**Designation: E 1384 – 02**

# Standard Guide for
# Content and Structure of the Electronic Health Record (EHR)[1]

This standard is issued under the fixed designation E 1384; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This guide covers all types of healthcare services, including those given in ambulatory care, hospitals, nursing homes, skilled nursing facilities, home healthcare, and specialty care environments. They apply both to short term contacts (for example, emergency rooms and emergency medical service units) and long term contacts (primary care physicians with long term patients). The vocabulary aims to encompass the continuum of care through all delivery models.

1.2 This guide has four purposes:

1.2.1 Identify the content and logical structure of an Electronic Health Record (EHR) consistent with currently acknowledged patient record content. The record carries all health related information about a person over time. It may include history and physical, laboratory tests, diagnostic reports, orders and treatments documentation, patient identifying information, legal permissions, and so on.

1.2.2 Explain the relationship of data coming from diverse sources (for example, clinical laboratory information management systems, order entry systems, pharmacy information management systems, dictation systems), and other data in the Electronic Health Record as the primary repository for information from various sources.

1.2.3 Provide a common vocabulary for those developing, purchasing, and implementing EHR systems.

1.2.4 Provide sufficient content from which data extracts can be compiled to create unique setting "views."

## 2. Referenced Documents

2.1 *ASTM Standards:*

E 792 Guide for Selection of a Clinical Laboratory Information Management System[2]

E 1238 Specification for Transferring Clinical Observations Between Independent Computer Systems[2]

E 1239 Guide for Description of Reservation/Registration-Admission, Discharge, Transfer (R-ADT) Systems for Automated Patient Care Information Systems[2]

E 1381 Specification for Low-Level Protocol to Transfer Messages Between Clinical Instruments and Computer Systems[2]

E 1394 Specification for Transferring Information Between Clinical Instruments and Computer Systems[2]

E 1460 Specification for Defining and Sharing Modular Health Knowledge Bases (Arden Syntax for Medical Logic Modules)[2]

E 1467 Specification for Transferring Digital Neurophysiological Data Between Independent Computer Systems[2]

E 1633 Specification for the Coded Values Used in the Computer-Based Patient Record[2]

E 1712 Specification for Representing Clinical Laboratory Test and Analyte Names[2]

E 1714 Guide for Properties of a Universal Healthcare Identifier[2]

E 1715 Practice for an Object-Oriented Model for Registration, Admitting, Discharge, and Transfer (RADT) Functions in Computer Based Patient Record Systems[2]

E 1769 Guide for Properties of Electronic Health Records and Record Systems[2]

2.2 *ISO Standards:*[3]

IS 5218 1977 Information Interchange—Representation of Human Sexes

IS 1000 1981 SI Units and Recommendations for the Use of Their Multiples and of Certain Other Units

IS 2955 1983 Information Processing—Representation of SI and Other Units in Systems with Limited Character Sets

IS 8072 1984 Information Processing Standard—Open System Interconnection Transport Service Definition

IS 8601 1988 Data Elements and Interchange Formats—Information Interchange (Representation of Dates and Times)

IS 6937:1994 Information Technology—Coded Graphic Character Set for Text Communication (Revision of Parts 1 and 2)

IS 10367:1991 Standardized Coded Graphic Character Sets for Use in 8 Bit Codes

2.3 *Other Health Informatics Standards:*

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HL7 Health Level Seven (HL7) Version 2.2 1994[4]

ACR/NEMA DICOM Version 3.0[5]

NCPDP National Council for Prescription Drug Programs (NCPDP) Telecommunication Standard Format Version 3 Release 2, 1992[6]

ANSI ASC X12: Version 3, Release 3 (1992)[7]

X12.84 Healthcare Enrollment and Maintenance Transaction Set (834)[8]

X12.85 Healthcare Claim Payment Transaction Set (835)[8]

X12.87 Healthcare Claim Transaction Set (837)[8]

2.4 *ANSI Standards:*[8]

X3.30:1985 [R 1991] Representation for Calendar Date and Ordinal Date

X3.4:1986 [R 1992] Coded Character Sets—American National Standard Code for Information Interchange (7-bit ASCII)

X3.43:1986 [R 1992] Information Systems Representation of Local Time of Day for Information Interchange

X3.50:1986 [R 1992] Representations for U.S. Customary, SI, and Other Units to Be Used in Systems with Limited Character Sets

X3.51:1994 Representations of Universal Time, Local Time Differentials, and United States Time Zone References for Information Interchange

## 3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *admitting diagnosis*—a statement of the provisional condition given as the basis for admission to the hospital for study.

3.1.2 *ambulatory care*—also called "outpatient care," that is a comprehensive term for all types of health care provided in an outpatient setting. It may include preventive or corrective healthcare, or both, provided in practitioner's office or clinic setting, or in the hospital on a nonresident basis (that is, not requiring overnight stay and not included in the census). The term ambulatory usually implies that the patient has come to a location and has departed that same day. (Ambulatory care includes alternative (healthcare vice medicine) medicine, healthcare care, for example, acupuncture.)

3.1.3 *ambulatory surgery center*—a freestanding or hospital-based facility offering surgical procedures on patients who are admitted and discharged from the facility on the day of the surgery.

3.1.4 *ancillary service visit*—appearance of an outpatient in a unit of a hospital or outpatient facility to receive service(s), test(s), or procedures; it is ordinarily not counted as an encounter.

3.1.5 *clinic*—an outpatient facility providing a limited range of healthcare services, and assuming overall healthcare responsibility for the patients.

3.1.6 *clinic patient*—admitted for diagnosis or treatment or follow-up on an ambulatory basis.

3.1.7 *continuing care retirement community*—an organization established to provide housing and services, including healthcare, to people of retirement age.

3.1.8 *electronic health record (EHR)*—an electronic health record is any information related to the past, present or future physical/mental health, or condition of an individual. The information resides in electronic system(s) used to capture, transmit, receive, store, retrieve, link and manipulate multimedia data for the primary purpose of providing health care and health related services.

3.1.9 *emergency patient*—a patient admitted to emergency room service of a hospital for diagnosis and therapy requiring immediate healthcare services.

3.1.10 *emergency services*—immediate evaluation and therapy rendered in emergency clinical conditions, sustained until the patient can be referred to his or her personal practitioner for further care.

3.1.11 *encounter*—(*1*) An instance of direct provider/practitioner to patient interaction, regardless of the setting, between a patient and a practitioner vested with primary responsibility for diagnosing, evaluating or treating the patient's condition, or both, or providing social worker services. (*2*) A contact between a patient and a practitioner who has primary responsibility for assessing and treating the patient at a given contact, exercising independent judgment.

3.1.12 *episode*—one or more healthcare services received by an individual during a period of relatively continuous care by healthcare practitioners in relation to a particular clinical problem or situation.

3.1.13 *health maintenance organization*—an organization that provides health coverage to voluntary enrollees in return for prepayment of a set fee, regardless of the services used.

3.1.14 *home healthcare*—clinical care provided or supervised by a practitioner, administered at the patient's place of residence.

3.1.15 *hospice*—a program emphasizing psychosocial support and home physical care, with inpatient care when needed, for terminally ill patients and their families.

3.1.16 *hospital*—an establishment with an organized medical staff with permanent facilities that include inpatient beds and continuous medical/nursing services providing diagnosis and treatment for patients.

3.1.17 *hospital-based outpatient care*—a subset of ambulatory care utilizing the hospital staff, equipment, and resources to render diagnostic, preventive or corrective healthcare, or both.

3.1.18 *inpatient admission*—the formal acceptance by a hospital of a patient who is to be provided with room, board, and continuous nursing service in an area of the hospital where patients generally stay overnight.

3.1.19 *intermediate care facility (ICF)*—an institution which primarily provides health-related care and services to individuals who do not require the degree of care or treatment which a hospital or skilled nursing facility is designated to provide, but who, because of their physical or mental condition, require care and services.

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3.1.20 *length of stay (LOS)*—the total number of patient days for an inpatient episode, calculated by subtracting the date of admission from the date of discharge. If a patient is admitted and discharged on the same date, the LOS is one day.

3.1.21 *licensed practitioners*—an individual at any level of professional specialization who requires a public license/certification to practice the delivery of care to patients. A practitioner can also be a provider.

3.1.22 *longitudinal patient record*—a permanent, coordinated patient record of significant information, in chronological sequence. It may include all historical data collected or be retrieved as a user designated synopsis of significant demographic, genetic, clinical and environmental facts and events maintained within an automated system.

3.1.23 *long-term care*—healthcare rendered in a non-acute-care facility and to a patient in resident or nonresident status; such illness is not severe enough to require an acute care facility, but the patient is in need of continual supervision and assistance by healthcare practitioners.

3.1.24 *non-licensed practitioner*—an individual without a public license/certification who is supervised by a licensed/certified individual in delivering care to patients.

3.1.25 *outpatient care*—see *ambulatory care*.

3.1.26 *partial hospital program*—facilities of the hospital are regularly used on a scheduled basis for care during a substantial number of daytime or nighttime hours.

3.1.27 *patient health record*—the primary legal record documenting the healthcare services provided to a person, in any aspect of healthcare delivery. This term is synonymous with: medical record, health record, patient care record (primary patient record), client record, resident record. The term includes routine clinical or office records, records of care in any health-related setting, preventive care, life style evaluation, research protocols, special study records and various clinical databases.

3.1.27.1 *Discussion*—As the repository of information about a single patient, this information is generated by healthcare professionals as a direct result of interaction with a patient or with individuals who have personal knowledge of the patient (or with both). The record contains information about the patient and other individuals as they relate to the health of the patient, for example, family history, caregiver support.

3.1.28 *patient record system*—the set of components that form the mechanism by which patient records are created, used, stored, and retrieved. A patient record system is usually located within a healthcare provider/practitioner setting. It includes people, data, rules and procedures, processing and storage devices (for example, paper and pen, hardware and software), and communications and support functions.

3.1.29 *primary diagnosis*—the diagnosis of the condition that is primarily responsible for the patient's symptoms and signs and has the greatest impact on the patient's health, or is the most resource-intensive to treat.

3.1.30 *principal diagnosis*—a statement of the condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.

3.1.31 *provider*—a business entity which furnishes healthcare to a consumer; it includes a professionally licensed practitioner who is authorized to operate a healthcare delivery facility.

3.1.32 *referred (patient)*—registered exclusively for special diagnostic/therapeutic service of the hospital for diagnosis/treatment on an ambulatory basis. Responsibility remains with the referring practitioner.

3.1.33 *resident care facility*—a residential facility that provides regular and emergency health services, when needed, and appropriate supporting services on a regular basis.

3.1.34 *school special education*—specifically designed instruction provided by qualified teachers within the context of school, aimed at the acquisition of academic, vocational, language, social, and self-care skills. Includes adapted physical education and use of specialized techniques to overcome intrinsic learning deficits.

3.1.35 *secondary diagnosis*—a statement of those conditions coexisting during an encounter that affect the treatment received or the length of stay.

3.1.36 *secondary patient record*—a record that is derived from the record used by healthcare practitioners while providing patient care services and it contains selected data elements to aid nonclinical persons (that is, persons not involved in direct patient care) in supporting, evaluating, or advancing patient care. Patient care support refers to administration, regulation, and payment functions. Patient care evaluation refers to quality assurance, utilization review and medical or legal audits. Patient care advancement refers to research. These records are often combined to form what the committee terms a secondary data base (for example, an insurance claims data base).

3.1.37 *sheltered employment*—employment provided in a special industry or workshop for the physically, mentally, emotionally, or developmentally handicapped.

3.1.38 *short stay ambulatory care*—a patient admitted to the hospital for an intended stay of less than 24 h, considered to be an outpatient and not included in inpatient hospital census statistics.

3.1.39 *skilled nursing facility*—a long term skilled facility with an organized professional staff and permanent facilities that provides continuous nursing and other health related services.

3.1.40 *UB-92 uniform bill*—a standardized uniform billing form required by federal authorities for Medicare claims and is used as an industry standard. It replaces the 1982 (UB-82) version.

3.1.41 *vocational rehabilitation*—evaluation and training aimed at assisting a person to enter or reenter the labor force.

**4. Significance and Use**

4.1 *This Guide has Four Parts*:

4.1.1 The first part (Section 5) identifies items of information carried in the traditional paper record using the source oriented structures common to paper records. The purpose of this section is to remind users of the spectrum of information that shall be accommodated by the logical structure of a EHR and to present a point of reference for the more abstract description of the patient record that follows.

4.1.2 The second part (Section 6) presents a number of operational principles, including such matters as privacy and

security that should guide the implementation and operation of EHRs.

4.1.3 The third part (Section 7) describes a logical organization and content (common data model) of an EHR. It is not a blueprint for constructing or implementing a EHR system. The model organizes the major informational structures and content of the EHR. The focus is on the structure required to store all clinically relevant patient information: those that describe the patient's state; the actions directed at the patient variables; and the actions initiated to diagnose, educate, or treat the patient. These are regarded as repository functions of the EHR. This standard does not describe all of the data structures required by applications that might use information contained in the EHR. In particular, the data structures used to control and guide the process of care such as utilization review or quality assurance, and the goals or thresholds (for example, mean length of stay) that might be used to judge the patient's care are not included.

4.1.3.1 There are many different ways to implement physical structures that could map into the model presented. It is emphasized that this standard should neither impede technical progress nor define the precise manner in which the EHR system is implemented.

4.1.3.2 At this time, this model defines neither all of the detailed implemented physical structures in some systems nor all of the functional capabilities that may have been implemented. The focus is both upon the kinds of information that should be included and upon a global description of the organization of that data within the EHR. This guide does not deal in detail with issues related to charges and billing for patient care, only the documentation required to support usual charging and administrative issues.

4.1.3.3 This standard deals with the health information as it would be stored in the EHR, not as it would be sent as a message to or from the EHR. Pains have been taken to be sure that the information content from existing healthcare informatics messages that lie within the scope of the EHR can be mapped into the EHR structure. Where mappings are one-to-one, the EHR data elements have been cross referenced with the message fields. However, the EHR is not just a collection of messages. It makes stronger assumptions about the context in which it exists, so there is not perfect correspondence between the structure and content of messages on the one hand and the EHR on the other.

4.1.3.4 This guide applies across a range of scales. Though the ultimate goal is a EHR that spans the entire nation and the lifetime of an individual, the reality is that EHRs are mostly of much smaller scope (for example, within institutions, communities, or states) and these can be implemented much sooner. This standard is intended to apply equally to all scopes of time and place. Within the scope of a EHR all master tables and code systems (for example, service catalog, patient registry, patient identifier) will be held in common. It denotes extensions of text content for document format standards and references standard XML designation for document section tags.

4.1.4 The fourth part (Sections 8, 9, 10) describes some alternative views (subsets of information presented in various

orderings) of the content and considers what should be the minimum data elements contained in the EHR. What has been described as the "Longitudinal Health Record" (a very short precis of the patient's entire history) falls into this category. A set of "views" will serve as the user interface to the EHR for various customers. When all of the data is available in a EHR, providing different views of that data to satisfy various user needs and perspectives will be facilitated. Further, the kinds of views that are "required" and their dependencies (differing by institution, by specialty, by health/medical problem, by practitioner) will evolve over time. Section 10 is a repository of data elements to be used as an electronic health record data dictionary (Annex A1).

4.2 *General—Healthcare Documentation*:

4.2.1 A patient's health record plays five unique roles: (*1*) It represents that patient's health history, that is, a record of the patient's health states and the health services provided, over time. (*2*) It provides a method for clinical communication and care planning among the individual healthcare practitioners serving the patient. (*3*) It serves as the legal document describing the healthcare services provided. (*4*) It is a source of data for clinical, health services, and outcomes research. (*5*) It serves as a major resource for healthcare practitioner education.

4.2.2 Keeping complete and accurate records is an essential part of patient care management. Increasing specialization in healthcare and population mobility has increased the fragmentation of the traditional health record. The EHR offers a unified, coordinated, complete repository of patient health information. It includes such things as treatments, prescriptions, test results, diagnostic impressions, and significant genetic, environmental, and clinical healthcare data.

4.2.3 The person's health record consists of the original documentation of their health information and of the associated health and clinical services provided at the various care sites including the results of tests and outcomes of treatments. Each care site will require basic data that may be common to all care sites, data specific to that particular type of care site, and data unique to the individual care site.

4.2.4 The EHR serves all of the functions of the traditional record but has many advantages.

4.2.4.1 It solves the logistic problems of easy access to the paper health/medical record. Information can be concurrently accessed from multiple locations.

4.2.4.2 It will provide efficient communication of information to support coordination of services between care practitioners.

4.2.4.3 It calls for data content to be stored so that it links to automatic reminders and alerts to avoid errors of omission and commission.

4.2.4.4 By providing cross-patient retrievals it will provide the statistics needed by clinical, outcomes, health services and policy researchers as well as administrators and managers, to define better policies and practices to improve the healthcare process and make it efficient.

4.2.5 The longitudinal healthcare record, which is the brief synopsis of the significant facts derived from the primary

documentation, can be constructed from views of the elements described here.

4.3 *The Role of Standards in Healthcare Documentation*:

4.3.1 Healthcare informatics standards are essential for an efficient and affordable EHR. Even within a single institution, much of the information that should be stored in the EHR will come from other electronic sources. Message standards are needed to ensure that this data can be transmitted from a source system and received and stored with a EHR without requiring human intervention. The need for information from other healthcare facilities (the hospital would like nursing home records when the patient is admitted and vice versa when the patient is discharged) is even greater. Finally, standard terminology, codes, and formats are the sine qua non for aggregating many EHRs for research and policy purposes.

4.3.2 The model for a EHR described here provides a general guideline regarding storage of different kinds of information and recommends minimal content requirements. It promotes common approaches to documentation. The model should be flexible enough to permit the storage of any kind of patient information deemed important by an individual provider, ensure that a minimum set of patient data is maintained, as well as information required by diagnostic and therapeutic services of the future.

**5. Catalog of Health Record Contents by Source**

5.1 This section describes the content of the current paper oriented record by source of data. The purpose of this section is to depict the full range of data that will compose the EHR but described in familiar terms.

5.2 Within the traditional record of care we find the kinds of information shown in Table 1. As Table 1 shows, many categories of information exist, and they can often be broken down into ever more detailed categories depending upon who collects the information and how it is to be used. For example, the physical examination can be broken down into the traditional categories, but subcategories may be possible and, indeed, required. For example, the physical exam of the eye might be recorded as a family of procedures or as a single unit. While one ophthalmologist might break the exams into many subcategories; for example, lid and exterior muscles, conjunctiva, cornea, anterior chamber, and retina; another might not. When more completely structured, the granularity of such exams can be very fine.

5.3 In the traditional record the degree of granularity (expressed detail level) and the degree of structure may vary considerably depending upon specialty, the particular provider, the clinical problem, the kind of care (hospital, office visit, nursing home). The spectrum runs from complete free text (some visit notes) to free text broken down by subheadings of differing degrees (standards formats) of granularity to fully structured data collection instruments (where all questions have multiple choice, coded, or numeric answers). But the degree of granularity can vary among structured data collection instruments, and free text may or may not be allowed as an "escape." Thus, the EHR must also accommodate varying degrees of granularity in the recording of the same clinical information within one patient's record.

