seven International (HL7) Child Health Functional Profile Specification, Release 1 and incorporates key functionalities in the Children’s Electronic Health Record Format.....	9
5.2.3 Linking clinical content descriptions to the EHR-S FM (Reference).....	9
<b>6 Conformance Clause.....</b>	<b>10</b>
6.1 Introduction (Reference).....	10
6.2 Scope and Field of Application (Normative).....	10
6.3 Concepts (Normative) .....	10
6.3.1 Functional Profiles .....	10
6.3.2 Conformance Model .....	11
6.3.3 Profile Traceability .....	12
6.4 Normative Language (Normative).....	12
6.5 Conformance Criteria (Normative).....	13
6.5.1 Criteria in the Functional Profile .....	13
6.5.2 ‘Dependent SHALL’ Criteria .....	13
6.5.3 Referencing Other Criteria or Functions.....	13
6.6 Functional Model Structure and Extensibility (Normative).....	13
6.6.1 Hierarchical Structure .....	13
6.6.2 Naming Convention.....	14
6.6.3 Priorities .....	14
6.6.4 Extensibility .....	15
6.7 Functional Profile Conformance (Normative).....	15
6.7.1 Rules for Functional Domain Profiles .....	15
6.7.2 Rules for Creating New Functions in Functional Profiles .....	16
6.7.3 Rules for Derived Functional Profiles .....	18

6.7.4	Conformance Statement .....	18
6.7.5	Rules for Functional Companion Profiles .....	18
6.8	Use Cases and Samples (Reference) .....	19
6.8.1	Functional Profile Use Cases .....	19
6.8.2	Sample Functional Domain Profile Conformance Clauses .....	20
6.8.3	Interpreting and Applying a Conditional 'SHALL' (Reference) .....	20
6.8.4	General Concepts .....	21
6.8.5	Rationale for 'Dependent SHALL' .....	21
6.8.6	How to Apply the 'Dependent SHALL' .....	22
7	EHR System Conformance Claim via Self-Attestation .....	23
8	Glossary .....	24
8.1	Preface (Reference) .....	24
8.2	Introduction (Normative) .....	24
8.3	Overview (Reference) .....	24
8.4	The Action-Verb Structure (Normative) .....	24
8.4.1	Secure (System) Hierarchy .....	24
8.4.2	Data Management Hierarchy .....	25
8.4.3	How Action-Verbs are defined .....	26
8.4.4	Deprecated Action-Verbs .....	31
8.5	Guidelines for Use (Reference) .....	34
8.5.1	General Guidance .....	34
8.5.2	Constructing Rigorous Conformance Criteria .....	35
9	Glossary Supplement: Record Lifecycle Events and Descriptions (Normative) .....	36
9.1	Record Lifecycle Events (See RI.1.1.1) .....	36
Annex A (normative)	Function List .....	38
Annex B (informative)	Glossary of Terms for the EHR-S FM .....	39
Annex C (informative)	Background .....	67
C.1	What is HL7? .....	67
C.2	The HL7 Electronic Health Records Work Group .....	67
Bibliography	.....	68

## 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted (see [www.iso.org/directives](http://www.iso.org/directives)).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at [www.iso.org/patents](http://www.iso.org/patents). ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by HL7 (as HL7, reference HL7 EHR system functional model 2.1) and drafted in accordance with its editorial rules. It was assigned to Technical Committee ISO/TC 215, *Health informatics* and adopted under the "fast-track procedure".

This first edition of ISO 10781 cancels and replaces the ISO/HL7 10781:2015, which has been technically revised.

The main changes are as follows:

- changes to the Record Infrastructure Section to accommodate three additional record lifecycle events (verify, encrypt, decrypt) and ensure compatibility with FHIR Core R4 Record Lifecycle Event Implementation Guide (2019) and recent updates to ISO 21089:2018, *Trusted End-to-End Information Flows*;
- changes to the Glossary Section to support the full set of record lifecycle events (now 27 in total) and corresponding descriptions;
- previously identified updates included in the EHR-S FM R2.01 errata version;
- changes to the Conformance Chapter to align with characteristics and requirements of recent EHR-S FM R2 based Functional Profiles, including FPs developed for the US Meaningful Use (EHR Incentive) Program, 2011/2014 and 2015 Editions;

