EHRS\_ENCPRSFP\_NORM\_R2\_2018AUG



**HL7 EHR-System Electronic Nutrition Care Process Record System (ENCPRS) Functional Profile, Release 2**

**Normative Standard (Balloting)**

### August 2018

Publication of this ballot document for the Functional Profile has been approved by Health Level Seven International (HL7). This Normative Standard has been accredited by the American National Standard Institute (ANSI).

|  |  |
| --- | --- |
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##### Ballot Document Review Schedule

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| --- | --- | --- | --- |
| **Date Range** | **Task Description** | **Who** | **Status** |
| 2/16-2/22 | Review Direct Care EHRS-FM R1 | SMEs | In Progress |
| 2/16-2/22 | Create first two sections of ENCPRS R2 in the profiling tool | Patrick | In Progress |
| 2/23-3/1 | Review Overarching Criteria and Care Provision sections EHRS-FM R2 | SMEs | Next steps |
| 2/23-3/1 | Review EHRS-FM R1 sections   * Supportive Functions * Information Infrastructure | SMEs | Next steps |
| 2/23-3/1 | Compile and publish first two sections of ENCPRS R2 using the tooling   * Overarching Criteria * Care Provision | Patrick | Next steps |
| 3/2-3/8 | Review and comment first two sections of ENCPRS R2 | SMEs | Not started |
| 3/9-3/15 | Review and comment first two sections of ENCPRS R2 | SMEs | Not started |
| 3/16-3/22 | Review and comment first two sections of ENCPRS R2 | SMEs | Not started |
| 3/23-3/29 | Review and comment first two sections of ENCPRS R2 | SMEs | Not started |
| 3/30-4/5 | Compile and publish next two sections of ENCPRS R2   * Care Provision Support * Record Infrastructure | Patrick | Not started |
| 4/12, 4/19, 4/26 | April Meetings – Review and comment sections Care Provision Support, Record Infrastructure | SMEs | Not started |
| 4/26-5/3 | Compile and publish last sections of ENCPRS R2   * Administrative Support * Trust Infrastructure | Patrick | Not started |
| 5/10, 5/17, 5/24, 5/31 | May Meetings incl. WGM in Cologne – Review Trust Infrastructure and Administrative Support; Provide overview and update to EHR at WGM | SMEs | Not started |
| 6/1-6/7 | Fix whatever needs it | Patrick | Not started |
| 6/7, 6/14, 6/21, 6/28 | Finalize ENCPRS R2 (See Note below) | SMEs | Not started |
| 6/29-7/12 | Produce ballot materials | Patrick | Not started |
| 8/19 | Ballot submission content deadline | Patrick | Not started |
| 9/25-10/5 | September Meetings – support ballot reconciliation | All | Not started |

##### Note that the Care Provision section contains more criteria than all the other sections combined. As such, the schedule to review that section may exceed the above scheduled timeframe. We will manage and monitor our progress and may add meetings to ensure a thorough review is completed by the project team.

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Revision History

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| --- | --- | --- | --- |
| **Revision Nbr** | **Author** | **Change Description** | **Date** |
| 0.1 | Patrick Loyd | First version with revision tracking. Added document, sections Overarching Criteria and Care Provision | 03/04/2018 |
| 0.2 | Patrick Loyd | The first version was incomplete as it was intended to contain all the necessary items for the Overarching section as well as the Care Provision section. As such, the Care Provision section was incomplete. This version contains all the required items for both sections. Added new Administrative Support section to the overall models based on review of dependents from other sections. The actual functions and conformance criteria for Admin Support will be completed month after next according to the schedule above. | 03/12/2018 |
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#### ii

###### TABLE OF CONTENTS

Contents

[August 2018 1](#_Toc508580753)

[I. Notes to Readers 3](#_Toc508580754)

[II. Acknowledgements 3](#_Toc508580755)

[III. Release 4](#_Toc508580756)

[Chapter 1 Overview 5](#_Toc508580757)

[1. EHR/Nutrition Care Process (ENCPRS) Functional Profile: Introduction 5](#_Toc508580758)

[2. Background: HL7 International and the EHR Work Group 5](#_Toc508580759)

[3. Functional Profile: Definition, Scope, Objectives 5](#_Toc508580760)

[3.1. Defining the Scope 6](#_Toc508580761)

[3.2. Achieving the Objective 6](#_Toc508580762)

[4. Process and Charge (Reference) 6](#_Toc508580763)

[4.1. Funding and Resources 6](#_Toc508580764)

[4.2. Project Launch 6](#_Toc508580765)

[4.3. Work Group Composition 7](#_Toc508580766)

[4.4. Reporting and Collaboration 7](#_Toc508580767)

[4.5. Availability of the ENCPRS Functional Profile 7](#_Toc508580768)

[5. Use of the ENCPRS Functional Profile (Reference) 7](#_Toc508580769)

[5.1. International stakeholder consideration 7](#_Toc508580770)

[5.2. Likely Implementation Approaches 7](#_Toc508580771)

[6. Next Steps (Reference) 7](#_Toc508580772)

[7. Overview and Definition of a Functional Model (Normative) 8](#_Toc508580773)

[9. Conformance Clause (Normative) 11](#_Toc508580774)

[9.1. Scope and Field of Application 11](#_Toc508580775)

[9.2. Functional Priorities 11](#_Toc508580776)

[9.3. Normative Language 11](#_Toc508580777)

[9.4. Claiming Conformance to the Profile 12](#_Toc508580778)

[10. Standard Use of Terms in Functions and Criteria (Reference) 13](#_Toc508580779)

[10.1. Glossary 14](#_Toc508580780)

[Chapter 2: Overarching Functions 3](#_Toc508580781)

[1. Care Provision Section 5](#_Toc508580782)

[Section Overview 5](#_Toc508580783)

Preface

## Notes to Readers

Release 2 of the Electronic Nutrition Care Process Record System Functional Profile (ENCPRS FP) is based on the HL7 International Electronic Health Record System (EHR-S) Functional Model Release 2.0.1 and Standard, U.S. Realm released on July 2017. This Functional Profile will be registered with the HL7 International EHR Work Group and submitted for balloting as a Normative Standard; the prior Release 1 specification was balloted and approved as a Standard for Trial Use. The intention is for this functional profile to become an ANSI-approved, normative standard.

## Acknowledgements

The ENCPRS Work Group was sponsored and facilitated by:

* + The American Dietetic Association (ADA)
  + Academy of Nutrition and Dietetics
  + Health Level Seven International, Incorporated

These organizations are indebted to the following project facilitators and members for their contributions to the Dietetics and Nutrition U.S. and International community and for the materials presented in this profile.

The ENCPRS Functional Profile project is comprised of dedicated individuals from the American Dietetic Association Nutrition Care Process – Standardized Language committee working as dietetic practitioners with the Nutrition Care Process and in health information technology. Decisions made by this team were reviewed and commented on by an International group of key stakeholders whose opinions have been taken into consideration while formulating this functional profile. The ENCPRS Functional Profile project would also like to express appreciation for the work of many talented individuals who contributed to the HL7 International EHR –S Functional Model, upon which this work is based.

|  |  |
| --- | --- |
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| Martin Yadrick | Computrition, Inc. |
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| Curt Calder | Intermountain Healthcare |

#### iv

## Release

This is Release 2 of the Electronic Nutrition Care Process Record System Functional Profile (ENCPRS-FP). The ENCPRS-FP R2 is based on, and conformant with, the HL7 International EHR-S Functional Model and Standard (EHR-S FM) Release 2.0.1, July 2017. This document is the culmination of 18 months of extensive work by private and public industry representatives and other stakeholders to identify the functional requirements for EHR systems that support the dietetics practitioner community. This document will be submitted for ballot by the ENCPRS project and balloted by the HL7 Electronic Health Records Work Group and HL7 International, Inc. and represents industry consensus on system requirements.

# Chapter 1 Overview

# EHR/Nutrition Care Process (ENCPRS) Functional Profile: Introduction

The ENCPRS Functional Profile project of the American Dietetic Association’s Nutrition Care Process-Standardized Language committee is intended to provide high-level requirements necessary for using electronic health record data for Dietetics and Nutrition Practice using the Nutrition Care Process, and to further provide a roadmap toward a process of integrating the environment that provides data collection for both patient care in dietetics and nutrition care and for the purpose of dietetics and nutrition practice-based research. This functional profile is aimed at encouraging EHR vendors to incorporate functions into their products that are necessary to utilize the Electronic Health Records as a direct data source for patient care using the Nutrition Care Process and is intended to provide one overall view of the needs of dietetics and nutrition practice with respect to electronic patient records.

The project is aimed at developing a Functional Profile that identifies critical capabilities for the performance of nutrition services utilizing EHR systems. This work will establish conformance to the HL7 International EHR-S Functional Model Release 1, under the advice and direction of the HL7 International EHR Technical Committee. A set of requirements is developed for using E HR systems in the documentation of the Nutrition Care Process. These requirements have been mapped into this functional profile and identify those portions of the HL7 EHR-S Functional Model that apply to patient care in the Nutrition Care Process, and further identify additional functionality toward facilitating ease of use for those involved in patient care in the Nutrition Care Process, thus providing EHR vendors with conformance criteria that are specific to regulated tasks within the Nutrition Care Process in the HL7 International formats.

# Background: HL7 International and the EHR Work Group

Founded in 1987, Health Level Seven (HL7) International is a not-for-profit health care standards development organization (SDO) accredited by the American National Standards Institute (ANSI). While traditionally involved in the development of messaging standards used by health care systems to exchange data, HL7 International has begun to develop other standards related to health care information systems. In 2002, a newly formed HL7 International EHR Special Interest Group began development of a functional model for EHR systems. The Group was subsequently promoted to a full Technical Committee (EHR TC) and eventually renamed as the “EHR Work Group”.

In 2004, the HL7 International Work Group published the Electronic Health Record System Functional Model and Standard (EHR-S FM) as a Draft Standard for Trial Use (DSTU)—a reference list of functions that may be present in electronic health records systems. The EHR-S FM underwent membership-level ballot in September 2006 and January 2007, and it was approved as standard in February 2007. In 2009, it was approved as an International standard by the International Organization for Standardization (ISO).

In 2014, the HL7 International Electronic Health Records Work Group updated the EHRS-FM to Release 2.

The EHR Work Group intends that unique functional profiles be developed by subject matter experts in various care settings to inform developers, purchasers, and other stakeholders of the functional requirements of systems developed for these domains.

# Functional Profile: Definition, Scope, Objectives

The EHR-S FM lists the set of all functions that could be present in various EHR systems. Any given EHR system will demonstrate the existence of one or more functions (i.e., a subset) from the entire list (i.e., the superset) of EHR-S FM functions. This subset of functions characterizes the type of system being defined and is referred to as a “functional profile”. The EHR WG intends that unique functional profiles be developed by subject matter experts in various care settings to inform developers, purchasers, and other stakeholders of the functional requirements of electronic systems developed for specific health care domains. The ENCPRS is one such functional profile.

# Defining the Scope

The scope of the ENCPRS Functional Profile Project is to create a functional profile that conforms to the HL7 International EHR-S FM. The HL7 International EHR-S FM defines a standardized set of the functions that may be present in EHR systems. A Functional Profile is defined as a subset of functions of the EHR-S FM that lists the functions that are required or desired for implementation in certain EHR systems or health care delivery settings, or for other purposes.

The ENCPRS FP will facilitate the point-of-contact or point-of-care capture of data utilized and created within the Nutrition Care Process via EHR systems. The ENCPRS project is U.S. focused and will initially specify the functional requirements needed to support messaging of data among the medical team including physicians, nurses, pharmacists, dietitians, and supportive personnel practicing nutrition care in the U.S among providers in various locations including private and government health care systems and federal and state agencies.

# Achieving the Objective

Domain experts from the dietetics and nutrition care community have provided their subject matter expertise and recommendations into this ENCPRS Functional Profile for EHR systems by:

* Listing the subset of EHR-S FM functions that touch the Nutrition Care Process domain;
* Clarifying the application of those functions towards the Nutrition Care Process domain with descriptive text, examples, and conformance criteria;
* Naming specific data elements that are required for the Nutrition Care Process domain;
* Referencing and providing direction to authoritative sources specific to the Nutrition Care Process domain;
* Clarifying the relative urgency for the various Nutrition Care Process domain-related functionality (by ascribing what host systems SHALL, SHOULD, or MAY do);
* Clarifying the recommended immediacy of the various Nutrition Care Process domain-related functionality (by ascribing Essential-Now, Essential-Future, and Optional attributes to the functions);
* Clarifying the technical meaning of the Nutrition Care Process domain-related data elements (so that the data elements are perceived in a more uniform manner by the various data-collectors and data-users);
* Clarifying the workflow and business rules of the data-collection and data-reuse activities (providing uniform and meaningful data across all stakeholder groups).

# Process and Charge (Reference)

# Funding and Resources

The American Dietetic Association (ADA) provided funding for project coordination for development of the ENCPRS Functional Profile with the assistance of member volunteers. ADA funding support also included work group face-to- face meetings as well as teleconference support for the volunteer members. Consulting services were contracted through American Health. Information Management Association (AHIMA) for project planning, direction, oversight, and technical assistance.

# Project Launch

Dr. Don Mon of AHIMA presented an overview of the HL7 International standard development process for the Nutrition Care Process-Standardized Language (NCP-SL) Committee during a December 2009 face-to-face meeting in Chicago. At that time the NCP-SL committee determined a sub-committee of volunteers to work on the development of the ENCPRS Functional Profile. The NCP-SL sub-committee for ENCPRS Functional Profile development met again in February 2010 in Chicago to further the work process. During the two day meeting Dr. Don Mon provided in depth instruction for HL7 International standards development, reviewing the process for development of a timeline. The ENCPRS Functional Profile sub-committee then began review of the HL7 EHR-S Functional Model to determine appropriate conformance criteria for the ENCPRS Functional Profile. Work continued via teleconference and a second face-to-face meeting of the NCP-SL committee in July 2010. During the July meeting additional newly appointed committee members were selected to provide input and assistance on the ENCPRS Functional Profile. These individuals were informed of the progress of work to date and spent time reviewing the work already accomplished. Following this meeting the NCP-SL Sub-committee for ENCPRS Functional Profile development met on a weekly or bi-weekly basis via

conference call/webinar to complete the initial draft of the ENCPRS Functional Profile. Each participant was able to access ADA’s Evidence Analysis Library® portal to review files, work-in-progress, and provide feedback for others to review.

# Work Group Composition

The project team for ENCPRS Functional Profile was composed of members from a cross-section of stakeholders in dietetics and Nutrition Practice, including public health, long term care, acute care, acute care in an academic teaching environment, and information technology in both acute care and long-term care environments, and including software developers and subject matter experts.

# Reporting and Collaboration

The co-facilitators collaborated with the EHR WG regarding issues, guidance, and support and provided regular meetings and teleconferences with project team for ENCPRS Functional Profile as well as regular reports to American Dietetic Association (ADA) Nutrition Care Process – Standardized Language (NCP-SL) committee and the International Confederation of Dietetic Associations.

# Availability of the ENCPRS Functional Profile

The ENCPRS Functional Profile will be registered on the HL7 International EHR Work Group’s Functional Profile website, which is hosted by the National Institute for Standards and Technology (NIST). Note: Other EHR-S FM – based profiles are also located on the website, all of which are free of charge: <http://www.nist.gov/profileregistry>

# Use of the ENCPRS Functional Profile (Reference)

The ENCPRS Functional Profile R2 is intended to be used by any EHR system domain of application, for exchange of information between providers, that is involved with patient care using the Nutrition Care Process; stakeholders include: hospitals, primary care offices, emergency departments, long term care facilities, clinics, home care providers, and nutrition and dietetics private practitioners.

# International stakeholder consideration

To meet the needs represented by the project team members in the U.S. the volunteers endeavored to consider the needs of future stakeholders. It is the intention that the ENCPRS Functional Profile will be tested by the International community to allow expansion of the ENCPRS Functional Profile to meet the future needs of the International community.

# Likely Implementation Approaches

The ENCPRS Functional Profile will likely be implemented in one or more of the following ways:

* The ENCPRS Functional Profile may be embedded within EHR systems. That is, EHR systems will be enhanced to provide/include Dietetics and Nutrition Practice functionality within the EHR system.
* The ENCPRS Functional Profile may result in a standalone Dietetics and Nutrition Practice EHR system component. That is, a vendor or provider will create a standalone application that performs Dietetics and Nutrition Practice functions, and the resulting application will be integrated into other systems by means of system-interfaces.

# Next Steps (Reference)

The ENCPRS Functional Profile will be submitted to the HL7 EHR Work Group and, therefore to, HL7 International, Inc. for balloting as a Normative Standard (NORM). Balloting will occur in the August 2018 ballot cycle.

# Overview and Definition of a 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.

|  |
| --- |
| **Overarching (OV)** |
| **Provision (CP)Care** |
| **Care Provision Support (CPS)** |
| **Population Health Support (POP)** |
| **Administrative Support (AS)** |
| **Record Infrastructure (RI)** |
| **Trust Infrastructure (TI)** |

##### 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.

#### Sections of the Function List

The seven sections of the function list reflect content of the Interoperability Model, now integrated in the Functional Model, and input from several profiles if the R.1.1 version of the Functional Model. Below is a summary description of each of the seven sections:

* + - Overarching: The Overarching Section contains Conformance Criteria that apply to all EHR Systems and consequently must be included in all EHR-S FM compliant profiles.
    - Care Provision: The Care Provision Section contains those functions and supporting Conformance Criteria that are required to provide direct care to a specific patient and enable 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 offices, clinics, hospitals and specialty care centers.
    - Care Provision Support: The Care Provision Support Section focuses on functions needed to enable 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 those functions required of the EHR to support 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, & improve the quality of care at a multi-patient level
    - Administrative Support: The Administrative Support Section focuses on functions required in the EHR-S to enable the management of the clinical practice and to assist with the 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 Chapter consists of functions common to EHR System record management, particularly those functions foundational to managing record lifecycle (origination, attestation, amendment, access/use, translation, transmittal/disclosure, receipt, de- identification, archive…) and record lifespan (persistence, indelibility, continuity, audit, encryption). RI functions are core and foundational to all other functions of the Model (CP, CPS, POP, AS).
    - Trust Infrastructure: The Trust Infrastructure Chapter consists of functions 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 Model (CP, CPS, POP, AS and RI).

#### Functional Profiles

While the Functional Model should contain 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. Functional Profiles should be used to constrain the functions to an intended use. This document defines the Functional Model and describes the general use of profiles and priorities (See 1.4 Anticipated Uses).

In the aggregate, the Functional Model is intended to include the superset of functions from which a subset can be generated by the user. This subset created by the user illustrates what is needed within an EHR-S. Only a subset of the superset of functions will apply to any particular EHR-S Profile.

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| --- | --- |
|  | **Profiles** |
| **Overarching (OV)** |
| **Care Provision (CP)** |
| **Care Provision Support (CPS)** |
| **Population Health Support (POP)** |
| **Administrative Support (AS)** |
| **Record Infrastructure (RI)** |
| **Trust Infrastructure (TI)** |

##### 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 profile.

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 (vendors) 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 testing and 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.

1. **Organization of this Document (Reference)**

In addition to this Overview section, the ENCPRS Functional Profile is organized into six sections of system requirements as follows:

|  |  |
| --- | --- |
| **Overarching** | Overarching: The Overarching Section contains Conformance Criteria that apply to all EHR Systems and consequently must be included in all EHR-S FM compliant profiles. |
| **Care Provision** | Care Provision: The Care Provision Section contains those functions and supporting Conformance Criteria that are required to provide direct care to a specific patient and enable 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 offices, clinics, hospitals and specialty care centers. |
| **Care Provision Support** | Care Provision Support: The Care Provision Support Section focuses on functions needed to enable 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). |
| **Administrative Support** | Administrative Support: The Administrative Support Section focuses on functions required in the EHR-S to enable the management of the clinical practice and to assist with the 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** | Record Infrastructure: The Record Infrastructure Chapter consists of functions common to EHR System record management, particularly those functions foundational to managing record lifecycle (origination, attestation, amendment, access/use, translation, transmittal/disclosure, receipt, de- identification, archive…) and record lifespan (persistence, indelibility, continuity, audit, encryption). RI functions are core and foundational to all other functions of the Model (CP, CPS, POP, AS). |
| **Trust Infrastructure** | Trust Infrastructure: The Trust Infrastructure Chapter consists of functions 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 Model (CP, CPS, POP, AS and RI). |

# Conformance Clause (Normative)

This profile is based on HL7 International EHR-S Functional Model, Release 1.1 June 2009.

Key to the Functional Model and derived profiles is the concept of conformance which may be defined as “verification that an implementation faithfully meets the requirements of a standard or specification”. A profile can be said to conform to the functional model if it adheres to the defined rules identified by the functional model specification. The ENCPRS Functional Profile adheres to the defined rules of the EHR –S FM. Thus, an EHR system may claim conformance to the ENCPRS Functional Profile if it meets all the requirements outlined in this profile.

# Scope and Field of Application

The ENCPRS Functional Profile applies to EHR systems developed in the U.S. Realm. This profile makes no distinction regarding implementation of the functions. That is, the functionality described in this functional profile may be covered by a single system or by a system of systems.