5.4 *Structured Data versus Free Text*—It is important to distinguish between two main ways of recording patient information. Some is recorded as free text (for example, the dictated visit note) and some structured data, that is, the information is broken into discrete data elements (single concept types) and the values of each data element is recorded as discrete values (that is, terms codes, or surrogate codes such as multiple choice responses) or number values (for example, laboratory test results). Practically, the computer can "understand" structured data because it has a defined context, but it cannot easily understand free text because it has to determine a context. However, the computer can "process" free text and convert it into a structured form.

5.5 Further complicating matters is the great variation among institutions, specialties, and practitioners in the degree to which they record patient information as free text versus structured responses. Test results are commonly represented as fully structured.

5.6 In some hospitals nursing notes are highly structured, with many separate questions calling for multiple choice options for recording patient's status; in other hospitals the notes are pure text. Major portions of obstetrical histories are recorded on multiple choice instruments in some institutions, as free text in others, and many of these documents originate in the physician's office. Radiologists break their reports of X-ray studies into description and impression, both of which are recorded as free text. Echocardiograms are usually reported as a set of discrete measurements (for example, left ventricular diameter, ejection fraction for echocardiograms).

5.7 There are many reasons for preferring structured to free text observations. (At the very least, the impressions of imaging studies diagnosis reported at visits and surgeries should be reported in structured forms.) However, rigorous structuring imposes time cost on the observer. In particular, when reporting a patient's perceptions, anxieties, or other conversationally acquired information, it is impossible to predict what will be said. Forcing such information into a predetermined structure may degrade the richness of the content and could lead to erroneous interpretation of meaning. In some areas traditionally handled through free text, history and physical examinations, hospital discharge summaries, etc., standards are being developed to apply structure (formats). Yet, these areas are just underway. Given historical preferences, and the mass of existing free text information, the EHR must accommodate both structured and free text reporting for the foreseeable future. It may even have to accommodate structured or free text values, or both, for the same variable, depending upon who does the recording. In addition, the EHR must accommodate information from outside sources, such as lab work from a pervious admission at another facility. Free text processing is available through several approaches. The encoding of text into machine codes has been one approach. Term analysis, internal coding, and pattern mapping for clinical fact extraction also can be done. This area is in rapid development and should be monitored for application to EHR systems.

**E 1384**

### TABLE 1 Contents of the Traditional Patient Record

| Category | Subcategory | Examples and Components |
|---|---|---|
| Patient registration information | Identifying information | Sex, birth date, race |
| | Locating information | Home address, home phone, work phone |
| | Insurance information | Name of plan |
| | Guarantor information | ... |
| Patient problem list | ... | Problem number |
| | | Problem name |
| | | Date of onset, status |
| Patient extended encounters | Hospitalization admission records | Insurance information (for current encounter), guarantor information (for current encounter), chief complaint, diagnoses, clinical variables (observations, tests, measurements), final diagnosis/problem, corrections to registration information, procedures performed, etc. |
| | Practitioner hospital notes | |
| | Practitioner visit notes | |
| | Home healthcare notes | |
| | Hospital discharge summary | |
| Encounters | Office/clinic visit | |
| | Home healthcare visit | |
| | Practitioner visit within extended stay | |
| | Emergency room visit | |
| Patient care plans | Clinical roadmaps | Assessment data |
| | Chronic disease management | Plans delineating therapy, education, scheduled appointments |
| | Plans for specific patient problems | |
| Orders | Medication orders/prescription | |
| | Test orders (Lab Tests) | (both continuing orders, for example, Hgb QAM, and point orders, for example, glucose stat) |
| | Diet orders | |
| | Other treatment orders | |
| | Physical therapy order | |
| | Occupational therapy order | |
| | Respiratory therapy order | |
| | Nursing treatments order | |
| | Other observation orders | |
| | Nursing observations (also independent of orders) | |
| | Consults (to variety of clinical specialists) | |
| | Nursing interventions | |
| Service Instances | Confirmation of receipt of orders | |
| | Documentation of completion of each step of process (for example, MAR report) | |
| Procedures | Surgical procedure | Pre-procedure orders, pre-operative diagnosis, procedure identifier, provider(s) performing procedures, permissions for procedure, procedure note, duration of procedure, medication used, immunizations, complications, final diagnosis, post-operative orders, after care plans |
| | Outpatient procedures | |
| | Invasive diagnostic studies | |
| | Bedside procedures | |
| | Imaging studies | Thyroid scan, chest X-ray, cardiac echoes, OB ultrasound, vascular dopplers, cardiac catheterizations |
| | Physiologic tracings | EEGs, EKGs, prenatal monitors, cardiac monitors |
| | Other special studies | Glaucoma fields, pulmonary function, sleep studies |
| | Practitioner notes | Physicians', nurses', physical therapists', etc., notes |
| | Provider discrete observation | Blood pressure, heart rate, skin fold thickness, eye tonometry, infant's head circumference |
| | Identifying information | Patient's name and identifying number |
| | Health history | Chief complaint |
| | | Source of history |
| | | Present illness |
| | | Family Hx |
| | | Social Hx |
| | | Functional status Hx |
| | | Travel Hx |
| | | Occupational Hx |
| | | Childhood disease Hx |
| | | Surgical procedures Hx |
| | | Allergy Hx |
| | | Medication Hx |
| | | Review of systems |
| | | Smoking Hx total |
| | | Smoking Hx current, etc. |
| | Physical exam | General status Px |

6

**TABLE 1** *Continued*

| Category | Subcategory | Examples and Components |
|---|---|---|
| | | Vital signs Px |
| | | Skin Px |
| | | Head Px |
| | | Eyes Px |
| | | Ears Px |
| | | Nose Px |
| | | Mouth/throat/teeth Px |
| | | Thorax/lungs Px |
| | | Breasts Px |
| | | Heart Px, etc. |
| | Lab Data | |
| | Toxic exposures | |
| | Nursing assessments | |
| Legal documents | Surgical releases | ... |
| | Organ donor permissions | |
| | Advance directives (release of documents) | |
| Schedules (surgery/clinic, etc.) | Requests for resource | Send patient to eye clinic |
| | Assignment of resource | |
| | Documentation of delivery to resource and return | |
| Supplies and equipment | Consumables (4×4's) | ... |
| | Attachments | |

## 6. Operational Considerations

6.1 Operational aspects that affect the record's structure and use need to be addressed in any approach to EHR development. These include: General Principles, Data Types, Identifiers, Initiation of the Record, Access to the Record, Essential Data Elements, Retention of the Record, and Referential or Master Tabular Data.

6.2 *General Principles*—In identifying and defining the general content and structure of the patient health record for the design of systems, certain operational principles apply.

6.2.1 Identify the patient health record as the main patient-specific clinical repository component of all health information systems and, as such, the primary repository source of all documentation of clinical care.

6.2.2 Establish standard minimal components of all patient records, and their content, in all healthcare delivery environments.

6.2.3 Accommodate compilation of data into views (synopses) of the patient care record, visits or episodes appropriate to each healthcare delivery setting and which should be accessible locally and included in the unified longitudinal record.

6.2.4 Ensure that the standardized content conforms to the known health data standards.

6.2.5 Define the logical structure of the patient record which, when used for electronic health record systems, enables consistency in the data organization.

6.2.6 Specify data element definitions that conform to standard nomenclature and are mapped to related formally approved standards.

6.2.7 Identify and reference coding systems consistent with current health reporting retrieval, analysis, and reimbursement needs.

6.2.8 Specify data security and confidentiality measures.

6.2.9 Identify the long-term and short-term clinical value of the data elements contained in the patient health record.

6.2.10 Ensure a patient role in contributing all reported data as appropriate for EHR content development and outcomes assessment.

6.3 *Data Types*—Each of the data elements identified have representations of their data values that fit into a limited number of classes called data types. These include person names, addresses, text, phone numbers, numeric values, dates and times and "coded" (terms and their surrogate codes from a variety of systems). Refer to Table 2 for a complete list. Coded values, particularly, point to referential master tables. In those tables, the term that is human understandable may have a number of code values from different coding systems associated with it. Indeed, they may even be in different languages. When communicating with other systems using messages, a coding system identifier and the code value for that term in the identified system must all be associated with the value for the data element of interest. The date-time data type permits varying degrees of granularity from day, hours to even decimal seconds; a time zone offset from Greenwich Mean Time can also be used. One of these values sets will be used for each data element defined. Messaging standards may require additional subtypes which will be defined within those standards.

**TABLE 2  Data Types**

| Value | Description |
|---|---|
| AD | Address |
| CE | Coded entry (for example, Test Ids, Dx codes) |
| CK | Composit ID with check digit |
| CM | Composit miscellaneous |
| CNA | Composit ID and person name |
| CQ | Composit quality with units <number>ˆ <units> |
| ID | Identifier |
| MO | Money |
| NM | Numeric |
| PN | Person name |
| RP | Reference pointer |
| ST | String for short text and numerics |
| TN | Telephone number |
| TS | Time stamp (date and time) |
| TX | Bulk text |

6.4 *Identifiers*— Identification of persons (patients, practitioners) and places (healthcare facilities, locations, and workstations) is an important component of the data collection process. The original source healthcare location information shall be captured for each event of care by using provider identification elements that are established for each setting. Check digits for the provider and patient record number should be included.

6.4.1 *National Patient Health Identifier*—Each individual patient should be assigned a unique healthcare code number. Fields for the identifiers for blood relatives and, where appropriate, spouses (**1**)[9] should be included in the patient record to allow these related records to be found when appropriate. The number attributes should be unique, permanent, atomic (a single data item), concise, controllable, assignable, universal, unambiguous, used solely for healthcare and compatible with current standards. It shall provide protection of confidentiality and privacy.

6.4.2 *Identification of the Healthcare Setting*—The healthcare location and setting information shall be captured by using specific synopsis data sets (Specification E 1633) that are preestablished for each setting. Information technology can be used to facilitate the recording of these data sets. The system shall be capable of receiving and storing this data regardless of the medium but in conformance with the standard transfer format to be defined by ASTM.

6.5 *Initiation and Construction of the Patient Health Record*:

6.5.1 *Registration/Reservation Establishing the Patient Health Record*—Patients must be registered into an established EHR system by capturing the demographic information which identifies the patient and opens a formal patient record (**2**). This information allows repeated and accurate identification of patients from one care setting to another and provides the link for additional healthcare information over time.

6.5.2 *Identification of Patients*:

6.5.2.1 The original source health care location information shall be captured for each event of care by using provider defined identification elements that are preestablished for each setting and stored as a longitudinal view of the original source record or transferred to a patient designated longitudinal health record system.

6.5.2.2 *Authentication of Data Entries*—All data entries will be authenticated by user identification, and date and time entries will be recorded automatically.

6.5.3 *Registration and Establishment of the EHR Record for Newborns*—At birth, a newborn record will be initiated as a patient health record. From the obstetric record of the mother the following data shall be transferred to the newborn's record:

6.5.3.1 Infant's full name,

6.5.3.2 Date of birth,

6.5.3.3 Sex,

6.5.3.4 Explicit identification of both parents,

6.5.3.5 Synopsis of abnormal prenatal findings and events,

6.5.3.6 Synopsis of perinatal abnormal events,

6.5.3.7 Genetic synopses of both parents, and

6.5.3.8 Significant socioeconomic facts on family circumstances.

6.6 *Access to Records*—Policies and procedures for access to electronic health records must be established within the organizational policy structure.

6.6.1 *Privacy of Patient Health Records*—Access to patient health records is controlled to maintain privacy. See Guide E 1769 and other ASTM standards for confidentiality and privacy.

6.6.2 *Release of Records for Clinical, Administrative and Research Purposes*—Records shall be released for clinical uses that provide direct care services to patients in line with appropriate consent policies and procedures. Administrative needs for patient data to be drawn from the electronic health record shall be processed within appropriate legal guidelines and established health facility patient data confidentiality and security programs. Research use of patient data which is drawn from the EHR shall be provided as aggregate, unidentified data whenever possible. Research projects which seek the use of identified patient data shall be reviewed by the appropriate committee of the organization and shall conform to the patient data confidentiality and security program guidelines. Automated systems shall provide the necessary checks needed.

6.7 *Essential Data Elements*:

6.7.1 Minimum data sets for descriptive purposes have been determined from the health records in major clinical settings and these have been previously published. They are:

6.7.1.1 Department of defense/composite healthcare system (**3**),

6.7.1.2 Uniform hospital discharge data set (**4**),

6.7.1.3 Basic ambulatory medical care data set (**5**),

6.7.1.4 Minimum uniform data set for home care (**6**),

6.7.1.5 Minimum hospice data set (**7**),

6.7.1.6 Minimum data set for long-term care (**8**),

6.7.1.7 Health record core data set (**2**),

6.7.1.8 Occupational health data set (**9**),

6.7.1.9 Emergency medical information data set (**10**),

6.7.1.10 Summarized health profile (**11**), and

6.7.1.11 The nursing minimum data set (**1**).

6.7.2 Recommended content of patient care records has also been developed and published by accrediting and certifying organizations. These include the Joint Commission on Accreditation of Healthcare Organization (JCAHO), the National Committee on Quality Assurance (NCQA) and others.

6.8 *Retention of Records*—Patient health record retention criteria for both written and electronic records must be established to conform to the requirements of Federal and state statutes.

6.9 *Master Tables*:

6.9.1 A basic approach to defining EHR content is through master tables and data views. A master table is a list of variables that represent the range of attributes currently defined for a given subject. Table 3 is an example of an excerpt from a master table. Others are standard coding systems such as ICD9, a problem list directory, a catalogue of risk assessment questions organized as reference for patient reported status as

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[9] The boldface numbers in parentheses refer to the list of references at the end of this standard.

**TABLE 3 Ophthalmology Exam Variables**

| | |
|---|---|
| Pupils | |
| OD pupil | OS cornea cannot be assessed |
| OS | OS shallow anterior chamber |
| | OS cornea cannot be assessed |
| Amsler Grid | |
| OD Amsler Grid | Anterior Chamber Findings |
| OS Amsler Grid | OD AC normal |
| | OD AC flare only |
| Corneal Examination | OD AC cells only |
| OD normal cornea | OD AC keratic precipitates |
| Guttata w/o edema | OD AC posterior synechiae |
| OD confluent guttata w/o edema | OD pupil mydriatis |
| OD corneal edema | OD pupil irregular |
| OD central corneal opacity | OD shallow AC |
| OD corneal dystrophy or | OD Transillumination defects, |
| degeneration | etc. |

well as short tables illustrated within this standard and discussed in Specification E 1633. By using master tables we can provide both a short term and a long term approach to methodically addressing EHR content. By developing the master tables from these resources, users can apply the standard in diverse settings. Users would use this guide with the appropriate master tables to select standard recommended and optional vocabulary to define the EHR vocabulary in their organization. Overlap will occur among the tables. Master tables can be developed and refined as necessary. They also provide the means of proposing minimum content as well as the more detailed and comprehensive content by EHR areas. Master tables examples that reflect EHR content vocabulary are:

6.9.1.1 Complete patient health history variables,

6.9.1.2 Complete patient self reporting history questions catalogue,

6.9.1.3 Complete patient assessment/physical exam variables,

6.9.1.4 Patient self reporting functional status reporting items (for example, SF-36, Dartmouth 9),

6.9.1.5 Health outcomes variables,

6.9.1.6 Master table of vital signs variables,

6.9.1.7 Master table of instrument monitoring variables, and

6.9.1.8 Master table of laboratory tests, etc.

6.9.2 Tests, supplies and equipment have attributes when considered in the abstract (separately from results or use in a particular patient). These are attributes that would be listed in a catalogue of the available tests, supplies or equipment. The attributes of a test might be when it could be obtained, the preparation requirements for specimens, the price, the normal range, the units and so on. Much of the same applies to supplies and equipment. The idea of maintaining a "catalogue" or definition table for items such as supplies, orders, observations and equipment is a powerful construct. It permits easy additions and extensions. (New tests and observations can be created without having to redefine the universe, or rewrite programs.) More attributes can also be added to the item to give the universe of entities new behaviors with little or no effect on the previous version of the world. Most laboratory systems, pharmacy systems, billing systems, inventory systems and other systems that must deal with large numbers of discrete items use a general object, or file to carry context-insensitive attributes and "pointers," or indexes, to refer to the entry of

interest. Tables are used by the long-surviving EHRs.

6.9.3 The notion of observations in its most general sense is used to mean any aspect of a patient that can be described at a particular time. It follows Allan Rector's idea of an observation (**12**) a serum glucose, a chest X-ray impression, a Glasgow coma score, each of the questions on a health or functional status, (for example, SF-36, D-9), a history of present illness, urine output and nurses notes are each an observation. An observation is an attribute of a patient, that is, an atomic unit or "chunk" in which clinical information is recorded. The observation, however, cannot stand alone. It has a context and general attributes that define that context that are independent of the particular patient's observation, such as: units of measure in which it is reported, its name and synonyms, its class, information about how it is grouped in reports or where it is stored and so forth. This context-independent data is stored in master tables. These tables make it possible to accommodate different degrees of granularity and easily adapt to change. New entries are easily added to these tables since new concepts arise continually in patient care. It is again important to note that this document describes observations in an implementation independent fashion using a notation that depicts logical relationships but implies no implementation technique. Data element segments and grouping are used but other logical relationships could also be used. In any case master tables hold the context insensitive data while the groupings of data elements deal with the context sensitive relationships that establish the observation's meaning.

6.9.4 When selected few observations are gathered in a particular setting, a simpler structure can be employed. For example, if a diabetes clinic wished to capture only 20 variables (for example, diastolic and systolic blood pressure, blood glucose, hemoglobin Alc, weight, pulse, foot lesions (present/absent) etc.) one record per visit might be created and specific fields defined for just those specific observations. A master term table would not be needed. But if other requirements arise, this approach is very rigid, limited and does not work well in the general case. A EHR may have 10 000, or more kinds of observations (there may be 5000 different laboratory tests that could be recorded, for example). Further, observations may be recorded multiple times by different providers during the same visit. The rigid structure cannot accommodate that situation.

**7. The Overall Structure of the Electronic Health Record**

7.1 The discussion of the structure of the EHR must relate the major entities (objects) of the record to the identified record segments. The clinical heart of the EHR is the core of the entities: patient, provider, problem, encounters, orders, services and observations. The record segments that relate to these entities are shown in Fig. 1. The focus of these relationships is the RADT object model, dealt with in Practice E 1715, that provides the foundation for linking the entities in Fig. 1 to the detailed inventory of data elements given in Annex A1. Table 4 shows how the segments currently accommodate the entities.