## ISO/PRF 10781:2023(E)

- domain analysis (models and artifacts) companion to EHR system development and implementation.
- adding a header in the TI section on clinical model services (DCMs, CIMI models, FHIR, HL7 template) comparable to TI.4 Standard Terminology and Terminology Services.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# iTeh Standards (<https://standards.iteh.ai>) Document Preview

[ISO/PRF 10781](#)

<https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b949-9a8eb1d31773/iso-prf-10781>

## 0 Introduction

### 0.1 Notes to Readers

Electronic Health Record (EHR) System Functional Model Release 2.1 is based on a series of predecessors, starting in 2004 with the release of the first consensus Draft Standard, followed in 2007 by Release 1, followed in 2009 with Release 1.1 (jointly balloted with ISO TC215 and CEN TC251), followed in 2014 with Release 2.0 (jointly balloted with ISO TC215, CEN TC251, DICOM, SNOMED (IHTSDO), CDISC and GS1). HL7 also published Release 2.01 as an unballoted errata version in 2017.

### 0.2 Changes from Previous Release

The HL7 EHR-System Functional Model Release 2.1 had its first normative ballot in December 2019. Following are key changes from Release 2.0:

- Includes updates from HL7 errata Release 2.01;
- Record Infrastructure Section is updated to include three new Record Lifecycle Events: verify, encrypt and decrypt. There are now a total of 27 Record Lifecycle Events, describing how an Electronic Health Record System manages health record entries their lifespan, from first point of entry origination/retention to last point of entry deletion or destruction. The 27 Record Lifecycle Events match those specified in ISO 21089-2018, Health Informatics – Trusted end-to-end information flow and HL7 Fast Health Interoperable Resources (FHIR) Record Lifecycle Event Implementation Guide, published a spart of FHIR Core STU-3 (March 2017) and now part of FHIR Core R4 (in ballot, September 2018).
- The 27 Record Lifecycle Event definitions/descriptions are updated according to agreements of the HL7 Vocabulary Alignment project (in joint collaboration of the HL7 EHR and Security Work Groups). The Glossary Section also includes those definitions/descriptions.
- The Conformance Clause is updated to include a definition/description of a new type of EHR-S FM Functional Profile (FP): Derived Companion FP.
- Trust Infrastructure is updated to include functions and conformance criteria to support ISO/HL7 Detailed Clinical Models (DCMs).

[ISO/PRF 10781](https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b949-9a8eb1d31773/iso-prf-10781)

<https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b949-9a8eb1d31773/iso-prf-10781>

## 0.3 Background

### 0.3.1 What are Electronic Health Record Systems?

The effective use of information technology is a key focal point for improving healthcare in terms of patient safety, quality outcomes, and economic efficiency. A series of reports from the U.S. Institute of Medicine (IOM) identifies a crisis of "system" failure and calls for "system" transformation enabled by the use of information technology. Such a change is possible by "an infrastructure that permits fully interconnected, universal, secure network of systems that can deliver information for patient care anytime, anywhere."

In developing this EHR-S Functional Model, HL7 relied on three well-accepted definitions: two provided by the U.S. Institute of Medicine and one developed by the European Committee for Standardization/ Comité Européen de Normalisation (CEN). This Functional Model leverages these existing EHR-S definitions and does not attempt to create a redundant definition of an EHR-S.

### 0.3.2 How were the Functions Identified and Developed?

To achieve healthcare community consensus at the outset, the functions are described at a conceptual level, providing a robust foundation for a more detailed work. Functions were included if considered essential in at least one care setting. Written in user-oriented language, the document is intended for a broad readership.

Functional Granularity is a term used to describe the level of abstraction at which a function is represented. Functions that are commonly grouped together in practice or by major systems have been consolidated where appropriate; functions requiring extra or separate language or involving different workflows have been kept separate where appropriate. For example, decision support is maintained as a separate section, but mapped to other key sections, to indicate the "smart" function behind an action. All of the functions can be expanded into more granular elements but a balance between a usable document and an unwieldy list of functions has been agreed upon. The goal of determining an appropriate level of functional granularity at this time is to present functions that can be easily selected and used by readers of this standard, but that are not so abstract that readers would need to create a large number of additional functions within each function.

Although the determination of functional granularity is a relatively subjective task, systematic evaluation of each function by diverse groups of industry professionals has resulted in a level of granularity appropriate for this EHR-S Functional Model. Every attempt has been made to provide supporting information in the functional descriptions to illustrate the more granular aspects of functions that may have been consolidated for usability purposes.