# Functional Priorities

Each function in the profile is assigned a single priority as follows:

|  |  |  |
| --- | --- | --- |
| **EN** | **Essential Now** | Indicates that the implementation of the function is mandatory and SHALL be implemented in EHR systems claiming conformance to this profile. |
| **EF (yyyy)** | **Essential Future** | Indicates that the function has significant importance but is not widely available. The function will become mandatory and SHALL be implemented in EHR systems claiming conformance to this profile by the end of the year (yyyy) identified. |
| **O** | **Optional** | Indicates that, while the function may have value to some  organizations, it is not viewed as being essential. |
| **N/A** | **Not Applicable** | Function not applicable and is rejected for purposes of the  ENCPRS Functional Profile. |

# Normative Language

The key words SHALL, SHALL NOT, SHOULD, and MAY in this document are to be interpreted as described in HL7 International EHR-S Functional Model, Release 1, June 2009 Chapter 2: Conformance Clause:

|  |  |
| --- | --- |
| **SHALL** | Indicates a mandatory requirement to be followed (implemented) in order to  conform. Synonymous with ‘is required to’ and ‘must’. |
| **SHALL NOT** | Indicates a prohibited action. Synonymous with ‘prohibited’ and ‘must not’. |
| **SHOULD** | Indicates an optional recommended action, one that is particularly suitable, without  mentioning or excluding others. Synonymous with ‘is permitted and recommended’. |
| **MAY** | Indicates an optional, permissible action. Synonymous with ‘is permitted’. |

# Claiming Conformance to the Profile

The following provisions apply to claims of conformance to the ENCPRS Functional Profile:

|  |  |
| --- | --- |
| **Systems claiming conformance to this Profile SHALL** | * Implement all functions designated Essential Now. * Fulfill (i.e., meet or satisfy) all the SHALL criteria for each implemented function. |
| **Systems claiming conformance to this Profile MAY** | * Implement functions designated Essential Future. * Fulfill any of the SHOULD or MAY criteria associated with an implemented function |
| **Systems claiming conformance to this Profile SHALL NOT** | * Negate or contradict defined functionality of this profile when   including additional functionality beyond what is specified in this profile. |
| **Derived profiles claiming conformance to this Profile SHALL** | * Inherit all functions designated Essential Now * Inherit all SHALL criteria for functions included in the derived profile * Follow the rules for profiles in Chapter 2, Section 6.1 of the HL7 International EHR-S Functional Model standard. * Adhere to the rules for creating new functions in Chapter 2, Section 6.3 of the HL7 International EHR-S Functional Model standard |
| **Derived profiles claiming conformance to this Profile MAY** | * Change SHOULD criteria to SHALL and MAY criteria to SHOULD |
| **Derived profiles claiming**  **conformance to this Profile SHALL NOT** | * Change the function’s name or statement. |
| **Assumptions and Limitations** | * We highly recommend that the EHR system operate in an environment that has controls to prevent or mitigate the effects of viruses, worms, or other harmful software code. * We additionally recommend mapping the data outputs from an EHR system used for the practice of dietetics and nutrition to concepts published in the current edition of the International Dietetics and Nutrition Terminology (IDNT) Reference Manual. The Nutrition Care Process and Model provides a framework for the specialized terminology used in each of the 4 steps of the Nutrition Care Process: Assessment, Diagnosis, Intervention, and Monitoring & Evaluation. The Nutrition Care Process is a comprehensive conceptual model for the practice of dietetics and nutrition within all components of healthcare and will ensure harmonization among the relevant HL7 standards and across all healthcare systems. This harmonization between dietetics and nutrition practice and health care will be achieved by mapping the IDNT to other health care terminologies. The IDNT Reference Manual may be purchased from <http://www.eatright.org/Shop/Categories.aspx?ID=385> Information on licensing the IDNT for use in an Electronic Health Record can be found at [http://www.eatright.org/HealthProfessionals/content.aspx?id=](http://www.eatright.org/HealthProfessionals/content.aspx?id=7077) [7077](http://www.eatright.org/HealthProfessionals/content.aspx?id=7077) and by emailing [ncpslpermissions@eatright.org](mailto:ncpslpermissions@eatright.org) |

# Standard Use of Terms in Functions and Criteria (Reference)

Consistent use of terminology used in the model’s conformance criteria is important to ensure interpretation of the conformance criteria’s intent in defining and applying the functionality. The following verb hierarchy chart, adapted from the EHR-S FM *How to Guide for Creating Functional Profiles*, illustrates the hierarchy of nomenclature. For example, “capture” is used to describe a function that includes both direct entry “create” and indirect entry through another device “input”. Similarly, “maintain” is used to describe a function that entails reading, updating, or removal of data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MANAGE** | | | | |
| **Capture** | | **Maintain** | | |
| Input Device (External) | Create (Internal) | Read (Present) | Update | Remove Access |
|  | | ViewReport Display Access | Edit Correct Amend Augment | Obsolete  Inactivate  Destroy  Nullify  Purge |

The levels in the hierarchy are granular and have a parent-child relationship. For example, the diagram below depicts that managing the “Capture” of information comes from an External Source or from an Internal Source. Similarly, under the ”Maintain” section of the diagram, the term “Store” could invoke all five verbs listed below it (i.e., Save, Backup, Compact, Encrypt, or Archive). If the parent term is not used, then the respective verbs in the child will be cited individually in the criterion. If the term “Manage” is used, all of the applicable verbs included in the table are encompassed in that criterion.

Authors are responsible for determining whether one or more of the sub-verbs are not appropriate for a given function and must write conformance criteria that constrain the use of the verb hierarchy according to the intent of the profile being created.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MANAGE** | | | | | | | |
| **Capture** | | **Maintain** | | | | **Render** | |
| Input (External) | Create (Internal) | Store | Update | Restrict Access | Remove Access | Read (Internal) | Output (External) |
| Receive | Enter | Save | Edit | Hide | Obsolete | View | Send |
| Accept | Compute | Backup | Correct | Mask | Inactivate | Report | Upload |
| Download | Record | Compact | Amend | Filter | Destroy | Display | Export |
| Import |  | Encrypt | Augment |  | Nullify | Access | Synchronize |
|  |  | Archive | Annotate Comment Associate Tag |  | Purge | Present |  |

# Glossary

|  |  |
| --- | --- |
| **TERM** | **DEFINITION** |
| **American Dietetic Association’s**  **Evidence-Based Nutrition Practice Guidelines (EBNPG)** | Systematically developed statements and treatment algorithms based on scientific evidence to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. Key elements of guidelines (EBNPG) include scope, interventions & practices considered, major recommendations & corresponding rating of evidence strength, and areas of agreement & disagreement. [http://www.adaevidencelibrary.com/default.cfm?library=EBG&home=1](http://www.adaevidencelibrary.com/default.cfm?library=EBG&amp;home=1) |
| **Anthropometric Measurements** | Anthropometric Measurements are a set of noninvasive, quantitative techniques for determining an individual’s body fat composition by measuring, recording, and analyzing specific dimensions of the body, such as height and weight; skin-fold thickness; and bodily circumference at the waist, hip, and chest. |
| **Bioelectric Impedance** | Bioelectrical impedance analysis (BIA) is a commonly used method for estimating body composition. BIA determines the [electrical impedance,](http://en.wikipedia.org/wiki/Electrical_impedance) or opposition to the flow of an electric current through body tissues which can then be used to calculate an estimate of [total body](http://en.wikipedia.org/wiki/Total_body_water) [water](http://en.wikipedia.org/wiki/Total_body_water) (TBW). TBW can be used to estimate fat-free body mass and, by difference with body weight, [body fat.](http://en.wikipedia.org/wiki/Adiposity) |
| **Body Surface Area (BSA)** | The measured or calculated surface of the human body. |
| **Calorie Count** | The process of estimating one’s caloric intake via direct and indirect observation over a defined period of time as calculated by a nutrition professional. |
| **Comparative Standards** | Reference standard by which nutrition assessment or nutrition monitoring and evaluation data will be compared |
| **Decision Support Algorithms** | An interactive decision support system designed to assist health professionals with decision making tasks including diagnosis and treatment by linking health observations with health knowledge to influence health choices by clinicians for improved patient health care |
| **Diet** | A diet consists of the diet codes, supplements, and preferences effective at a given time. These three specifications govern which goods a patient will receive. Diets generally do not have a stated ending time to ensure that the patient always receives food (Ref: HL7 Glossary, Jan 2010) |
| **Diet Code** | A diet code defines which foods a patient may receive; a patient must have at least one diet code to receive food. (Ref: HL7 Glossary Jan 2010) |
| **Dietary Orders** | An order for a patient diet. A patient may have only one effective diet order at a time. (Ref: HL7 Glossary Jan 2010) |
| **Diet Order** | Specification for food to be served the patient based on patient medical diagnosis or  condition. |
| **DXA Scan** | Dual-energy X-ray absorptiometry (DXA, previously DEXA) is a means of measuring [bone](http://en.wikipedia.org/wiki/Bone_mineral_density) [mineral density](http://en.wikipedia.org/wiki/Bone_mineral_density) (BMD). Two [X-ray](http://en.wikipedia.org/wiki/X-ray) beams with differing [energy levels](http://en.wikipedia.org/wiki/Energy_level) are aimed at the patient’s [bones.](http://en.wikipedia.org/wiki/Bone) When [soft tissue](http://en.wikipedia.org/wiki/Soft_tissue) absorption is subtracted out, and the [BMD](http://en.wikipedia.org/wiki/Bone_mineral_density) can be determined from the absorption of each beam by bone. |
| **Dietary Reference Intakes (DRI)** | Set of nutrient-based reference values established by the Institute of Medicine used to plan and assess nutrient intakes of healthy people. DRI’s are a set of four reference values: Estimated Average Requirements (EAR), Recommended Dietary Allowances (RDA), Adequate Intakes (AI), and Tolerable Upper Intake Levels (UL). |
| **Dietetic Technician, Registered (DTR)** | Dietetic technicians, registered (DTRs), are trained in food and nutrition and are an integral part of the health-care and foodservice management teams. DTRs have met the following criteria to earn the DTR credential: 1.Completed at least a two-year associate’s degree at a US regionally accredited college or university; 2. Completed a dietetic technician program  accredited by the Commission on Accreditation for Dietetics Education (CADE) of the |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | American Dietetic Association (ADA), including 450 hours of supervised practice experience in various community programs, health-care and foodservice facilities; 3. Passed a national examination administered by the Commission on Dietetic Registration (CDR). For more  information regarding the examination, refer to CDR’s website; 4. Completed continuing professional educational requirements to maintain registration. | |
| **Drug-Food Interaction** | | | Physiological effect when some drugs and certain foods/nutrients are taken at the same time. | |
| **Electronic Analysis of Dietary Intake** | | | Automated analysis of nutrient intake performed by programmable electronic devices. | |
| **Enteral Nutrition** | | | Enteral nutrition: A way to provide food through a tube placed in the nose, mouth, the  stomach, or the [small intestine.](http://www.medterms.com/script/main/art.asp?articlekey=5512) | |
| **Evidence-Based** | | | A protocol-driven, transparent process which includes pre-defined criteria for searching and sorting the scientific literature; critical appraisal of methodological rigor of each included study; extracting, summarizing, and synthesizing the evidence; and grading the overall  quality and consistency of the body of evidence. | |
| **Food** | | | A food is any substance – whether processed, semi-processed, or raw—that is intended for human consumption, and includes drinks, chewing gum, food additives, and dietary supplements. Substances used only as drugs, tobacco products, and cosmetics (such as lipcare products) that may be ingested are not included. Ref: Boyce et al. Guidelines for the  Diagnosis and Management of Food Allergy in the United States: Summary of the NIAID- Sponsored Expert Panel. USDHHS, Dec 2010. | |
| **Food Allergy Terms** | | | | |
|  | **Allergic Sensitization** | Allergic **sensitization** (as evidenced by the presence of allergen-specific IgE (sIgE) to food allergens without having clinical symptoms on exposure to those foods, an sIgE-mediated FA requires *both* the presence of sensitization *and* the development of specific signs and symptoms on exposure to that food. Sensitization alone is not sufficient to define FA.  Ref: Boyce et al. Guidelines for the Diagnosis and Management of Food Allergy in the United States: Summary of the NIAID-Sponsored Expert Panel. USDHHS, Dec 2010. | |  |
|  | **Food Allergen** | **Food allergens** are defined as those specific components of food or ingredients within food (typically proteins, but sometimes also chemical haptens) that are recognized by allergen-specific immune cells and elicit specific immunologic reactions, resulting in characteristic symptoms.  Ref: Boyce et al. Guidelines for the Diagnosis and Management of Food Allergy in the United States: Summary of the NIAID-Sponsored Expert Panel. USDHHS, Dec 2010. | |  |
|  | **Food Allergen Cross-reactivity** | A phenomenon called **cross-reactivity** may occur when an antibody reacts not only with the original allergen, but also with a similar allergen. In FA, cross-reactivity occurs when a food allergen shares structural or sequence similarity with a different food allergen or aeroallergen, which may then trigger an adverse reaction similar to that triggered by the original food allergen.  Ref: Boyce et al. Guidelines for the Diagnosis and Management of Food Allergy in the United States: Summary of the NIAID-Sponsored Expert Panel. USDHHS, Dec 2010. | |  |
|  | **Food Allergy** | A food allergy is an adverse health effect arising from a specific immune response that occurs reproducibly on exposure to a given food.  Ref: Boyce et al. Guidelines for the Diagnosis and Management of Food Allergy in the United States: Summary of the NIAID-Sponsored Expert Panel. USDHHS, Dec 2010. | |  |
|  | **Food Intolerance** | Non-immunologic adverse reactions are termed **food intolerances.** For example, an individual may be allergic to cow’s milk (henceforth referred to as milk) due to an immunologic response to milk protein, or alternatively, that individual may be intolerant to milk due to an inability to digest the sugar lactose. In the former situation, milk protein is considered an allergen because it triggers an adverse immunologic reaction. Inability to digest lactose leads to excess fluid production in the gastrointestinal (GI) tract, resulting in abdominal pain and diarrhea.  Ref: Boyce et al. Guidelines for the Diagnosis and Management of Food Allergy in the United States: Summary of the NIAID-Sponsored Expert Panel. USDHHS, Dec 2010. | |  |
| **Food and Drug Interactions** | | | Physiological effect caused by an interaction from the combination of a certain drug and food/nutrient. | |
| **Food Preferences** | | | Preferences consist of likes, dislikes, substitutions, and complementary foods. Preferences are diet orders, effectively from the patient, but transmitted from the ward. They are subject to change. Preferences are independent of the diet order and do not change when the order changes. Per HL7 Glossary (Jan 2010) Preferences: (related to Dietary Orders) | |
| **Growth Charts** | | | Series of percentile curves that illustrate the distribution of selected body measurements in children and used as a tool that contributes to forming an overall clinical impression for the child being measured. <http://www.cdc.gov/growthcharts> | |
| **ndirect Calorimetry** | | | Indirect Calorimetry is the measurement of the amount of heat generated in an oxidation reaction by determining the intake or consumption of oxygen or by measuring the amount of carbon dioxide or nitrogen released and translating these quantities into a heat equivalent. | |
| **International Dietetics and Nutrition Terminology (IDNT)** | | | International Dietetics and Nutrition terminology (IDNT) is the standardized language used to support the nutrition care process. | |
| **Medical Nutrition Therapy** | | | Medical Nutrition Therapy includes:   1. Performing a comprehensive nutrition assessment determining the nutrition diagnosis; 2. Planning and implementing a nutrition intervention using evidence-based nutrition practice guidelines; 3. Monitoring and evaluating an individual’s progress over subsequent visits with the RD [www.eatright.org/HealthProfessionals/content.aspx?id=6877](http://www.eatright.org/HealthProfessionals/content.aspx?id=6877) | |
| **No Known Drug Allergies (NKDA)** | | | Ch Direct Care Functions/Pg 22. Typical notation is NKA, which covers all allergy  processes. | |
| **Nutrient Intake Analysis** | | | Analysis 24-hour total nutrient intake of an individual; sometimes limited to “calorie count”. | |
| **Nutrient Intake or Infusion** | | | An individual’s total intake of food and beverage, including water, in a 24-hour time period. | |
| **Nutrition-focused Physical Findings** | | | Nutrition*-*Focused Physical Findings include findings from an evaluation of body systems, muscle and subcutaneous fat wasting, oral health, suck/swallow/breath ability, appetite, and affect. | |
| **Nutrition Assessment** | | | The first of four steps in the Nutrition Care Process. It is a method of identifying and evaluating data needed to make decisions about a nutrition-related problem/diagnosis. While the type of data may vary among nutrition settings, the process and intention are the same. When possible, the assessment data is compared to reliable norms and standards for evaluation. Further, nutrition assessment initiates the data collection process that is continued throughout the nutrition care process and forms the foundation for reassessment and reanalysis of the date in Nutrition Monitoring and Evaluation. (Step 4). | |
| **Nutrition Care Plan** | | | A formal statement of the nutrition goals and interventions prescribed for an individual using the data obtained from a nutrition assessment. The plan should include statements of nutrition goals and monitoring/evaluation parameters, the most appropriate route of administration of nutrition therapy, method of nutrition access, anticipated duration of therapy, and training and counseling goals and methods. | |
| **Nutrition Care Process** | | | Process for identifying, planning for, and meeting nutritional needs and includes four steps: assessment, diagnosis, intervention, monitoring and evaluation. | |
| **Nutrition Decision Support Rules** | | | Rules are the steps in the process of forming a clinical nutrition decision and are identified in the nutrition decision support work-flow document. | |
| **Nutrition Diagnosis (Problems List)** | | | A critical step between nutrition assessment and nutrition intervention. A nutrition diagnosis identifies and labels a specific nutrition problem that dietetics professionals are responsible for treating independently. It is this step in the nutrition care process that results in the nutrition diagnosis statement or PES statement composed of three distinct components: Problem, Etiology, and Signs or Symptoms. | |
| **Nutrition Intervention** | | | The third step following assessment and diagnosis, is defined as purposefully planned actions intended to positively change a nutrition-related behavior, environmental condition, or aspect of health status for an individual (and his/her family or caregivers), target group, or the community at large. It consists of two components: planning and implementation. | |
| **Nutrition Monitoring and Evaluation** | | | The fourth step in the Nutrition Care Process identifies patient/client outcomes relevant to the nutrition diagnosis and intervention plans and goals. Nutrition care outcomes -- the desired results of nutrition care -- are defined in this step. The changes in specific nutrition care indicators, though assessment and reassessment can be measured and compared to the patient/client's previous status, nutrition intervention goals, or reference standards. | |
| **Nutrition Order Sets** | | | A standard diet and related orders protocol to be followed for a specific condition or circumstance; e.g., following an emergency procedure or surgery for a person diagnosed with diabetes. | |
| **Nutrition Progress Notes** | | | Daily updates entered into the medical record documenting changes in nutritional intake or status; may be structured or unstructured formats. | |
| **Nutrition Referral** | | | To send or direct to a qualified nutrition expert (i.e., RD or DTR) for nutrition assessment, diagnosis, intervention or monitoring and evaluation. | |
| **Nutrition Screening** | | | A process to identify an individual who may be malnourished or at risk for malnutrition to determine if a detailed nutrition assessment is indicated. | |
| **Nutritional Supplement** | | | A preparation intended to supplement the diet and provide [nutrients,](http://en.wikipedia.org/wiki/Nutrient) such as [vitamins,](http://en.wikipedia.org/wiki/Vitamin) [minerals,](http://en.wikipedia.org/wiki/Dietary_mineral) [fiber,](http://en.wikipedia.org/wiki/Dietary_fiber) [fatty acids,](http://en.wikipedia.org/wiki/Fatty_acid) or [amino acids,](http://en.wikipedia.org/wiki/Amino_acid) that may be missing or may not be consumed in sufficient quantity in a person's [diet.](http://en.wikipedia.org/wiki/Diet_(nutrition)) Referenced in the HL 7 Glossary: “Supplements: Supplements provide a mechanism for giving any additional desired foods to a patient. Supplements are foods given to a patient regardless of their diet codes. These foods are part of the patient’s diet without being restricted by any other part of the order.” | |
| **Nutrition Support** | | | The provision of enteral or parenteral nutrients to treat or prevent malnutrition. Nutrition Support therapy is part of Nutrition Therapy which is a component of medical treatment that can include oral, enteral, and parenteral nutrition to maintain or restore optimal nutrition status and health. | |
| **Parenteral Nutrition** | | | The delivery of nutrients for assimilation and utilization by a patient whose sole source of nutrients is via solutions administered intravenously, subcutaneously, or by some other non- alimentary route. The basic components of TPN (total parenteral nutrition) solutions are protein hydrolysates or free amino acid mixtures, monosaccharides, and electrolytes. Components are selected for their ability to reverse catabolism, promote anabolism, and build structural proteins. [www.Reference.MD](http://www.reference.md/) | |
| **Physical Activity** | | | 1. Any bodily movement produced by skeletal muscles resulting in energy expenditure<http://www.health.gov/dietaryguidelines> 2. Level of physical activity and/or Amount of exercise performed. IDNT Reference Manual, ed.3, 2011, American Dietetic Association. | |
| **Physical Function** | | | Basic activities of daily living (eating, dressing, toileting, transferring, bathing, and  continence) [www.ncbi.nlm.nih.gov/pubmed/20974088](http://www.ncbi.nlm.nih.gov/pubmed/20974088) | |
| **Problem, Etiology, Signs or Symptoms (PES Statement)** | | | Statement used in documentation of the Nutrition Care Process is composed of three distinct components: Problem, Etiology, and Signs or Symptoms. | |
| **Reference Standards** | | | A basis of value established for the measure of quantity, weight, extent or quality, (e.g., weight standards, standard solutions). | |
| **Registered Dietitian (RD)** | | | A registered dietitian (RD) is a food and nutrition expert who has met academic and professional requirements including: 1. Bachelor's degree with course work approved by ADA's Commission on Accreditation for Dietetics Education. Coursework typically includes food and nutrition sciences, foodservice systems management, business, economics, computer science, sociology, biochemistry, physiology, microbiology and chemistry; 2.  Complete an accredited, supervised, experiential practice program at a health-care facility, community agency or foodservice corporation; 3. Pass a national examination administered by the Commission on Dietetic Registration; 4. Complete continuing professional educational requirements to maintain registration; 5. Some RDs hold additional certifications in specialized areas of practice, such as pediatric or renal nutrition and diabetes education. | |
| **Standard Protocol** | | | Approved model or template for a set of procedures; e.g., nutrition assessment incorporates patient history of food intake and activity, blood laboratory reports, medical diagnosis in a  previously tested and accepted format. | |

1. **Components of ENCPRS Functional Profile (Reference)**

Each function in the ENCPRS Functional Profile is identified and described using a set of elements or components as detailed below.

**Type**

**Priority**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** |  |  | **Name** | **Statement**  **/Description** | **See Also** | **Conformance Criteria** | **Row**  **#** | **FM Source** | | |
| **ID**  **#** | **Criteria**  **#** | **Criteria Status** |
|  |  |  |  |  |  |  |  |  |  |  |

###### Function ID

###### This is the unique identification of a function. Functions inherited from the HL7 International EHR-S FM retain the ID assigned in the model.

* *Direct Care functions are identified by ‘DC’ followed by a number (Example DC.1.1.3.1; DC.1.1.3.2).*
* *Supportive functions are identified by an 'S' followed by a number (Example S.2.1; S.2.1.1).*
* *Information Infrastructure functions are identified by an 'IN' followed by a number (Example IN.1.1; IN.1.2).*

###### Function Type

Indication of the line item as being a header (H) or function (F).