7.1.1 Notice that most of the entities listed in Fig. 1 have their own attributes. For example, the patient has the attributes of sex, race, birthdate, etc. Each order includes attributes that identify the item(s) ordered, the date of the order, the ordering
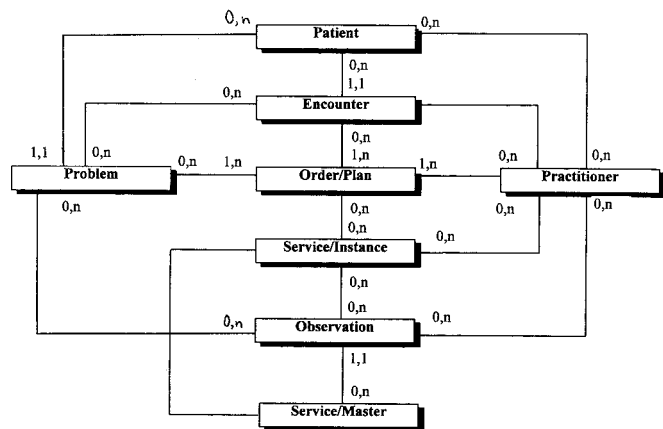
**FIG. 1 Patient Record Object Model**

**TABLE 4 Patient Record Content Structure Data Categories, Segments and Entity Relationships**

| Data | Category and Segments | Entity |
|---|---|---|
| Administrative Data | | |
| I | Demographics | Patient |
| II | Legal agreements | Patient |
| III | Financial information | Patient |
| IV | Provider/practitioner | Provider |
| Clinical Data: Problem/Diagnoses | | |
| V | Problem list | Problem |
| Clinical Data: History | | |
| VI | Immunization | Service instance |
| VII | Hazardous stressor exposure | Observation |
| VIII | Health history | Observation |
| Clinical Data: Assessments/Exams | | |
| IX | Assessments | Observations |
| * | Patient reported data | Observation |
| Clinical Data: Care/Treatment Plans | | |
| X | Clinical orders | Orders |
| Clinical Data: Services | | |
| XI | Diagnostic tests | Observations |
| XII | Medications | Service instance |
| XIII | Scheduled appointment/ events | Encounter |
| Administrative Data: Encounters | | |
| XIV a | Administrative data | Patient |
| f | Encounter disposition[A] | Encounter |
| Clinical Data: Encounters | | |
| b | Chief complaint/ diagnoses | Observation |
| c | Clinical course | Observation |
| d | Therapy/procedures | Service instance |

[A] These are new concepts or reordered data, or both. Note that the clinical heart of the EHR is the core of the entities (Objects). The record segments that relate to these are shown.

provider, the urgency of the order (stat, now, routine, etc.), the ordering instructions can be further broken down into amount, frequency, duration, special conditions for many orders. These will all be presented in detail in Section 9.

7.1.2 For some of these entities, the industry has enough experience with them that the overall structure is well understood and easy to describe. In some information areas, especially those that are represented by free text in the traditional record, much is yet to be learned.

7.2 *Perspective*—Representing the overall structure of the record is difficult since it is complex and has a number of dimensions. It also can be viewed from many perspectives. Four of these are: chronological, by encounter/episode, by problem, and by topic. Each of these views looks at the same stored data in a different way. There can be many perspectives and even more ways of displaying the same data. This guide must represent the complex storage structure in two dimensions. Therefore, in Appendix X1 several notational conventions are used. One of these is a "pointer" followed by a target segment or external master table. This allows data values in these tables to be referenced without clouding the basic structure being illustrated. These representations are not intended to imply implementation techniques but, rather, logical relationships. Another difficult task is that of representing the data needs of different settings in a manner that captures the diversity and complexity of the observations as they relate to service instances and requests. These aspects will be further expanded in the discussion of the appropriate segments.

7.3 *Segment Categories*:

7.3.1 In order to provide a comprehensive structure for the EHR record, it must be organized into major segments that are clearly identified and to which information can be consistently added from one setting and episode to another over time. The segments were identified through analysis of the content of the existing data sets and each segment describes and represents a category or type of information that can be seen in all patient care records.

7.3.2 As noted in Table 4, these segments have been regrouped for a more universal understanding of administrative and clinical. The following discussion deals with the essential data elements in each segment. The entire list is summarized in Appendix X1 and each element's attributes are detailed in Annex A1, which gives a definition and form of representation. These elements may be utilized in different constellations in different settings, but each element's meaning remains the same wherever it is used.

7.3.3 Segments 1 to 13 (see Table 4) contain elements that are widely used in all settings and apply to both patient record and the longitudinal precis regardless of setting. They are not specific to any one episode or encounter though they may be initiated or updated during an encounter. The way they reflect the relationships shown in Fig. 1 and Table 4 will be discussed in the following sections.

7.4 *Occurrence and Utilization of Record Segments in Different Settings*—Table 5 outlines the classes of settings that maintain a patient record of care which contains the identified segments to some degree.

7.5 *Segment 1, Demographics*—These are personal data elements, sufficient to identify the patient, collected from the patient or patient representative and not related to health status or services provided. Some of these elements may require updating at each encounter or episode and must satisfy various national standards and regulations such as a Joint Commission Standard, conditions of participation for medicare, uniform hospital discharge, ambulatory, and long term care data sets.

7.6 *Segment 2, Legal Agreements*—This includes data elements indicating legally binding directions or restraints on

### TABLE 5 Sites of Care

| | |
|---|---|
| Ambulance/aid-car | Hospital, government |
| Ambulatory surgery facility, free-standing | Hospital, outpatient department |
| Ambulatory surgery facility, hospital-based | Hospital, psychiatric |
| Birthing center, free-standing | Hospital, rehabilitation |
| Birthing center, hospital-based | Hospital, trauma center LVL 1 |
| Clinic/health center, comp outpatient rehabilitation | Imaging services facility, free-standing |
| Clinic/health center, dental | Independent laboratory |
| Clinic/health center, free-standing | Industrial health/occupational health center |
| Clinic/health center, health maintenance organization | Intermediate care facility |
| Clinic/health center, outpatient mental health | Intermediate care facility-mentally retarded |
| Clinic/health center, pain | Mental health multiservice organization |
| Clinic/health center, rural | Mental health partial care organization |
| Clinic/health center, urgent care center, walk-in, free-standing | Private office, group, fee-for-service |
| | Private office, group, prepaid |
| Clinic/health center, vision | Private office, solo practice |
| Custodial care facility | Residential treatment center, emotionally |
| Day care center | Disturbed children |
| End-stage renal disease treatment facility | Residential school |
| Home health | Retirement center |
| Hospice, free-standing | School clinic/infirmary |
| Hospital, acute care | Sheltered employment workshop |
| Hospital, acute care with psychiatric services | Skilled nursing facility/nursing home |
| Hospital, burn center | Special education program |
| Hospital, cancer | Substance abuse treatment facility, resident |
| Hospital, children's | Nursing center |
| Hospital, emergency room | Vocational rehabilitation unit |

patient healthcare, release of information and disposal of body or body parts, or both, after death.

7.7 *Segment 3, Financial*—This segment contains the references to the financial bodies that will cover the cost of care. This segment may be referred to from within the record, as during encounters/episodes. Such reference would obviate the need for a redundant collection of such data during the visit.

7.8 *Segment 4, Provider/Practitioners*:

7.8.1 This segment contains in one place the descriptive data about each provider/practitioner and may then be referenced when recording data about the events of healthcare. This includes the provider identifying data on the primary organization, or establishment responsible for the availability of healthcare services for a specific episode or encounter.

7.8.2 Practitioner identifying data elements are those associated with the individuals licensed or certified to deliver care to patients, who had face-to-face contact with the patient, and provided care based on independent judgment.

7.9 *Segment 5, Problem List*:

7.9.1 This includes specified clinical problems, a diagnosis summary and stressor exposure, an ongoing list of clinically significant health status events and factors, resolved and unresolved, in a patient's life. This list should contain all past and existing diagnoses, pathophysiological states, potentially significant abnormal physical signs and laboratory findings, disabilities, and unusual conditions. Other factors such as social problems, psychiatric problems, risk factors, allergies,

reactions to drugs or foods, behavioral problems or other health alerts may be included. The problem list is to be amended as more precise definitions of the problems become available. Controlled vocabulary for problem lists may be contained in a problem list directory master table.

7.9.2 This segment contains a master list of all of a patient's problems or diagnoses. It may be referenced, as noted in 7.18.2 in presenting the diagnostic summary beginning each encounter/episode. All problems or diagnoses initially recorded in a specific encounter/episode will also be entered in this master list.

7.9.3 Whenever possible, identification of risk factors (health alerts) that should be known prior to implementing any health services should be included in this section. They can be considered to be instances of a special type of patient problem and include allergies, contagious conditions, and adverse reaction to specified treatments.

7.10 *Segment 6, Immunizations*—Considered a component of patient health history, this segment contains, chronologically, all immunizations administered to the patient and their current status. This synopsis may also be copied to an emergency record to accompany medical alert data. Acquired (active or passive) or induced immunity or resistance to particular pathogens produced by deliberate exposure to antigens is included.

7.11 *Segment 7, Exposure to Hazardous Substances*:

7.11.1 The what, where, when, and how data on actual or potential exposure to all biological, physical or chemical agents that might be associated with adverse health effects are listed in this segment. This segment should provide data for epidemiological studies to determine correlation of disease with exposure to environmental stressors.

7.11.2 Because of the potentially long latency period in exposure to hazardous substances before the appearance of effects, the chronological record of exposure—both in the workplace and out, where appropriate—to hazardous chemical, physical, biological, or radiologic stressors to the body is contained in this segment. It has particular importance when accessed as part of the synoptic record because its completeness acts as a prompt to providers/practitioners long removed in time or space, or both, from the original entry that the signs and symptoms of health conditions may be due to previous exposure. Absence of such data does not rule out such exposure but presence provides direct clues needed to identify the possible causes of an observed condition.

7.12 *Segment 8, Family/Prenatal/Cumulative Health/ Medical/Dental Nursing History*—The long term relevant natural family and patient history and signs which would aid practitioners in predicting or diagnosing illness, or actual or potential alterations in health, or predicting outcome of the patient's care are all the focus of this segment. The historic record of previous signs and symptoms complements the problem list in itemizing, in an integral way, the manifestations of prior disease, illness or health status not yet documented in the problem. It characterizes those already present in that list and it takes the form of a categorized list of questions of the form: "Have you ever_____? If so, when?" During each encounter/episode this list may be updated by the preface:

"Since the last visit have you ever_____? If so, when?" so that the most recent observations can be added to the growing list. This integral process then collects the most reliable observations from the patient, (historically categorized in patient records) review of systems, and nursing history or other method, and adds them to the historic body of (at the time) freshly collected data. Ideally, this process begins during gestation and the initial observations are transferred from the mother's record to that of the newborn at birth. Fresh observations are added throughout the patient's lifetime. If continuity can be maintained, the practitioner need not have to reconstitute the early record, at least not often, at each encounter. Recommended and optional attributes of patient history are included in a master table.

7.13 *Segment 9, Assessments/Exams*:

7.13.1 Assessments/exams characterizes the patient's health status in tandem with the history. Depending upon the setting, this segment may include a general or specialty medical or dental exam or assessments by nursing, dietary, social service, therapy or dental hygiene specialists, or all of these. The assessments may be all-inclusive or may relate only to hands-on care of very special problems (that is, particular body systems, psychosocial assessment, dental, vision communication, etc.). All data pertinent to pre- and perinatal care including monitoring during delivery are also included in a post-delivery exam assessment. Details of the actual delivery for the newborn are to be entered in the specific section containing health factors of the neonate. Recommended attributes of assessments/exams are identified in master tables.

7.13.2 This segment records the observations of the practitioner during structured and systematic examinations of the patient's body during encounters/episodes. It contains objective observations and measurements that quantify attributes of each body system. These are the same body systems about which patient questions are asked during the history. Such common categories allow characterization of expressed problems with observational evidence in explicit common terms and measures that, over time, allow practitioners to follow the course of illness and recovery. This focuses on the physical assessment of the patient and is combined with appropriate psychosocial assessment to compose overall patient assessment status. These observations complement the diagnostic terms described in 7.15. They also relate to the effects of therapeutic interventions, such as medications, as described in 7.16.

7.14 *Segment 10, Care/Treatment Plans and Orders*:

7.14.1 Data entries that direct a patient's treatment includes detail data on deliverance of orders and compliance with any diagnostic or therapeutic treatment plans, whether written, oral or standing.

7.14.2 A care treatment plan may be a broad perspective program that identifies planned clinical encounters, education and scheduled events related to specific diagnosis or set of problems (for example, diabetes). It may also be a short term tool applied, for instance, in acute care or other setting that arranges interdisciplinary roles to carry out therapies, nursing services and other activities. While not always explicitly defined, care plans are typically based on protocols and guidelines. In some cases, they are developed via consensus.

7.14.3 A clinical order is an action-oriented message describing an intervention in the health of a specific patient originated by, or under the supervision of, a practitioner. A clinical order has legal implications regarding responsibilities for the ordered intervention as well as quality of care implications that may be assessed by supervisory bodies or clinical researchers, or both. It is therefore necessary to specify the logical structure of this message and to define the representations to be used for each constituent data element. The clinical order acts also as a communication and coordination mechanism for all of the practitioner and ancillary professionals who may participate in the actions set in motion by the order. The clinical order structure is complex and may be thought of as a network structure because of the complexity of relationships between specific data elements within the clinical order and other data elements located elsewhere in the care record. Because this complex structure is difficult, and perhaps practically impossible, to represent by means of two dimensional paper forms, there is no explicit manual-mode model for this kind of data structure. Paper records have relied on plain text representations in recording the order. In practice these relationships among the data elements have been implicit in the inculcated practices of professional training. This guide attempts to explicitly define this structure.

7.14.4 Since a clinical order is a message, it has a heading and a body. The heading specifies the originator, the object patient, the routing and the addressee(s). The body contains a structure that is greatly dependent upon the action addressee but does have a large degree of commonality across all types of orders. Since the message objective is a specific patient, a copy of all orders for that patient shall be filed in the patient's care record. This follows current accountability practice regarding the manual record and its legal status as the record of care received by a patient. Other copies may be stored for use by the action or information addressees, as appropriate. A given clinical order may be more appropriately created by means of preexisting templates, or sets of templates, that contain preassigned data.

7.14.5 The data elements in each order are in the following functional groups:

7.14.5.1 Those that identify the patient,

7.14.5.2 Those that identify the action or ancillary service,

7.14.5.3 Those that identify the orderer(s),

7.14.5.4 Those that control the timing or delivery of services, or both,

7.14.5.5 Those that describe the requested service and conditions of delivery,

7.14.5.6 Those that document the delivery of results, and

7.14.5.7 Those that are used for quality assurance.

7.14.6 The logical structure in Appendix X1 lists these data elements showing their structural relationships within the message and the data elements to which they may be related in other segments of the clinical record.

7.14.7 *Orderer Group of Data Elements*—The elements in this group provide a means of tracking the initiation and responsibilities for each order. This group also helps ensure that various subordinate practitioners do not exceed the bounds of their training by ordering, unaided, procedures they have not

yet been qualified to use. At the same time, these steps must, many times, be started in the absence of a practitioner having adequate authority to fully initiate the procedure or service ordered. In hospitals, the actions of the nursing staff and health practitioner students or those in training may require review and validation by co-signing for services having major health or cost implications from the aspect of accountability. Institutional policy must provide the criteria for expeditious action in identifying services needing higher permission levels from the responsible staff; this two-tier approach allows actions to be initiated in a timely fashion but yet rescinded, if appropriate. Therefore, the data elements in this group identify the needed information applying to a wide variety of situations. Nevertheless, not all elements may apply in a given situation.

7.14.8 *Action/Ancillary Service Data Elements*—The elements in this group identify the action performers and the type and priority of the order.

7.14.9 *Order Content Data Elements*—This group of data elements conveys the explicit service/actions desired for the patient. It may include patient data extracted from other segments of the record, as required to conduct the services or to carry out the action. Each ancillary service or treatment site must be able to define the data which will be required in this group in order to be able to carry out the ordered actions. Such data requirements will be found in appropriate subordinate files and will control, by prompting, the construction of the text of the order to meet these requirements. Modifications to the order shall be appended to the original text while other data elements shall document the course of each modification.

7.14.10 *Result Group*— This group of data elements documents the delivery of the result data from the service or action, as appropriate, while the results themselves are stored separately in the appropriate segments of the record.

7.14.11 *Quality Assurance Group of Data Elements*—This group of data elements documents the circumstances of actions that are exceptions to the routine process for each ordered action or service. They assume that a process is evaluating the specific criteria for each clinical order in order to establish the regular bounds. Because healthcare must deal with the unexpected and the unusual, recording of events that are unusual because they are outside the bounds of routine experience in no way implies that they are not required for treatment. Rather, these data elements flag such events so that they can be easily recognized for review. That they were reviewed is also documented in order to ensure that significant findings are not overlooked.

7.15 *Segment 11, Diagnostic Tests*—Significant details of tests performed aid the practitioner in the diagnosis, management and treatment of the patient. Documentation of the results from the clinical laboratory, radiology, nuclear medicine, pulmonary function and any other diagnostic examinations would be included. This segment contains the chronological list of all diagnostic tests ordered and conducted on the patient. The attribute data about each such test reference the order, problem list, appropriate physical exam or medication segments, or all of these, that may relate to the monitoring of therapeutic interventions to either measure therapeutic effects or detect adverse affects. It should be remembered that the

problem list, encounters and physical exam segments may, likewise, contain references to specific dates and types of tests that are associated with those problems, encounters or examinations and which help document the full implications of the meaning of such tests.

7.16 *Segment 12, Medications*:

7.16.1 A list of all long term medications and significant details on all medications prescribed or administered, or both, in the course of, or as a consequence of, an encounter or episode.

7.16.2 This segment contains data about the therapeutic chemical substances and treatments that have been prescribed as interventions in the disease process. All of the attributes of the order described in 7.14 are linked to this record by reference to the orders segment. Additional attributes provided by the pharmacist are also added to the record, including adverse affects reported in the history or the physical exam segments, or both. The problem list that identifies the problem being treated may also be referenced.

7.17 *Segment 13, Scheduled Appointments/Events* —This segment includes the list of planned or scheduled appointments that implement a treatment plan. It includes attributes that characterize the planned services, location and practitioners that constitute the plan.

7.18 *Segment 14—Encounters/Episodes*:

7.18.1 The concept of an encounter is usually defined to be a face-to-face session of the patient with a practitioner during which information about the patient's health status is exchanged. The encounter record should capture the facts relating to the events that took place—whether they occur in an inpatient setting or an ambulatory care environment. Certain information that characterizes the time, place and circumstances of the initiation of the encounter are first required. Then the information characterizing the patient's condition and reason for seeking care must be recorded. Next, the identification and characterization of the patient's problem(s), including referencing the encounter to the problem list must be included. Finally, the interventions ordered, the response to the actions performed, the departure condition and the required follow-up actions must be recorded, including a record of the services rendered. Because the circumstances leading to an encounter may be as direct as inpatient rounds by the attending physician to emergency room care (for example, traumatically injured patients), the data collected in the encounter may vary from brief to extensive. The collected data may not include all data elements identified, if these elements are not applicable to a given encounter. The logical structure shown in Appendix X1, however, identifies the minimal essential data elements that may comprise the ambulatory portion of the encounter record.