Keeping with the intent of this EHR-S Functional Model to be independent with regard to technology or implementation strategy, no specific technology has been included in the functions, but may be used in the examples to illustrate the functions. Inclusion of specific technologies in the examples does not endorse or support the use of those technologies as implementation strategies.

The EHR-S Functional Model and specific functions have been widely reviewed by healthcare providers, vendors, public health agencies, regulatory and accreditation bodies, professional societies, trade associations, researchers and other stakeholders. This Standard reflects input from all these reviewers.



# Health informatics — HL7 Electronic Health Record-System Functional Model, Release 2 (EHR FM)

## 1 Scope

### 1.1 EHR-S Functional Model Scope

The HL7 EHR System Functional Model provides a reference list of functions that may be present in an Electronic Health Record System (EHR-S). The function list is described from a user perspective with the intent to enable consistent expression of system functionality. This EHR-S Functional Model, through the creation of Functional Profiles for care settings, realms, services and specialties, enables a standardized description and common understanding of functions sought or available in a given setting (e.g., intensive care, cardiology, office practice in one country or primary care in another country).

The HL7 EHR-S Functional Model defines a standardized model of the functions that may be present in EHR Systems. From the outset, a clear distinction between the EHR as a singular entity and systems that operate on the EHR – i.e., EHR Systems is critical. This Standard makes no distinction regarding implementation - the EHR-S described in a Functional Profile may be a single system or a system of systems. Within the normative sections of the Functional Model, the term “system” is used generically to cover the continuum of implementation options. This includes “core” healthcare functionality, typically provided by healthcare-specific applications that manage electronic healthcare information. It also includes associated generic application-level capabilities that are typically provided by middleware or other infrastructure components. The latter includes interoperability and integration capabilities such as location discovery and such areas as cross application workflow. Interoperability is considered both from semantic (clear, consistent and persistent communication of meaning) and technical (format, syntax and physical connectivity) viewpoints. Further, the functions make no statement about which technology is used, or about the content of the electronic health record. The specifics of 'how' EHR systems are developed or implemented is not considered to be within the scope of this model now or in the future. This EHR-S Functional Model does not address or endorse implementations or technology, nor does it include the data content of the electronic health record.

Finally, the EHR-S Functional Model supports research needs by ensuring that the data available to researchers follow the required protocols for privacy, confidentiality, and security. The diversity of research needs precludes the specific listing of functions that are potentially useful for research.

This Functional Model is not:

- a messaging specification
- an implementation specification
- a conformance specification
- an EHR specification
- a conformance or conformance testing metric
- an exercise in creating a definition for an EHR or EHR-S

It is important to note that the EHR-S Function Model does not include a discussion of clinical processes or the interaction of the healthcare actors. However, ISO 13940 Health Informatics – System of Concepts to Support Continuity of Care, is an international standard that does outline key principles and processes in the provision of healthcare. It is recommended that users of the EHR-S FM refer to this standard for clinical processes that EHR systems support.

This EHR-S Functional Model package includes both Reference and Normative sections. Table 1 explains the differences between Reference and Normative sections.

Status	Description
Reference	Content of the EHR-S Functional Model Package that contains information which clarifies concepts or otherwise provides additional information to aid understanding and comprehension. Reference material is not balloted as part of the standard.

Normative	Content that is part of the EHR-S Functional Model which HL7 committee members and interested industry participants have formally reviewed and balloted following the HL7 procedures for Balloting Normative Documents. This HL7 developed Functional Model document has been successfully balloted as a normative standard by the HL7 organization.
-----------	--

**Table 1: Normative Status Types**

Each section within this document is clearly labeled "Normative" if it is normative. For example, in section 5 (Overview) section 5.3 is normative. In section 7, Conformance Clause; sections 7.1 through 7.6 are normative.

In the external Annex A, Function List, the Function ID, Function Name, Function Statement, and Conformance Criteria components are Normative in this Functional Model.