###### Function Priority

Indication that implementation of the function is Essential Now (EN), Essential Future (EFxxxx), Optional (O), or Not Applicable (N/A). The definitions for these priorities are found above.

###### Function Name

The name of the Function (*Example: Entity Authentication*). Functions inherited from the HL7 International EHR-S Functional Model retain the Function Name as stated in the model. Names for new functions added by the authors of the ENCPRS Functional Profile are shown in blue font.

###### Function Statement

Brief statement of the purpose of this function (*Example: Authenticate EHR-S users and/or entities before allowing access to an EHR-S*). Functions inherited from the HL7 International EHR-S Functional Model retain the Function Statement as shown in the model. Statements for new functions added by the authors of the ENCPRS are shown in blue font.

###### Description

Detailed description of the function, including examples if needed (*Example: Both users and applications are subject to authentication. The EHR-S must provide mechanisms for users and applications to be authenticated. Users will have to be authenticated when they attempt to use the application, the applications must authenticate themselves before accessing EHR information managed by other applications or remote EHR-S’…* ) Functions inherited from the HL7 International EHR- S Functional Model retain the portions of the Description shown in the model that are relevant to the dietetics and nutrition practice, with additional industry-specific explanation shown in blue font. Descriptions for new functions added by the authors of the ENCPRS Functional Profile are shown in blue font.

###### See Also

This element is intended to identify relationships between functions.

###### Conformance Criteria

This element displays valuable statements used to determine whether a particular function’s requirements are met. (*Example: The system SHALL authenticate principals prior to accessing an EHR-S application or EHR-S data*). Modifications to conformance criteria inherited from the EHR-S FM are shown in blue font..

###### Row #

This element is provided to help users when navigating the various sections (i.e., a user can reference row #38 of the IN section versus stating function IN.1.6, criterion #5).

###### ENCPRS FP R1 to R2 – Criteria Status

This element is intended to assist with tracing profile content back to the ENCPRS R1 functional profile. The following codes are used to convey the status of the profile’s criteria in relation to R1:

* + **N/C** (No Change) – the criterion is exactly the same as in R1.
  + **N/C R** (No Change except References) – the criterion is functionally the same, but references have changed between R1 and R2
  + **A** (Added) – the criterion was added by the ENCPRS Functional Profile R2 authors and is not found in R1 and is shown in pink high-lighting
  + **B/M** (Base model, EHRS-FM was Modified between R1 and R2) – the criterion has been modified from R1. Text is shown with light blue highlighting
  + **M/F** (Functional profile was Modified between R1 and R2) – the criterion has been modified from ENCPRS-FP R1. Text is shown with light blue highlighting
  + **D** (Deleted) – the criterion from the Functional Model was determined to be inappropriate for the profile and was deleted. Only “SHOULD” and “MAY” criterion can be deleted – “SHALL” criteria from the Functional Model must be inherited by the profile. Deleted functions and/or criteria are highlighted in dark grey.
  + **Include –** This section or function is included from the Functional Model. Include and exclude are not reflections from R1 to R2 but rather specific notation regarding inclusion or exclusion from the base functional model.
  + **Exclude** – This section or function is excluded from the Functional Model. Include and exclude are not reflections from R1 to R2 but rather specific notation regarding inclusion or exclusion from the base functional model.
  + Note that to assist with effectiveness and efficiency, nutrition-specific functions or criteria are highlighted in bright orange.

###### ENCPRS R1 Mapping

This element is intended to assist with tracing profile content back to R1.

1. **Ref****erences**

American Dietetic Association. Evidence Analysis Library® Evidence-Based Nutrition Practice Guidelines. <http://www.adaevidencelibrary.com/default.cfm?library=EBG>

* A synthesis of the best, most relevant nutritional research on important dietetics practice questions in an accessible online subscription format.
* Nutrition Practice Guidelines developed and published are based on expert analysis of reviewed literature.

American Medical Informatics Association (AMIA) [http://www.amia.org](http://www.amia.org/)

* AMIA is the professional home for biomedical and health informatics. AMIA is dedicated to promoting the effective organization, analysis, management, and use of information in health care in support of patient care, public health, teaching, research, administration, and related policy. Members at AMIA advance the use of health information and communications technology in clinical care and clinical research, personal health management, public health/population, and translational science with the ultimate objective of improving health. AMIA has various workgroups including Clinical Research Informatics (CRI) working group.
* The CRI Working Group's mission is to advance the discipline of Clinical Research Informatics (CRI) by fostering interaction, discussion and collaboration among individuals and groups involved or interested in the practice and study of CRI, and to serve as the home for CRI professionals within AMIA.

Certification Committee for Health Information Technology (CCHIT®): <http://www.cchit.org/>

* CCHIT® is a nonprofit, 501(c)3 organization with the public mission of accelerating the adoption of health IT was founded in 2004 and has electronic health records (EHRs) since 2006
* The Commission established the first comprehensive, practical definition of what capabilities were needed in EHRs. The certification criteria were developed through a voluntary, consensus-based process engaging diverse stakeholders, and the Certification Commission was officially recognized by the federal government as a certifying body.

European Institute for Health Records (EuroRec) [www.EuroRec.org](http://www.eurorec.org/)

* The EUROREC Institute (EuroRec) is an independent not-for-profit organization, promoting in Europe the use of high quality Electronic Health Record systems (EHRs). One of its main missions is to support, as the European authorized certification body, EHRs certification development, testing and assessment by defining functional and other criteria.

European Commission: Justice and Home Affairs: Data Protection <http://ec.europa.eu/justice_home/fsj/privacy/index_en.htm>

* Directive 95/46/EC on the protection of individuals with regard to the processing of personal data to protect fundamental rights and freedoms, notably the right to privacy and on the free movement of such data.
* Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications)

Health Level Seven International (HL7) [http://www.HL7.org](http://www.hl7.org/)

* HL7 Electronic Health Record System (EHR-S) Functional Model Release 1.1 (Sep 2010)

HIPAA (Health Insurance Portability and Accountability Act) <http://www.hhs.gov/ocr/privacy/index.html> [http://healthit.hhs.gov/portal/server.pt/community/healthit\_hhs\_gov onc/1200](http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__onc/1200)

* US Health Information Privacy

HITSP (Health Information Technology Standards Panel) [www.hitsp.org](http://www.hitsp.org/)

* "Interoperability Specifications" - documents that harmonize and recommend the technical standards necessary to assure the interoperability of electronic health records and help support the nationwide exchange of healthcare data.

International Dietetics and Nutrition Terminology (IDNT) Reference Manual, 3rd edition, Chicago, IL: American Dietetic Association; 2011

* Publication of standardized language used for the Nutrition Care Process, updated biennially.

*Online Version:* International Dietetics and Nutrition Terminology (IDNT) Reference Manual, 3rd edition, Chicago, IL: American Dietetic Association; 2011 [www.adancp.com](http://www.adancp.com/)

* Online subscription version of the standardized language used for the Nutrition Care Process, updated biennially.

International Standards Organization (ISO) [www.ISO.org](http://www.iso.org/)

* ISO/TR 20514: Health informatics, Electronic health record, Definition, scope and context. 2005-10-17 Nutrition Care Process and Model Part I: the 2008 update. J Am Diet Assoc. Jul 2008; 108(7):1113-1117.

Nutrition Care Process Part II: Using the International Dietetics and Nutrition Terminology to Document the Nutrition Care Process. J Am Diet Assoc. Aug 2008; 108(8):1287-1293.

* Published articles documenting the history, development and use of the Nutrition Care Process and standardized language.

US Health and Human Services (HHS) National Institute of Health (NIH): <http://privacyruleandresearch.nih.gov/>

* The Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule is the first comprehensive US Federal protection for the privacy of personal health information. Research organizations and researchers may or may not be covered by the HIPAA Privacy Rule. This website provides information on the Privacy Rule for the research community.

1. **ENCPRS Functional Profile**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Overarching** | OV.1 | Overarching Criteria | Included | EN |
| **Care Provision** | CP.1 | Manage Clinical History | Included | EN |
| CP.2 | Render externally-sourced information | Included | EN |
| CP.3 | Manage Clinical Documentation | Included | EN |
| CP.4 | Manage Orders | Included | EN |
| CP.5 | Manage Results | Included | EF |
| CP.6 | Manage Medication, Immunization, and Treatment Administration | Included | EF |
| CP.7 | Manage Future Care | Included | EN |
| CP.8 | Manage Patient Education & Coordination | Included | EN |
| CP.9 | Manage Care Coordination & Reporting | Included | EN |
| **Care Provision**  **Support** | CPS.1 | Record Management | Included |  |
| CPS.2 | Support externally-sourced information | Included |  |
| CPS.3 | Support Clinical Documentation | Included |  |
| CPS.4 | Support Orders | Included |  |
| CPS.5 | Support Treatment Administration | TBD?? |  |
| CPS.6 | Support for Results | Included |  |
| CPS.7 | Support for Future Care | Included |  |
| CPS.8 | Support for Patient Education & Communication | Included |  |
| CPS.9 | Support Care Coordination & Reporting | Included |  |
| ~~CPS.10~~ | ~~Manage User Help~~ | Excluded |  |
| **Administrative Support** | AS.1 | Manage Provider Information | Included |  |
| AS.2 | Manage Patient Demographics, Location, and Synchronization | TBD |  |
| AS.3 | Manage Personal Health Record Interaction | TBD |  |
| AS.4 | Manage Communication | TBD |  |
| AS.5 | Manage Clinical Workflow Tasking | TBD |  |
| AS.6 | Manage Resource Availability | TBD |  |
| AS.7 | Support Encounter/Episode of Care Management | TBD |  |
| AS.8 | Manage Information Access for Supplemental User | TBD |  |
| AS.9 | Manage Administrative Transaction Processing | TBD |  |
| **Record**  **Infrastructure** | RI.1 | Record Lifecycle and Lifespan | Included |  |
| RI.2 | Record Synchronization | Included |  |
| RI.3 | Record Archive and Restore | Included |  |
| Tr  **Trust Infrastructure** | TI.1 | Security | Included |  |
| TI.2 | Audit | Included |  |
| ~~TI.3~~ | ~~Registry and Directory Services~~ | Excluded |  |
| TI.4 | Standard Terminology and Terminology Services | Included |  |
| TI.5 | Standards-Based Interoperability | Included |  |
| ~~TI.6~~ | ~~Business Rules Management~~ | Excluded |  |
| ~~TI.7~~ | ~~Workflow Management~~ | Excluded |  |
| TI.8 | Database Backup and Recovery | Included |  |
| TI.9 | Systems Management Operations and Performance | Included |  |

Following is the ENCPRS Functional Profile, which adheres to the format described in the document HL7 International EHR WG: Electronic Health Record- System Functional Model, Release 1, February 2009, *How-To Guide for Creating Functional Profiles.*

**Notes for Reviewing the profile:** The columns under FM Source refer to the original headers, functions, or criteria from the Functional Model, and the column status. The column status indicates whether our functional profile row was changed from the HL7 International EHR Functional Model: no change (N/C), no change except for reference update (N/C R) a modification of the base model R1 to R2 (B/M), a modification to the base model R2 for to be nutrition-specific or an addition (A). Please note: row numbers (far right column) begin at “1” in each section (DC, S, IN) of the functional profile.

**Notes regarding scope:** For this R2 release of the ENCPRS-FP, support for the “Population Health Support” section of the ENRS-FM R2 base functional model is out-of-scope. However, the project team did not exclude because there are no requirements, rather that we sought to limit the scope of the R2 release to keep in-synch with the first project’s scope to allow continuation of the HL7 Normative ballot process to it’s conclusion, that ENCPRS-FP R2 become a Normative Standard. It is expected that a future project will add support for Population Health.

# Chapter 2: Overarching Functions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| OV.1 | **Overarching Criteria** | 1 | Include | DC |
| Function |
| **Statement:** Overarching criteria are those that apply to all EHR Systems.  **Description:** The Overarching Section contains Conformance Criteria that apply to all EHR Systems and consequently must be included in all EHR-S FM compliant profiles. These criteria are grouped under a single Function. | | | | |
|  | **1.** The system SHALL conform to function [CP.9.1](#_bookmark23) (Produce a Summary Record of Care). | 2 | N/C R | DC.1.1.4 |
| **2.** The system SHALL conform to function [CPS.9.3](#_bookmark53) (Health Record Output). | 3 | N/C R | DC.1#24 |
| **3.** The system SHALL conform to function [CPS.9.4](#_bookmark54) (Standard Report Generation). | 4 | N/C R | S.2.2.2 |
| **4.** The system SHALL conform to function [RI.1.1](#_bookmark87) (Record Lifecycle) and all child functions. | 5 | N/C R | TBD |
| **5.** The system SHALL conform to function [RI.1.2](#_bookmark92) (Record Lifespan) and all child functions. | 6 | N/C R | TBD |
| **6.** The system SHALL conform to function [RI.2](#_bookmark94) (Record Synchronization). | 7 | A | DC.1#10 |
| **7.** The system SHALL conform to function [RI.3](#_bookmark95) (Record Archive and Restore). | 8 | N/C R | TBD |
| **8.** The system SHALL conform to function [TI.1.1](#_bookmark98) (Entity Authentication). | 9 | N/C R | DC.1#1 |
| **9.** The system SHALL conform to function [TI.1.2](#_bookmark99) (Entity Authorization) . | 10 | N/C R | DC.1#2 |
| **10.** The system SHALL conform to function [TI.1.3](#_bookmark100) (Entity Access Control). | 11 | N/C R | DC.1#3 |
| **11.** The system SHALL conform to function [TI.1.4](#_bookmark101) (Patient Access Management). | 12 | N/C R | TBD |
| **12.** The system SHALL conform to function [TI.1.5](#_bookmark102) (Non-Repudiation). | 13 | N/C R | DC.1#4 |
| **13.** IF the system transmits data to or receives data from a system outside of a secure network, THEN the system SHALL conform to function [TI.1.6](#_bookmark103) (Secure Data Exchange), to ensure that the data are protected. | 14 | N/C R | DC.1#5 |
| **14.** IF the system transmits data to or receives data from a system outside of a secure network, THEN the system SHALL conform to function [TI.1.7](#_bookmark104) (Secure Data Routing), to ensure that the exchange occurs only among authorized senders and receivers. | 15 | N/C R | DC.1#6 |
| **15.** The system SHALL conform to function [TI.1.8](#_bookmark105) (Patient Privacy and Confidentiality). | 16 | N/C R | DC.1#8 |
| **16.** The system SHALL conform to function [TI.2](#_bookmark106) (Audit) and all child functions. | 17 | N/C R | TBD |
| **17.** The system SHOULD conform to function [TI.3](#_bookmark107) (Registry and Directory Services). | 18 | D | DC.1#14 |
| **18.** The system SHALL conform to function [TI.4](#_bookmark108) (Standard Terminology and Terminology Services). | 19 | N/C R | TBD |
| **19.** IF the system manages data for which standard terminologies have been established, THEN the system SHALL conform to function [TI.4.1](#_bookmark109) (Standard Terminologies and Terminology Models) to support semantic interoperability. | 20 | N/C R | DC.1#15 |
| **20.** IF the system manages data for which standard terminologies have been established, THEN the system SHALL conform to function [TI.4.2](#_bookmark110) (Maintenance and Versioning of Standard Terminologies) to preserve the semantics of coded data over time. | 21 | N/C R | DC.1#16 |
| **21.** IF terminology mapping is implemented within the system, THEN the system SHALL conform to function [TI.4.3](#_bookmark111) (Terminology Mapping). | 22 | D | DC.1#17 |

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|  | **22.** IF the system receives or transmits data for which jurisdictionally established interchange standards exist, THEN the system SHALL conform to function [TI.5.1](#_bookmark113) (Application and Structured-Document Interchange Standards) and all child functions to support interoperability. | 23 | N/C R | DC.1#18 |
| **23.** IF the system receives and transmits data for which generally accepted interchange standards have been established, THEN the system SHALL conform to function [TI.5.2](#_bookmark114) (Interchange Standards Versioning and Maintenance), to accommodate the inevitable evolution of interchange standards. | 24 | N/C R | DC.1#19 |
| **24.** The system SHOULD conform to function [TI.5.3](#_bookmark115) (Standards-based Application Integration). | 25 | D | DC.1#20 |
| **25.** IF the system receives and transmits data with other systems outside itself, THEN the system SHALL conform to function [TI.5.4](#_bookmark116) (Interchange Agreements), to define how the sender and receiver will exchange data. | 26 | N/C R | DC.1#21 |
| **26.** The system SHOULD conform to function [TI.6](#_bookmark117) (Business Rules Management). | 27 | D | DC.1#22 |
| **27.** The system SHOULD conform to function [TI.7](#_bookmark118) (Workflow Management). | 28 | D | DC.1#23 |
| **28.** The system SHALL conform to function [TI.8](#_bookmark119) (Database Backup and Recovery). | 29 | N/C R | TBD |
| **29.** The system SHALL conform to function [CPS.10](#_bookmark55) (Manage User Help). | 31 | N/C R | TBD |
| **30.** The system SHALL conform to function [TI.9](#_bookmark120) (System Management Operations and Performance). | 30 | N/C R | TBD |

# Care Provision Section

## Section Overview

The Care Provision Section contains those functions and supporting Conformance Criteria that are required to provide direct care to a specific patient and enable 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 offices, clinics, hospitals and specialty care centers. The functions in this section are organized in general flow of an encounter; however, it is recognized that encounter flow varies considerably in different care settings and scopes of practice. All functions within the Care Provision Section have an identifier starting with “CP”.