7.18.1.1 A discussion of this segment must first explain that the pointer arrows leading from the identified data elements to a logical file mnemonic is intended to portray that element is represented in a lexicon. The lexicon has associated attributes that are not dependent upon the context of the term in the encounter record, and the recorded element is the index into this lexicon. This notation enables discussion of the complexity of interrelationships among data elements of the record that

occur across and within segment boundaries. In order to reflect how the structure of the record parallels the practitioner's thought processes, these logical interrelations must be depicted using a generic convention and the data that are global to the individual encounter must be so identified in order to foster data independence wherever possible. This means avoidance of recording redundant data when that data are independent of the context. It also means using a key identifier or term to represent that invariant data which is stored in a logical list that can be referenced from within the context. This procedure avoids a common error in forms design in which specific instances, or data values, of a given data element are identified as separate data elements. A specific instance of a class name, for example, might be a specific drug or a unique lab test name. Use the above notation to convey membership in a lexicon name class.

7.18.2 *Segment 14A, Administrative/Diagnostic Summary*:

7.18.2.1 These are the data elements clarifying time/date, location, type and source of encounter or episode as they differ from information already contained in the related major segments (7.5-7.17). These should include the problems and the list of admitting and all other diagnoses which are a factor in the patients care during the specific episode or encounter and which should be added to the patient's problem list in 7.9.

7.18.2.2 This subsegment contains all of the data that characterizes the origin of the episode and the manner of arrival at the provider's facility, including the condition of the patient. It also summarizes the administrative conditions concerning the termination of treatment, excepting the disposition that is contained in 7.18.6.

7.18.3 *Segment 14B—Chief Complaint Present Illness/Trauma Care*—This contains health/medical/nursing dental history reference to Section 8 and history of chief complaint and reasons why the patient came in for care. This will include a review of systems as appropriate to the individual case and reference Section 9 as described in 7.13. It also includes reported pre-hospital care of emergency patients and assessment of the nature of traumatic injury and the results of stabilizing interventions.

7.18.4 *Segment 14C, Progress Notes/Clinical Course*:

7.18.4.1 This includes the components that form an ongoing chronological picture and analysis of the clinical course of the patient during an episode or encounter. This segment is applicable for any healthcare setting. These elements serve as a means of communication and interaction between members of the healthcare team. They may also occur as narrative or flow sheets. They constitute the record of patient response to therapies, procedures and other events.

7.18.4.2 This subsection contains all those data elements that characterize the clinical course of care and the condition of the patient. They will link to tests, therapies and procedures and will be represented by test or flow sheets.

7.18.5 *Segment 14D, Therapies*:

7.18.5.1 This includes significant details on all preventive or therapeutic, or both, services performed at the time of the episode or encounter or scheduled to be performed before the next episode or encounter. This subsection would not include any surgery performed in an operating room or that could be documented under either Segment 12 (7.16) or 7.18.6. Trans-

fusions, physical, occupational, nursing, respiratory, rehabilitative and mental health therapies would be included.

7.18.5.2 These elements are recorded to characterize all of the conditions of non-medication therapy, and they represent interdisciplinary therapy programs and results.

7.18.6 *Subsegment 14E, Procedures*:

7.18.6.1 This includes significant details on all procedures performed in an operating room for diagnostic, exploratory, or definitive treatment purposes.

7.18.6.2 This subsection contains data that characterizes those procedural events that accompany treatment of the patient, exclusive of laboratory phases of diagnostic procedures, which are recorded in Segment 11.

7.18.7 *Segment 14F, Disposition*:

7.18.7.1 This subsection identifies the circumstances under which the patient terminated the encounter or episode and includes data about the length of stay, condition of patient on disposition, recommended treatment and other information necessary for follow-up care.

7.18.7.2 This subsection contains that data that characterizes the conditions under which the encounter or episode was completed and the arrangements for appropriate follow-up either by the current or by other providers. It contains information needed to maintain continuity of care over several episodes or multiple encounters.

## 8. Alternative Views of the Logical Structure

8.1 The EHR requires content depth and retrieval flexibility. The proposed approach expands the idea of user specific data views to reflect the range of content from sparse to highly detailed. A data view is a specific collection of a set of data to meet user needs. This guide poses a minimum essential data view and a longitudinal precis view. The basic structure of this guide is expressed through the segments, now being adapted to the current perspective of objects. Content vocabulary is being assembled into master tables. Users are expected to begin with the standard as framework, build on the basic minimum data view and draw from the many master tables to specify their unique EHR requirements. As noted earlier in this guide, standard data views (such as uniform hospital discharge data, standard home health data set, etc.) were collected and incorporated into Annex A1. Additional views serve as ongoing resources to this work. Table 6 is a list of minimum essential data content or a minimum data view. It is organized according to currently proposed objects. Note that data items are intended for all EHR record sites unless marked as "conditional." This allows the variance between outpatient and inpatient as with a surgical procedure case. The "conditional" notation applies when the related events occur.

8.2 Just as master tables are a way in which to develop vocabulary depth within a framework, the data views provide the window for flexibility within a unified framework. This approach builds from the original work in this guide. Because the notation for conveying a common reference logical structure for the EHR depicts only a selected view of the complex interrelationships among the data elements, many readers may feel that their perspective is not represented. The selection of the notation used in Section 7 involved many compromises in selecting a reference representation. This section attempts to

rectify the omission of many other valid representations of the same elements and their relationships. Since it cannot be comprehensive, it fails in representing all views. It is intended as a guide to those whose view is not adequately depicted to provide an illustration that can be developed to represent their perspective. There are many aspects that are involved. One is selecting the grouping of data elements that captures the data about the care of a patient involved in the user's setting. Another is understanding how these data are used and whether there is colloquial vernacular involved and, if so, which data elements are affected. A third aspect is how these data are desired to be viewed. These views control how the index hierarchy represented in Section 7 would be transformed to logically represent the index priority desired. The notation of Section 7 groups certain elements together and links them together with pointer notation. A new view can represent these linkages differently by moving groupings and indexing using different key data elements that lead to the same logical outcome as Section 7. These new structures can be displayed differently but have the same logical implications.

8.3 Data views can represent unique care areas, subsets of the data to meet specific care needs and alternative displays of data. For instance, clinical flowsheets show the clinical results and treatments as a matrix (spreadsheet) in which the individual observations and treatment events are recorded in the bins of the matrix and the row and column labels identify the date-time and the variable.

8.3.1 The following are examples of alternative data views:

8.3.1.1 Clinical flowsheets,

8.3.1.2 Focused patient assessment/physical/mental exam data set by specialty/setting,

8.3.1.3 Prevention: risk factor data sets (pediatric, adolescent, adult, geriatric),

8.3.1.4 Healthcare outcomes data sets: diabetes care, obstetrical care, low back pain care, hypertension, benign prostatic hypertrophy,

8.3.1.5 Long term care data set,

8.3.1.6 Mental health data set,

8.3.1.7 Clinical program/clinical specialty data set (for example, breast cancer screening/monitoring),

8.3.1.8 Standard data elements for hospital drug surveillance,

8.3.1.9 Electronic health record for anesthesiology data set,

8.3.1.10 Electronic health record for emergency care data set,

8.3.1.11 National Committee on Quality Assurance patient record data set,

8.3.1.12 Longitudinal precis, and

8.3.1.13 Nursing minimum data set.

8.4 The EHR needs to be a reliable source of patient information in which a consistent base content can be found regardless of care setting. Work has been done to reduce the initial minimum content data items to reflect the basic essential data that should be present in the EHR. In Table 6, the general list is noted. The proposed content reflects the minimum required to serve as a guide for developers and clinicians. This serves as a basic content foundation for EHRs.

8.5 *The Longitudinal Precis*—One common and important view of the EHR containing all data recorded about a patient is what has been termed the longitudinal precis, or, in other terms, the longitudinal health record or other synonyms. Management of chronic diseases; recognition of occupational illnesses; the outcome of traumatic injuries; the tracking of persons who have been exposed to environments later recognized as hazardous; and a ready synopsis of previous healthcare for each new practitioner who provides services to a patient, all are examples of the need for a longitudinal perspective. All of these uses require an accurate contiguous summary record of the significant events of care received by each individual. The goal of the longitudinal precis is to provide this integrated summary record. The first purpose of a longitudinal precis is to assist the clinical practitioner in assessment of the patient's past clinical problems by summarizing the documented primary data of the conditions that may be used in clinical judgments. It serves as a unified, coordinated, synopsis of the clinically significant genetic, environmental and clinical healthcare data and events aggregated over a person's lifetime.

8.5.1 *Properties of a Longitudinal Precis*—The salient facts from the original EHR should be assembled systematically, summarized, ordered by clinical importance and indexed to the original EHR. A longitudinal precis should be brief. Positive patient identification and significant sociodemographic data should begin the longitudinal precis. It should next summarize the patient's family history and genetic profile and should include hereditary and familial disorders potentially harmful family events such as childhood abuse, alcoholism and drug abuse. The patient's past health history should include past and current illnesses and surgeries, ranked by clinical significance as well as significant care problems experienced as a result of illness, injury or other health altering events. The genetic profile should name the finding(s) of specific laboratory studies and, if it represents an uncommon condition, an expanded description as part of the display of data. The longitudinal precis should link any past environmental exposure with potential or observed health problems. Exposure to environmental stressors should be named and followed briefly by quantitative details of the exposure and any suspected or clinical sequel. The longitudinal precis should next catalog past clinical episodes and diagnostic studies in order to facilitate retrieval of specific data such as EKG or laboratory tests.

**TABLE 6  Minimum Essential Data Set—EHR Data View for All Settings**

| Entities | Data Elements | Segments | Conditional Status |
|---|---|---|---|
| Patient | | Segments I, II, III | Conditional (c) notation for designated items conditional to the event occurring |
| | Patient name | | |
| | Universal patient health number | | |
| | Record holding location ID | | |

 **E 1384**

**TABLE 6** *Continued*

| Entities | Data Elements | Segments | Conditional Status |
|---|---|---|---|
| | Date of earliest held entry | | |
| | Date of latest held entry | | |
| | Date-time of birth | | |
| | Birthplace | | |
| | Sex (gender) | | |
| | Race | | |
| | Ethnic group | | |
| | Religion | | |
| | Marital status | | |
| | Education level | | |
| | Occupation | | |
| | Family member name | | |
| | Family member relationship | | |
| | Patient permanent address | | |
| | Consent signed/admit agreement | | |
| | Patient rights acknowledgment | | |
| | Directive to physician (primary healthcare practitioner) | | (c) |
| | Release of information action date | | |
| | Type of record action | | |
| | Person authorizing release | | |
| | Payment source | | |
| | Payor group number | | |
| | Payor ID number | | |
| | Principal payment sponsor | | |
| | Address of principal sponsor | | |
| Encounter | | Segments XIII, XIV | ... |
| | Date time encounter/admission | | |
| | Treatment facility name | | |
| | Encounter type | | |
| | Episode ID | | (c) |
| | Encounter diagnosis(es) | | |
| | Disposition date time | | (c) |
| | Disposition type (master table) | | (c) |
| | Disposition destination | | (c) |
| | Disposition patient instructions | | |
| | Text of note/report | | |
| | Authentication/signature | | |
| Problem | | Segment V | ... |
| | Problem number(s) | | |
| | Problem name | | |
| | Problem date of onset | | |
| | Problem current status | | |
| | Problem name @ encounter | | |
| | Problem name @ care/treatment or plan/order | | |
| Order-Care/treatment plan | | Segment IV | ... |
| | Treatment Plan | | |
| | Treatment Plan Id | | (c) |
| | Date-time | | |
| | Care/treatment plan (text) | | |
| | Clinical order(s) (full text) | | |
| | Date-time of order | | |
| Provider | | Segment IV | ... |
| | Provider/practitioner name | | |
| | Provider address | | |
| | Provider type | | |
| | Provider ID number | | |
| | Provider agency ID code | | |
| | Practitioner name | | |
| | Practitioner's universal ID number | | |
| | Practitioner's profession | | |
| | Practitioner's address | | |
| | Practitioner's current role | | |
| | Practitioner's authentication (signature) | | |
| | Admission/encounter surgeon | Segments XIVA | (c) |
| | Admission/encounter surgeon role | | (c) |
| | Therapy perf practitioner | | (c) |
| | Anesthesiologist/Nurse anesthetist | | |
| Observation—History | | | |
| | Health history—previous illnesses | Segment VIII | |
| | History taking event date | | |
| | Source of history—contact name | | |
| | History relationship source to patient | | ... |
| | History—social (text) | | |
| | Current habits/oral health practices (master table) | | |

16

 **E 1384**

**TABLE 6** *Continued*

| Entities | Data Elements | Segments | Conditional Status |
|---|---|---|---|
| Observation—Assessment/ Exams | | Segment IX | (c) |
| | Date-time of exam | | |
| | Health assessment/exam present illness/inj history | | |
| | Exam review of systems (Master table) | | |
| | Exam finding(s) | | ... |
| | Exam finding comment(s) | | |
| | Patient generated functional health status (Master table) | | |
| | Exam summary (text) | | |
| Observations—Diagnostic Tests | | ... | ... |
| | Test requested (Master table) | Segment XI | |
| | Test/exam/spec-collection date-time | | |
| | Test request ordering treatment facility | | |
| | Test request performing facility | | |
| | Test date-time result reported | | |
| | Test report text | | |
| | Numeric measurement/analyte name | | |
| | Numeric measurement analyte value | | |
| | Numeric measure/analyze interpretation | | |
| | Test request microbial organism | | (c) |
| | Microrg attribut | | (c) |
| | Microbiol org resist patt | | (c) |
| | Microbiol org spec comment | | (c) |
| | Test comments | | (c) |
| Observation—Encounter/ episode detail | | Segment XIV | ... |
| | Chief complaint (text) | | |
| | Reason for visit (Master table) | | |
| | Clinical progress note date-time (text) | | |
| | Clinical progress note (encounter) | | |
| | Authenticator/signature | | |
| Service Instance | | Segment VI, XII, XIVD/E | ... |
| | Immunization name (Master table) | | |
| | Immunization date | | |
| | Medication pres/ord odate time | | |
| | Medication name (Master table) | | |
| | Medication prescriber | | |
| | Medication dose | | |
| | Medication vehicle/form (table) | | |
| | Medication route (table) | | |
| | Medication freq | | |
| | Medication instructions (text) | | |
| | Medication date of last refill | | (c) |
| | Medication notes, for example, patient response (text) | | |
| | Name of therapy/service (Master table) | | |
| | Therapy start date-time | | |
| | Therapy finish date-time | | |
| | Therapists response assessment (text) | | (c) |
| | Therapists recommendations | | (c) |
| | Operation date-time | | (c) |
| | Post-op diagnosis (Master table) | | (c) |
| | Operative procedure name (Master table) | | (c) |
| | Anesthetic agent (Master table) | | (c) |
| | Post anesthesia assessment | | (c) |
| | Operation complications | | (c) |

8.5.1.1 A longitudinal precis should be current, updated in a cost effective manner, and be an integral part of the EHR. Although it is a secondary record, it will require the same confidentiality and privacy protection as episodic patient records. Table 7 shows a sample general logical view of the precis according to the objects and segment's sources.

8.5.2 *Minimum Content and Data Categories*—The order of the categories of data utilized from the EHR by the longitudinal precis should begin with sociodemographic data and a list of long-term major health problems/risk factors which may then be directly accessed by practitioners to determine access to the remaining record. To provide a comprehensive structure for the

**TABLE 7 Content and Data Categories**

| Object | Category | EHR Segment |
|---|---|---|
| Patient | Socio-demographic | I |
| Encounter | Episode/encounter index | XIV |
| Problem | Diagnoses/problems | V |
| Orders | Most recent treatment plan | X |
| Provider | Provider/practitioner | IV |
| Observation | (Health status and prevention risk) | IX |
| | Environmental exposures | VII |
| | Patient health history | VIII |
| | Diagnostic test results | XI |
| Medication profile | Immunizations | VI |

longitudinal precis it must have access to all segments identified for the EHR in Section 7 and must organize that information is groupings optimized for its synoptic function. Table 7 summarizes these logical associations.

8.5.3 *Implementation*— A longitudinal precis could be a separate computer-based document or it could be the front part of the original source EHR. While the first level of presentation should be condensed and brief, an expanded presentation of selected data must be possible. Dates of service and clinical diagnoses/problems should serve as indexes to detailed data existing either in the longitudinal precis or the EHR itself.

## 9. Viewing the Overall Structure of the EHR from an Object Perspective

9.1 The purpose of this section is to initiate convergence and blending of data and terminology between the content and message standards for the EHR. Specific data item matches are noted where they occur with the specific originating standard codes. Section 9 organizes the basic information segments explained in Section 7 into major objects and defines direct mapping with the message standards data contained in Specification E 1238 and the comparable items contained in Health Level Seven Version 2.2. For example, 9.2.1.1, Name of patient P-6 (PN) from Specification E 1238 is matched to 01001 patient name from Annex A1 in this guide. Similarly, where term matches occur among this guide and HL7, the term is also labeled accordingly, for example, observation (OBR). This helps direct the users to see how this work is developing. It should be noted that many items directly relate to messages and not to content. Refer directly to the dictionary annex Annex A1 for the details for Specification E 1384. All tables contained in this section are illustrations from Specification E 1238 or are examples from HL7, or both. All tables will be reviewed for inclusion in Specification E 1633, which maps out the coded values and pointers to established code systems or related code tables, or both. Note also that in this section, the parent-child relationship refers to a process (parent) that generates a follow-on process (child.)

9.1.1 This section is still evolving, but it reorders and combines information to reflect another perspective.

9.1.1.1 The term electronic health record is used in this section to represent the specific content drawn from Specification E 1238.

9.1.1.2 The major entities (objects) of the EHR are shown listed in Table 8 and their interrelationships in Fig. 2.

9.1.1.3 The heart of the EHR is orders, encounters, services, and observations. Most of the other objects identify the persons (organizations) and places by whom, to whom and where care is given.