## 2 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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. ASTM E1769:1995, Standard guide for properties of electronic health records and record systems

HL7 Fast Health Interoperable Resources (FHIR), Release 4, January 2019

HL7 FHIR Record Lifecycle Event Implementation Guide, part of FHIR Core Release 4, January 2019

ISO 13606:2018, Health Informatics – Electronic health record communication, Parts 1-5

ISO 13940:2015, Health Informatics – System of concepts to support continuity of care

ISO 20514:2005, Health Informatics – Electronic health record – definition, scope and context

ISO 21089:2018, Health Informatics – Trusted End-to-End Information Flows

## 3 Terms and Definitions

[ISO/PRF 10781](https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b949-9a8eb1d31773/iso-prf-10781)

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

### 3.1

#### **access control**

means of ensuring that the resources of a data processing system can be accessed only by authorized entities in authorized ways

### 3.2

#### **base functional profile**

existing domain or companion functional profile from which new functional profiles are created/derived

### 3.3

#### **conformance**

fulfillment of a product, process, or service of specified requirements

### 3.4

#### **conformance criteria**

requirements indicating the behavior, action, capability that constitutes implementation of the function

### 3.5

#### **conformance clause**

section of a specification that defines the requirements, criteria, or conditions to be satisfied in order to claim conformance

**3.6****conformance statement**

description of the function in an EHR system that have been implemented. It reflects the degree to which an EHR system has met the functionality has met the functional profile's requirements and may include optional functions and information

**3.7****derived functional profile**

functional domain or companion profile that is created from a base functional profile, (i.e., child functional domain profile to children's hospital domain profile)

**3.8****extension**

ability for an EHR-S to incorporate additional functionality beyond what is defined in the Functional Profile

**3.9****functional profile**

subset of the Functional Model, in which functions have been designated (sometimes in varying degrees) for certain EHR systems or healthcare delivery settings or narrow operation requirements

**3.10****informative functional profile**

registered functional profile that has successfully completed formal public scrutiny via the HL7 consensus process

**3.11****inherited criterion**

all the conformance criteria listed in a parent function will be inherited by all its children functions

**3.12****registered functional profile**

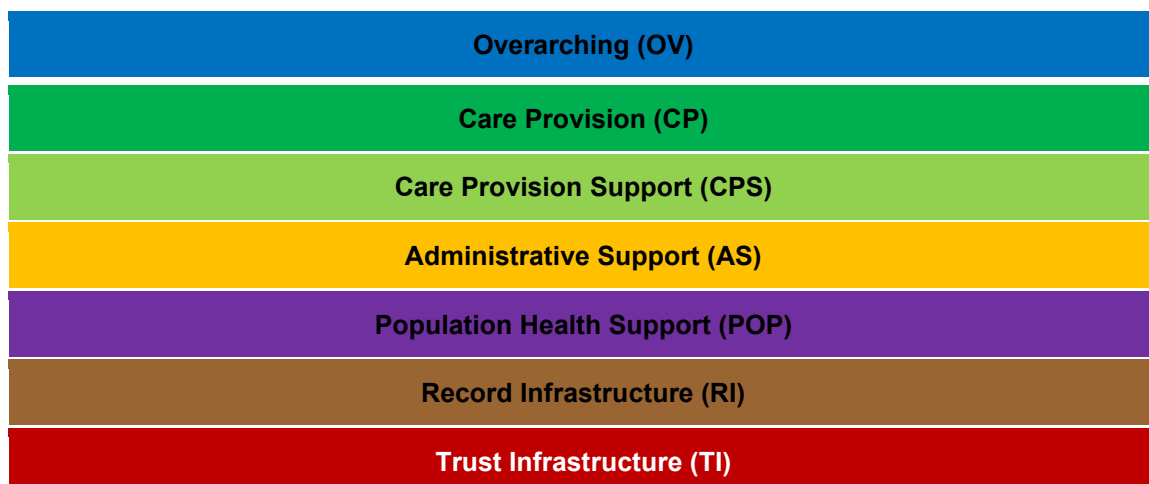
functional profile that has successfully completed HL7 EHR Work Group registration process and review

**3.13****situational criterion**

criterion that is required if the circumstances given are applicable (IF/Then or Dependent SHALL)

**4 Overview and Definition of the Functional Model (Normative)**

The EHR-S Functional Model is composed of a list of functions, known as the Function List, which is divided into seven sections: Overarching, Care Provision, Care Provision Support, Population Health Support, Administrative Support, Record Infrastructure and Trust Infrastructure as show in Figure 1.



**Figure 1: Function List Sections**

Within the seven Sections of the Functional List the functions are grouped under header functions which each have one or more sub-functions in a hierarchical structure.