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.1 | **Manage Clinical History** | 32 | Include | DC.1.4 |
| Header |
| **Statement:** Manage the patient's clinical history lists used to present summary or detailed information on patient health history.  **Description:** 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.1.1 | **Manage Patient History** | 33 | Include | DC.1.2 |
| Function |
| **Statement:** Manage medical, procedural/surgical, mental health, substance use, social and family history. This includes pertinent positive and negative histories, patient-reported or externally available patient clinical history.  **Description:** The history of the current illness and patient historical data related to previous medical diagnoses, surgeries and other procedures performed on the patient, clinicians involved in procedures or in past consultations, and relevant health conditions of family members is captured through such methods as patient reporting (e.g., interview, medical alert band) or electronic or non-electronic historical data. This data may take the form of a pertinent positive such as "The patient/family member has had..." or a pertinent negative such as "The patient/family member has not had...". When first seen by a health care provider, patients typically bring with them clinical information from past encounters. This and similar information may supplement locally captured documentation and notes wherever appropriate. Information regarding the patient's living situations may be an important means for a provider to uniquely identify a patient or to identify illnesses that may occur within a given proximity. Information regarding past or present living situations or environmental factors related to the patient or the fetal death may include a description of the father's type of occupation and occupational demographic information (such as the name and location of the employment). For example, it may be important for the clinician to know that the patient works in an occupation where lead exposure is common. It may also be important for the clinician to know that the patient lives in a household where asbestos routinely appears on clothing. | | | | |
|  | **1.** The system SHALL provide the ability to manage current patient history including pertinent positive and negative elements (e.g., diagnosis or ruled out diagnosis), and information on clinicians involved. | 34 | N/C | DC.1.2#1 |
| **2.** The system SHALL provide the ability to manage the identity of clinicians involved in patient history elements according to scope of practice, organizational policy, and/or jurisdictional law. | 35 | B/M | DC.1.2#1 |
| **3.** The system SHOULD conform to function [CPS.2.1](#_bookmark28) (Support externally-sourced Clinical Documents) to capture, store and render previous external patient histories. | 36 | D | DC.1.2#2 |
| **4.** The system SHOULD conform to function [CPS.2.2](#_bookmark29) (Support externally-sourced Clinical Data) to capture, store and render previous external patient histories. | 37 | D |  |
| **5.** The system SHALL provide the ability to capture family history. | 38 | A |  |
| **6.** The system SHALL provide the ability to capture social history. | 39 | A |  |
| **7.** The system SHALL provide the ability to capture as part of the patient history the patient's relationships (e.g., genealogic, living situation, other). | 40 | A | DC.1.2#3 |
| **8.** The system SHALL provide the ability to capture structured data in the patient history (e.g., administrative, social, mental health, geographic location, and/or financial statuses, poverty, orphan, disability, incarceration, incompetence, or remote geographic location). | 41 | A |  |
| **9.** The system SHALL maintain and render documentation made in a non-linear as well as linear temporal and non-temporal sequence. | 42 | A |  |
| **10.** The system SHOULD provide the ability to present multiple levels of data (log view versus readable view) versus not display at all. | 43 | D |  |
| **11.** The system SHOULD provide the ability to capture patient history adhering to a standards-based form or template according to scope of practice, organizational policy, and/or jurisdictional law. | 44 | D |  |
| **12.** The system SHOULD provide the ability to capture an indication of the patient's receipt of social subsidies. | 45 | D |  |
| **13.** The system SHOULD provide the ability to capture Investigational Product (e.g., medication, device, immunization) exposure information including Start Date/time, End Date/Time, Dose Amount, Dose Unit, Study Treatment Name, Route, Formulation as discrete elements. | 46 | D |  |
| **14.** The system SHOULD provide the ability to manage information regarding past or present living situations or environmental factors related to the patient (e.g., war, famine, poverty, political situation, or proximity to dangerous chemicals) according to scope of practice, organizational policy, and/or jurisdictional law. | 47 | D |  |
|  | **15.** The system SHOULD capture and present food and nutrition related history including past diet history/orders, food and nutrient intake, herbal or dietary supplement use, food allergies, knowledge/beliefs/attitudes, behavior, physical activity and function, anthropometric measurements, nutrition diagnoses, nutrition interventions and monitoring results. | 47?? | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.1.2 | **Manage Allergy, Intolerance and Adverse Reaction List** | 47 | Include | DC.1.4.1 |
| Function |
| **Statement:** Manage patient-specific allergy, intolerance and adverse reaction lists.  **Description:** Allergens to substances, (including immunizations), are identified and the list of allergies is captured and maintained over time. Information regarding allergies may be coded or free text; coded information is preferred (where possible). In this function the term "allergy" is used to refer to allergies, intolerances, adverse reactions and sensitivities. All pertinent dates, including patient-reported events, are stored and the description of the patient allergy and adverse reaction is modifiable over time. The entire allergy history, including reaction, for any allergen is viewable. The list(s) includes all reactions including those that are classifiable as a true allergy, intolerance, side effect or other adverse reaction to drug, food or environmental triggers. Notations indicating whether item is patient reported, and/or provider verified are maintained. The term 'true allergy' is defined by the US National Library of Medicine as: an allergy that is caused by a series of chemical steps in the body that produce the allergic reaction. The allergy information that should be captured may vary according to scope of practice, organizational policy, and/or jurisdictional law. For example, the documentation requirements regarding an allergic reaction to a substance that is reportable may require a higher level of data capture. | | | | |
|  | **1.** The system SHALL provide the ability to manage allergy, intolerance, and adverse reaction to drug, food, medical products (e.g., vaccines, biologics, devices, chemicals) or environmental triggers as unique, discrete entries. | 48 | N/C | DC.1.4.1#1 |
| **2.** The system SHOULD provide the ability to manage the reason for the capture, update or removal of the allergy, no-longer-allergic, intolerance, sensitivity, and adverse reaction. | 49 | N/C | DC.1.4.1#2 |
| **3.** The system SHALL provide the ability to manage the reaction type as discrete data. | 50 | N/C | DC.1.4.1#3 |
| **4.** The system SHOULD provide the ability to manage the reaction type as coded data. | 51 | B/M |  |
| **5.** The system SHALL provide the ability to manage the severity of an allergic or adverse reaction as discrete data. | 52 | N/C | DC.1.4.1#4 |
| **6.** The system SHALL provide the ability to manage a report of No Known Allergies (NKA) for the patient. | 53 | N/C | DC.1.4.1#5 |
| **7.** The system SHALL provide the ability to manage a report of No Known Food Allergies (NKFA) for the patient. | 54 | B/M | DC.1.4.1#6 |
| **8.** The system SHOULD provide the ability to manage the source of allergy, intolerance, and adverse reaction information. | 55 | N/C | DC.1.4.1#7 |
| **9.** The system SHALL provide the ability to tag as deactivated an allergy, intolerance or adverse reaction. | 56 | N/C | DC.1.4.1#8 |
| **10.** The system SHALL provide the ability to capture as discrete data the reason for deactivation of an allergy, intolerance or adverse reaction. | 57 | N/C | DC.1.4.1#9 |
| **11.** The system SHALL provide the ability to render an allergy, intolerance, and adverse reaction that has been deactivated. | 58 | A | DC.1.4.1#10 |
| **12.** The system SHOULD provide the ability to render the list of allergies, intolerances and adverse reactions in a user-defined sort order. | 59 | D | DC.1.4.1#11 |
| **13.** The system MAY provide the ability for authorized users to manage configuration parameters that limit user-defined overrides of sort-orders for the rendering of lists of allergies, intolerances, and/ or adverse reactions according to scope of practice, organizational policy, and/or jurisdictional law (e.g., to reduce the confusion when the same list is sorted by severity one day and then by date of- onset the next day). | 60 | B/M |  |
| **14.** The system SHALL provide the ability to tag that the list of allergies, intolerances and adverse reactions has been reviewed. | 61 | A | DC.1.4.1#12 |
| **15.** They system SHALL provide the ability to capture and render the date on which allergy information was entered. | 62 | A | DC.1.4.1#13 |
| **16.** The system SHOULD provide the ability to capture and render the approximate date of the allergy occurrence. | 63 | D | DC.1.4.1#14 |
| **17.** The system SHOULD provide the ability to manage allergy-information as standards-based coded data. | 64 | D |  |
| **18.** The system SHOULD provide the ability to capture and maintain allergy information prior to completion of the medication order. | 65 | D |  |
| **19.** The system SHOULD provide the ability to capture and render that the allergies are "Unknown" or "Unable to Assess Allergies". | 66 | D |  |
| **20.** The system SHOULD provide the ability to capture the reason for "Unknown" or "Unable to Assess Allergies" documentation. | 67 | D |  |
| **21.** The system SHOULD provide the ability to tag records and render to providers that the allergies are "Unknown" or "Unable to Assess Allergies" and need to be updated. | 68 | D |  |
| **22.** The system SHOULD provide the ability to capture free text allergies and render them in a manner that distinguishes them from coded allergy entries. | 69 | D |  |
| **23.** The system SHOULD tag and render an indicator that interaction checking (e.g., drug-allergy checking) will not occur against free text allergies. | 70 | D |  |
| **24.** The system SHOULD provide the ability to render historical allergy information. | 71 | D |  |
|  | **25.** The system MAY provide the ability to link an allergy, intolerance, or adverse reaction with diagnostic results (e.g., laboratory or allergy test result). | 72 | D |  |
|  | **26.** The system SHOULD conform to function [CPS.4.2.1](#_bookmark41) (Support for Medication Interaction and Allergy Checking) to render any potential interactions when capturing or maintaining allergies, intolerances or adverse reactions. | 73 | D |  |
|  | **27.** The system SHOULD capture an indicator that a provider was presented with, and acknowledged, a drug interaction notification. | 74 | D |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.1.3 | **Manage Medication List** | 75 | Include | DC.1.4.2 |
| Function |
| **Statement:** Create and maintain patient-specific medication lists.  **Description:** Medication lists are managed over time, whether over the course of a visit or stay, or the lifetime of a patient. The entire medication history for any medication including, over-the-counter products, alternative supplements and herbal medications, is viewable. Medication lists are not limited to provider orders/prescriptions but may also include, for example, pharmacy dispensed medications without prescription, over the counter medications and patient-reported medications, etc. All pertinent dates, including medication start, modification, and end dates are stored. Medication Lists may also include additional information such as age-specific dosage. | | | | |
|  | **1.** The system SHALL provide the ability to manage a patient-specific medication list based on current medication orders or prescriptions. | 76 | N/C | DC.1.4.2#1 |
| **2.** The system SHALL provide the ability to manage as discrete data the details of the medication information including name of the medication ordered, medication identifier (e.g., RxNORM), prescriber, ordering date, SIG (e.g., dose amount and quantity, timing, duration and route, and/or site of administration), quantity, formulation and ancillary instructions according to scope of practice, organizational policy, and/or jurisdictional law. | 77 | N/C | DC.1.4.2#3 |
| **3.** The system SHALL provide the ability to manage as discrete data the Study Treatment Name for any captured Investigational Product Exposures according to scope of practice, organizational policy, and/or jurisdictional law. | 78 | N/C |  |
| **4.** The system SHOULD provide the ability to capture all dates associated with medications including start, end, and discontinuation dates according to scope of practice, organizational policy, and/or jurisdictional law. | 79 | N/C | DC.1.4.2#4 |
| **5.** The system SHALL provide the ability to capture and maintain current and historical patient-specific medications in the Medication List. | 80 | N/C | DC.1.4.2#5 |
| **6.** The system SHALL provide the ability to capture non-prescription medications including over the counter and complementary medications such as vitamins, herbs and supplements. | 81 | N/C | DC.1.4.2#6 |
| **7.** The system SHALL provide the ability to render the medication history associated with a patient. | 82 | N/C | DC.1.4.2#8 |
| **8.** The system SHALL provide the ability to tag a medication as "erroneously captured". | 83 | N/C | DC.1.4.2#10 |
| **9.** The system SHALL provide the ability to render a Medication List excluding medications that have been tagged as "erroneously captured". | 84 | N/C |  |
| **10.** The system SHALL render an indicator that a medication is tagged as "erroneously captured" when that medication is rendered in a Medication List. | 85 | A |  |
| **11.** The system SHALL provide the ability to render a current medication list for patient use. | 86 | A | DC.1.4.2#11 |
| **12.** The system SHOULD provide the ability to capture and render information regarding the filling of prescriptions - prior to the prescription being dispensed. | 87 | D | DC.1.4.2#12 |
| **13.** The system SHOULD provide the ability to capture and render a notification that a prescription cannot be filled. | 88 | D |  |
| **14.** The system SHOULD provide the ability to capture and render a notification that a prescription cannot be dispensed. | 89 | D |  |
| **15.** The system SHOULD provide the ability to receive current medications and a medication history from an external source (e.g., a plan, payer or pharmacy). | 90 | D |  |
| **16.** The system SHOULD provide the ability to tag that a medication history is unavailable or incomplete. | 91 | D |  |
| **17.** The system SHALL provide the ability to capture a description of the medication and a reason for the medication when the medication name is unknown (e.g., if patient has received medication from external source and does not have the name, and/or the name is not in the system formulary). | 92 | A |  |
| **18.** The system SHALL provide the ability to tag and render, on the active medication list, active medications that the patient brings from home to take while hospitalized, which the Pharmacy may not dispense, according to scope of practice, and/or organizational policy. | 93 | A |  |
| **19.** The system SHOULD provide the ability to maintain the medication list with changes from pharmacist verification including pharmacist, date, and time. | 94 | D |  |
| **20.** The system SHOULD provide the ability to manage the reason or indication for the medication when recording historical medications or medications from external sources (e.g., from home or other provider). | 95 | D |  |
| **21.** The system SHOULD provide the ability to update a medication order directly from the medication list. | 96 | D |  |
| **22.** The system SHALL conform to function [CPS.4.2.1](#_bookmark41) (Support for Medication Interaction and Allergy Checking) to render any potential interactions when capturing or maintaining medications. | 97 | A |  |
|  | **23.** The system SHALL provide the ability to capture free text medications and render them in a manner that distinguishes them from coded medication entries. | 98 | A |  |
|  | **24.** The system SHALL render an indicator that interaction checking will not occur against free text medications at the time of their capture. | 99 | A |  |
|  | **25.** The system SHOULD provide the ability to render side effects of medications from the medication list that have been previously experienced by the patient. | 100 | D |  |
|  | **26.** The system SHOULD provide the ability to render potential side effects of medications from the medication list. | 101 | D |  |
|  | **27.** The system SHALL provide the ability to capture and render that the patient takes no medications. | 102 | A |  |
|  | **28.** The system SHALL provide the ability to render active medications as defined by user requirements and according to scope of practice, organizational policy, and/or jurisdictional law (e.g., including medications that may still have a physiologic effect long after last administration). | 103 | A |  |
|  | **29.** The system SHOULD provide the ability to render non-active medications or prescriptions for inclusion in current medication screening. | 104 | D |  |
|  | **30.** The system MAY provide the ability to capture medication self-administration details including timestamps, observations, complications, and reason if medication dose was not taken. | 105 | D |  |
|  | **31.** The system SHALL capture, maintain and present pre-admission medications according to scope of practice, and/or organizational policy. | 106 | A |  |
|  | **32.** The system SHALL present pre-admission medications at the time of discharge according to scope of practice, and/or organizational policy. | 107 | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.1.4 | **Manage Problem List** | 108 | Include | DC.1.4.3 |
| Function |
| **Statement:** Create and maintain patient-specific problem lists.  **Description:** 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. Problem lists are managed over time, whether over the course of a visit or stay or the life of a patient, allowing documentation of historical information and tracking the changing character of problem(s) and their priority. The source (e.g., the provider, the system id, or the patient) of the updates should be documented. All pertinent dates are stored, including date noted or diagnosed, dates of any changes in problem specification or prioritization, and date of resolution. This might include time stamps, where useful and appropriate. The entire problem history for any problem in the list is viewable. | | | | |
|  | **1.** The system SHALL provide the ability to manage, as discrete data, all active problems associated with a patient. | 109 | N/C | DC.1.4.3#1 |
| **2.** The system SHALL capture, maintain and render a history of all problems associated with a patient. | 110 | N/C | DC.1.4.3#2 |
| **3.** The system SHALL provide the ability to manage the status of each problem (e.g., active, inactive, resolved). | 111 | A |  |
| **4.** The system SHALL provide the ability to manage relevant dates including the onset date and date(s) of problem status change (e.g., inactivation or resolution date). | 112 | N/C | DC.1.4.3#3 |
| **5.** The system SHALL provide the ability to manage information about the chronicity duration (e.g., chronic, acute/self-limiting) of a problem. | 113 | N/C | DC.1.4.3#4 |
| **6.** The system SHOULD provide the ability to manage information regarding the information source (i.e. informant) of the problem. | 114 | N/C | DC.1.4.3#5 |
| **7.** The system SHALL conform to function [RI.1.1.17](#_bookmark89) (Deprecate/Retract Record Entries) to enable the inactivation or deprecation of a problem. | 115 | N/C R | DC.1.4.3#6 |
| **8.** The system MAY provide the ability to update an inactive problem in order to re-activate it. | 116 | N/C | DC.1.4.3#7 |
| **9.** The system SHOULD provide the ability to render the list in a user-defined sort order. |  | D |  |
| **10.** The system SHALL provide the ability to render only active problems. | 117 | A | DC.1.4.3#9 |
| **11.** The system SHOULD provide the ability to link one or more problem(s) in the Problem list to encounters. | 118 | D | DC.1.4.3#10 |
| **12.** The system MAY provide the ability to link one or more problem(s) in the Problem List to medications. | 119 | D |  |
| **13.** The system MAY provide the ability to link one or more problem(s) in the Problem list to orders. | 120 | D |  |
| **14.** The system MAY provide the ability to link one or more problem(s) in the Problem list to medical equipment. | 121 | D |  |
| **15.** The system MAY provide the ability to link one or more problem(s) in the Problem list to prosthetic/ orthotic devices. | 122 | D |  |
| **16.** The system MAY provide the ability to link one or more problem(s) in the Problem list to notes. | 123 | D |  |
| **17.** The system SHALL provide the ability to link orders, medical equipment, prosthetic/orthotic devices, and medications to one or more codified problems. | 124 | A |  |
| **18.** The system SHALL provide the ability to capture free text problems and render them in a manner that distinguishes them from coded problem entries. | 125 | A |  |
| **19.** The system SHALL tag and render an indicator that interaction checking will not occur against free text problems. | 126 | A |  |
| **20.** The system SHALL provide the ability to capture a problem into the problem list using standardized coding schemas (e.g., ICD or SNOMED). | 127 | A |  |
| **21.** The system SHALL provide the ability to manage free text comments associated with the problem. | 128 | A |  |
| **22.** The system MAY provide the ability to manage the severity of a problem using a standards-based classification scheme. | 129 | D |  |
| **23.** The system SHOULD provide the ability to link actions taken and outcomes with a problem. | 130 | D |  |
| **24.** The system MAY provide the ability to manage problems for known genetically based illnesses (e.g., single allele carrier status of a genetic trait or disease) according to scope of practice, organizational policy, and/or jurisdictional law. | 131 | D |  |

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|  | **25.** The system MAY provide the ability to manage a known single allele carrier status of a genetic trait or disease according to scope of practice, organizational policy, and/or jurisdictional law, and subject to patient's preferences and consent. | 132 | D |  |
| **26.** The system SHOULD provide the ability to manage the linking of problems on the problem list, i.e., creating hierarchies or nestings within the problem list. | 133 | D |  |

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| **Section/Id#:**  **Type:**  **Name:** | | **Conformance Criteria** | | **Row#** | | **Criteria Status** | **Mapping to R1** |
| CP.1.5 | **Manage Health-Related Factors List** | | 134 | | A | | S3.3 |
| Function |
| **Statement:** Manage patient-specific health-related factors.  **Description:** A patient's strengths (positive factors) or weaknesses (negative factors) may impact a patient's care or recovery and may be recorded as part of the EHR to support the development of care plans and treatment options. Examples of health factors include family support, financial support, health insurance levels, overall health, personal health behaviors (e.g., tobacco, physical activity, sleep), body mass index, employment status/type, access to care, or education level. Note that heath factors may be included in the Problem list (CP.1.4) which may include problems or strengths (e.g., ambulatory status or addictions). An example of an active patient-specific strength is an elderly parent receiving care from an adult child during the adult child's summer break from college. A patient's care may be affected by certain positive or negative factors. For example, coverage by insurance (a positive health factor) versus unemployment (a negative health factor). | | | | | | | |
|  | **1.** The system SHALL provide the ability to manage, as discrete data, patient-specific Health-Related Factors. | | 135 | | A | |  |
| **2.** The system SHALL provide the ability to manage the source of information regarding patient-specific Health-Related Factors. | | 136 | | A | |  |
| **3.** The system SHALL conform to function [RI.1.1.17](#_bookmark89) (Deprecate/Retract Record Entries) to enable the inactivation or deprecation of a patient-specific Health-Related Factors. | | 137 | | A | |  |
| **4.** The system MAY provide the ability to update a patient-specific Health-Related Factors to re-activate a previously deactivated patient-specific Health-Related Factors. | | 138 | | D | |  |
| **5.** The system SHOULD provide the ability to link encounters, orders, medications and notes to one or more patient-specific Health-Related Factors. | | 139 | | D | |  |
| **6.** The system SHOULD provide the ability to capture a patient-specific Health-Related Factors using standardized coding schemes (e.g., a standardized Nursing Diagnosis coding system). | | 140 | | D | |  |
| **7.** The system SHOULD provide the ability to capture free text patient-specific Health-Related Factors and render them in a manner that distinguishes them from coded patient-specific Health-Related Factor entries. | | 141 | | D | |  |
| **8.** The system SHOULD tag and render an indicator that interaction checking will not occur against free text patient-specific Health-Related Factors. | | 142 | | D | |  |
| **9.** The system SHOULD provide the ability to manage free text comments associated with patient- specific Health-Related Factors. | | 143 | | D | |  |
| **10.** The system SHOULD provide the ability to link actions taken (e.g., placing an order for home health aid) and outcomes (e.g., family providing additional home support) with patient-specific Health- Related Factors (e.g., living alone). | | 144 | | D | |  |
| CP.1.6 | **Manage Immunization List** | | 145 | | D | | DC1.4.4 |
| Function |
| **Statement:** Create and maintain patient-specific immunization lists.  **Description:** Immunization lists are managed over time, whether over the course of a visit or stay, or the lifetime of a patient. Details of immunizations administered are captured as discrete data elements including date, type, manufacturer and lot number. The entire immunization history is viewable. | | | | | | | |
|  | **1.** The system SHOULD provide the ability to manage all immunizations associated with a patient. | | 146 | | D | |  |
| 1. The system SHOULD provide the ability to maintain immunization details, as discrete data, including:    * the immunization name/type, seqeunce number in the series & series identifier, strength and dose;    * the date and time of administration; - manufacturer, lot number, expiration date, - route and site of administration; - administering provider; - observations, reactions and complications; - reason immunization not given, and/or immunization related activity not performed; according to scope of practice, organizational policy, and/or jurisdictional law. | | 147 | | D | |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **3.** The system SHALL provide the ability to manage, as discrete elements, data associated with an immunization that was not given to a patient (e.g., due to a contraindication or a patient's refusal). Data associated with an immunization that was not given to a patient includes date-and-time, immunization type, series, exception reason, and immunization-withholding provider. | 148 | D |  |
| **4.** The system SHALL provide the ability to render (e.g., print or transmit) a report of a patient's immunization history (e.g., for appropriate authorities such as schools, day-care centers or public health immunization registries) according to scope of practice, organizational policy, and/or jurisdictional law. | 149 | D |  |
| **5.** The system SHALL provide the ability to capture the currently recommended date for a companion immunization (e.g., a subsequent or booster dose) with each immunization (if such a companion immunization is needed). | 150 | D |  |
| **6.** The system SHALL provide the ability to capture, maintain and render population-based immunization schedules from relevant public health immunization authorities (e.g., CDC for US realm). | 151 | D |  |
| CP.1.7 | **Manage Medical Equipment, Prosthetic/Orthotic, Device List** | 152 | Include |  |
| Function |
| **Statement:** Create and maintain a patient-specific list of medical equipment, medical prosthetic, orthotic, and/or implantable devices.  **Description:** Details of medical equipment, orthotic/prosthetic, and/or devices are captured as discrete data elements including information such as device type, date issued, date implanted or manufactured, device model number, device serial/lot number, manufacturer, supplier, involved extremity, anatomical location, date of battery change, and other data elements which many be required to correctly identify and track the equipment/device. The list may link to external sources, such as the US Food and Drug Administration (FDA), so that the provider may be alerted if the medical device is recalled. The entire equipment, prosthetic, orthotic, and/or implantable device list is able to be rendered. | | | | |
|  | **1.** The system SHALL provide the ability to manage, as discrete data, a patient-specific list of specialized medical equipment, prosthetic, orthotic, and/or implantable devices. | 153 | A |  |
| **2.** The system SHALL provide the ability to capture, maintain and render, as discrete data, the description of each instance of use of specialized medical equipment, prosthetic, orthotic, and/or implantable device. | 154 | A |  |
| **3.** The system SHOULD provide the ability to capture, maintain and render the reason for each instance of use of specialized medical equipment, prosthetic, orthotic, and/or implantable device. | 155 | D |  |
| **4.** The system SHALL provide the ability to capture, maintain and render the specific type of specialized medical equipment, prosthetic, orthotic, and/or implantable device. | 156 | A |  |
| **5.** The system SHALL provide the ability to capture an indication of No Known specialized medical equipment, prosthetic, orthotic, and/or implantable device for the patient. | 157 | A |  |
| **6.** The system SHOULD provide the ability to capture, maintain and render, as discrete data, information necessary to identify and track the equipment/device including, at a minimum: type, manufacturer, manufacture date, date implanted (or placed into service), date removed/discontinued, model/serial number, anatomical location and any unique device identifier (e.g., UDI in US). | 158 | D |  |
| **7.** The system SHOULD provide the ability to tag as deactivated and capture reason for deactivation, an entry in the list when the specialized medical equipment, prosthetic, orthotic, or implantable device is no longer in use by the patient. | 159 | D |  |
| **8.** The system MAY provide the ability to update an entry in the list to re-activate a previously deactivated specialized medical equipment, medical prosthetic, orthotic, or implantable device. | 160 | D |  |
| **9.** The system SHALL provide the ability to render a list of deactivated specialized medical equipment, prosthetic, orthotic, or implantable devices including the reason for deactivation. | 161 | A |  |
| **10.** The system MAY provide the ability to capture the date of the next scheduled equipment or device maintenance. | 162 | D |  |
| **11.** The system MAY provide the ability to capture equipment or device maintenance instructions. | 163 | D |  |