9.1.2 *Major Objects Within the Patient Record*:

9.1.2.1 The following subsections record the major "objects" that constitute a EHR and their principal attributes.

9.1.2.2 In the computer vernacular, entities with attributes can be represented as records where the set of entities correspond to the file. Each record represents a single entity, and the attributes of a single entity are stored in the fields of that record. A more general formulation is to consider the entity to be an object that accommodates more general data, structures and permits the bundling of behaviors (executable pro-

**TABLE 8 Objects of EHR**

| | |
|---|---|
| 1. Patient | 9.2 |
| 2. Problem list | 9.3 |
| 3. Orders (General)/Interventions/Treatment Plan | 9.4 |
|     Treatment orders | 9.4.2 |
|     Observation orders | 9.4.3 |
|     Diet order specialization | 9.4.4 |
| 4. Service instances | 9.5 |
|     Specimen collection instances | 9.5.2 |
|     Observation service instances | 9.5.3 |
|     Observation battery instances | 9.5.4 |
|     Treatment instances | 9.5.5 |
| 5. Observations | 9.6 |
| 6. Encounters | 9.7 |
| 7. Appointments | 9.8 |
| 8. Procedures | 9.9 |
| 9. Legal agreements | 9.10 |
| 10. Service order concept master | 9.11 |
| 11. Provider master | 9.12 |

| TYPE | VALUE |
|---|---|
| EARLY | Early tray |
| LATE | Late tray |
| GUEST | Guest tray |
| NO | No tray |
| MSG | Tray message |

**FIG. 2 Values for Type**

gramming code) with the data **(13)**.

9.1.2.3 In the modeling context, consider the entities described above to be related globally as shown in Fig. 1.

9.1.2.4 The model in Fig. 1 is very global, a submodel of the MSDS JWG global model. It supplies a framework for the following paragraphs.

9.1.2.5 Notice that most of the entities listed in Table 8 have their own attributes. For example, the patient has the attributes of sex, race, birthdate, etc. Each order includes attributes that identify the item(s) ordered, the date of the order, the ordering provider, the urgency of the order (stat, now, routine, etc.), the ordering instructions (can be further broken down into amount, frequency, duration, special conditions for many orders. These will all be presented in detail in this section.

9.1.2.6 For some of these entities, the industry has enough experience with them that the overall structure is well understood and easy to describe. In some information areas, especially those that are represented by free text in the traditional record, much is yet to be learned.

9.1.3 *Data Types*—In the model that we describe, we are very explicit about an attribute's data type, and these are precisely defined. (See Table 2 for a brief description. See Specification E 1238 and the MSDS JWG common data types document for full details.)

9.1.3.1 Three of the data types require special attention. The coded entry (CE) is a data type used to report coded entities (for example, ICD-9 diagnoses or NDC drug codes). However, a coded entry contains up to three pieces of information: the code, a text description (optional if the code is also stored) and a code that identifies the source book for the code (that is, it identifies the code as an ICD-CM or an ICD-10 or a CPT4 code). This ensures that a code will never be misinterpreted when code systems are replaced (for example, ICD-9 to ICD-10). The date-time data type permits varying degrees of granularity, from days down to hours, minutes or even decimal

seconds; it can also specify the offset from Greenwich Mean Time when the time is not local time. A person's name is recorded as a five part data type (last or family name, first or given name, etc.).

9.1.3.2 Though the data types are precisely defined, this does not mean that a real implementation of an EHR would, for example, use strings to represent dates, or would have to provide a field for recording the offset Greenwich Mean Time. For the date/time an implementor might have one integer field for date and another for time, and always translate any time zone offsets into the local time for storage. But an implementor's storage structures should be able to represent the same information recorded in the model data type and be able to import and export data in these prescribed data types.

9.1.4 A number of devices have been employed to ease reader assimilation of the model shown in Fig. 1. The use of complex data types (for example, person's name) is one, because it reduces the number of atomic attributes that readers have to absorb and ensures that person's names will be treated uniformly throughout the model. The model allows repeating values for some attributes when they are appropriate (following CEN TC251 and the ASN.1's lead). Finally, most entities (for example, patients, providers, or services) can have many identifiers. For example, a patient might be identified by his state driver's license number (fifty possibilities), a credit card number (many people possess a great number of these) and so forth. So most of these objects will have an attribute for the preferred EHR identifier and a CE attribute with a variable number of values, each of which will include the identifier and the producer of the identifier. However, such simplifying approaches should not be interpreted as prescriptions for the implementation of real world systems.

9.1.4.1 In 9.2, Specification E 1238 and HL7 message segment cross-references are detailed. The alphanumeric (Line 1) catalogue number for the 1384 matched item is listed in Line 2. For example, HL7 objects are designated "observation (OBR), observation order (OBR), Patient (PID ...) etc."

9.2 *Patient (Identifying and Contact Information)*:

9.2.1 These are personal data elements, sufficient to identify the patient, collected from the patient or patient representative, and not related to health status or services provided. More information on incorporating demographic information into an EHR can be found in Guide E 1239:

9.2.1.1 *Name of Patient*:

P-6 (PN)
01001. PATIENT NAME

Person receiving healthcare services and about whom records containing data about those services are collected. The patient's name shall be presented as last name, first name, middle name or initial, suffix, prefix, and degree, and each of these six components shall be separated by a component delimiter as defined in Specification E 1238 and the MSDS task group on data types.

9.2.1.2 *Multiple Birth Indicator*:

PV2–11 (ID)
01035. MULTIPLE BIRTH MARKER

Multiple birth marker (a term to distinguish identical individuals produced in the same gestation period.

9.2.1.3 *Patient Health Identifier*:

01016. UNIVERSAL PATIENT HEALTH IDENTIFIER

Unique personal identifier (unique number used by all providers/practitioners and third party payers in conjunction with establishing and using the longitudinal record. It will link services for the individual across care systems).

9.2.1.4 *Other Patient Identifying Numbers*—A multi-valued field that would accommodate any other identifiers. SSAN could be one voluntary option if privacy act notification is provided.

Social security number
01020. SSAN

*Social Security Account Number*—A pseudo social security number may be assigned if patient does not have an SSAN.

9.2.1.5 *Date of Birth*:

P-8 (DT)
01032. DATE-TIME OF BIRTH

Patient's birthdate shall be presented in the standard date format (YYYYMMDD). In the case of neonates, for whom the age in hours might be relevant, the birth can be recorded with the time of birth YYYYMMDDHHMM. Age can be generated from date of birth (DOB) if needed.

9.2.1.6 *Place of Birth*:

01033. BIRTHPLACE

The city, state, nation where the patient's birth records may be found.

9.2.1.7 *Sex*:

P-9 (ID)
01040. SEX

(As recorded at the start of care.) Distinction of gender. Field shall be represented by M for males, F for female patients. Record U when the gender is unknown.

9.2.1.8 *Race*:

P-10 (ID)
01042. RACE

The major biologic class to which the patient belongs as a result of a pedigree analysis or with which the patient identifies him/herself in cases where the data are not conclusive. Codes are W (White); B (Black); NA (Native American); O (Oriental or Asian); H (Hispanic); OTH (Other).

9.2.1.9 *Ethnic Group*:

(TX)
01045. ETHNIC GROUP

That cultural group with which the patient identifies him/herself either by means of recorded family data or personal preference. A patient may belong to several such groups depending upon heritage, language, nationality or social association. Full text names may be entered, and multiple entries are allowed, separated by repeat delimiters.

9.2.1.10 *Religion*:

P-28 (ID)
01047. RELIGION

Current religious affiliation of the patient at the start of care. A particular system of faith or worship. Codes or names may be sent; full names of religions may also be sent as required.

Examples of religious codes and abbreviations are: P (Protestant); C (Catholic); M (Church of Latter Day Saints); J (Judaism); H (Hinduism); A (Atheist). When a full name is sent it should be preceded by a component delimiter, for example, Methodist or C (Coptic Rite).

9.2.1.11 *Marital Status*:

P-29 (ID)
01052. MARITAL STATUS

Marital status of patient at start of care. NEVER MARRIED (S): includes annulment of only marriage. MARRIED (M): includes common law. SEPARATED (A): married persons living apart except institutionalized. WIDOWED (W): spouse died and not remarried. DIVORCED (D): legally divorced and not remarried. Undetermined (U): status unknown.

9.2.1.12 *Educational Level*:

01060. EDUCATIONAL LEVEL

The highest level, in years, within each major (primary, secondary, college, post-baccalaureate) educational system, irrespective of any certifications achieved.

9.2.1.13 *Occupation*:

01065. CURRENT OCCUPATION

Employment, business, or a course of action in which on is engaged (that is, "student").

9.2.1.14 *Mother's Full Name at Birth*:

P-7 (PN)
01090.07. FAMILY MEMBER FEMALE PARENT

This is the biologic female parent of the patient to be used for family pedigrees. It is the full birth name of a newborn infant's mother, recorded as described in 6.5.3.

9.2.1.15 *Father's Full Name*:

01090.05. FAMILY MEMBER MALE PARENT

This is the biologic male parent of the patient to be used for family pedigrees. (Universal parent identifiers will be added when they are available.)

9.2.1.16 *Patient's Permanent Address*:

P-11 (AD)
01095. PATIENT PERMANENT ADDRESS

Usual residence or address of the patient, or both. May be referred to as the mailing address. Shall include the patient's city, state, province, country and zip or postal code of the patient's mailing address separated by component delimiters (see address data type in Specification E 1238).

9.2.1.17 *Patient's Telephone Number*:

P-13 (TN)
01100. HOME PHONE

This text value shall record the patient's day telephone and optionally the patient's night telephone, using the standard telephone number specification (see 6.6.18, TN Telephone and Beeper Number, of Specification E 1238), that includes options for area code, extensions, and beeper codes. The first telephone number will be the number at which the patient can be reached during the day. The second number (if required) is the number where the patient can be reached at night. When both are sent they should be separated by repeat delimiters.

9.2.1.18 *Date/Time of Registration/Reservation*:

P-33 (TS)
01197. REGISTRATION REVIEW DATE

This is the date when the registration record was reviewed by a responsible official for its accuracy. (In Specification E 1238, this field contains the date-time when the patient registration data being transmitted was last changed. This value is of use to peer-to-peer systems where both may register patients. When the registry data delivered by the sending system differs from that in such a receiving system, this field can help the receiving system decide when to overwrite its existing patient data with the newly received registry data. This is not the same as this field.)

9.2.1.19 *Patient's Language*:

P-31 (ST)

The value of this field indicates the patient's primary language. This may be needed when the patient is not fluent in the local language.

9.2.1.20 *Confidentiality Class*:

P-32 (ID)

This field indicates the degree to which special confidentiality protection should be applied to the patient.

V — Very restricted
R — Restricted
U — Usual control

9.2.1.21 *Death Date/Time*:

P-34 (TS)

When applicable, record the date (and the time, if known) of the patient's death in this field. The addition of this field to the patient segment provides a mechanism for communicating the date-time of death to various clinical systems. It is a critical piece of information when the data is being requested for clinical research as well as for many administrative and operational purposes, for example, appointment reminders.

9.3 *Problem List*:

9.3.1 This set constitutes a master list of all of a patient's problems or diagnoses. It may be referenced by many of the other objects: orders, encounters, and so on, as noted in ***6.16.1 in presenting the diagnostic summary beginning each encounter/episode. All problems or diagnoses initially recorded in a specific encounter/episode will also be entered in this master list.

9.3.1.1 A problem such as "cough" can be recorded as the value of a simple observation or as a formal problem. In the first case it is an observation: someone observed that the patient coughed. When recorded as a problem, it is a conclusion: the cough is an important issue in this patient and needs to be followed, diagnosed, or treated, or all of these. This distinction is subtle but important.

9.3.1.2 The problems within the problem list are broken down as separate objects, both because they have so much significance in the traditional patient record and because many events in the care process can (or must) be labeled by problem. Making the problem list a separate object class (table) facilitates such labeling.

9.3.1.3 The problem list (stressor exposure), as discussed in Section 7, is an ongoing, up-to-date list of clinically significant health status events and factors, resolved and unresolved, in a

patient's past and existing life. The list should contain all past and existing diagnoses, pathophysiological states, potentially significant abnormal physical signs and laboratory findings, disabilities, and unusual conditions. Other factors such as social problems, psychiatric problems, risk factors, allergies, reactions to drugs or foods, behavioral problems or other medical alerts may be included. The problem list is amended as more precise definitions of the problems become available.

9.3.2 *Attributes of a Problem*:

9.3.2.1 *Problems Number*:

> (ST)
> 05001 PROBLEM NO.

This is the practitioner assigned sequence number for a particular problem. For the present it is simply for the convenience of the problem recorder and is used to define the order in which the problems are ranked. The number can be written as a hierarchy (for example, 1.1, 1.2, 1.3 ...) to provide a hierarchical structure to the problem list. A systematic procedure for assigning these numbers across all practitioners has not been agreed upon.

9.3.2.2 *Problem Indication*:

> (CE)
> 05001.01. CLINICAL PROBLEM INDICATION

This is the name or ID of the reason for establishing a separate problem, or both. The reason may be either a diagnosis, a finding, or a symptom. The identity can be recorded as free text, as ID (code) or both. Where the code is included the code source should also be identified in the third component of the CE data type. See 6.6.4, Test/Observation Identifiers, in Specification E 1238.

9.3.2.3 *Diagnosis Onset Date/Time*:

> DG1-5 (TS (optional))
> 05001.03. EST DATE OF PROBLEM ONSET

This is the estimated date that the problem first occurred.

9.3.2.4 *Date of Problem Resolution*:

> (TS (optional))
> 05001.15. DATE PROBLEM RESOLVED

This is the date that this particular problem is considered resolved and no longer needs active consideration.

9.3.2.5 *Current Status (Active, Resolved)*:

> (ID (optional))
> 05001.20 PROBLEM CURRENT STATUS

Active versus inactive.

9.4 *General Orders*:

9.4.1 Orders are requests for a particular service to be performed once, repeatedly, or continuously on a patient. They are usually written by health care professionals and include the name of a service (for example, glucose test, vital signs, penicillin) that can be an observation (glucose test), a medication (penicillin), a nursing treatment (wet to dry dressings), a consultation, a patient amenity (stationery), and instructions that specify the amount of the service, the frequency, the duration, and the urgency of the service, and special circumstances that should control the dispensing of the service.

9.4.1.1 A single order may request the performance of a package of predefined services. Orders for "routines stat" in many emergency rooms implies the performance of many

separate tests (for example, CBC, electrolytes, glucose, and blood urea nitrogen). Orders often ask that a service be repeated many times at intervals, for example, "vitals TID" asks for blood pressure, pulse, and respiratory rate to be observed and recorded three times a day indefinitely.

9.4.1.2 Thus one order can spawn many service instances (for example, a particular point in time when a specific service is performed). We define the service instance as a separate object because a place is often needed to record specific information about that instance. For example, when a practitioner in a hospital orders ampicillin 250 mg three times a day, a service instance is needed to record the time each dose is dispensed, the person who dispensed, etc. (The paper equivalent for drug dispensing is the MAR.) Service instances are not required for all ongoing orders, however.

9.4.1.3 Another complexity of orders is that the service requested may not be the service provided. A practitioner may order drug A, but because of formulary policies, patient wishes, etc., a related but different drug may be dispensed. Many other examples exist. The EHR has to have a place to record both what is requested when the order is first written and what is delivered by the service provider.

9.4.1.4 Finally, orders come in many types: orders for observations, for treatments, for teaching, etc. These subtypes have different attributes that are accommodated by different subobjects.

9.4.1.5 An order as recorded in the EHR is not the same as a message required to transmit that order to an independent computer. The message will often have to contain much of the information in the patient object, information about other encounters (if needed for billing purposes), or information about past observations (if needed to interpret the results of a test order). These do not become part of the order as it resides in the EHR because they are already recorded elsewhere in the EHR.

9.4.2 *Attributes of All Orders*:

9.4.2.1 *Place Order Number*:

> *Placer Order Number*
> ORC-2 (CM)

This field holds the unique identification number for the order.

9.4.2.2 *Universal Service ID*:

> OBR-5 (CE)
> Ordered Item

This field should contain an identifier code for the requested observation/test battery. This can be based on local or "universal" codes, or both. The "universal" procedure identifier is recommended. The structure of this CE data type is described in HL7 Page II-10 (<identifier>ˆ <text>ˆ <name of coding system>).

9.4.2.3 *Text Comment*:

> C-4 (TX)
> 10001.100. CLINIC ORDER FULL TEXT

The textual content of the order detailing what action is to be taken and the means to go about it.

9.4.2.4 *Order Status*:

> ORC-5 (ST)
> 10001.055 ORDER CONFIRMATION RECD

This field describes the status of an order. Refer to Table 9 for valid entries. The purpose of this field is to report the status of an order either upon request (solicited), or when the status changes (unsolicited). It does not initiate action. It is assumed that the order status always reflects the status as it is known to the EHR.

9.4.2.5 *Response Flag*:

ORC-6 (ST)

This field allows the placer (sending) application to determine the amount of information to be requested from the filler. Sometimes the requested level of response may not be possible immediately, but when it is possible, the filler (receiving) application must send the information. When the field is null, D is the default value of the field. Refer to Table 10 for valid entries.

9.4.2.6 *Quantity/Timing Fields*—A quantity/timing field provides a means of specifying when the service described by the order segment is to be performed and how frequently. Nine separate quantity/timing fields are required to fully specify some complex orders. More than one quantity-timing specification, separated by repeat delimiters, may appear. It should be considered a subrecord of sorts and a distinct data type. The components of a single quantity-timing specification are described in 9.4.2.7.

9.4.2.7 *Quantity Component*:

ORC-7.1 (CQ)

Indicates the quantity of the service that should be provided at each service interval. For example, if 2 blood cultures are to be obtained every 4 h, the quantity would be 2. If 3 units of blood are to be typed and cross-matched, the quantity would be 3. The default value is one. When units are required, they can be added, specified by a subcomponent delimiter.

NOTE 1—The component delimiter in this CQ is demoted to a subcomponent delimiter.

9.4.2.8 *Interval Component*:

ORC-7.2 (CM)
10001.067 CLIN ORDER EXECUTION FREQUENCY

Determines the interval between repeated services. The default is one time only, the first subcomponent is the repeat pattern, and the second subcomponent is the explicit time at which pattern is to be executed:

Repeat Pattern

NOTE 2—Alternative settings may differ on standard intervals. Hospitals, hospices, and home care programs determine specific times to best meet their patient needs.