### 4.1 Sections of the Function List

Below is a summary description of each of the seven sections:

- **Overarching:** The Overarching Section contains functions and conformance criteria that apply to complete EHR Systems and which are typically included in all EHR-S FM compliant profiles.
- **Care Provision:** The Care Provision Section contains those functions and conformance criteria that enable direct care to a specific patient and facilitate hands-on delivery of healthcare. The functions are general and are not limited to a specific care setting and may be applied as part of an Electronic Health Record supporting healthcare clinics, hospitals, services, specialties, acute, post-acute and long-term care settings.
- **Care Provision Support:** The Care Provision Support Section focuses on functions and conformance criteria supporting the provision of care. This section is organized generally in alignment with Care Provision Section. For example, CP.4 (Manage Orders) is supported directly by CPS.4 (Support Orders).
- **Population Health Support:** The Population Health Support Section focuses on functions and conformance criteria supporting the prevention and control of disease among a group of people (as opposed to the direct care of a single patient). This section includes functions to support input to systems that perform medical research, promote public health and improve the quality of care to a population.
- **Administrative Support:** The Administrative Support Section focuses on functions and conformance criteria enabling the management of clinical practice and facilitating administrative and financial operations. This includes management of resources, workflow and communication with patients and providers as well as the management of non-clinical administrative information on patients and providers.
- **Record Infrastructure:** The Record Infrastructure Section consists of functions and conformance criteria describing how an EHR system manages an EHR record, particularly those functions vital to managing the lifecycle of EHR record entries (such as origination/retention, attestation, amendment/update, access/use, translation/transformation, transmittal/disclosure, receipt, de-identification, archive...) and record entry lifespan (persistence, indelibility, continuity, audit, encryption). RI functions are core and foundational to all other functions of the EHR-S FM (CP, CPS, POP, AS).
- **Trust Infrastructure:** The Trust Infrastructure Section consists of functions and conformance criteria common to an EHR System infrastructure, particularly those functions foundational to system operations, security, efficiency and data integrity assurance, safeguards for privacy and confidentiality, and interoperability with other systems. TI functions are core and foundational to all other functions of the EHR-S FM (CP, CPS, POP, AS and RI).

## 4.2 Functional Profiles

While the Functional Model contains all reasonably anticipated EHR-S functions, it is not itself intended as a list of all functions to be found in a specific EHR-S or implementation thereof. Functional Profiles offer a method to constrain EHR-S FM functions and conformance criteria to an intended use.

In the aggregate, the EHR-S FM is intended to include the superset of functions from which a profile subset can be generated. This subset illustrates what is needed within an EHR-S. Only a subset of all EHR-S FM functions will apply to any particular EHR-S Functional Profile (FP).

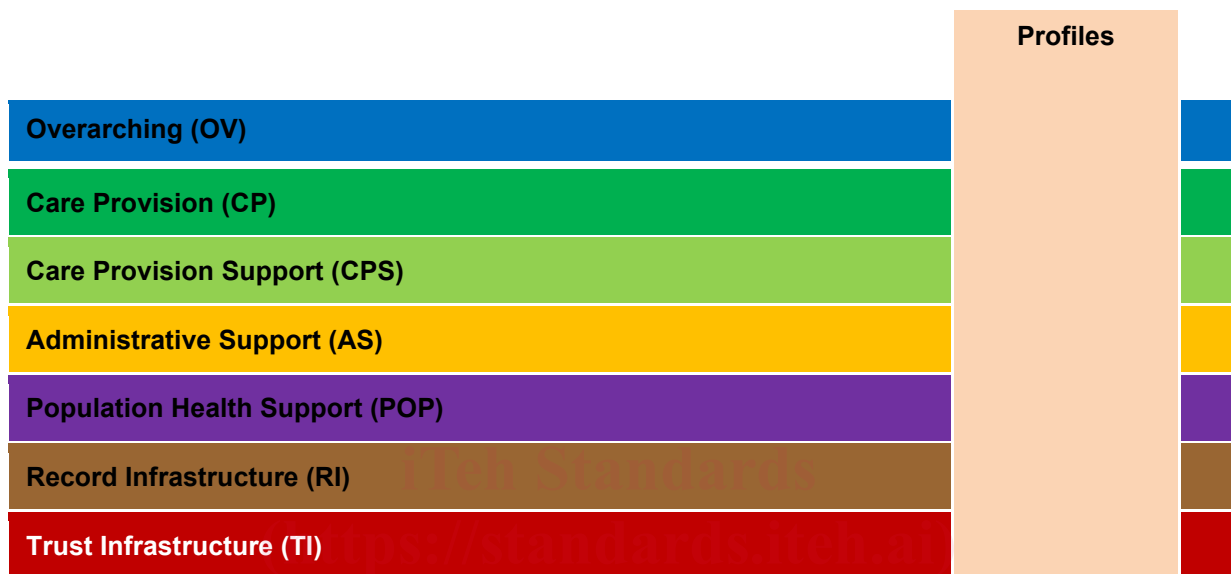


Figure 2. Profiling from the EHR-S FM.