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| Section/Id#:  Type:  Name: | Conformance Criteria | **Row#** | **Criteria Status** | | **Mapping to R1** | |
| CP.1.8 | **Manage Patient and Family Preferences** | 164 | Include | | DC.1.3.1 | |
| Function |
| **Statement:** Capture and maintain patient and family preferences.  **Description:** This function is focused on the capture and maintenance of facts on patient/family preferences. Patient and family preferences regarding issues such as language, religion, spiritual practices and culture may be important to the delivery of care. It is important to capture these so that they will be available to the provider at the point of care. Patient/Family preferences differ from social history and Advance Directives as follows: Social history refers primarily to elements of a patient's background that may impact on the patient's health (e.g., smoking, drinking, occupation, abuse, etc.). Advance Directives refers to requests regarding care when the patient is unable to competently make decisions about their own care (e.g., Do Not Resuscitate orders, living wills). | | | | | | |
|  | **1.** The system SHALL provide the ability to manage patient preferences (e.g., language(s), religion, spiritual and cultural practices). | 165 | N/C | DC.1.3.1#1 | |
| **2.** The system SHALL provide the ability to manage family preferences (e.g., language(s), religion, spiritual and cultural practices). | 166 | N/C | DC.1.3.1#2 | |
| **3.** The system SHOULD provide the ability to manage patient and family preferences based on business rules. | 167 | N/C | DC.1.3.1#3 | | |
| **4.** The system SHOULD provide the ability to render, at appropriate decision points, patient and family preferences as they pertain to current and planned treatment plans and orders. | 168 | A |  | | |
| **5.** The system SHOULD provide the ability to integrate patient and family preferences with appropriate health education materials (e.g., dietary advice based on dietary preference). | 169 | A |  | | |
| **6.** The system SHOULD conform to function [CPS.1.7.1](#_bookmark26) (Support for Patient and Family Preferences). | 0 | A |  | | |
| CP.1.9 | **Manage Adverse Events** | 170 | Include | | DC.1.4.1 | | |
| Function |
| **Statement:** Capture and maintain adverse events.  **Description:** This function is focused on the capture and maintenance of adverse events that have occurred to the patient. The system should capture discrete information about the adverse event to enable the rendering Serious Adverse Event (SAE) reports according to organizational policy, and or jurisdictional law. Reporting may conform to the HL7 Individual Case Safety Reporting (ICSR). | | | | | | | |
|  | **1.** The system SHALL provide the ability to manage adverse events associated with a patient. | 171 | B/M | | DC.1.4.1#1 | | |
| **2.** The system SHALL capture and maintain as discrete data an adverse event. For example: a) Patient identification, b) Event date/time, c) Event description, d) Event severity, e) Event category (e.g., medication error, fall), f) Care providers associated with the event according to scope of practice, organizational policy, and/or jurisdictional law. | 172 | B/M | | DC.1.4.1#1 | | |
| **3.** The system SHALL provide the ability to capture and render a Serious Adverse Event (SAE) report according to organizational policy, and/or jurisdictional law. | 173 | A | |  | | |
| **4.** The system MAY provide the ability to render a set of Serious Adverse Event (SAE) data as modeled by the current release of HL7 ICSR (Individual Case Safety Reporting). | 174 | D | |  | | |

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| Section/Id#:  Type:  Name: | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.2 | **Render externally-sourced Information** | 175 | Include | DC.1.1.3 |
| Function |
| **Statement:** Render documentation and data that has been captured from multiple external **sources**.  **Description:** Documentation and data relevant to the patient record can be captured from many external sources and should be rendered appropriately alongside other information in the patient record. External sources are those outside the EHR system, including clinical, administrative, and financial information systems, other EHR systems, Personal Health Record (PHR) systems, and data received through health information exchange networks. | | | | |
|  | **1.** The system SHOULD provide the ability to render a tag that patient health information is externally sourced when such information is rendered. | 0 | B/M |  |
| CP.2.1 | **Render externally-sourced Clinical Documents** | 176 | B/M |  |
| Function |
| **Statement:** Render clinical documentation that has been captured from multiple external sources.  **Description:** Documentation relevant to the patient record can be captured from many external sources and should be rendered appropriately alongside other information in the patient record. | | | | |
|  | **1.** IF the system conforms to [CPS.2.1](#CP.9_Manage_Care_Coordination_&_Reportin) (Support for externally-sourced Clinical Documents), THEN the system SHALL provide the ability to render externally-sourced clinical documents. | 177 | B/M |  |
| CP.2.2 | **Render externally-sourced Data** | 178 | B/M |  |
| Function |
| **Statement:** Render data that has been captured from multiple external sources.  **Description:** Data relevant to the patient record can be captured from many external sources and should be rendered appropriately alongside other information in the patient record (e.g., product labeling information should be rendered alongside the patient's record). | | | | |
|  | **1.** IF the system conforms to [CPS.2.2](#CP.9_Manage_Care_Coordination_&_Reportin) (Support for externally-sourced Clinical data), THEN the system SHALL provide the ability to render externally-sourced clinical data. | 179 | B/M |  |
| CP.2.3 | **Render Emergency Medical System Originated Data** | 180 | Excluded |  |
| Function |
| **Statement:** Render emergency medical data that has been captured from multiple external sources.  **Description:** Emergency medical data relevant to the patient record can be captured from many external sources and should be rendered appropriately alongside other information in the patient record. | | | | |
|  | **1.** IF the system conforms to CPS.2.3 (Support Emergency Medical System Originated Data), THEN the system SHALL provide the ability to render Emergency Medical System Originated Data. | 181 | D |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.2.4 | **Render externally-sourced Clinical Images** |  | Excluded |  |
| Function |
| **Statement:** Render clinical images that has been captured from multiple external sources.  **Description:** Clinical Images relevant to the patient record can be captured from many external sources and should be rendered appropriately alongside other information in the patient record. | | | | |
|  | **1.** IF the system conforms to [CPS.2.4](#CP.9_Manage_Care_Coordination_&_Reportin) (Support externally-sourced Clinical Images), THEN the system SHALL provide the ability to render externally-sourced clinical images. | 183 | D |  |
| CP.2.5 | **Manage Patient-Originated Data** | 184 | Include | DC.1.1.3.2 |
| Function |
| **Statement:** Capture and explicitly label patient-originated data, link the data source with the data, and support provider authentication for inclusion in patient health record as well as subsequent rendering of the information as part of the health record.  **Description:** It is critically important to be able to distinguish clinically authored and authenticated data from patient-originated data that is either provided by the patient for inclusion in the EHR or entered directly into the EHR by the patient from clinically authenticated data. Patients may provide data for entry into the health record or be given a mechanism for entering this data directly. Patient-originated data intended for use by providers will be available for their use.  Data about the patient may be appropriately provided by:   1. the patient; 2. a surrogate (parent, spouse, guardian) or 3. an informant (teacher, lawyer, case worker) 4. devices (e.g., blood pressure/sugar monitors).   An electronic health record may provide the ability for direct data entry by any of these. Patient-originated data may also be captured by devices and transmitted for inclusion into the electronic health record.  Data entered by any of these must be stored with source information. A provider must authenticate patient-originated data included in the patient's legal health record. A provider must be able to indicate they have verified the accuracy of patient-originated data (when appropriate and when a verification source is available) for inclusion in the patient record. Such verification does not have to occur at each individual data field and can be at a higher level of the data. | | | | |
|  | **1.** The system SHALL provide the ability to capture patient- originated data and tag that data as such. | 185 | N/C | DC1.1.3.2#1 |
| **2.** IF the system provides the ability for the patient to capture data directly, THEN the system SHALL tag the data as patient captured. | 186 | N/C | DC1.1.3.2#2 |
| **3.** The system SHALL provide the ability to render patient-originated data. | 187 | N/C | DC1.1.3.2#4 |
| **4.** The system SHOULD provide the ability for an authorized user to annotate, but not alter, patient- originated data. | 188 | N/C | DC1.1.3.2#6 |
| **5.** The system SHOULD provide the ability to capture patient-originated annotations on provider- sourced data and tag the annotations as patient-sourced. | 189 | N/C |  |
| **6.** IF the system conforms to [CPS.2.1](#CP.9_Manage_Care_Coordination_&_Reportin) (Support for externally-sourced Clinical documents), THEN the system SHALL provide the ability to render externally-sourced clinical documents. | 190 | N/C |  |
| CP.3 | **Manage Clinical Documentation** | 191 | Include |  |
| Header |
| **Statement:** Clinical Documentation must be managed including the capture of the documentation during an encounter, maintenance and appropriate rendering.  **Description:** Clinical documentation includes all documentation that the clinician may capture during the course of an encounter with the patient or relevant to the patient. This includes assessments, clinical measurements, clinical documents and notes, patient-specific care and treatment plans. Management of clinical documentation also includes the acknowledgement and amendments of documentation provided by other providers. | | | | |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.3.1 | **Conduct Nutrition Assessments** | 192 | Include | DC.1.5 |
| Function |
| **Statement:** Create and maintain nutrition assessments.  **Description**: During an encounter with a patient, the provider will conduct an assessment that is germane to the age, gender, developmental or functional state, medical and behavioral condition of the patient, such as growth charts, developmental profiles, nutrition screening, nutrition assessments, and disease specific assessments. Wherever possible, this assessment should follow industry standard protocols although, for example, an assessment for an infant will have different content than one for an elderly patient. When a specific standard nutrition assessment does not exist, a unique nutrition assessment can be created, using the format and data elements of similar standard assessments whenever possible. | | | | |
|  | 1. The system **SHALL** provide the ability to create nutrition assessments. | 195 | N/C |  |
| 2. The system **SHOULD** provide the ability to use standardized nutrition assessments where they exist. | 196 | N/C |  |
| 3. The system **SHOULD** provide the ability to document using standard assessments germane to the age, gender, developmental state, and health condition as appropriate to the EHR user’s scope of practice. | 197 | N/C |  |
| 4. The system **SHOULD** provide the ability to capture data relevant to standard nutrition assessment. | 198 | N/C |  |
| 5. The system **SHOULD** provide the ability to capture additional data to augment the standard assessments relative to variances in medical conditions. | 199 | N/C |  |
| 6. The system **SHOULD** provide the ability to link data from a standard assessment and nutrition assessment to a problem list. | 200 | N/C |  |
| 7. The system **SHOULD** provide the ability to link data from a standard assessment and nutrition assessment to an individual care plan. | 201 | N/C |  |
| 8. The system **MAY** provide the ability to link nutrient intake analysis data from external sources, laboratory results, nutrient intake analysis, and radiographic results to the standard assessment. | 202 | N/C |  |
| 9. The system **SHOULD** provide the ability to compare documented data against standardized curves and display trends. | 203 | N/C |  |
| 10. The system **SHOULD** conform to function IN.1.4 (Patient Access Management). | 204 | N/C |  |
| 11. The system **SHALL** conform to function IN.2.2 (Auditable Records). | 205 | N/C |  |
| **12.** The system SHOULD conform to function [CPS.3.2](#_bookmark35) (Support for Patient Context-Driven Assessments). | 206 | D |  |
| **13.** The system SHOULD provide the ability to render prior versions of completed recognized-standard, and/or locally-defined assessment information. | 207 | D |  |
| **14.** The system SHOULD provide the ability to analyze the schedule of mandated assessments, render a proposed schedule, and capture the assessment appointments. | 208 | D |  |
| **15.** The system MAY determine and render a proposed list of assessments based on context-related information (e.g., chief complaint, length of stay, abnormal vital signs, or response to medication). | 209 | D |  |
| **16.** The system SHOULD provide the ability to capture, render and store assessment information and the final score as discrete data as appropriate. | 210 | D |  |
| **17.** The system SHOULD provide the ability to analyze by comparing "elements of assessments captured by the clinician" to "those elements of assessments designated by the organization as best practice assessments, and/or evidence-based resources" and render the results of the analysis. | 211 | D |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** | |
| CP.3.2 | **Manage Patient Clinical Measurements** | 212 | Include |  | |
| Function |
| **Statement:** Capture and manage patient clinical measures, such as vital signs, as discrete patient data.  **Description:** Within the context of an episode of care, patient measures such as vital signs are captured and managed as discrete data to facilitate reporting and provision of care. Other clinical measures (such as expiratory flow rate, size of lesion, etc.) are captured and managed, and may be discrete data. | | | | | |
|  | **1.** The system SHALL provide the ability to capture patient vital signs (e.g., blood pressure, temperature, heart rate, respiratory rate, and pain scale) as discrete elements of structured or unstructured data. | 213 | N/C |  | |
| **2.** The system SHOULD provide the ability to capture other clinical measures (e.g., peak expiratory flow rate, size of lesions, oxygen saturation, height, weight, length, body mass index and severity of pain) as discrete elements of either structured or unstructured data. | 214 | N/C |  | |
| **3.** The system SHOULD provide the ability to determine additional values within an assessment based on discrete or atomic elements (e.g., Body Mass Index based on height and weight). | 215 | D |  | |
| **4.** The system SHOULD provide the ability to import or receive clinical measurements (e.g., bone density, bone age, cardiac rhythm) from an ancillary system or external device (e.g., Holter monitor) as discrete elements of either structured or unstructured data. | 216 | D |  | |
| **5.** The system SHALL provide the ability to capture mood, behavior and daily functioning as structured or unstructured data. | 217 | N/C |  | |
| **6.** The system SHOULD provide the ability to determine and render percentile values when data with normative distributions are entered. | 218 | D |  | |
| **7.** The system SHOULD provide the ability to determine based on information provided, normal ranges for numeric, as well as normal values for non-numeric, data (e.g., presence or absence of physical findings based on developmental stage) based on age and other parameters such as height, weight, ethnicity or gestational age. | 219 | D |  | |
| **8.** The system MAY provide the ability to render target clinical measurement values according to scope of practice, organizational policy, and/or jurisdictional law (e.g., mean target total blood cholesterol of 199 mg/dL as recommended by Public Health authorities). | 220 | D |  | |
| **9.** The system SHALL provide the ability to capture both the time the clinical measurement was taken as well as the time it was entered into the system, including measurements from an ancillary system or external device. | 221 | N/C |  |
| **10.** The system SHOULD provide the ability to capture, as discrete data, clinical measurement (including vital signs) contextual information (e.g., methods used for the vital signs measurements, position of patient). | 222 | D |  |
| **11.** The system SHOULD provide the ability to render trends of clinical measurements. | 223 | D |  |
| **12.** The system SHOULD provide the ability to render growth charts that include growth data (weight, length or height and head circumference) on a graph that includes normative data plotted against population-based normative curves by age ranges, gender and ethnicity of the respective normative data (e.g., females 0-36 months). | 224 | D |  |
| **13.** The system SHOULD determine and render the number of standard deviations from the mean when data with normal distributions are captured. | 225 | D |  |
| **14.** The system SHOULD provide the ability to capture, store and render data using different units of measurement (e.g., grams, kilograms and pounds). | 226 | D |  |
| **15.** The system MAY provide the ability to capture and render clinical context for each data point on the growth chart (e.g., ventilated, receiving growth hormone, "Tanner Stage"). | 227 | D |  |
| **16.** The system MAY provide the ability to capture, maintain, and render patient maturity level measurements (e.g., using the "Tanner Stage" method). | 228 | D |  |
| **17.** The system MAY provide the ability to determine post conceptional age (corrected age) for the purposes of decision support. | 229 | D |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** | |
| CP.3.3 | **Manage Clinical Documents and Notes** | 230 | Include |  |
| Function |
| **Statement:** Create, addend, amend, correct, authenticate, maintain, present and close, as needed, transcribed or directly-entered clinical documentation and notes.  **Description:** Clinical documents and notes may be unstructured and created in a narrative form, which may be based on a template, graphic, audio, etc. The documents may also be structured documents that result from the capture of coded data. Each of these forms of clinical documentation is important and appropriate for different users and situations. To facilitate the management and documentation on how providers are responding to incoming data on orders and results, there may also be some free text or formal record on the providers’ responsibility, and/or standard choices for disposition, such as Reviewed and Filed, Recall Patient, or Future Follow Up. The system may also provide support for documenting the clinician’s differential diagnosis process. | | | | |
|  | **1.** The system SHALL provide the ability to capture and render clinical documentation as 'structured', and/or 'unstructured' data. | 231 | B/M |  |
| **2.** The system SHOULD present documentation templates (structured or free text) to facilitate creating documentation. | 232 | B/M |  |
| **3.** The system SHOULD provide the ability to present existing documentation within the patient's EHR while creating new documentation. | 233 | B/M |  |
| **4.** The system SHOULD provide the ability to link documentation with specific patient encounter(s) or event(s) (e.g., office visit, phone communication, e-mail consult, laboratory result). | 234 | N/C |  |
| **5.** The system SHOULD provide the ability to render the list in a user-defined sort order. | 235 | A |  |
| 6. The system SHOULD provide the ability to link clinical documents and notes to one or more problems. | 236 | N/C |  |
| **7.** The system SHALL provide the ability to update documentation prior to finalizing it. | 237 | N/C |  |
| **8.** The system SHALL provide the ability to tag a document or note as final, according to scope of practice, organizational policy, and/or jurisdictional law. | 238 | A |  |
| 9. The system SHALL provide the ability to render all author(s) and authenticator(s) of documentation**.** | 239 | A |  |
| **10.** The system SHOULD provide the ability to render designated documents based on metadata search and filter (e.g., note type, date range, facility, author, authenticator and patient). | 240 | A |  |
| **11.** The system MAY provide the ability for providers to capture clinical document process disposition using standard choices (e.g., reviewed and filed, recall patient, or future follow-up). | 241 | A |  |
| **12.** The system SHOULD provide the ability to capture, maintain and render the clinician's differential diagnosis and the list of diagnoses that the clinician has considered in the evaluation of the patient. | 242 | A |  |
| **13.** The system SHOULD provide the ability to render clinical documentation using an integrated charting or documentation tool (e.g., notes, flow-sheets, radiology views, or laboratory views). | 243 | A |  |
| **14.** The system SHOULD provide the ability to capture clinical documentation using specialized charting tools for patient-specific requirements (e.g., age - neonates, pediatrics, geriatrics; condition - impaired renal function; medication). | 244 | A |  |
| **15.** The system SHOULD provide the ability to capture, maintain and render transition-of-care related information according to scope of practice, organizational policy, and/or jurisdictional law. | 245 | A |  |
| **16.** The system SHOULD provide the ability to tag the status of clinical documentation (e.g., preliminary, final, signed). | 246 | A |  |
| **17.** The system SHOULD provide the ability to tag and render lists of patients requiring follow up contact (e.g., laboratory callbacks, radiology callbacks, left without being seen). | 247 | A |  |
| **18.** The system SHOULD provide the ability to capture patient follow-up contact activities (e.g., laboratory callbacks, radiology callbacks, left without being seen). | 248 | A |  |
| **19.** The system SHOULD provide the ability to save partially completed clinical documentation (i.e., without signature) for later editing and completion. | 249 | A |  |
| **20.** IF the system provides the ability to save partially completed clinical documentation, THEN the system SHALL render this documentation only to the authorized users (e.g., author or author's supervisors). | 250 | A |  |
| **21.** IF the system provides the ability to save partially completed clinical documentation, THEN the system SHOULD provide the ability to tag unsigned documentation. | 251 | A |  |
| **22.** IF the system provides the ability to save partially completed clinical documentation, THEN the system SHOULD render a notification at specified intervals to the author. | 252 | A |  |
| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** | |
| CP.3.4 | **Manage Patient-Specific Nutrition Care and Treatment Plans** | 253 | N/C R | DC.1.6.2 |
| Function |
| **Statement**: Provide administrative tools for healthcare organizations to build care plans, guidelines and protocols for use during patient care planning and care.  **Description**: Nutrition care plans, guidelines or protocols may contain goals or targets for the patient, specific guidance to the providers, suggested orders, and nutrition interventions, among other items, including alerts. Tracking of implementation or approval dates, modifications and relevancy to specific domains or context is provided. Transfer of treatment and nutrition care plans may be implemented electronically using, for example, templates, or by printing plans to paper. | | | | |
|  | 1. The system **SHOULD** provide the ability to capture patient-specific nutrition plans of care and treatment. | 254 | N/C |  |
| 2. The system **SHOULD** conform to DC.1.6.1 (Present guidelines and protocols for Nutrition Planning Care) and provide the ability to use locally or non-locally developed templates, guidelines, and protocols for the creation of patient-specific nutrition plans of care and treatment. | 255 | N/C |  |
| 3. The system **SHALL** provide the ability to use previously developed nutrition care plans as a basis for the creation of new nutrition plans of care and treatment. | 256 | N/C |  |
| 4. The system **SHOULD** provide the ability to track updates to a patient’s plan of nutrition care and treatment including authors, creation date and time, version history, references, local sources and non-local sources in accordance with scope of practice, organizational policy and jurisdictional law. | 257 | N/C |  |
| 5. The system **SHOULD** provide the ability to coordinate order sets with nutrition care plans. | 258 | N/C |  |
| 6. The system **SHOULD** provide the ability to derive order sets from nutrition care plans. | 259 | N/C |  |
| 7. The system **SHOULD** provide the ability to derive nutrition care plans from order sets. | 260 | N/C |  |
| 8. The system **SHOULD** provide the ability to transfer plans of nutrition care and treatment to other care providers outside the system using standards for data exchange. | 261 | N/C |  |
| 9. The system **SHOULD** conform to function DC.3.1.1 (Clinical Task Assignment and Routing) and incorporate nutrition care plan items in the tasks assigned and routed. | 262 | N/C R |  |
| 10. The system **SHOULD** conform to function DC.3.1.2 (Clinical Task Linking) and incorporate nutrition care plan items in the tasks linked. | 263 | N/C R |  |
| 11. The system **SHOULD** conform to function DC.3.1.3 (Clinical Task Tracking) and incorporate nutrition care plan items in the tasks tracked. | 264 | N/C R |  |
| 12. The system **SHALL** conform to function IN.2.2 (Auditable Records). | 265 | N/C R |  |
| 13. The system **MAY** provide the ability to use information from DC.2.1.4 (Support for Patient and Family Preferences) to improve the effectiveness of nutrition care and treatment plans. | 266 | N/C R |  |
| **14.** The system MAY provide the ability to determine and render a care plan review schedule or conference schedule. | 267 | D |  |
| **15.** The system SHALL provide the ability to capture, maintain and render, as discrete data, the reason for variation from rule-based clinical messages (e.g., alerts and reminders). | 268 | D |  |
| **16.** The system SHOULD provide the ability to capture that a patient should not be on a generally recommended care plan and the reason why. | 269 | D |  |
| **17.** The system SHALL provide the ability to capture care processes across the continuum of care. | 270 | D |  |
| **18.** The system SHOULD provide the ability to render care processes from across the continuum of care. | 271 | D |  |
| **19.** The system SHALL provide the ability to render internal care plans, guidelines, and protocols according to scope of practice. | 272 | D |  |
| **20.** The system SHOULD provide the ability to render external care plans, guidelines, and protocols according to scope of practice, and/or organizational policy. | 273 | D |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** | | |
| CP.3.5 | **Acknowledge/Amend Other Provider Documentation** | 274 | Excluded |  | |
| Function |
| **Statement:** Review and indicate or amend other caregiver notes as permitted.  **Description:** Scan/review notes from physicians, nurses, technicians and other members of the health care team (e.g., Respiratory Therapist, Physical Therapist). Annotate for disparities, make additions/amendments and import when desired and permitted. | | | | | |
|  | **1.** The system SHOULD provide the ability to tag documentation by another clinician as read according to scope of practice, organizational policy, and/or jurisdictional law. | 275 | D |  | |
| **2.** The system MAY provide the ability to tag agreement or disagreement with documentation by another provider according to scope of practice, organizational policy, and/or jurisdictional law. | 276 | D |  | |
| **3.** The system SHALL provide the ability for a user (e.g., supervising clinician) to annotate regarding his/her role in advising, and/or providing direct care according to scope of practice, organizational policy, and/or jurisdictional law. | 277 | D |  | |
| **4.** The system SHOULD provide the ability to capture and render a co-signature of documentation according to scope of practice, organizational policy, and/or jurisdictional law. | 278 | D |  | |
| **5.** The system MAY provide the ability to capture the approval of documentation that was captured by another user according to scope of practice, organizational policy, and/or jurisdictional law. | 279 | D |  | |
| CP.4 | **Manage Orders** | 280 | Include | DC.1.7.2.2 | |
| Function |
| **Statement:** Provide the ability to manage clinical orders and results including medication, non-medication, diagnostic tests, blood products, other biologics and referrals, using order sets as appropriate.  **Description:** The provision of clinical care includes the need to order from a variety of treatments using order sets as appropriate as well as reviewing the results of treatment. Orders for treatments may include medications, non-medication therapies (e.g., physical therapy, special diet, immunizations, non-allopathic regimens); diagnostic care (e.g., laboratory, radiology); blood products and other biologics (e.g., blood transfusions, human growth hormones). Patients are often referred to other health care providers for more specialized diagnostic workup, and/or treatment. An effective EHR-S must include support and management of these processes and associated documentation. | | | | | |
|  | **1.** The system SHALL provide the ability to manage role-based, context-based, and/or user-based order entry. | 281 | A |  | |
| **2.** The system SHALL provide the ability to manage the creation, renewal, modification and discontinuation of orders. | 282 | B/M | DC.1.7.2.2#1 | |
| **3.** The system SHALL provide the ability to render relevant, patient-specific laboratory test results when entering an order. | 283 | A |  | |
| **4.** The system SHALL provide the ability to manage the status of an order (e.g., open, completed, in process). | 284 | N/C | DC.1.7.2.2#3 | |
| **5.** The system MAY provide the ability to capture, maintain and render order entry with an appropriate registration process when the identity of the patient is unknown or in an urgent situation. | 285 | A |  | |
| **6.** The system SHOULD provide the ability to manage standing orders or orders that may be submitted by providers other than licensed providers according to scope of practice, organizational policy, and/ or jurisdictional law. | 286 | A |  | |
| **7.** The system SHALL provide the ability to capture and render problem/diagnosis as an element of an order. | 287 | A |  | |
| **8.** The system MAY provide the ability to capture, maintain and render, as discrete data, a diagnosis/ problem code, and/or description associated with an order of any type (including prescriptions and medications ordered for administration). | 288 | A |  | |
| **9.** The system MAY provide the ability to link an order of any type (including medication order) with a related clinical problem(s), and/or diagnosis code(s) and description. | 289 | A |  | |
| **10.** The system SHALL provide the ability to annotate and render comments and instructions with an order. | 290 | B/M | DC.1.7.2.2#4 | |
| **11.** The system SHOULD provide the ability to annotate and render free text comments and instructions with an order (e.g., "Short draw, do CBC first"). | 291 | A |  | |
| **12.** The system SHOULD provide the ability to tag frequently used and institutionally-approved order sets as "favorites" or "preferences" to facilitate retrieval and ordering. | 292 | A |  | |
| **13.** The system MAY provide the ability to manage orders submitted to or received from external organizations, and/or facilities such as Health Information Exchanges (HIEs) or regional Electronic Health Record Systems (EHR-Ss). | 293 | A |  | |
| **14.** The system SHALL render patient identifying information (e.g., the patient name, identification number, and age or date of birth) on all order screens, according to scope of practice, organizational policy, and/or jurisdictional law. | 294 | A |  | |
| **15.** The system SHALL provide the ability to capture, maintain and render an indicator of oral verification ("read-back") of the complete order by the person receiving the telephone or verbal order. | 295 | A |  | |
| **16.** The system SHALL provide the ability to capture and render the urgency status (e.g., As-Soon-As- Possible or STAT) associated with an order. | 296 | A |  | |
| **17.** The system SHOULD provide the ability to render order history for any order, including the ordering clinician, order details, date, and time. | 297 | A |  | |
| **18.** The system SHOULD provide the ability to tag and render a field as required for a complete order by order type (e.g., pediatric order for antibiotic that requires the patient's weight). | 298 | A |  | |
| **19.** The system SHOULD provide the ability to tag orders to be activated at a future date and time including admission orders, discharge orders, and post-operative orders. | 299 | A |  |
| **20.** The system MAY provide the ability to manage conditional orders that can be activated when certain criteria and conditions are met. | 300 | A |  |
| **21.** The system SHALL provide the ability to capture, store and render the identity of all providers who signed an order including their name and credential identifier. | 301 | A |  |
| **22.** The system SHOULD provide the ability to render a list of active orders for a patient. | 302 | A |  |
| **23.** The system SHOULD provide the ability to render a list of orders by similar or comparable type (e.g., all radiology or all laboratory orders). | 303 | A |  |
| **24.** The system SHOULD provide the ability to render outstanding orders for multiple patients, as opposed to outstanding orders for a single patient (e.g., all outstanding orders for a specific clinician or all outstanding orders for a care setting). | 304 | A |  |
| **25.** The system SHOULD provide the ability to capture and transmit the provider's order cancellation request. | 305 | A |  |
| **26.** The system SHOULD conform to function [CPS.8.4](#_bookmark50) (Support for Communication between Provider and Patient, and/or the Patient Representative) to manage information regarding orders. | 306 | B/M | DC.1.7.2.2#5 |
| **27.** The system SHALL provide the ability to determine and capture co-signatures for orders based upon roles (e.g., consulting physician) according to scope of practice, organizational policy, and/or jurisdictional law. | 307 | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** | |
| CP.4.1 | **Use Nutrition Order Sets** | 308 | M | DC.1.7.3 |
| Function |
| **Statement:** Use Order Set templates to facilitate order entry by rendering the appropriate orders based on provider request, input or system configuration.  **Description:** Predefined order set templates may include medication and non-medication orders (e.g., diet, activities, nursing care, prescriptions and requests for investigations). They allow a care provider to choose common orders for a particular circumstance or disease state according to standards or other criteria such as provider preference. Recommended order set templates may be presented based on patient data or other contexts. Order Set templates may also allow the provider to modify (add/remove/change) orders during order entry for a particular patient. | | | | |
|  | **1.** The system SHALL provide the ability to capture a set of actions, and/or items, including those necessary for diet and nutrition, to be ordered for a patient using a predefined order set template. | 309 | M/F | DC.1.7.3#1 |
| **2.** The system SHALL provide the ability to maintain a patient's nutrition orders as an order set. | 310 | M/F | DC.1.7.3#2 |
| **3.** The system SHOULD provide the ability to render a patient's nutrition orders as an order set. | 311 | A |  |
| **4.** The system MAY provide the ability to integrate patient information and order set templates to determine appropriate nutrition orders based on patient characteristics (e.g., abdominal pain for female patient of childbearing age would present pregnancy testing order set template). | 312 | A |  |
| **5.** The system SHALL conform to function [CPS.4.1](#_bookmark40) (Manage Order Set Templates). | 313 | M/F | DC.1.7.3#4 |
| **6.** The system MAY provide the ability to determine and render the appropriate order set template based on disease, care setting, conditions, symptoms or medications. | 314 | M/F | DC.1.7.3#5 |
| **7.** The system SHALL provide the ability to capture and integrate in an order set, various types of orders for a patient (e.g., medications, nutrition, laboratory tests, imaging studies, procedures and referrals). | 315 | A |  |
| **8.** The system SHOULD provide the ability to delete individual orders from an instance of an order set for an individual patient according to scope of practice, organizational policy, and/or jurisdictional law. | 316 | A |  |
| **9.** The system SHOULD provide the ability to tag as deleted an individual order(s) from an instance of an order set for an individual patient according to scope of practice, organizational policy, and/ or jurisdictional law. | 317 | A |  |
| **10.** The system MAY provide the ability to integrate multiple order set templates, customizing and storing it as a new order set template according to scope of practice, organizational policy, and/or jurisdictional law. | 318 | A |  |
| **11.** The system SHOULD provide the ability to link order set(s) with condition(s) on the patient's problem list. | 319 | A |  |
| CP.4.2 | **Manage Medication Orders** | 320 | B/M | DC.1.7.1 |
| Function |
| **Statement:** Create prescriptions or other medication orders with detail adequate for correct filling and administration. Provide information regarding compliance of medication orders with formularies. Provide drug utilization review functionality including alerts regarding drug interactions and allergies.  **Description:** Medications include prescribed and over the counter (OTC) drugs, allergy shots, oxygen, anesthetics, chemotherapy, and dietary supplements that were ordered, supplied, administered, or continued. Different medication orders, including new, discontinue, refill/continue, and renew require different levels and kinds of detail, as do medication orders placed in different situations. Administration or patient instructions are available for selection by the ordering clinician, or the ordering clinician is facilitated in creating such instructions. The system may allow for the creation of common content for prescription details. Appropriate time stamps for all medication related activity are generated. This includes series of orders that are part of a therapeutic regimen, e.g., Renal Dialysis, Oncology. When it comes to capturing the medication rationale, it is not mandatory that the provider always provide this information.  In addition, the system should present the clinician with clinical decision support functionality (such as the presentation of allergies, drug-drug interactions) during the medication ordering process. When a clinician places an order for a medication, that order may or may not comply with a formulary specific to the patient’s location or insurance coverage, if applicable. Whether the order complies with the formulary should be communicated to the ordering clinician at an appropriate point to allow the ordering clinician to decide whether to continue with the order. Formulary-compliant alternatives to the medication being ordered may also be presented. | | | | |