Here are some suggested codes:

**TABLE 9 Order Status**

| Value | Description |
|---|---|
| CA | Order was canceled |
| CM | Order is completed |
| DC | Order was discontinued |
| ER | Error, order not found |
| HD | Order is on hold |
| IP | In process, unspecified |
| RP | Order has been replaced |
| SC | In process, scheduled |

**TABLE 10 Response Flag**

| Value | Description |
|---|---|
| E | Report exceptions only |
| R | Same as E, also replacement and parent-child |
| D | Same as R, also other associated segments |
| F | Same as D, plus confirmations explicitly |
| N | Only the MSA segment is returned |

| | |
|---|---|
| Q<integer>S | every <integer> seconds |
| Q<integer>M | every <integer> minutes |
| Q<integer>H | every <integer> hours |
| Q<integer>D | every< integer> days |
| Q<integer>W | every <integer> weeks |
| Q<integer>L | every <integer> months (lunar cycle) |
| Q<integer>J<day#> | repeats on a particular day of the week, from the French jour (day). If <integer> is missing, the repeat rate is assumed to be 1. Day #'s are counted from 1 = Monday to 7 = Sunday. So Q2J2 means every second Tuesday; Q1J6 means every Saturday. |
| BID | twice a day at standard-specified times (for example, 9 am to 4 pm) |
| TID | three times a day at standard-specified times (for example, 9 am to 4 pm to 9 pm) |
| QID | four times a day at standard-specified times (for example, 9 am to 11 am to 4 pm to 9 pm) |

(Note that none of the above three specifications are equivalent to their Q <integer> H counterpart. QUID is not Q6H. The former is unequally spaced; the latter is equally spaced.)

| | |
|---|---|
| QAM | in the morning at specified time |
| QSHIFT | during each of three eight-hour shifts at institution-specified times |
| QOD | every other day (same as Q2D) |
| QHS | every day before the hour of sleep |
| QPM | in the evening at standard-specified time |
| C | service is provided continuously between start time and stop time |
| U <spec> | for future use, where <spec> is an interval specification as defined by the |
| Once | one time only. This is also the default when this component is null |

9.4.2.9 *Explicit Time Interval Subcomponent*—This subcomponent will explicitly list the actual times referenced by the code in the first subcomponent, in the following format: HHMM,HHMM,HHMM, ... This second component will be used to clarify the first component in cases where the actual administration times vary within an institution. If the time of the order spans more than a single day, this new component is only practical if the same times of administration occur for each day of the order. If the actual start time of the order (as given by the fourth component of the QT field) is after the first explicit time, the first administration is taken to be the first explicit time after the start time. In the case where the patient moves to a location having a different set of explicit times, the existing order may be updated with a new QT field showing the changed explicit times:

Ex: 2nd component of QT field:
...ˆ QID&0230,0830,1430,2030ˆ ...

9.4.2.10 *Duration Component* :

ORC-7.3
10001.069 DURATION OF SERVICE

Indicates how long the service should continue after it is started. The default is INDEF (do indefinitely). This component is coded as follows:

ASTM E 1384

S<integer> = <integer> seconds
M<integer> = <integer> minutes
H<integer> = <integer> hours
D<integer> = <integer> days
W<integer> = <integer> weeks
L<integer> = <integer> months
X<integer> = <integer> times at interval specified in the order. A request for 2 blood cultures Q2H X3 would imply obtaining 2 blood cultures 3 different times at 2-h intervals for a total of 6 blood cultures.
T<integer> = at the interval and amount stated until a total of <integer> "DOSAGE" is accumulated. Units would be assumed to be the same as in the QUANTITY field.
INDEF = do indefinitely—also the default.

9.4.2.11 *Start Date-Time Component*:

ORC-7.4 (TS)
Date/Time of treatment plan execution
10001.23 CLINIC ORDERS RELATED ORDERS

This may be specified by the orderer, in which case it indicates the earliest D/T at which the services should be started. In many cases, however, the start date time will be implied or will be defined by other fields in the order record (for example, urgency—STAT). In such a case, this field will be empty. The filling service will often record a value in this field after receipt of the order, however, and compute an end time on the basis of the start date-time for the filling service's internal use.

9.4.2.12 *End Date-Time Component*:

ORC-7.5 (TS)

When filled in by the requester of the service, this field should be the latest date-time that the service should be performed. If it has not been performed by the specified time, it should not be performed at all. The requester may not fill in this value, yet the filling service may fill it in on the basis of the instruction it receives and the actual start time.

Regardless of the value of the end date-time, the service should be stopped at the earliest of the date-times specified by either the duration or the end date-time.

9.4.2.13 *Priority Component*:

ORC-7.6

Describes the urgency of the request. Five values are suggested (the default for priority is R):

S = Stat. With highest priority.
A = ASAP. Fill after S orders.
R = Routine.
P = Preop.
T = Timing critical. A request implying that it is critical to come as close as possible to the requested time, for example, for a trough antibiotic level.

If using the value "T" (timing critical), the degree of criticality can be specified thus:

Format:
TS<integer> = Timing Critical within <integer> seconds
TM<integer> = Timing Critical within <integer> minutes
TH<integer> = Timing Critical within <integer> hours
TD<integer> = Timing Critical within <integer> days
TW<integer> = Timing Critical within <integer> weeks
TL<integer> = Timing Critical within <integer> months

For the sequential orders specification, these values specify the time criticality with which the predecessor order must be followed by the given order.

9.4.2.14 *Condition Component*:

ORC-7.7 (ST)

Free text description of conditions under which the service should be done, for example, "PRN pain" or "as needed to control blood pressure."

9.4.2.15 *Text Component*:

ORC-7.8 (TX)

Full text version of the instruction (optional).

9.4.2.16 *Conjunction Component*:

ORC-7.9

A non-null component indicates that a second timing specification is to follow using the repeat delimiter. This field can take three values:

S = Synchronous do the next specification after this one (unless otherwise constrained by the START D/T and END D/T). An "S" specification implies that the second timing sequence follows the first, for example, when an order is written to measure blood pressure Q15 min for the first hour, then every 2 h for the next day.
A = Asynchronous do the next specification in parallel with this one (unless otherwise constrained by the START D/T and END D/T). The conjunction of "A" specifies two parallel instructions, as are sometimes used in medication, for example, Prednisone given at one tab on Mon, Wed, Fri, and at one-half tab on Tues, Thurs, Sat, Sun.
C = Actuation time it will be followed by a completion time for the service. This code allows one to distinguish between the time and priority at which a service should be actuated (for example, blood should be drawn) and the time and priority at which a service should be completed (for example, results should be reported).

For continuous or periodic services, the point at which the service is actually stopped is determined by the components END D/T, DURATION, whichever indicates an earlier stopping time. Ordinarily, only one of these components would be present, but if one requested an EKG with the specification:

ˆ1ˆ QAMˆ X3ˆ D10

then the EKG would be done for only three days since the number of repeats (three) defined the earlier stopping time.

9.4.2.17 *Examples of Quantity/Timing Usage*:

(*1*) 3ˆ once

Perform the service at one point in time, for example, order three units of blood to be given once.

(*2*) 1ˆ QHSˆ X2

Perform the service twice at bedtime, for example, give a unit of blood at bedtime on two sequential nights.

(*3*) 1ˆ Cˆ 3D

Do a service continuously for three days.

(*4*) 1ˆ Q1Hˆ X4ˆ ˆ ˆ ˆ PVCs>10/min

Perform an EKG every hour up to a maximum of four EKGs, if patient is having more than ten PVCs per minute.

(*5*) 1ˆ Q2Jˆ ˆ 1432

Perform a service every Tuesday at 2:32 p.m.

(*6*) 1ˆ ˆ ˆ ˆ 198911210800

Perform a test before 11/21/89 0800, for example, some preop laboratory tests.

(*7*) 1ˆ Q3600Sˆ X5ˆ 198911051030

Perform a service every hour for 5 h starting at 10:30 a.m. 11/5/89, for example, draw a blood glucose.

**ASTM E 1384**

(8)  1ˆQAMˆX3ˆˆˆˆˆS\1ˆQODˆ4Dˆˆˆ if K + > 5.5.

Perform a service every morning for three days and then do it every other morning for four days (that is, max twice) if the serum potassium is greater than 5.5.

(9)  ˆˆˆ198812120800ˆˆTˆˆTrough specimen for MICˆC\ˆˆˆˆˆR

Draw a blood specimen exactly at 8:00 a.m. on 12/12/1988 and report results routinely.

9.4.2.18 *Parent*:

ORC-8 (CM)

Parent's placer order identification. This field relates a child to its parent when a parent-child relationship exists (for example, when one order spawns another). (See Specification E 1238.)

9.4.2.19 *Date/Time of Transaction*:

ORC-9 (TS)

This field contains the date and time the current order was completed. For other messages, this is the date and time the current transaction (for example, cancellation) enters the sending application. This date and time is for the current transaction and is not a "replacement" time for a correction to the original order. Similarly, the Entered By, Verified By, and Enterer's Location fields of this segment relate to the current transaction, not the original order.

9.4.2.20 *Entered By*:

ORC-10 (CNA)

ID number and Name (PNA). This field contains the identity of the person who actually keyed the order into the application. It provides an audit trail in case the order is entered incorrectly and the ancillary department needs to clarify the request. By local agreement, either the ID number or name component may be omitted.

9.4.2.21 *Verified By*:

ORC-11 (CNA)

ID number and name (PNA). This field contains the identity of the person (CNA data type) who verified the accuracy of the entered order. It is used in cases where the order is entered by a technician and needs to be verified by a higher authority (for example, a nurse). By local agreement, either the ID number or name component may be omitted.

9.4.2.22 *Ordering Practitioner*:

ORC-12 (CN)
Name/credentials of practitioner ordering Tx or authorizing the treatment plan.
10001.033 CLIN ORDER ORDERING PRAC-TITIONER NAME

This field contains the identity of the person who is responsible for creating the order (for example, ordering physician).

9.4.2.23 *Enterer's Location*:

ORC-13 (CM)

This field contains the location (for example, department, floor) of the person who entered the order. It is a composite field that may be used on a site-specific basis to include some subcategory of department. For example, ICU4 might be the designation for a fourth-floor ICU location.

9.4.2.24 *Order Effective Date/Time*:

ORC-15 (TS)

The order effective date/time field contains the date/time that the changes to the order took effect or are supposed to take effect.

*(1)* If the transaction date/time (ORC;9) is after or equal to the order effective date/time (ORC;16), the data values in the ORC and its subordinate segments took effect on the order effective date/time.

*(2)* If the transaction date/time (ORC;9) is before the order effective date/time, the data values in ORC and its subordinate segments are planned to take effect on the order effective date/time.

*(3)* If the order effective date/time is left blank, its value is assumed to be equal to the transaction date/time or the message date/time (MSH;7) if the transaction date/time is blank.

*(4)* In the case where the order effective date/time (for order control code event in the same ORC segment) is different from the corresponding date/time in the quantity-timing field, the order effective date/time takes precedence. Thus if the ORC event is a discontinue request to the filler for a continuing order, and the order-effective date/time is prior to the end date/time of the quantity timing field, the order effective date-time should take precedence. If the order identified in the ORC has children, the children which have not started should be canceled; if there is a child in process, it should be discontinued; if a child has progressed beyond the point where it can be discontinued, its status is unaffected.

9.4.2.25 *Entering Organization*:

ORC-17 (CE)

This field contains the organization that the enterer represents at the time he/she enters/maintains the order.

9.4.2.26 *Entering Device*:

ORC-18 (CE)

This field shall contain the identifier of the physical device (terminal, PC) used to enter the order.

9.4.2.27 *Call-Back Phone Number*:

ORC-21 (TN)

This field contains the telephone number to call for clarification of an order or other information regarding the order.

9.4.2.28 *Relevant Clinical Information*:

OBR-14 (ST)
Plan of action (text)
10001.099. ORDER PRINCIPAL PROBLEMK

The main problem that occasioned this order. This will include the rationale and plan of action that lead to this order, including clinical goals and objectives. (From HL7: Additional clinical information about the patient or specimen will be

provided here. This field is used to report the suspected diagnosis and clinical findings on requests for interpreted diagnostic studies.)

9.4.2.29 *Serv Sect ID 00548*:

> OBR-25 (ID)
> Order Text

This optional identifier shall denote the section of the diagnostic service where the observation was performed. If the study was performed by an outside service, the identification of that service should be recorded here. Refer to Table 11 for valid entries.

9.4.2.30 *Result Copies to (CNA) 00551*:

> *4.2.1.2.28*, Specification E 1238
> OBR-29

In case a report is produced as a result of the order, this field identifies the people who are to receive copies of the report. The individuals are identified through code or by name.

9.4.2.31 *Transportation Mode (ID) 00625*:

> *4.2.1.2.30*, Specification E 1238
> OBR-31

When a service requires transportation, this attribute indicates how (or whether) that transportation should take place. Refer to Table 12 for appropriate values.

9.4.2.32 *Reason for Study (CE) 00626*:

> *4.2.1.2.31*, Specification E 1238
> OBR-32

Required for some studies to receive reimbursement.

9.4.2.33 *Sender Name or ID*:

> [6.14.1.3
> H-5 (ST)

9.4.2.34 *Source Facility Identification*:

> 11001.01.06. TEST REQ ORDERING TREAT FAC

The name or identifier of the facility from which the test was requested in a clinical order.

9.4.3 *Treatment Orders*— Extra attributes required when the order is for a drug or treatment:

**TABLE 11 Diagnostic Service Section ID**

| Code | Description | Code | Description |
|------|-------------|------|-------------|
| AU | Audiology | OUS | OB ultrasound |
| BG | Blood gasses | OT | Occupational therapy |
| BLB | Blood bank | OTH | Other |
| CUS | Cardiac ultrasound | OSL | Outside lab |
| CTH | Cardiac catheterization | PHR | Pharmacy |
| CT | CAT scan | PT | Physical therapy |
| CH | Chemistry | PHY | Physician (Hx, Dx, admission note, etc.) |
| CP | Cytopathology | PF | Pulmonary function |
| EC | Electrocardiac (for example, EKG EEC Holter) | RX | Radiograph |
| EN | Electroneuro (EEG EMG) | RUS | Radiology ultrasound |
| HM | Hematology | RC | Respiratory care (therapy) |
| IMM | Immunology | RT | Radiation therapy |
| MB | Microbiology | SR | Serology |
| MCB | Mycobacteriology | SP | Surgical pathology |
| MYC | Mycology | TX | Toxicology |
| NMS | Nuclear medicine scan | VUS | Vascular ultrasound |
| NMR | Nuclear magnetic resonance | VR | Virology |
| NRS | Nursing service measure | XRC | Cineradiograph |

**TABLE 12 Transportation Mode**

| Value | Description |
|-------|-------------|
| CART | Cart—patient travels on cart or gurney |
| PORT | The examining device goes to patient's location |
| WALK | Patient walks to diagnostic service |
| WHLC | Wheelchair |

> *4.5.3.1.1 Requested Give Code*, Specification E 1238
> RXO-1 (CE)

9.4.3.1 *Medication (Generic or Brand Name)*:

> 12001.06. MEDICATION NAME

Description of the current product. This is the identifier of the medical substance ordered to be given to the patient; it is equivalent to the Universal Service ID code of the OBR in function. The request-to-dispense fields, which define the type and amount of what is to be issued to the patient (see Fields 10 to 12 below) do not necessarily correlate with the instructions of what amount is to be "given" or administered with each dose, and may or may not be specified with the order. For example, the "give" part of the order may convey the field-representation of *give 15 mg of Librium* every 6 h, while the request to dispense part of the order may convey *issue 30 tablets of 10 MG generic equivalent for this outpatient prescription*. When the give code does not include the dosage form, use the requested dosage form field.

9.4.3.2 *Requested Give Amount—Minimum*:

> *4.5.3.1.2*, Specification E 1238
> RXO-2 (NM)
> [6.15.1.5
> 12001.30. MEDICATION DOSE

Strength, dosage, concentration. The ordered amount. In a variable dose order, this is the minimum ordered amount. In a nonvarying dose order, this is the exact amount of the order.

NOTE 3—This field is not a duplication of the first component of the quantity/timing field, since in non-pharmacy orders, that component can be used to specify multiples of an ordered amount.

Another way to say this is that, for pharmacy orders, the quantity component of the quantity/timing field refers to what is to be given out at each service interval; thus, in terms of the RX order, that first component always defaults to one. Hence, in the actual execution of the order, the value of one in the first component of the quantity/timing field always refers to one administration of the amount specified in this field (the requested give amount field).

9.4.3.3 *Requested Give Amount—Maximum*:

> *4.5.3.1.3*, Specification E 1238
> RXO-3 (NM)

In a variable dose order, this is the maximum ordered amount. In a nonvarying dose order, this field is not used.

9.4.3.4 *Requested Give Units*:

> *4.5.3.1.4*, Specification E 1238
> RXO-4 (CE)

The units for the given amount.

NOTE 4—These units can be a "compound quantity"; that is, the units may contain the word "per." For example, micrograms per kg (micg/kg) is an acceptable value, which means that the units are micrograms per kg (of body weight). See Section 7 for full definition of ISO + units.

9.4.3.5 *Requested Dosage Form*:

> *4.5.3.1.5*, Specification E 1238
> RXO-5 (CE)
> [6.15.1.6 Dosage form
> 12001.36. MEDICATION VEHICLE/FORM

The form of the medication including vehicle (for example, syrup). Use the requested dosage form field when both the give codes and the dispense code do not specify the drug form.

9.4.3.6 *Practitioner's Pharmacy Instructions*:

> *4.5.3.1.6*, Specification E 1238
> RXO-6 (ST)
> [6.15.1.12 Text Instruction
> 12001.45. MEDICATION INSTRUCTIONS

The ordering provider's instructions to the pharmacy as a free text field.

9.4.3.7 *Practitioner's Administration Instructions*:

> *4.5.3.1.7*, Specification E 1238
> RXO-7 (ST)

The ordering provider's instructions "sig" to the patient or to the provider administering the drug as a free text field, that is, in a form understandable to the patient.

9.4.3.8 *Deliver-to Location*:

> *4.5.3.1.8*, Specification E 1238
> RXO-8 (ID)

This is a two-component field:

> *Nurse__Unit&Room&Bed&Facility__ID*
> *Street__Address&Other__Designation&*
> *City&State<or>Province&ZIP Code&Country*

The first component contains the inpatient or outpatient location to which the pharmacy is to deliver the drug (if applicable). The default (null) value is the current census location for the patient. Site specific table. This field has the same form as PV1;3, "assigned patient location."

NOTE 5—The facility ID subcomponent is under current discussion for inclusion as part of the various location fields. It is optional.

The second component can be used to specify an address. This could be used to fill mail orders to a patient or provider, or to account for home health care.

9.4.3.9 *Substitution Flag*:

> *4.5.3.1.9*, Specification E 1238
> RXO-9 (ID)

Values are the following:

| | |
|---|---|
| N | Substitutions are NOT authorized. (This is the default—null.) |
| G | Allow generic substitutions. |
| T | Allow therapeutic substitutions. |

9.4.3.10 *Requested Dispense Code*:

> *4.5.3.1.10*, Specification E 1238
> RXO-10 (CE)

This is what is to be/was dispensed; it is equivalent to the universal service ID code of the OBR in function. It may be present in the order or not, depending on the application. If not present, and values are given for Fields 10 and 11 (requested dispense amount and units), the requested give code (Field 1) is assumed. If the dispense code does not include the dosage form, use the requested dosage form field.

9.4.3.11 *Requested Dispense Amount*:

> *4.5.3.1.11*, Specification E 1238

> RXO-11 (NM)

The amount to be dispensed.

9.4.3.12 *Requested Dispense Units*:

> *4.5.3.1.12*, Specification E 1238
> RXO-12 (CE)

The units for the dispense amount (for example, tabs, suppositories). This must be in simple units that reflect the actual quantity of the substance to be dispensed. It does not include compound units.