Figure 2 shows that a profile would include all 7 sections of the Functional Model, however it may not be necessary to include all the functions and criteria within each section. A profile may include additional functions and criteria to meet the requirements of the particular profile domain or subject area.

The Conformance Clause is a high-level description of what is required of profiles and implementations. It, in turn, refers to other parts of the standard for details. The Conformance Clause describes concepts critical to the understanding and implementation of the Functional Model, such as: *‘What is a profile? What are Conformance Criteria? Or how do you know what is mandatory versus optional?’* A Conformance Clause can also provide a communication between the implementers (producers) and users (buyers) as to what is required, and gives meaning to the phrases, “conforming profile” and “conforming EHR system”. Additionally, it serves as the basis for inspection, testing and/or certification activities which may be performed by organizations external to HL7.

Refer to the Conformance Clause, section 7, for additional information related to the rules for selecting and adding Conformance Criteria in the development of a Functional Profile.

## 4.3 EHR-S Function List Components

The EHR-S Function List is a list (superset) of functions organized into discrete sections. Functions describe the behavior of a system in user-oriented language so as to be recognizable to the key stakeholders of an EHR-S.

EHR-S functions can be used to:

- Describe end user defined benefits such as patient safety, quality outcomes and cost efficiencies in terms of standard EHR-S functions.
- Promote a common understanding of EHR system functions upon which developers, vendors, users and other interested parties can plan and evaluate EHR system designs and implementations.
- Provide the necessary framework to drive the requirements and applications of next level standards, such as EHR content, coding, information models, constructs and interoperability for information portability between sub-systems of an EHR system and across EHR systems.
- Establish a standards-based method by which each realm (country) can apply these EHR system functions to care settings, services, specialties, other uses and priorities.

- Inform those concerned with supporting subsequent use of data initially collected for the purpose of care (also known as “secondary use”) on what functions can be expected in an EHR system.
- Inform those concerned with supporting realm-specific health information infrastructure on what functions can be expected in an EHR Systems.

Each function in the HL7 EHR-S Functional Model is identified and described using a set of elements or components as detailed in Table 2.

ID	Type	Name	Statement	Description	Conformance Criteria
CP.1	H	Manage Clinical History	Manage the patient's clinical history lists used to present summary or detailed information on patient health history.	Patient Clinical History lists are used to present succinct “snapshots” of critical health information including patient history; allergy intolerance and adverse reactions; medications; problems; strengths; immunizations; medical equipment/ devices; and patient and family preferences.	
CP.1.4	F	Manage Problem List	Create and maintain patient-specific problem lists.	A problem list may include, but is not limited to chronic conditions, diagnoses, or symptoms, injury/poisoning (both intentional and unintentional), adverse effects of medical care (e.g., drugs, surgical), functional limitations, visit or stay-specific conditions, diagnoses, or symptoms...	
CP.1.4	C			<a href="https://standards.iteh.ai/catalog/standards/sist/d42e082c-1390-491c-b9">ISO/PRF 10781</a>	1. The system SHALL provide the ability to manage, as discrete data, all active problems associated with a patient.
CP.1.4	C				2. The system SHALL capture and render a history of all problems associated with a patient.
CP.1.4	C				3. The system SHALL provide the ability to manage relevant dates including the onset date and resolution date of problem.

**Table 2: Function List Example**

**4.3.1 Function ID (Normative)**

This is the unique identifier of a function in the Function List (e.g., CP.1.1) and uniquely identifies the function. The Function ID also serves to identify the section within which the function exists (CP = Care Provision Section) and the hierarchy or relationship between functions (CP.1.1 is at the same level as CP.1.2, CP.1.1 is also a parent of CP.1.1.1 and child of CP.1. In many cases the parent is fully expressed by the children. NOTE: For a detailed discussion and graphic of the parent and child relationship, see 6.6.1 Hierarchical Structure in Chapter 6, Conformance Clause.)

**4.3.2 Function Type (Reference)**

This is an indication of the line item as being a Header (H), Function (F) or Conformance Criteria (C). The Tag (T) is used to identify a new section in the spreadsheet and its related functions in the spreadsheet. A Tag has no directly associated Functions or Criteria.