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|  | **1.** The System SHALL conform to CP.4.2.1 (Medication Interaction and Allergy Checking). | 321 | N/C |  |
| **2.** The System SHALL conform to CP.4.2.2 (Patient-Specific Medication Dosing & Warnings). | 322 | N/C |  |
| **3.** The System SHALL conform to CP.4.2.3 (Medication Order Efficiencies). | 323 | N/C |  |
| **4.** The system SHALL conform to CP.4.2.4 (Medication Alert Overrides). | 324 | N/C |  |
| **5.** The system SHALL provide the ability to capture medication order details as discrete data for correct filling, dispensing and administration of drug (e.g., dose, route, physical form, duration, SIG). | 325 | N/C | DC.1.7.1#1 |
| **6.** The system SHALL provide the ability to maintain and render, as discrete data, medication orders including all the details adequate for correct filling, dispensing and administration (e.g., drug, dose, route, SIG). | 326 | N/C |  |
| **7.** The system SHOULD provide the ability to capture medication order details including dose, route, frequency and comments as free text. | 327 | N/C |  |
| **8.** The system SHOULD provide the ability to manage free text as part of a medication order or prescription (e.g., "this patient is unable to swallow large pills"). | 328 | N/C |  |
| **9.** The system SHOULD render fixed text (e.g., "Bio-hazard Warning") as part of a medication order according to organizational policy, and/or jurisdictional law. | 329 | N/C |  |
| **10.** The system SHALL determine and render a notification to the provider that information required to compute a dose is missing or invalid. | 330 | N/C |  |
| **11.** The system SHOULD provide the ability to capture patient's preference for medication usage (e.g., oral vs. injectable, generic vs. brand name) and present it to a provider at the time of medication ordering. | 331 | N/C |  |
| **12.** The system SHOULD provide the ability to manage prescriptions using fractional units of medications (e.g., 1/2 tsp., 1/2 tablet). | 332 | N/C |  |
| **13.** The system SHALL provide the ability to capture and maintain documentation regarding patient weight, including such terms as "unknown", before entering medication orders. | 333 | N/C |  |
| **14.** The system SHOULD provide the ability to capture the administrative or clinical reasons/indications/ rationale for the medication(s) selected during order entry. | 334 | N/C |  |
| **15.** The system SHALL provide the ability to determine and render the status of a medication order (e.g., for outpatient medication ordering: captured, verified, filled, or dispensed to patient; for inpatient: captured, verified, filled, or medication administered). | 335 | N/C |  |
| **16.** The system MAY provide the ability to determine and render the status of medication dispensing. | 336 | D |  |
| **17.** The system SHALL conform to function [CP.1.3](#_bookmark6) (Manage Medication List) and update the appropriate medication list with the prescribed medications (in case of multiple medication lists). | 337 | N/C R | DC.1.7.1#3 |
| **18.** The system SHALL provide the ability to enter and maintain medication information supplied by the patient. | 338 | A |  |
| **19.** The system MAY provide the ability to electronically capture medication information brought in by the patient (e.g., scanned bar code from an Rx label). | 339 | D |  |
| **20.** The system SHOULD conform to function [CPS.4.2.4](#_bookmark43) (Support for Medication Recommendations). | 340 | D |  |
| **21.** The system SHOULD provide the ability to enter and maintain prescription information from an external source (e.g., transcribed information from a non-network provider) to fill or renew a prescription. | 341 | D |  |
| **22.** The system MAY provide the ability to receive and maintain prescription information from an external source (e.g., electronically from a non-network provider) to fill or renew a prescription. | 342 | D |  |
| **23.** The system SHOULD provide the ability to manage medication orders for uncoded medications. | 343 | D |  |
| **24.** The system SHOULD provide the ability to manage medication orders for non-formulary medications (e.g., medications that are being studied, investigational products being used in research trials, and blind study protocols). | 344 | D |  |
| **25.** The system MAY provide the ability to receive the patient's current medication list from pharmacy (directly) or via an intermediary network. | 345 | D |  |
| **26.** The system SHALL provide the ability to order supplies associated with medication orders according to scope of practice, organizational policy, and/or jurisdictional law. | 346 | A |  |
| **27.** The system SHOULD render a list of frequently-used patient medication administration instructions. | 347 | D |  |
| **28.** IF the system renders a list of frequently-used patient medication administration instructions, THEN the system SHOULD capture the ordering clinician's selection. | 348 | A |  |
| **29.** The system MAY render a list of medication administration instructions common to multiple orders for the patient. | 349 | D |  |
| **30.** IF the system renders a list of medication administration instructions common to multiple orders for the patient, THEN the system SHOULD capture the ordering clinician's selection. | 350 | D |  |
| **31.** The system SHOULD provide the ability to render patient instructions that are linked to an ordered medication. | 351 | D |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **32.** The system SHOULD conform to function [AS.9.2](#_bookmark72) (Support Financial Eligibility Verification) to capture and render the results of electronic prescription eligibility and health plan/payer formulary verification of prescription coverage. | 352 | B/M | DC.1.7.1#13 |
| **33.** The system SHOULD conform to function [AS.9.2](#_bookmark72) (Support Financial Eligibility Verification) to capture and render patient-specific health plan/payer formulary and benefit coverage. | 353 | A |  |
| **34.** The system SHOULD provide the ability to transmit a request for a patient's prescription drug insurance eligibility verification. | 354 | D |  |
| **35.** The system SHALL provide the ability to manage orders that contain discrete medication components to create combination drugs or compounds (e.g., Butalbital compound). | 355 | A |  |
| **36.** The system MAY provide the ability to maintain a constraint on the number of times that a prescription is transmitted for printing/reprinting and faxing/re-faxing, according to scope of practice, organizational policy, and/or jurisdictional law (e.g., limited print of narcotic prescription to 1 time). | 356 | D |  |
| **37.** The system SHALL track the number of times that a prescription was transmitted (to maintain a constraint on the number of times that a prescription is permitted to be transmitted for printing/ reprinting and faxing/re-faxing). | 357 | A |  |
| **38.** The system MAY provide the ability to render prescriptions for printing/reprinting, according to scope of practice, organizational policy, and/or jurisdictional law. | 358 | D |  |
| **39.** The system MAY provide the ability to render prescriptions for faxing/re-faxing, according to scope of practice, organizational policy, and/or jurisdictional law. | 359 | D |  |
| **40.** The system MAY provide the ability to render the associated problem, diagnosis or condition (indication) on the printed prescription according to scope of practice, organizational policy, and/or jurisdictional law. | 360 | D |  |
| **41.** The system SHOULD provide the ability to render a list of transmission options for a prescription/ medication order to a specified pharmacy (e.g., printing, faxing, e-prescribing). | 361 | D |  |
| **42.** The system SHOULD provide the ability to capture, maintain, and present the patient's consent to have restricted medications administered (e.g., Risk Evaluation and Mitigation Strategy (REMS) for research protocol and experimental drugs). | 362 | D |  |
| **43.** The system SHOULD provide the ability to present information received through health plan/payer formulary checking (e.g., formulary alternatives, formulary status, co-pay and coverage types, prior authorization requirements, step therapy requirements, age limits, gender limits, quantity limits, age, gender, summary resource links and drug-specific resource links). | 363 | D |  |
| **44.** The system SHOULD provide the ability to capture and render an indicator of an explicit route for the administration of specific medications during the ordering process. | 364 | NC | DC.1.7.1#18 |
| **45.** The system SHOULD render available alternate medication administration routes during the medication ordering process when multiple routes exist and none was specified. | 365 | D |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.4.2.1 | **Medication Interaction and Allergy Checking** | 366 | Include |  |
| Function |
| **Statement:** Provide alerts for potential medication interactions and medication allergy reactions.  **Description:** Check and provide alerts at the time of medication order based upon coded, active and non-active medications for possible interactions, allergies, sensitivities, intolerances, and other adverse reactions. | | | | |
|  | **1.** The system SHALL conform to function [CPS.4.2.1](#_bookmark41) (Support for Medication Interaction and Allergy Checking) to determine allergic reactions, drug-drug interactions, and other potential adverse reactions, and render alerts or notifications when new medications are ordered. | 367 | A |  |
| **2.** The system SHALL conform to function [CP.1.2](#_bookmark5) (Manage Allergy, Intolerance and Adverse Reaction List) to provide the ability to manage interaction and allergy checking and render alerts and notifications when new medications are ordered. | 368 | A |  |
| **3.** The system MAY provide the ability to render an alert, at the time a new medication is prescribed/ ordered, that drug interaction, allergy, and formulary checking will not be performed against uncoded or free text medication(s). | 369 | A |  |
| **4.** The system MAY provide the ability to render a notification, at the time a new uncoded medication is prescribed/ordered, that drug interaction, allergy, and formulary checking will not be performed, according to scope of practice, organizational policy, and/or jurisdictional law. | 370 | A |  |
| **5.** The system SHALL provide the ability to render and tag as inactive recently inactivated medications for inclusion in current medication screening according to scope of practice, organizational policy, and/or jurisdictional law. | 371 | A |  |
| CP.4.2.2 | **Patient-Specific Medication Dosing and Warnings** | 372 | Inclucde |  |
| Function |
| **Statement:** Render medication dosing and warnings related to a medication order based on patient-specific parameters.  **Description:** Provide parameter-based (e.g., weight, lean body mass, age, sensitivity, genomics, body surface area) medication dosing recommendations and warnings for simple medications and compounded medications at the time of order entry. | | | | |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **1.** The system SHALL conform to function [CPS.4.2.2](#_bookmark42) (Support for Patient-Specific Dosing and Warnings) to determine potential adverse reactions and render alerts or notifications when new medications are ordered. | 373 | A |  |
| **2.** The system SHOULD provide the ability to determine and render weight-specific dose suggestions and auto-populate (e.g., default) medication orders based on the suggested dosage. | 374 | N/C |  |
| **3.** The system MAY provide the ability to capture alternative patient dosing weight(s) (e.g., ideal body weight or dry weight vs. actual patient weight) for the purpose of dose calculation. | 375 | D |  |
| **4.** IF the system provides the ability to capture alternative patient dosing weight(s), THEN the system SHOULD provide the ability to determine and render alternative weight-specific dose recommendations and auto-populate medication orders based on the suggested dosage. | 376 | D |  |
| **5.** The system SHOULD provide the ability to render patient-specific medication dosing recommendations based on the patient's age and weight/body surface area. | 377 | D |  |
| **6.** The system MAY provide the ability to render patient-specific medication dosing recommendations based on previous patient experience (e.g., adverse reaction, type, and severity) with the same medication. | 378 | D |  |
| **7.** The system SHOULD provide the ability to determine weight-based medication dosing when doses are based on the patient's weight (e.g., mg/kg). | 379 | D |  |
| **8.** The system MAY provide the ability to determine and render medication orders in which the weight- specific dose suggested employs a starting range with incremental changes toward a target range (e.g., a target therapeutic index). | 380 | D |  |
| **9.** The system MAY render a notification requesting the parameters (e.g., coefficients, exponents, formulas) required to calculate the body surface area. | 381 | D |  |
| **10.** The system MAY provide the ability to determine and present dose ranges based on patient age. | 382 | D |  |
| **11.** The system MAY provide the ability to manage complex medication orders that include dosing based on either physical status or laboratory values. | 383 | D |  |
| **12.** The system SHALL provide the ability to determine and present drug dosing based on custom compounded medication components. | 384 | A |  |
| **13.** The system SHOULD provide the ability to manage medication orders with patient-specific dose calculations (e.g., by weight, body surface area or genotype). | 385 | D |  |
| CP.4.2.3 | **Medication Order Efficiencies** | 386 | Exclude |  |
| Function |
| **Statement:** Provide the tooling necessary to increase the efficiency of medication ordering.  **Description:** Make medication ordering workflows more efficient by allowing medications to be sorted and reviewed by key attributes (e.g., generic or trade names). Also support editing medication orders across multiple instances of an order and capturing medication orders in order sets. | | | | |
|  | **1.** The system SHOULD provide the ability to present a list of medications based on an attribute of the medication (e.g., partial medication name, therapeutic class, or formulary). | 387 | D |  |
| **2.** The system SHOULD provide the ability to present a list of medications based on an attribute of the patient (e.g., proposed treatment, patient condition, order set, age, gender). | 388 | D |  |
| **3.** The system SHOULD provide the ability for the clinician to edit medication administration instructions and link it to the corresponding instances of that medication order. | 389 | D |  |
| **4.** The system SHOULD provide the ability to extract, update and store a prescription reorder by allowing a prior prescription to be reordered without re-entering previous data (e.g., administration schedule, quantity, SIG). | 390 | D |  |
| **5.** The system SHOULD provide the ability to extract, update and store a prescription reorder from a prior prescription using the same dosage but allowing for editing of details adequate for correct filling and administration of medication (e.g., dose, frequency, body weight). | 391 | D |  |
| **6.** The system MAY provide the ability to extract, update and store a prescription renewal from a prior prescription using a different dosage but allowing for editing of details adequate for correct filling and administration of medication (e.g., dose, frequency, body weight). | 392 | D |  |
| **7.** The system SHALL conform to CP.4.1 (Use Order Sets). | 393 | D |  |
| **8.** The system SHALL provide the ability to extract and render medications by generic, and/or brand name. | 394 | D |  |
| CP.4.2.4 | **Medication Alert Overrides** | 395 | Include |  |
| Function |
| **Statement:** Capture the alerts and warnings for medications being overridden and reasons for the override.  **Description:** Alerts are generated for possible contraindications to administration of medications (e.g., the administration of tetracycline to pregnant women) and the prescriber may choose to override the alert. | | | | |
|  | **1.** The system SHALL provide the ability to edit a medication order by overriding the drug alert or warning and transmitting the updated medication order. | 396 | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **2.** The system SHALL provide the ability to capture reasons for overriding a drug alert or warning at the time of ordering. | 397 | A |  |
| **3.** The system SHALL provide the ability to tag and render an indication that a provider has overridden a drug alert or warning. | 398 | A |  |
| CP.4.3 | **Manage Nutrition and/or Non-Medication Patient Care Orders** | 399 | Include |  |
| Function |
| **Statement**: Capture and track patient care, diet and supplement orders. Enable the origination, documentation, and tracking of non-medication patient care diet and supplement orders.  **Description**: Non-medication orders that request actions or items can be captured and tracked including new, renewal and discontinue orders. Examples include orders to transfer a patient between units, to ambulate a patient, for medical supplies, durable medical equipment, home IV, and or therapy orders. Each item ordered includes the appropriate detail, such as order identification and instructions. Orders should be communicated to the correct service provider for completion. | | | | |
|  | 1. The system **SHALL** provide the ability to capture nutritional non-medication patient care orders for an action or item | 400 | N/C |  |
| 2. The system **SHALL** provide the ability to capture adequate nutrition order detail for correct order fulfillment | 401 | N/C |  |
| 3. The system **SHALL** track the status of the nutrition ordered action or item | 402 | N/C |  |
| 4. The system **SHALL** provide the ability to capture patient instructions necessary for correct nutrition order fulfillment. | 403 | N/C |  |
| 5. The system **SHALL** provide the ability to present patient instructions necessary for correct nutrition order fulfillment. | 404 | N/C |  |
| 6. The system **SHALL** provide the ability to communicate the nutrition order to the correct recipient(s) for order fulfillment. | 405 | N/C |  |
| 7. **.** The system SHOULD provide the ability to link non-medication orders to a medication order (e.g., ordering an intravenous pump in coordination with intravenous medication). | 406 | D |  |
| **8.** The system SHOULD provide the ability to store a task to be recurrent at a defined interval for a specified length of time. | 407 | D |  |
| **9.** The system SHALL conform to function [CPS.4.3](#_bookmark44) (Support for Non-Medication Ordering). | 408 | N/C R | DC.1.7.2.1#7 |
| CP.4.4 | **Manage Orders for Diagnostic/Screening Tests** | 409 | Include |  |
| Function |
| **Statement:** Enable the origination, documentation, transmission, tracking and maintenance of orders for diagnostic tests.  **Description:** Orders for diagnostic tests (e.g., diagnostic radiology, laboratory) are captured and tracked including new, renewal and discontinue orders. Each order includes appropriate detail, such as order identification, instructions and clinical information necessary to perform the test. Orders and supporting detailed documentation shall be communicated to the service provider for completion of the diagnostic test(s). Some systems may contain instructions, but in some settings, instructions may be provided from external sources (e.g., handouts). | | | | |
|  | **1.** The system SHALL provide the ability to manage orders for diagnostic tests. | 410 | N/C |  |
| **2.** The system SHALL provide the ability to capture and render standard order detail for diagnostic test order fulfillment. | 411 | N/C |  |
| **3.** The system SHOULD provide the ability to capture and maintain user-created instructions, and/or prompts when ordering diagnostic tests or procedures. | 412 | A |  |
| **4.** The system SHALL provide the ability to manage the status (e.g., requisitioned, completed, in process) of diagnostic test(s). | 413 | N/C |  |
| **5.** The system SHOULD provide the ability to capture and render patient instructions relevant to the diagnostic test ordered. | 414 | A |  |
| **6.** The system SHALL provide the ability to transmit orders to the recipient (s) for order fulfillment of the diagnostic test. | 415 | N/C |  |
| **7.** The system SHOULD provide the ability to transmit supporting detailed documentation to the recipient (s) for order fulfillment of the diagnostic test. | 416 | N/C |  |
| **8.** The system SHALL conform to function [CPS.4.3](#_bookmark44) (Support for Non-Medication Ordering). | 417 | N/C |  |
| **9.** The system MAY provide the ability to transmit order activity to public health authorities according to scope of practice, organizational policy, and/or jurisdictional law. | 418 | D |  |
| **10.** IF subsequent orders are being captured, THEN the system SHOULD provide the ability to render prior diagnostic results for a given patient. | 419 | B/M |  |
| **11.** The system SHOULD capture and render complete patient demographic information for diagnostic orders according to scope of practice, organizational policy, and/or jurisdictional law. | 420 | N/C |  |
| **12.** The system MAY provide the ability to include an indication (e.g., clinical rationale, reason, link to Problem list) for ordering the test(s). | 421 | B/M |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP 4.5 | **Manage Orders for Blood Products and Other Biologics** |  | Include |  |
| Function |
| **Statement:** Communicate with appropriate sources or registries to manage orders for blood products or other biologics.  **Description:** Interact with a blood bank system or other source to support orders for blood products or other biologics including discontinuance orders. Use of such products in the provision of care is captured. Blood bank or other functionality that may come under jurisdictional law or other regulation (e.g., by the FDA in the United States) is not required; functional communication with such a system is required. | | | | |
|  | **1.** The system SHALL provide the ability to manage orders for blood products and biological products. | 423 | D |  |
| **2.** The system SHALL provide the ability to manage the status (e.g., requisitioned, completed, in process) of blood product, and/or biological product orders. | 424 | D |  |
| **3.** The system SHALL provide the ability to manage storage request orders for blood products, and/ or biological products. | 425 | D |  |
| **4.** The system SHALL provide the ability to manage the status of storage request orders (e.g., requisitioned, completed, in process) for blood products, and/or biological products. | 426 | D |  |
| **5.** The system SHALL conform to function [CPS.9.2](#_bookmark52) (Support for Inter-Provider Communication) to provide the ability to exchange blood product, and/or biological products between members of the care team. | 427 | D |  |
| **6.** The system SHALL provide the ability to manage the use of blood products and other biologics in the provision of care. | 428 | D |  |
| **7.** The system SHOULD provide the ability to manage information associated with the collection and administration of non-blood biologics (e.g., breast milk products), including donor and recipient, and/ or patient-identifying data, aliquot-identifying data, amount, route (e.g., oral versus tube), expiration date and time of administration. | 429 | D |  |
| CP.4.6 | **Manage Nutrition Orders for Referral** | 430 | Include | DC.1.7.2.4 |
| Function |
| **Statement**: Enable the origination, documentation and tracking of nutrition referrals between care providers or healthcare organizations, including clinical and administrative details of the referral, and consents and authorizations for disclosures as required.  **Description**: Documentation and tracking of a nutrition referral from one care provider to another is supported, whether the referred to or referring providers are internal or external to the healthcare organization. Guidelines for whether a particular referral for a particular patient is appropriate in a clinical context and with regard to administrative factors such as insurance may be provided to the care provider at the time the referral is created. | | | | |
|  | 1. The system **SHALL** provide the ability to capture and communicate nutrition referral(s) to other care provider (s), whether internal or external to the organization. | 431 | N/C |  |
| 2. The system **SHALL** provide the ability to capture clinical nutrition details as necessary for the referral. | 432 | N/C |  |
| 3. The system **SHALL** provide the ability to capture administrative details (such as insurance information, consents and authorizations for disclosure) as necessary for the nutrition referral. | 433 | N/C |  |
| 4. The system **SHALL** present captured nutrition referral information. | 434 | N/C |  |
| 5. The system **SHOULD** provide the ability to capture completion of a nutrition referral appointment or service | 435 | N/C |  |
| 6. The system **SHOULD** provide nutrition diagnosis based clinical guidelines for making a referral. | 436 | N/C |  |
| 7. The system **MAY** provide order sets for nutrition referral preparation. | 437 | N/C |  |
| 8. The system **SHALL** provide the ability to document transfer of care according to organizational policy, scope of practice, and jurisdictional law. | 438 | N/C |  |
| 9. The system **MAY** provide guidelines to the provider about the appropriateness of a nutrition referral for a particular patient. | 439 | N/C |  |
| **10.** The system MAY provide the ability to capture a notification that the patient fulfilled a referred appointment. | 440 | D |  |
| **11.** The system SHOULD provide the ability to determine and render diagnosis-based clinical guidelines for making a referral. | 441 | D |  |
| **12.** The system SHOULD provide the ability to determine the contents of a referral order by rendering order sets for review by the provider. | 442 | D |  |
| CP.5 |  | 443 |  |  |
| Function |  |  |
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|  | *Page: 19* |  |  |  |