NOTE 6—On request-to-dispense fields, sometimes an order will be written in which the total amount of the drug requested to be dispensed has no direct relationship with the give amounts and schedule. For example, an outpatient pharmacy order might be *take four pills a day of <drug name, value>, O6H (every 6 h)—dispense 30 tablets*. An inpatient order might be *NS/D5W (normal saline with 5 % dextrose) at 1000 cc/hour—dispense three 1-L bottles of NSD5W solution*. The request-to-dispense fields support this common style of ordering.

9.4.3.13 *Number of Refills*:

> *4.5.3.1.13*, Specification E 1238
> RXO-13 (NM)
> [6.15.1.10 Number of refills authorized
> 12001.51. MEDICATION NO OF REFILLS

Number of times the prescription is authorized to be refilled. Outpatient only.

9.4.3.14 *Pharmacist Verifier ID*:

> *4.5.3.1.15*, Specification E 1238
> RXO-15 (CN)
> [6.15.1.11 Dispensing person's name
> 12001.54.01. MEDICATION REFILL DISP FACIL

Practitioner ID of pharmacist verifier. Use if required by the pharmacy application or site on orders (or some subgroup of orders), in addition to the "verified by" practitioner in the ORC. Each facility dispensing a refill of a specific prescription must be uniquely identified. Example: The site requires a "verified by" practitioner (such as a nurse) and a "verifying pharmacist" on the order. In this case the first field, "verified by," is already present in the ORC segment, but the second field, "verifying pharmacist," is needed on the RXO.

9.4.3.15 *Needs Human Review*:

> *4.5.3.1.16*, Specification E 1238
> RXO-16 (ID)

This field has the following values:

| | |
|---|---|
| Y | Indicates that the pharmacist filling the order needs to pay special attention to the text in the provider's pharmacy instructions field. A warning is present. |
| N | No warning is present. This is the equivalent default (null) value. |

An example of the use of this field is given by the following case:

> A *smart* order entry application knows of a possible drug interaction on a certain order, but the provider issuing the order wants to override the condition.
> In this case, the pharmacy application receiving the order will want to have a staff pharmacist review the interaction and contact the ordering physician. A value of" Y" in the needs human review field serves to signal the need for such a review, as described in the practitioner's pharmacy instructions field.

9.4.3.16 *Requested Give Per (Time Unit)*:

> *4.5.3.1.17*, Specification E 1238

**ASTM E 1384**

RXO-17 (ST)
Frequency of Administration
12001.32 MEDICATION FREQ

The time unit to use to calculate the rate at which the pharmaceutical is to be administered or the interval between doses:

Format:

| | | |
|---|---|---|
| S<integer> | = | <integer> seconds |
| M<integer> | = | <integer> minutes |
| H<integer> | = | <integer> hours |
| D<integer> | = | <integer> days |
| W<integer> | = | <integer> weeks |
| L<integer> | = | <integer> months |

Note that this is the same as the format specified for the DURATION component of the quantity/timing field, excluding the "X" specification. This field is required when relevant (for example, certain IVs). For example, if the "give amount/units" are 300 mL and the "give per" time unit is H1, the rate is 300 mL/h and the duration of this dose is 1 h. Thus the give amount and give per time unit define the duration of the service. This field is distinct from the "interval" component of the quantity/ timing field, but it could be used in conjunction with it, as in give 300 mL of NS per hour for 1 h, repeat twice a day.

9.4.3.17 *Route*:

4.5.3.2.1, Specification E 1238
RXR-1 (CE)
[6.15.1.7 Route of administration
12001.39. MEDICATION ROUTE

A term identifying the route of administration. Refer to Table 13 for appropriate values. Some current "route codes" such as some of the NDC-derived codes include the site already. In such cases, the entire code can be included in this field as a "locally defined code" for the CE data type.

9.4.3.18 *Administrative Site*:

4.5.3.2.2, Specification E 1238
RXR-2 (CE)

The site of the administration route. Refer to Table 14 for appropriate values. As a CE data type, this field may be extended to cover a wide variety of body site codes (for example, when SNOMED is used as the table source).

9.4.3.19 *Administration Device*:

4.5.3.2.3, Specification E 1238
RXR-3 (CE)

Mechanical device used to aid in the administration of the

**TABLE 13  Route**

| Code | Description | Code | Description |
|---|---|---|---|
| AP | Apply externally | IV | Intravenous |
| B | Buccal | NS | Nasal |
| DT | Dental | NG | Nasogastric |
| GTT | Gastrostomy tube | OP | Ophthalmic |
| GU | GU irrigant | OT | Otic |
| IA | Intra-arterial | PO | Oral |
| IC | Intracardiac | PR | Rectal |
| ID | Intradermal | SC | Subcutaneous |
| IH | Inhalation | SL | Sublingual |
| IM | Intramuscular | TP | Topical |
| IN | Intranasal | TD | Transdermal |
| IO | Intraocular | TL | Translingual |
| IP | Intraperitoneal | UR | Urethral |
| IS | Intrasynovial | VG | Vaginal |
| IT | Intrathecal | | |

**TABLE 14  Site**

| Code | Description | Code | Description |
|---|---|---|---|
| BE | Bilateral ears | LVL | Left vestus lateralis |
| OU | Bilateral eyes | NB | Nebulized |
| BN | Bilateral nares | PA | Perianal |
| BU | Buttock | PERIN | Perineal |
| CT | Chest tube | RA | Right arm |
| LA | Left arm | RAC | Right anterior chest |
| LAC | Left anterior chest | RACF | Right antecubital fossa |
| LACF | Left antecubital fossa | RD | Right deltoid |
| LD | Left deltoid | RE | Right ear |
| LE | Left ear | REJ | Right external jugular |
| LEJ | Left external jugular | OD | Right eye |
| OS | Left eye | RF | Right foot |
| LF | Left foot | RG | Right gluteus medius |
| LG | Left gluteus medius | RH | Right hand |
| LH | Left hand | RIJ | Right internal jugular |
| LIJ | Left internal jugular | RLAQ | Right lower abd. quadrant |
| LLAQ | Left lower abd. quadrant | RLFA | Right lower forearm |
| LLFA | Left lower forearm | RMFA | Right mid forearm |
| LMFA | Left mid forearm | RN | Right naris |
| LN | Left naris | RPC | Right posterior chest |
| LPC | Left posterior chest | RSC | Right subclavian |
| LSC | Left subclavian | RT | Right thigh |
| LT | Left thigh | RUA | Right upper arm |
| LUA | Left upper arm | RUAQ | Right upper abd. quadrant |
| LUAQ | Left upper abd. quadrant | RUFA | Right upper forearm |
| LUFA | Left upper forearm | RVL | Right vastus lateralis |
| LVG | Left ventragluteal | RVG | Right ventragluteal |

drug. Common examples are IV-sets of different types. Refer to Table 15 for values.

9.4.3.20 *Administration Method*:

4.5.3.2.4, Specification E 1238
RXR-4 (CE)

The administration method identifies the specific method requested for the administration of the drug to the patient. Refer to Table 16 for values.

9.4.4 *Observation Orders*—Attributes needed for observation orders. To be added in the revision of this guide.

9.4.5 *Diet Orders*— This section is still being developed and will be added to the next revision of this guide. Attributes needed for diet orders. This needs to be better harmonized with the treatment orders.

9.4.5.1 *Type—Diet, Supplement, or Preference*:

ODS-1 (ID)

This ID tells whether the segment specifies a diet, nourishment, or supplement (D, S, or P).

9.4.5.2 *Service Period*:

ODS-2 (CE)

When blank, the modifier applies to all service periods. Diet orders, for example, typically apply to all service periods. This field will usually be specified for nourishments and supplements. This field allows you to designate a modification for one

**TABLE 15  Administration Device**

| Code | Description | Code | Description |
|---|---|---|---|
| AP | Applicator | IVS | IV solution |
| BT | Buretrol | MI | Metered inhaler |
| HL | Heparin lock | NEB | Nebulizer |
| IPPB | IPPB | PCA | PCA pump |
| IVP | IV pump | | |

**TABLE 16  Administration Method**

| Code | Description | Code | Description |
|------|-------------|------|-------------|
| CH | Chew | NB | Nebulized |
| DI | Dissolve | PT | Pain |
| DU | Dust | PF | Perfuse |
| IF | Infiltrate | SH | Shampoo |
| IS | Insert | SO | Soak |
| IR | Irrigate | WA | Wash |
| IVPS | IV piggyback | WI | Wipe |
| IVP | IV push | | |

or more of the service periods during a day by combining service specifications as needed. The service periods will be local CEs, normally numbers. Typically, Service 1 is breakfast, Service 2 is mid-a.m. snack, Service 3 is lunch, Service 4 is mid-afternoon snack, Service 5 is dinner, and Service 6 is bedtime snack. Ex: |1 ~ 5| means Service 1 and Service 5, whatever these are locally defined to be.

9.4.5.3 *Diet, Supplement or Preference Codes*:

ODS-3 (CE)

This is the identifier of the ordered item for a patient; it is equivalent to the universal service ID code of the OBR in function. Since ODS is a repeating segment, multiple entities get multiple segments. For example: |^REG^L&FD7,| |023^^L&FD6| , |^NOLACT^L&FD5| , |^TUBEFD^L&FD4| , and |009^ ADA20^ L&FD3| . In the case of supplements (S), it is a specification for a particular item or class of items. If institutional codes for patient food preferences (P) have been codified, they are also expressed as coded segments; otherwise, the information is passed as a text string in the fourth component of the ODS segment, described below.

9.4.5.4 *Text Instruction*:

ODS-4

This allows specific instructions for dietary. These instructions may address specific patient needs, such as isolation.

9.4.5.5 *Tray Type*:

ODT-1 (CE)

The type field says what kind of information follows in this particular segment. The defined values for type are given in Fig. 2. Tray specifications are useful for early and late tray delivery in cases where a patient undergoes a procedure during normal feeding times. Tray specifications can also be used for guest trays, no trays, and messages.

9.4.5.6 *Service Period*:

ODT-2 (CE)

When blank, the modifier applies to all service periods. This field allows you to designate one or more of the feeding periods during a day by combining the codes as needed. It can also combine with quantity/timing to give such information as which service period the order belongs with.

9.4.5.7 *Text Instructions*:

ODT-3 (CE)

Instructions associated with the tray. For example, plastic silverware.

9.5 *Service Instances*:

9.5.1 This object represents the specific service performed at a specific time. An order often is associated with one or more

service instance. When, for example, penicillin is ordered as 250 mg every 6 h, a service instance is generated four times a day, one for each dispensing of the 250 mg pill. When a glucose test is ordered every morning for three days, three separate service instances occur. The service instance carries information about what was done by whom. The service instance documents that a service was performed and by whom. Orders for tests that require specimens to be drawn almost always generate a service instance related to the specimen (separate from the observation service instance). This contains information about the specimen and who drew it. The relation between an order and its service instance may vary with the setting. Continuing inpatient medication orders generate service instances. Outpatient prescriptions usually do not.

9.5.1.1 The attributes that apply to a service instance depend upon the kind of order. From the perspective of the EHR, the service instances that require specimens will have attributes related to the specimen. Drug orders (in the inpatient area) will have attributes related to the drug dispensed and by whom. These attributes are presented for the two subobjects of treatment service and test services in two separate sections.

9.5.2 *Specimen Collection Instances*—Providers write orders for observations in order to obtain information to diagnose, treat and manage their patients. This includes orders for pathology and clinical laboratory, radiology, nuclear medicine, respiratory therapy studies, for vital signs, special measurements, etc. An observation order can request a single measurement (for example, glucose), or a battery of measurements (for example, CBC, vital signs). An observation can request such a measure at a point in time (for example, glucose—stat), at intervals over time (for example, vital signs three times a day) or continuously (for example, cardiac monitoring).

9.5.2.1 *EHR Order Number*— Link to the order (see 5.1) that triggered this specimen collection. (One order may trigger many separate collections.)

9.5.2.2 *Specimen Identifier Number*—Unique identifier for each specimen.

9.5.2.3 *Date/Time Specimen Collection Planned*—Time when collection was requested or specified.

9.5.2.4 *Observation Date/Time*:

*4.2.1.2.7*
OBR-8 (TS)
11001.01. DATE OF SPECIMEN COLLECT

In the case of a specimen-associated study, this field shall represent the date and time the specimen was collected or obtained.

9.5.2.5 *Observation End Date/Time*:

OBR-9 (TS)

This field shall contain the end date and time of a study or timed specimen collection. If an observation takes place over a substantial period of time, it will indicate when the observation period ended. For observations made at a point in time, it will be null. This is a results field except when the placer or a party has already drawn the specimen.

9.5.2.6 *Collection Volume 00532*:

*4.2.1.2.9*, Specification E 1238
OBR-10 (CQ)

The volume of a specimen. The default unit is ML. Specifically, units should be expressed in the ISO standard unit abbreviations (see the table on Single Case ISO Units Abbreviations in Specification E 1238 or ISO 2955-1983a). This is a results-only field except when the placer or a party has already drawn the specimen. (See Section 7 for full details about units.)

9.5.2.7 *Collector Identifier 00533*:

4.2.1.2.10, Specification E 1238
OBR-11 (CN)

This field identifies the person, department, or facility that collected the specimen. Either name or ID code, or both, may be present.

9.5.2.8 *Specimen Action Code 00534*:

4.2.1.2.11, Specification E 1238
OBR-12 (ID)

Indicates the action to be taken with respect to the specimen. The purpose of this field is to further qualify (when appropriate) the general action indicated by the order control code contained in the order segment which triggered the specimen collection. For example, when a new order (ORC—"NW") is sent to the lab, this field would be used to tell the lab whether or not to collect the specimen ("L" or "O"). Refer to Table 17 for valid entries.

9.5.2.9 *Danger Code 00535*:

4.2.1.2.12, Specification E 1238
OBR-13 (CM)

This field shall contain a code or text, or both, indicating any known or suspected patient or specimen hazards, for example, patient with active tuberculosis or blood from a hepatitis patient. Either code or text, or both, may be absent. However, the code is always placed in the first component position and any free text in the second component. Thus, free text without a code must be preceded by a component delimiter.

9.5.2.10 *Specimen Received Date/Time 00537*:

4.2.1.2.14, Specification E 1238
OBR-15 (TX)

For observations requiring a specimen, the actual login time at the diagnostic service. (This is a results-only field.)

9.5.2.11 *Specimen Source*— The source of the specimen (the site where the specimen should be obtained or where the service should be performed) is transmitted in five fields:

9.5.2.12 *Specimen Source Name or Code*:

OBR-16.1 (CE)

Contains the specimen source name or code (as a CE data type component). (Even in the case of observations whose name implies the source, a source may be required, for example, blood culture-heart blood.)

9.5.2.13 *Additives*:

**TABLE 17 Specimen Action Code**

| Value | Description |
|---|---|
| A | Add ordered tests to the existing specimen |
| G | Generated order; reflex order |
| L | Lab to obtain specimen from patient |
| O | Specimen obtained by service other than lab |
| P | Pending specimen (order sent prior to delivery) |
| R | Revised order |
| S | Schedule the tests specified below |

OBR-16.2 (ST)

Additives to the specimen such as Heparin, EDTA, or Oxlate, when applicable.

9.5.2.14 *Method of Collection*:

OBR-16.3 (TX)

A free text component describing the method of collection when that information is a part of the order.

9.5.2.15 *Body Site*:

OBR-16.4 (CE)

The body site from which the specimen was obtained.

9.5.2.16 *Site Modifier*:

OBR-16.5 (CE)

The site modifier. For example, the site could be antecubital fossa, and the site modifier "right." Refer to Table 18 for valid entries.

9.5.3 *Observation Service Instances*:
9.5.3.1 *Observation Service Instance ID*:

OBR-5 (CE)

The identity of the requested diagnostic test, represented as a code, a text name, or both. See definition of CE data type. This field should contain an identifier code for the requested observation battery. An observation battery may represent a set of observations (test) or a single observation; for example, vital signs, or serum potassium. This can be based on local or "universal" codes, or both.

9.5.3.2 *Results Report/Status Change—Date/Time*:

OBR-23 (TS)

Date-time results reported or status changed. This field is used to indicate the date and time that the results are composed into a report and released, or that a status, as defined in order status, is entered or changed. (This is a results field only.) When other applications (such as office or clinical database applications) query the laboratory application for untransmitted results, the information in this field may be used to control processing on the communications link. Usually, the ordering service would want only those results for which the reporting date/time is greater than the date/time the inquiring application last received results.

9.5.4 *Observation Battery Instances*:
9.5.4.1 *Result Status 00734*:

4.2.1.2.25, Specification E 1238
OBR-26 (ID)

The purpose of this field is to report the status of results for this order. The status applies to ALL results associated with the order. This field would typically be used in a response to an order status query where the level of detail requested does not include the OBX segments. This field can only be valued by the filler. When the individual status of each result is necessary, the observe result status field in the OBX segment may be used. Refer to Table 19 for valid entries.

9.5.4.2 *Parent Results 00550*:

4.2.1.2.26, Specification E 1238
OBR-27 (CM)

To make it available for other types of linkages (for example,

**ASTM E 1384**

TABLE 18 Source of Specimen

| Code | Description | Code | Description |
|------|-------------|------|-------------|
| ABS | Abcess | MILK | Breast milk |
| AMN | Amniotic fluid | NAIL | Nail |
| ASP | Aspirate | NOS | Nose (nasal passage) |
| BPH | Basophils | OTH | Other |
| ABLD | Blood arterial | PRT | Peritoneal fluid ascites |
| BBL | Blood bag | PER | Peritoneum |
| BON | Bone | PLC | Placenta |
| BRTH | Breath | PLAS | Plasma |
| BRO | Bronchial | PLB | Plasma bag |
| BRN | Burn | PLR | Pleural fluid (thoracentesis flu) |
| CALC | Calculus | PMN | Polymorphonuclear neutrophils |
| CDM | Cardiac muscle | PUS | Pus |
| CNL | Cannula | SAL | Saliva |
| CTP | Catheter tip | SEM | Seminal fluid |
| CSF | Cerebral spinal fluid | SER | Serum |
| CVM | Cervical mucus | SKN | Skin |
| CVX | Cervix | SKM | Skeletal muscle |
| COL | Colostrum | SPRM | Spermatozoa |
| CBLD | Cord blood | SPT | Sputum |
| CNJT | Conjunctiva | SPTC | Sputum coughed |
| CUR | Curettage | SPTT | Sputum tracheal aspirate |
| CYST | Cyst | STON | Stone |
| DRN | Drain | STL | Stool = Fecal |
| EAR | Ear | SWT | Sweat |
| ELT | Electrode | SNV | Synovial fluid = Joint fluid |
| ENDC | Endocardium | TEAR | Tears |
| ENDM | Endometrium | THRT | Throat |
| EOS | Eosinophils | THRB | Thrombocyte (platelet) |
| RBC | Erythrocytes | TISS | Tissue |
| FIB | Fibroblasts | TISB | Tissue bone marrow |
| FLT | Filter | TISG | Tissue gall bladder |
| FIST | Fistula | TISL | Tissue lung |
| FLU | Body fluid—unspecified | TISP | Tissue peritoneum |
| GAST | Gastric fluid | TISU | Tissue ulcer |
| GEN | Genital | TISC | Tissue curettage |
| GENC | Genital—cervix | TISPL | Tissue placenta |
| GENL | Genital lochia | ULC | Ulcer |
| GENV | Genital vaginal | UMB | Umbilical blood |
| HAR | Hair | URTH | Urethra |
| IT | Intubation tube | UR | Urine |
| LAM | Lamella | URC | Urine clean catch |
| WBC | Leucocytes | URT | Urine catheter |
| LN | Line | VOM | Vomitus |
| LNA | Line arterial | BLD | Whole blood |
| LNV | Line venous | BDY | Whole body |
| LYM | Lymphocytes | WICK | Wick |
| MAC | Macrophages | WND | Wound |
| MAR | Marrow | WNDA | Wound abscess |
| MEC | Meconium | WNDE | Wound exudate |
| MBLD | Menstrual blood | WNDD | Wound drainage |

TABLE 19 Result Status Codes (OBR;25)

| Code | Description |
|------|-------------|
| O | Order received; specimen not yet received |
| I | No results available; specimen received, procedure incomplete |
| S | No results available; procedure scheduled, but not done |
| P | Preliminary; A verified early result is available, final results not yet obtained |
| R | Results stored; not yet verified |
| F | Final results; order is complete and verified |
| X | No results available; order canceled (used only on queries) |
| Y | No order on record for this test (used only on queries) |
| Z | No record of this patient (used only on queries) |

is identified by Field 29, parent accession number. (See Section 7 for more details about this linkage.) A second mode of conveying this information is to use a standard observation result segment (OBX). If more than one organism is present the sub ID field is used to distinguish them. In this case, the first OBX with subid $N$ will contain a value identifying the Nth microorganism, and each additional OBX with subid $N$ will contain sensitivity values for a given antibiotic test on this organism.