Manage Results

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| **Statement:** Present, annotate, and route current and historical test results to appropriate providers for review. Provide the ability to filter and compare results.  **Description:** Results of tests are presented in an easily accessible manner to the appropriate providers. For example, flow sheets, graphs, or other tools allow care providers to view or uncover trends in test data over time. The provider may desire to annotate, filter, and/ or compare results. In addition to making results viewable, it is often necessary to send results to appropriate providers using electronic messaging systems, pagers, or other mechanisms. In addition, the system may have the ability to redirect or copy specific test results to a specified individual. Documentation of notification is accommodated. Results may also be routed to patients electronically or non- electronically (e.g., by hard copy). Note: “Results” are understood as applying to any type of test, whether biological or psychological. Management of the results may also require the provider's communication of the results to the patient (see function CPS.8.4 (Support for Communications between Provider and the Patient, and/or the Patient's Representative)). There may also be a need to notify public health agencies based on the result. See function POP.2 (Support Population-based Epidemiological Investigation). | | | | |
|  | **1.** The system SHALL provide the ability to manage test results in according to scope of practice, organizational policy, and/or jurisdictional law. | 444 | N/C |  |
| **2.** The system SHALL provide the ability to render numerical and non-numerical current and historical test results. | 445 | N/C |  |
| **3.** The system SHALL provide the ability to render results for an identified patient or group of patients. | 446 | A |  |
| **4.** The system SHALL provide the ability to render results by factors that supports results management including type of test, critical indicator and abnormal indicator. | 447 | A |  |
| **5.** The system SHALL provide the ability to tag and render normal and abnormal indictors for results based on data provided from the original data source. | 448 | N/C |  |
| **6.** The system SHOULD provide the ability to render numerical results in flow sheets, graphical form or other views that allow comparison of results, and display values graphed over time. | 449 | N/C |  |
| **7.** The system SHALL provide the ability to render results by date/time range including ordered date/ time, specimen collection date/time and results received date/time. | 450 | N/C |  |
| **8.** The system SHOULD provide the ability to tag new results received and render to the relevant providers (ordering, copy to) that new results have been received but not reviewed. | 451 | N/C |  |
| **9.** The system SHOULD provide the ability to capture an indicator that a result has been rendered and acknowledged by a user. | 452 | N/C |  |
| **10.** The system SHOULD provide the ability to transmit results to other care providers. | 453 | N/C |  |
| **11.** The system MAY provide the ability to transmit results to patients by methods such as phone, fax, electronically or letter. | 454 | N/C |  |
| **12.** The system MAY provide the ability to transmit results to an automated callback system. | 455 | A |  |
| **13.** The system MAY provide the ability to capture and transmit a request for action to another provider(s). | 456 | A |  |
| **14.** The system SHOULD conform to CPS.9.2 (Support for Inter-Provider Communication) to receive a request for action regarding a test result from another provider and to transmit an acknowledgement to that provider of the receipt of that provider's request for action. | 457 | A |  |
| **15.** IF the system provides the ability to receive a request for action regarding a result from another provider, THEN the system MAY provide the ability to transmit an acknowledgement of the receipt of that provider's request for action. | 0 | A |  |
| **16.** The system MAY provide the ability to render results in clinically logical sections (e.g., Pathology, Chemistry, Cytology). | 458 | A |  |
| **17.** The system SHALL link results to the electronic order if the system contains the electronic order. | 459 | A |  |
| **18.** The system SHOULD provide the ability to annotate a result. | 460 | A |  |
| **19.** The system SHOULD provide the ability to link and render the results report to other data (e.g., images) with which it is associated. | 461 | A |  |
| **20.** The system SHALL provide the ability to import and receive preliminary and final result reports from ancillary systems according to scope of practice, organizational policy, and/or jurisdictional law. | 462 | A |  |
| **21.** The system SHALL provide the ability to import or receive preliminary and final results as discrete data from ancillary systems, when discrete data is sent from the ancillary system, according to scope of practice, organizational policy, and/or jurisdictional law. | 463 | A |  |
| **22.** The system SHALL provide the ability to capture, maintain and render preliminary (e.g., "wet read") and final result reports according to scope of practice, organizational policy, and/or jurisdictional law. | 464 | A |  |
| **23.** The system SHALL provide the ability to tag and render a notification to the appropriate healthcare team member(s) (using role-based or rule-based alerts) of clinically-significant results or result changes. | 465 | A |  |
| **24.** The system SHOULD provide the ability to link results to a specific medical condition, medication or therapeutic class of medication. | 466 | A |  |
| **25.** The system SHALL provide the ability to render non-diagnostic quality images. | 467 | A |  |
| **26.** The system SHOULD provide the ability to link with Radiology Information Systems (RIS) or Picture Archiving & Communication Systems (PACS) to enable the presentation of diagnostic quality images. | 468 | A |  |
| **27.** The system SHALL provide the ability to link one or more images to a result report. | 469 | A |  |
| **28.** IF the system provides the ability to annotate a result, THEN the system SHALL render the annotation with subsequent views of that result. | 470 | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **29.** The system SHOULD provide the ability to capture an annotation from the patient on a result and render the annotation with subsequent views of that result. | 471 | A |  |
| **30.** The system SHALL determine that results were recieved for a patient who is no longer under the care of the ordering provider and tag and render a notification according to scope of practice, organizational policy, and/or jurisdictional law. | 472 | A |  |
| **31.** The system MAY provide the ability to manage results of specific genetic tests, genetic markers, or findings according to scope of practice, organizational policy, and/or jurisdictional law and subject to patient's preferences and consent. | 473 | A |  |
| CP.5.1 | **Manage Results of Diagnostic Tests** | 474 | Include |  |
| Function |
| **Statement:** Enable the receipt and display of results for diagnostics tests.  **Description:** Diagnostic test results are received and should be stored and displayed while linked to the original order in the system. | | | | |
|  | **1.** The system SHOULD provide the ability to capture, maintain and render diagnostic results, including preliminary as well as final results. | 475 | A |  |
| **2.** The system SHOULD provide the ability to capture, maintain and render microorganism information/ descriptions from laboratory results as free-text. | 476 | A |  |
| **3.** The system SHOULD provide the ability to capture, maintain and render microbiology laboratory results (with sensitivity testing) using standard coding methodology according to scope of practice, organizational policy, and/or jurisdictional law. | 477 | A |  |
| **4.** The system SHOULD provide the ability to capture, maintain and render laboratory results that identify new and emerging laboratory procedures (e.g., processes that examine emerging organisms, new processes that examine existing organisms). | 478 | A |  |
| **5.** The system SHALL provide the ability to capture, maintain and render discrete diagnostic results received through an electronic interface. | 479 | A |  |
| **6.** The system SHALL provide the ability to render indicators of normal and abnormal diagnostic results based on information provided from the original source (e.g., from a laboratory or radiology department). | 480 | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.6 | **Manage Medication, Immunization and Treatment Administration** | 481 | Include | DC.1.8.1 |
| Header |
| **Statement:** Provide the functionality required to support the management of medication and immunization administration.  **Description:** Provide the functionality required to support the safe administration of medications or immunizations to a patient based on medical requirement and orders within the system. This includes presenting providers with the list of medications or immunizations that are to be administered to a patient, necessary administration information, and capture all required and relevant administration details. | | | | |
| CP.6.1 | **Manage Medication Administration** | 482 | Include |  |
| Function |
| **Statement:** Present providers with the list of medications that are to be administered to a patient, necessary administration information, and capture administration details.  **Description:** In a setting in which medication orders are to be administered by a provider rather than the patient, the necessary information is presented including: the list of medication orders that are to be administered; administration instructions, times or other conditions of administration; dose and route, etc. The system shall securely relate medications to be administered to the unique identity of the patient (see CPS.1.1). Additionally, the provider can record what actually was or was not administered, whether or not these facts conform to the order. Appropriate time stamps for all medication related activity are generated.For some settings that administer complete sets of medications from a variety of providers' orders, it may be useful to provide an additional check for possible drug-drug or other interactions.The EHR system shall support the five “rights” - Right Patient, Right Drug, Right Dose, Right Route, Right Time.The system should report medication administration, where appropriate, to public health or disease management authorities (e.g., oncology related medication orders should be communicated or transmitted to a cancer registry). | | | | |
|  | **1.** The system SHALL provide the ability to render the list of medications that are to be administered. | 483 | N/C | DC.1.8.1#1 |
| **2.** The system SHALL provide the ability to render the list of medications that are to be administered including all administration directions/instructions (SIG). | 484 | N/C | DC.1.8.1#2 |
| **3.** The system SHOULD provide the ability to render medications as dispensed (including dose and quantity of dispensed units of medication). | 485 | N/C | DC.1.8.1#3 |
| **4.** The system SHOULD provide the ability to tag the medications that are to be administered by the patient (i.e. self-administered). | 486 | A |  |
| **5.** The system SHALL provide the ability to render the drug, dose, route, time and frequency of desired administration for all scheduled medications. | 487 | A |  |
| **6.** The system SHOULD provide the ability to render a notification to the clinician when specific doses are due. | 488 | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **7.** The system SHOULD provide the ability to render a notification when medication related activities are due (e.g., adjusting medication dosing based on patient condition, checking IV lines for infiltration). | 489 | A |  |
| **8.** The system SHALL conform to function [CPS.4.2.1](#_bookmark41) (Support for Medication Interaction and Allergy Checking) in order to determine and render allergies, drug-drug interactions, and other potential adverse reactions, when rendering medication administration information. | 490 | B/M | DC.1.8.1#5 |
| **9.** The system SHALL conform to function [CPS.4.2.2](#_bookmark42) (Support for Patient-Specific Dosing and Warnings) in order to determine and render other potential adverse reactions, when rendering medication administration information. | 491 | B/M | DC.1.8.1#6 |
| **10.** The system SHALL provide the ability to capture and maintain the medication identification number of the drug administered to the patient (e.g., NDC number, lot numbers, expiration date). | 492 | A |  |
| **11.** The system SHALL provide the ability to capture, maintain and render medication administration details as discrete data, including:(1) the medication name, strength and dose;(2) date and time of administration;(3) route and site;(4) administering provider(5) observations, reactions and complications(6) reason medication not given, and/or medication related activity not performed; according to scope of practice, organizational policy, and/or jurisdictional law. | 493 | B/M | DC.1.8.1#7 |
| **12.** The system SHOULD provide the ability to capture the effectiveness of PRN or "as needed" doses after they have been administered. | 494 | A |  |
| **13.** The system SHOULD provide the ability to render any clinical interventions or assessments required prior to medication administration. | 495 | A |  |
| **14.** The system SHOULD provide the ability to render any clinical interventions or assessments required subsequent to medication administration. | 496 | A |  |
| **15.** The system SHOULD provide the ability to securely link medication-related activities to the unique identity of the patient (e.g., verification of administration to correct patient). | 497 | B/M | DC.1.8.1#8 |
| **16.** The system SHOULD provide the ability to capture the identification of medication samples dispensed, including lot number and expiration date. | 498 | A |  |
| **17.** The system SHOULD support integrated point of care devices for patient and medication identification, such as barcode recognition verification of patients and medications. | 499 | A |  |
| **18.** The system SHOULD provide the ability to render medication orders that have not been dispensed. | 500 | A |  |
| **19.** The system SHOULD provide the ability to render medication orders that have not been administered. | 501 | A |  |
| **20.** The system SHOULD render an alert, when rendering administration information, if a maximum individual or daily dose exists and further administration would cause these to be exceeded (e.g., in the case of a PRN order with weight-based or BSA-based dose limits). | 502 | A |  |
| **21.** The system SHOULD provide the ability to render medications to be administered over a selectable date/time range. | 503 | A |  |
| **22.** The system SHALL provide the ability to render the medication administration history including administering provider, date, and time. | 504 | A |  |
| **23.** The system SHOULD provide the ability to render continuous infusions in a manner that distinguishes them from other discrete-dose medications (e.g., insulin drip versus subcutaneous insulin dose). | 505 | A |  |
| **24.** The system SHOULD provide the ability to render PRN ("as needed") medications in a manner that distinguishes them from other medications. | 506 | A |  |
| **25.** The system SHOULD provide the ability to annotate an individual scheduled medication dose and include the annotation as part of the legal medical record. (e.g., describe the dose to be administered based upon specific clinical indicators such as a sliding scale insulin order where the dose is based upon the patients current blood sugar level) | 507 | A |  |
| **26.** The system SHALL provide the ability to render the medication order as written (i.e., exact clinician order language) when rendering administration information. | 508 | A |  |
| **27.** The system SHALL provide the ability to capture and render patient-specific instructions or other free text related to the administration of the medication (e.g., use left-arm IV only) | 509 | A |  |
| **28.** The system SHALL provide the ability to manage information regarding a second provider witness to co-document administration. | 510 | A |  |
| **29.** The system SHOULD provide the ability to capture the documentation of medication administration using a barcode scanner or imaging scanner (e.g., scanner capable of reading two dimensional symbologies). | 511 | A |  |
| **30.** The system SHOULD provide the ability to render an alert to the administering provider when an electronic identification device (e.g., barcode & scanner or RFID) is used to document the administration of the medication and one of the following is in error: right patient, right medication, right dose, right time, or right route or there has not been positive identification of the administering provider. | 512 | A |  |
| **31.** The system SHOULD provide the ability to manage medication administration schedules on the record of medication administration - to allow user to adjust future authorized schedule as needed (e.g., delay, refused, unavailable). | 513 | A |  |
| **32.** The system SHOULD provide the ability to render a notification to associated systems (e.g., pharmacy, ordering, food and nutrition services) of changes in schedules on the record of medication administration. | 514 | A |  |
| **33.** The system SHOULD provide the ability to capture an acknowledgement from a user that a | 515 | A |  |
|  | medication order has been revie*P*w*a*e*g*d*e:*in*2*c*2*luding capturing the date, time and user credentials. |  |  |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **34.** The system SHOULD provide the ability to capture documentation of medication administration prior to pharmacy review. | 516 | A |  |
| **35.** The system SHALL provide the ability to capture, maintain and render as part of the medication administration record for infusions the actual date and times of the infusion including the start and stop times and any modifications to the infusion and the assessment status of the infusion. | 517 | A |  |
| **36.** The system SHOULD provide the ability to capture, maintain, and render the patient's consent to have restricted medications administered, (e.g., Risk Evaluation and Mitigation Strategy (REMS)). | 518 | A |  |
| **37.** The system MAY auto-populate the medication administration record as a by-product of verification of administering provider, patient, medication, dose, route and time according to scope of practice, organizational policy, and/or jurisdictional law. | 519 | A |  |
| **38.** The system SHOULD provide the ability to capture, maintain, and present physiological parameters or task completion that must be checked and recorded prior to medication administration. | 520 | A |  |
| **39.** The system SHOULD provide the ability to capture and maintain documentation that the right patient, right medication, right dose, right time, and right route were verified (e.g., using positive ID technology such as bar code scanning) at the time of administration. | 521 | A |  |
| **40.** The system MAY provide the ability to render a medication unique identifier (e.g., NDC, Structured Products Label (SPL) in the U.S. Realm or other standard product identifiers) according to jurisdictional law. | 522 | A |  |
| CP.6.2 | **Manage Immunization Administration** | 523 | Include | DC.1.8.2 |
| Function |
| **Statement:** Capture and maintain discrete data concerning immunizations given to a patient including date administered, type, manufacturer, lot number, and any allergic or adverse reactions. Facilitate the interaction with an immunization registry to allow maintenance of a patient’s immunization history.  **Description:** During an encounter, recommendations based on accepted immunization schedules are presented to the provider. Allergen and adverse reaction histories are checked prior to giving the immunization. If an immunization is administered, discrete data elements associated with the immunization including date, type, immunization expiration date, manufacturer and lot number are recorded. Any new adverse or allergic reactions are noted. If required, a report is made to the public health immunization registry or other organization (e.g., military unit commander, refugee program leadership). This function should include the ability to use GTIN barcode scanners to capture vaccine information (NDC, lot number, expiration date). | | | | |
|  | **1.** The system SHALL provide the ability to capture immunization administration details as discrete data, including:(1) the immunization name/type, series, strength and dose;(2) date and time of administration;(3) manufacturer, lot number, expiration date, (4) route and site of administration;  (5) administering provider;(6) observations, reactions and complications;(7) reason immunization not given, and/or immunization related activity not performed;according to scope of practice,  organizational policy, and/or jurisdictional law. | 524 | B/M | DC.1.8.2#4 |
| **2.** The system MAY auto-populate the immunization administration record as a by-product of verification of administering provider, patient, medication, dose, route and time according to scope of practice, organizational policy, and/or jurisdictional law. | 525 | A |  |
| **3.** The system SHALL provide the ability to determine and render required immunizations, and when they are due, based on widely accepted immunization schedules, when rendering encounter information. | 526 | A |  |
| **4.** The system SHOULD provide the ability to capture, in a discrete field, an allergy/adverse reaction to a specific immunization. | 527 | A |  |
| **5.** The system SHALL conform to function [CP.3.2](#_bookmark13) (Manage Patient Clinical Measurements) to capture other clinical data pertinent to the immunization administration (e.g., vital signs). | 528 | A |  |
| **6.** The system SHOULD provide the ability to link standard codes (e.g., LOINC, SNOMED or other jurisdictionally-specific codes) with discrete data elements associated with an immunization. | 529 | N/C | DC.1.8.2#7 |
| **7.** The system SHALL provide the ability to maintain a patient-specific immunization schedule. | 530 | N/C | DC.1.8.2#8 |
| **8.** The system SHALL provide the ability to render a patient's immunization history upon request for appropriate authorities such as schools or day-care centers. | 531 | N/C | DC.1.8.2#9 |
| **9.** The system SHALL conform to function [CP.1.2](#_bookmark5) (Manage Allergy, Intolerance and Adverse Reaction List). | 532 | N/C | DC.1.8.2#10 |
| **10.** The system SHOULD transmit required immunization administration information to a public health immunization registry according to scope of practice, organizational policy, and/or jurisdictional law. | 533 | A |  |
| **11.** The system SHOULD exchange immunization histories with public health immunization registries or Immunization Information Systems according to scope of practice, organizational policy, and/or jurisdictional law. | 534 |  |  |
| **12.** The system SHOULD harmonize Immunization histories with a public health immunization registry or Immunization information Systems according to scope of practice, organizational policy, and/or jurisdictional law. | 535 |  |  |
| **13.** The system SHOULD capture and render immunization histories from a public health immunization registry or Immunization Information Systems including immunization administration recommendations. | 536 |  |  |
| **14.** The system SHALL conform to function [CP.1.6](#_bookmark8) (Manage Immunization List). | 537 |  |  |

*Page: 23*

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **15.** The system SHOULD provide the ability to update immunization histories at the time of capturing an immunization administration. | 538 | A |  |
| **16.** The system SHALL provide the ability to render an immunization order as written (e.g., exact clinician order language or as mandated - such as by a public health requirement), when rendering administration information. | 539 | A |  |
| **17.** The system SHALL provide the ability to determine due and overdue ordered immunizations including earliest through latest date ranges and render a notification according to organizational policy, and/ or jurisdictional law. | 540 | A |  |
| **18.** The system SHALL provide the ability to render a patient educational information regarding the administration (e.g., Vaccine Information Statement (VIS). | 541 | A |  |
| **19.** The system SHALL provide the ability to capture that patient educational information (e.g., VIS) was provided at the time of immunization administration. | 542 | A |  |
| **20.** The system SHOULD provide the ability to capture that patient educational information (e.g., VIS) was provided at the time of the immunization including to whom the information was provided and the date/time that it was provided. | 543 | A |  |
| **21.** The system SHOULD provide the ability to capture and maintain immunization refusal reasons as discrete data. | 544 | A |  |
| **22.** The system SHOULD provide the ability to capture patient preferences regarding receipt of immunization (e.g., refusal of certain vaccines) at time of immunization administration. | 545 | A |  |
| CP.6.3 | **Manage Treatment Administration** | 546 | Exclude |  |
| Function |
| **Statement:** Provide the functionality required to support the management of treatment administration and documentation. (Treatment defined as the administration or application of remedies to a patient for a disease or injury; medicinal or surgical management; therapy.)  **Description:** Provide the functionality required to support the documentation of non-medication treatments (e.g., wound dressing change that includes use of a topical cream or sterile wash during that process) to a patient based on clinical needs and requirements and provider orders within the system. This includes presenting end users with the list of clinical treatments that are to be administered to a patient, necessary administration information, and capture all required and relevant documentation details. | | | | |
|  | **1.** The system SHALL provide the ability to render the list of treatments that are to be administered within a specified time frame and including all administration directions/instructions. | 547 | D |  |
| **2.** The system SHALL conform to CP.6.1 (Medication Administration) to support the administration of medications as part of the treatment administration. | 548 | D |  |
| **3.** The system SHOULD provide the ability to render all medications associated with the treatment as given or administered (including dose and quantity of dispensed units of medication). | 549 | D |  |
| **4.** The system SHOULD provide the ability to tag the treatments that are to be administered by the patient (i.e. self-administered). | 550 | D |  |
| **5.** The system SHALL provide the ability to render the information necessary to administer the treatment (e.g., body site, time and frequency). | 551 | D |  |
| **6.** The system SHALL provide the ability to document multiple body sites of desired administration for all scheduled treatments. | 552 | D |  |
| **7.** The system SHOULD provide the ability to render a notification when treatments are due. | 553 | D |  |
| **8.** The system SHALL provide the ability to capture, maintain and render details associated with the treatment as discrete data, including: treatment; date and time of treatment; site; administering provider; observations, reactions and complications; and reason treatment not given, and/or related activity not performed; according to scope of practice, organizational policy, and/or jurisdictional law. | 554 | D |  |
| **9.** The system SHOULD provide the ability to capture, maintain and render details associated with continuous treatments (e.g., infusions, tube feedings, bladder irrigations, suction levels). | 555 | D |  |
| **10.** The system SHALL provide the ability to capture, maintain and render details associated with treatments (including routinely scheduled, "one-time", "on-call" and "PRN") in a manner that distinguishes them from other types of treatments according to scope of practice. | 556 | D |  |
| **11.** The system SHOULD provide the ability to capture information regarding the effectiveness of treatment at the time of administration of the treatment (e.g., patient's immediate response to bronchodilator therapy). | 557 | D |  |
| **12.** The system SHOULD provide the ability to render any clinical interventions or assessments required prior to the treatment. | 558 | D |  |
| **13.** The system SHOULD provide the ability to render any clinical interventions or assessments required subsequent to the treatment. | 559 | D |  |
| **14.** The system SHALL provide the ability to capture verification of patient identity prior to administration of the treatment. | 560 | D |  |
| **15.** The system SHOULD provide the ability to capture verification of patient identity using integrated point of care devices (e.g., barcode) prior to administration of the treatment. | 561 | D |  |
| **16.** The system SHOULD provide the ability to render treatment orders that have not been administered. | 562 | D |  |
| **17.** The system SHOULD provide the ability to render treatments to be administered over a selectable | 563 | D |  |
|  | date/time range. *Page: 24* |  |  |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
|  | **18.** The system SHALL provide the ability to render the treatment administration history including administering provider date and time. | 564 | D |  |
| **19.** The system SHALL provide the ability to render prior treatment history (including treatment assessment data and patient response) prior to the administration of the treatment. | 565 | D |  |
| **20.** The system SHOULD provide the ability to annotate an individual scheduled treatment and include the annotation as part of the legal medical record(e.g., describe the treatment to be administered based upon specific clinical indicators). | 566 | D |  |
| **21.** The system SHALL provide the ability to render the treatment order as written (i.e., exact clinician order language) when rendering treatment specific information including special instructions. | 567 | D |  |
| **22.** The system SHALL provide the ability to capture and render patient-specific instructions related to the treatment. | 568 | D |  |
| **23.** The system SHALL provide the ability to manage information regarding a second provider witness to co-document treatment. | 569 | D |  |
| **24.** The system SHOULD provide the ability to capture the documentation of treatment administration using a barcode scanner or imaging scanner (e.g., scanner capable of reading two-dimensional symbologies). | 570 | D |  |
| **25.** The system SHOULD provide the ability to render an alert to the administering provider when an electronic identification device (e.g., barcode & scanner or Radio Frequency Identifier (RFID)) is used to document treatment and one of the following is in error: right patient, right treatment, right time and right method or there has not been positive identification of administering provider. | 571 | D |  |
| **26.** The system SHOULD provide the ability to manage treatment schedules (e.g., adjustments for delay, refused, unavailable). | 572 | D |  |
| **27.** IF the system provides the ability to manage treatment schedules, THEN the system SHALL provide the ability to render a notification of a change in the treatment schedule. | 573 | D |  |
| **28.** The system MAY provide the ability to auto-populate details associated with the treatment administration from the treatment order information. | 574 | D |  |
| **29.** The system SHOULD conform to CP.1.2 (Manage Allergy, Intolerance and Adverse Reaction List) to capture an reaction to a specific treatment. | 575 | D |  |
| **30.** The system SHOULD provide the ability to capture that patient educational information was provided at the time of the treatment including to whom the information was provided. | 576 | D |  |
| **31.** The system SHALL conform to function [CP.3.2](#_bookmark13) (Manage Patient Clinical Measurements) to capture other clinical data pertinent to the treatment (e.g., vital signs, blood glucose reading). | 577 | D |  |
| **32.** The system SHOULD provide the ability to capture that a treatment has not been administered including the reason for not administering (e.g., patient refusal). | 578 | D |  |
| **33.** The system SHOULD provide the ability to exchange treatment information with other related systems (e.g., pharmacy, laboratory ). | 579 | D |  |
| **34.** The system SHOULD conform to CPS.1.7 (Preferences, Directives, Consents and Authorizations) in order to capture the patient's preferences regarding receipt of treatment (e.g., refusal of certain materials/supplies) at the time of treatment administration. | 580 | D |  |
| **35.** The system SHOULD capture and maintain user preferences for how the list of treatments are rendered. | 581 | D |  |

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| CP.7 | **Manage Future Care** | 582 | Include |  |
| Header |
| **Statement:** Provide the functionality to manage treatment and care planning through presentation of guidelines and protocols as well as managing recommendations for future care.  **Description:** The presentation of appropriate guidelines and protocols for future care and the capture and management of recommendations for future care are required to ensure lifetime care of the patient. This includes the management of recommendations for post-encounter care and linkage of recommendations to other components in the health record such as the problem lists and other source documentation. | | | | |
| CP.7.1 | **Present Guidelines and Protocols for Planning Care** | 583 | Include | DC.1.6.1 |
| Function |
| **Statement**: Present organizational guidelines for patient care as appropriate to support planning of nutrition care, including order entry and clinical documentation.  **Description**: Guidelines, and protocols presented for nutrition care planning may be site specific, based on setting i.e., community or industry-wide standards. | | | | |
|  | 1. The system **SHALL** provide the ability to present current guidelines and protocols to clinicians who are creating plans for nutrition care. | 584 | N/C R | DC.1.6.1 |
| 2. The system **SHOULD** provide the ability to search for a guideline or protocol based on appropriate criteria (such as American Dietetic Association’s Evidence-based nutrition practice guidelines and the Nutrition Care Process protocols). | 585 | N/C R | DC.1.6.1 |
| 3. The system **SHOULD** provide the ability to present previously used guidelines and protocols for historical or legal purposes (such as American Dietetic Association’s Evidence-based nutrition practice guidelines and the Nutrition Care Process protocols). | 586 | N/C R | DC.1.6.1 |
|  | 4. If decision support prompts are used to support a specific nutrition clinical guideline or protocol, THEN the system **SHALL** conform to function DC.1.8.6 (Manage Documentation of Clinician Response to Decision Support Prompts). (Such as American Dietetic Association’s Evidence-based Nutrition Practice Guidelines and the Nutrition Care Process protocols.) | 587 | N/C R | DC.1.6.1 |
|  | 5. The system **SHALL** conform to function DC.2.2.1.2 (Support for Context-Sensitive Care Plans, American Dietetic Association’s Evidence-Based Nutrition Practice Guidelines, Nutrition Care Process protocols). | 588 | N/C R | DC.1.6.1 |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.7.2 | **Manage Recommendations for Future Care** | 589 | Include |  |
| Function |
| **Statement:** Document and support the management of the disposition process for a patient by managing recommendations for future care.  **Description:** Patient encounters or treatments can end in many different states and support for these requires that the EHR support the ability to capture and maintain recommendations for the further future care of the patient. The EHR should accommodate, at a minimum, the following possible recommendations for future care (or dispositions) along with other supporting information for the recommendations:   * discharge, * admission, * transfer, * death, * left without being seen (LWBS), * left without treatment (LWOT), * elopements (i.e. leaving without notifying the facility or wandering), * left against medical advice (AMA), * patients triaged to other clinics, and administrative errors. | | | | |
|  | **1.** The system SHALL provide the ability to capture recommendations for future care as discrete data elements including the recommending provider and an alert date for the recommendation to take effect. | 590 | B/M |  |
| **2.** The system SHALL provide the ability to maintain recommendations and associated recommendation meta-data (e.g., date of alert). | 591 | B/M |  |
| **3.** The system SHALL provide the ability to render an alert of the recommendation based on the date associated with the recommendation (e.g., if recommendation is to "book appointment for physical therapy in 2 weeks" - alert will be triggered in 1.5 weeks for follow-up). | 592 | A |  |
| **4.** The system SHALL provide the ability to capture recommendations for future care or post-encounter disposition from encounter and diagnostic studies imported in structured documents. | 593 | A |  |
| **5.** The system SHOULD provide the ability to capture recommended actions for future care along with the recommending provider, the date recommended and the date suggested to carry out the recommendation. | 594 | A |  |
| **6.** The system SHOULD provide the ability to link the recommendation for future care with the original documentation of that recommendation. | 595 | A |  |
| **7.** The system SHOULD provide the ability to link the recommendation with condition(s) on the Problem List. | 596 | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.8 | **Manage Patient Education & Communication** | 597 | Include |  |
| Header |
| **Statement:** Provide the functionality to effectively communicate with the patient regarding their care and document the communication as part of the patient's medical record.  **Description:** During an encounter with a patient or when any medical decision is made that affects the patient and requires action from the patient it is necessary to communicate effectively with the patient (or their representative) to ensure that they can participate appropriately in their care. This includes providing instructions pertaining to preparation for a procedure, self-administration of medications and self care. | | | | |
| CP.8.1 | **Generate, Record and Distribute Patient-Specific Nutrition Instructions** | 598 | Include | DC.1.9 |
| Function |
| **Statement:** Generate and record patient-specific nutrition instructions related to pre- and post-procedural and post-treatment/discharge requirements.  **Description:** When a patient is scheduled for a test, procedure, or discharge, specific instructions about diet, clothing, transportation assistance, convalescence, follow-up with physician, etc., may be generated and recorded, including the timing relative to the scheduled event. In an outpatient scenario, similar instructions for post-diagnosis, and/or post-treatment needs may also be generated and recorded (e.g., exercise instructions for low back pain, wound or burn care). | | | | |
|  | **1.** The system SHALL provide the ability to determine and render standardized nutrition instruction sets pertinent to the patient condition, for procedures, or scheduled events. | 599 | B/M | DC.1.9#1 |
| **2.** The system SHALL provide the ability to render nutrition instructions pertinent to the patient as selected by the provider. | 600 | A |  |
| **3.** The system SHOULD provide the ability to transmit instruction information in electronic format to be provided to the patient. | 601 | A |  |
| **4.** The system SHALL provide the ability to render as part of patient nutrition instructions details on further care such as follow up, return visits and appropriate timing of further care. | 602 | B/M | DC.1.9#3 |
| **5.** The system SHALL provide the ability to capture an indication that instructions were given to the patient. | 603 | B/M | DC.1.9#4 |
| **6.** The system SHALL provide the ability to capture the actual nutrition instructions given to the patient or a reference to the document(s) containing those instructions. | 604 | B/M | DC.1.9#5 |
| **7.** The system SHOULD provide the ability to annotate patient-specific nutrition instructions. | 605 | A |  |
| **8.** The system SHOULD provide the ability to capture and maintain, as discrete data, the reason for variation from rule-based clinical messages and patient information. | 606 | A |  |
| **9.** The system SHOULD provide the ability to manage patient instructions in multiple languages. | 607 | A |  |
| **10.** The system MAY provide the ability to manage a list of appropriate patient instructions based on age. | 608 | A |  |
| **11.** The system MAY provide the ability to manage a list of appropriate patient instructions based on gender. | 609 | A |  |
| **12.** The system MAY provide the ability to manage a list of appropriate patient instructions based on diagnosis. | 610 | A |  |
| **13.** The system MAY provide the ability to manage a list of appropriate patient instructions based on reading level. | 611 | A |  |
| **14.** The system MAY provide the ability to render educational materials using alternative modes to accommodate patient sensory capabilities (e.g., vision impairment, hearing impairment). | 612 | A |  |

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| **Section/Id#:**  **Type:**  **Name:** | **Conformance Criteria** | **Row#** | **Criteria Status** | **Mapping to R1** |
| CP.9 | **Manage Care Coordination & Reporting** | 613 | Include |  |
| Header |
| **Statement:** Provide the functionality required to coordinate care with other providers and report care provided.  **Description:** During care provision it is necessary to coordinate care with other providers, internal or external to the organization, as well as to communicate the care provided. | | | | |
| CP.9.1 | **Produce a Summary Record of Care** | 614 | Include |  |
| Function |
| **Statement:** Render a summarized review of a patient's episodic, and/or comprehensive EHR, subject to jurisdictional laws and organizational policies related to privacy and confidentiality.  **Description:** Create summary views and reports at the conclusion of an episode of care. Create service reports at the completion of an episode of care such as, but not limited to, discharge summaries, specialist or consultation reports and public health reports, using information captured in the EHR and without additional input from clinicians. | | | | |
|  | **1.** The system SHALL provide the ability to render summaries of the patient's comprehensive EHR that include at a minimum: problem list, medication list, allergy and adverse reaction list, and procedures. | 615 | B/M |  |
| CP.9.2 | **Capture Heath Service Report Information** | 616 | Include |  |
| Function |
| **Statement:** Support the creation of health service reports to authorized health entities that a provider may be required to generate (e.g., the creation of an oncologist's report that must be submitted to a national cancer registry).  **Description:** Providers are prompted to collect sufficient information in the course of care to avoid duplicate, retrospective or other additional data entry as part of supporting health management programs and reporting, for example public health, such as notifiable condition reports, immunization, cancer registry and discharge data. | | | | |
|  | **1.** The system MAY render a notification that prompts providers on the data needed for end of encounter reporting during the continuum of care to streamline end of care data collection. | 617 | D |  |
| **2.** The system SHOULD provide the ability to render service reports at the completion of an episode of care (e.g., discharge summaries or public health reports) using data collected during the encounter. | 618 | D |  |
| **3.** IF the patient is tagged as deceased, THEN the system MAY provide the ability to capture (i.e., trigger) and render the collection of death certificate data. | 619 | D |  |
| **4.** The system SHOULD provide the ability to capture and render the acknowledgement that health service reports have been received. | 620 | D |  |
| **5.** The system SHALL conform to function [CP.9.1](#_bookmark23) (Produce a Summary Record of Care). | 621 | N/C |  |
|  | **6.** The system SHOULD render a notification that prompts providers on the information needed for regulatory safety reporting. | 622 | D |  |