9.5.4.3 *Parent Identifier Number 00737*:

*4.2.1.2.29*
OBR-30 (CM)

This field is identical to the parent number of the ORC segment. This field relates a child to its parent when a parent-child relationship exists. For example, observations that are spawned by previous observations, for example, antibiotic susceptibilities spawned by blood cultures, need to record the parent (blood culture) Filler Order Number here. The parent-child mechanism is described under the order Control field notes (see Segment ORC field notes in 4.1.4.2.1). It is required when the order is a child. Parent is a two-component field. The first component contains the placer order number of the parent order. The second component is optional and contains the filler order number of the parent. The components of the placer order number and the filler order number are transmitted in subcomponents of the two components of this field.

9.5.4.4 *Other Participating Persons*:

OBR-33 (CN)

The identity of the other clinician who interpreted the observation and is responsible for the report content. Include the identity and the role of the persons in the observation production (OBR33, OBR34, and OBR35 in the observation order section).

9.5.4.5 *Assistant Result Interpreter 00628*:

*4.2.1.2.33*, Specification E 1238
OBR-34

When applicable, record the clinical observer who assisted with the interpretation of this study.

9.5.4.6 *Technician 00630*:

*4.2.1.2.34*, Specification E 1238
OBR-35

When applicable, record the performing technician.

9.5.4.7 *Transcriptionist 00629*:

toxicology) this field is defined as coded observation ID Sub-ID of parent. This important information, together with the information in OBR:29 (parent access number) uniquely identifies the parent result's OBX segment related to this service instance order. The value of this OBX segment in the parent result is the organism or chemical species about which this battery reports. For example, if the current battery is an antimicrobial sensitivity, the parent result's identified OBX contains a result which identifies the organism on which the sensitivities were run. This indirect linkage is preferred because the name of the organism in the parent result may undergo several preliminary values prior to finalization. The third component may be used to record the name of the microorganism identified by the parent result directly. The organism in this case should be identified exactly as it is in the parent culture. This field is present only when the parent result

*4.2.1.2.35*, Specification E 1238
OBR-36

When applicable, record the report transcriber.

9.5.4.8 *Scheduled—Date/Time 00736*:

*4.2.1.2.36*, Specification E 1238
OBR-37

When applicable (for example, action code in field 11 = "S"), record the date/time the filler scheduled an observation. This is a result of a request to schedule a particular test and provides a way to inform the placer of the date/time a study is scheduled (result only).

9.5.5 *Treatment Instances*:

9.5.5.1 *Treatment Instances Unique ID*:

Prescription Number
RXD-7 (NM)
[6.15.1.3 Prescription number
12001.12. MEDICATION PRESCRIPTION NO.

Unique number assigned to identify each prescription.

9.5.5.2 *Administration Sub-ID Counter*:

*4.5.11.1.2*, Specification E 1238
RXA-2 (NM)xxxxx

Starts with "1" the first time that medication is administered for this order. Increments by one with each additional administration of medication. Note that more than one RXA segment can be "matched" to a single RXG segment, as is the case when recording a change of the rate of administration of an IV solution.

9.5.5.3 *Administered Code*:

*4.5.11.1.5*, Specification E 1238
RXA-5 (CE)xxxxx

This is the identifier of the medical substance administered. It is equivalent to the Universal Service ID code and links to the master service catalogue.

9.5.5.4 *Administered Amount*:

*4.5.11.1.6*, Specification E 1238
RXA-6 (NM)xxxxx

The amount administered.

9.5.5.5 *Administered Units*:

*4.5.11.1.7*, Specification E 1238
RXA-7 (CE)xxxxx

This must be in simple units that reflect the actual quantity of the substance administered. It does not include compound units.

9.5.5.6 *Administered Dosage Form*:

*4.5.11.1.8*, Specification E 1238
RXA-8 (CE)xxxxx

Use this field when the administered code does not specify the dosage form.

9.5.5.7 *Administration Notes*:

*4.5.11.1.9*, Specification E 1238
RXA-9 (ST)xxxxx
[6.15.1.13 Medication notes
12001.63. MEDICATION NOTES

Free text notes from the provider administering the medication. This may contain free text describing a custom IV, mixture, or salve.

9.5.5.8 *Administering Provider*:

*4.5.11.1.10*, Specification E 1238
RXA-10 (CN)xxxxx

Provider ID of the person administering the pharmaceutical.

9.5.5.9 *Administered at Location*:

*4.5.11.1.11*, Specification E 1238
RXA-11 (ID)xxxxx

This is a two-component field:

Nurse__Unit&Room&Bed&Facility__ID
Street__Address&Ot__Designation&
City&State<or>Province&ZIP Code&Country

*(1)* The first component contains the inpatient or outpatient location at which the drug was administered (if applicable). The default (null) value is the current census location for the patient. Site specific table.

*(2)* The second component can be used to specify an address. This could be used to fill mail orders to a patient or provider, or to account for home health care.

9.5.5.10 *Administered Per (Time Unit)*:

*4.5.11.1.12*, Specification E 1238
RXA-12 (ST)xxxxx

Rate at which this medication was administered as calculated by using the administered amount and the administered units fields.

9.6 *Observations*:

9.6.1 We use the notion of observations in its most general sense to mean any aspect of a patient that can be described at a point in time. It follows exactly Allen Rector's idea of an observation **(14)**. A serum glucose result, a chest X-ray impression, a Glasgow coma score, each of the questions in the SF-36, a history of present illness, urine output, and nurses' note are each observations. An observation is an attribute of a patient at a point in time. An observation is the atomic unit or "chunk" in which clinical information is recorded. When a report is divided into well defined sections or variables, each section or variable should be reported as a separate observation, so the computer can manipulate it individually.

9.6.2 The observation object cannot stand alone. General attributes (those that are independent of a particular patient's observation), such as: the units in which a numeric object is reported; the name and synonyms for the observation; information about how the observation is grouped and sequenced in reports with other observations; the class of the observation (for example, laboratory test, X-ray report), and so forth are associated with a master file or service catalogue. Most laboratory systems, pharmacy systems, billing systems, inventory systems and other systems that must deal with large numbers of discrete items use a general object (file) to carry all patient observations with a "pointer" to master tables (*s* service master table, a term dictionary, a table of detailed provider information) that identifies the observation. It is also the approach used by all long surviving medical record systems.

9.6.3 Using a master dictionary makes it possible to accommodate different degrees of granularity; it also easily accommodates change. As new variables are invented they can be added to the master table without requiring any restructuring of the objects contained in the data base. The observation object has provisions for storing free text comments (paragraphs), as well as for storing more specific data types. It also has

provisions for linking to more complex objects (for example, images, tracings, etc.).

9.6.4 When a selected few observations are recorded in a data base, a simpler structure can be employed. If a diabetes clinic, for example, wanted to capture 20 variables (for example, diastolic blood pressure, systolic blood pressure, blood glucose, hemoglobin A1c, weight, pulse, foot lesions (yes/no), etc.), they could create one record per visit, and define specific fields for each of those twenty variables. A master term dictionary would not be needed. However, this approach does not work well in the more general case. An EHR may have 10 000 or more different kinds of observations. (Laboratory results alone can account for 5000 different variables.) Further, an observation may be recorded more than once during the visit by different providers. The flat structure, with fields corresponding to different observation, cannot accommodate the volume or the complexity of such data.

9.6.5 The master term dictionary is defined for the objects contained in the orders, procedures, and problems object classes in the same general manner.

9.6.6 These components form an ongoing chronological picture and analysis of the clinical course of the patient during an episode or encounter. This segment is applicable for any health care setting. These elements serve as a means of communication and interaction between members of a health care team. They may also occur as narrative or flow sheets.

9.6.7 *Observation Record ID*:

Link to Order Instance

9.6.8 *Observation Identifier*:

OBX-4 (CE)

Unique identifier for the observation. The format is that of the coded element (CE). Example: 93000.3  P-R interval. The identifier will "point" to a master observation table that will provide other attributes of the observation that may be used to define the possible orders and groupings of observations from "fixed" ???? ???? to problem lists. The relation of an observation ID to a master observation table is analogous to the relationship between a charge code (in a billing record) and the charge master.

9.6.9 *Observation Sub-ID (Repeat Identifiers)*:

OBX-5 (ST)

This field is also used to distinguish between multiple observations with the same observation ID and observation timing, for example, repeat measurements on one sample.

9.6.9.1 The sub-identifier is also used to group related components in reports such as surgical pathology. It is traditional for surgical pathology reports to include all the tissues taken from one surgical procedure in one report.

9.6.10 *Observation Date/Time*:

OBX-15 (TS)
11001.01.45 DATE-TIME RESULT REPTD

9.6.10.1 This field is required in two circumstances. The first is when the observations reported beneath one report header (OBR) have different dates. This could occur in the case of queries, timed test sequences, or clearance studies where one measurement within a battery may have a different time than another measurement.

9.6.10.2 It is also needed in the case of OBX segments that are being sent by the placer to the filler, in which case the date of the observation being transmitted is likely to have no relation to the date of the requested observation. In France, requesting services routinely send a set of the last observations along with the request for a new set of observations. The date of these observations is important to the filler laboratories.

9.6.10.3 In all cases, the observation date-time is the physiologically relevant date-time or the closest approximation to that date-time. In the case of tests performed in specimens that the relevant date-time is the specimen's collection date-time. In the case of observations taken directly on the patient (for example, X-ray images, history and physical), the observation date-time is the date-time that the observation was performed.

9.6.11 *Observation Data-Type*:

OBX-3 (ID)

The value type field defines the format of the observation value in OBX. If the value is CE then the result must be a coded entry. If the value type is TX then the results will be bulk text. The valid values for the value type of an observation are listed in Table 4.

9.6.11.1 The observation value must be represented according to the format for the data type defined in Chapter II, Control Section. For example, a PN consists of six components, separated by component delimiters.

9.6.11.2 Although NM is a valid type, observations which are usually reported as numbers will often have the string (ST) data type because non-numeric characters are often reported as part of the result, for example, >300 to indicate the result was off-scale for the instrument. In the example, ">300," ">" is a symbol and the digits are considered a numeric value.

9.6.11.3 All HL7 data types are valid except CM, because it is not a specific data type, CQ, because units for the value (OBX;5) are always specified explicitly in an OBX segment (in OBX;6), and sequence ID, because it only applies to segments.

9.6.12 *Observation Value*:

OBX-6 (Data type depends upon the observation data type)

This field contains the value observed by the observation producer. The value type field (OBX;2) contains the data type according to which observation value is formatted. It is a required field in the OBX segment.

9.6.13 *Representation*— This field contains the value of observations identified in the observation identifier field. Depending upon the observation, the data type may be a number (for example, a respiratory rate), a coded answer (for example, a pathology impression recorded as SNOMED), or a date-time (the date-time that a unit of blood is sent to the ward). An observation value is always represented as the data type specified in the observation field of the same segment. Whether numeric or short text, the answer shall be recorded in ASCII text.

9.6.13.1 *Producer ID*:

OBX-16 (CNA)
Observation performance site

This field contains a unique identifier of the responsible producing service. It should be reported explicitly when the

**E 1384**

test results are produced at outside laboratories, for example. When this field is null, the receiving system assumes that the observations were produced by the sending organization. This information is needed to satisfy CLIA regulations in the United States. The code for producer ID is recorded as a CE data type. In the United States, the Medicare number of the producing service is suggested as the identifier.

9.6.13.2 *Responsible Observer*:

OBX-17 (CNA)

When required, this field contains the identifier of the individual directly responsible for the observation (that is, the person who either performed or verified it). In a nursing service, the observer is usually the professional who performed the observation (for example, took the blood pressure). In a laboratory, the observer is the technician who performed or verified the analysis. The code for the observer is recorded as a CE data type. If the code is sent as a local code, it should be unique and unambiguous when combined with the producer ID in P10.45.

9.6.13.3 *Observation Result Status*:

OBX-12 (ID)

Refer to Table 20 for valid codes. This field reflects the current completion status of the results for one observation identifier.

9.6.13.4 *Abnormal Flags*:

OBX-9 (ID)

This field indicated the normalcy status of the result. The characters for representing significant changes either up or down or abnormal values are as shown in the table on Abnormal/Change Code in Specification E 1238. For interpretation of antibiotic sensitivities, the codes in the table on Interpretive Codes for Antibiotic Sensitivities in Specification E 1238 may be used.

9.6.13.5 *Probability*:

OBX-10 (NM)

This field provides a place to report the probability that a result or diagnostic impression is true. It gives the reporter's confidence in his/her impression. It only applies to categorized (coded) results. It is a decimal number represented as an ASCII string that must be between zero and one inclusive.

9.6.13.6 *Nature of Abnormal Checking*:

**TABLE 20 Observation Result Status Codes Interpretation (OBX;11)**

| Code | Description |
|------|-------------|
| C | Record coming over is a correction and thus replaces a result. |
| D | Treat the result as deleted. |
| F | Final results. Take as always true. Producer service believes this is a complete order. |
| I | Specimen in lab; results pending. |
| P | Preliminary results. |
| R | Results entered—not verified. |
| S | Partial results. |
| X | Results cannot be obtained for this observation. |
| U | Results status change to final. Results did not change (don't retransmit test). For example, radiology changes status from preliminary to final. |

OBX-11 (ID)

The table on Codes for Nature of Abnormal Range Checking in Specification E 1238 contains the codes that identify the kinds of normal range checking employed by the observation producer. As many of the codes as apply shall be included and be separated by component delimiters.

9.6.13.7 *Units*:

OBX-7 (CE)
Observation units

In this version of the specification, units have a data type of CE. The default coding system for the units codes consists of the ISO + abbreviation for a single case unit (see ISO 2955-83) plus extensions, that do not collide with ISO abbreviations (see introductory section to this chapter). We designate this coding system as ISO + . Both the ISO unit's abbreviations and the extensions are defined in 7.1.5.1 and listed in the table on Codes for Diagnostic Classification, of Specification E 1238. The ISO + abbreviations are the codes for the default coding system. Consequently, when ISO + units are being used, only ISO + abbreviations need be sent, and the contents of the units field will be backward compatible to HL7 version 2.1.

9.6.13.8 *Reference Range*:

OBX-8 (ST)
Observation reference range

Numeric values should be reported in the following form:< lower limit-upper limit>, for example, for potassium, 3.5 to 4.5. For results with alphabetical values, the normal value may be reported in this location. If the observation quantifies the amount of a toxic substance, then the upper limit of the range identifies the toxic limit. If the observation quantifies a drug, the lower limits identify the lower therapeutic bounds and the upper limits represent the upper therapeutic bounds above which toxic side effects are common.

9.6.13.9 *Confidentiality Code*:

(OMI-31) (ID)

This field indicates the degree to which special confidentiality protection should be applied to the observation. For example, a tighter control may be applied to an HIV titer than to a CBC. Examples of possible codes are the following:

| | | |
|---|---|---|
| V | — | Very restricted |
| R | — | Restricted |
| U | — | Usual control |

9.6.13.10 *Observation Comments*:

C-4 (TX)

This field contains the actual text of a comment. The comment applies to the observation segment that immediately precedes it. The comment field is of type TX, therefore its contents may be of virtually unlimited length, and a long comment need not be broken into a series of separate comment segments. However, long comment segments must be broken into lines of less than 220 characters to satisfy the line length limits of some receiving systems. (See 5.3, Maximum Line Length, of Specification E 1238.)

9.7 *Encounters*:

9.7.1 Every encounter and episode included in the primary patient record in the course of a patient's lifetime is sequenced for each encounter or episode by means of a date-time. The

subsections under Section 7 of Specification E 1238 are organized to reflect the logical iterations of care events that make up the continuing development of the patient record. Levels of detail depend upon the specific care site.

9.7.2 The concept of an encounter is defined to be a face-to-face session of the patient with a practitioner during which information about the patient's health status is exchanged. Under certain circumstances, telephone evaluations should also be recorded. The encounter record should capture the facts relating to the events that took place and whether they occur in an inpatient setting or an ambulatory care environment. Certain information that characterizes the time, place, and circumstances of the initiation of the encounter are first required. Then the information characterizing the patient's condition and reason for seeking care must be recorded. Next, the identification and characterization of the patient's problem(s), including referencing the encounter to the problem list must be included. Finally, the interventions ordered, the departure condition and the required follow-up actions must be recorded, including a record of the services rendered. Because the circumstances leading to an encounter may be as direct as inpatient rounds by the attending physician to emergency room care (for example, traumatically injured patients), the data collected in the encounter may vary from brief to extensive. The data actually collected may not include all data elements identified, if these elements are not applicable to a given encounter.

9.7.3 A discussion of this representation must first explain that the pointer arrows leading from the identified data elements to a logical site mnemonic is intended to portray that element is represented in a lexicon that has associated attributes that are not dependent upon the context of the term in the episode or encounter record and that the recorded element is the index into this sublexicon. In order to reflect how the structure of the record parallels the practitioner's thought processes, these logical interrelations are depicted using a generic convention and the data that are global to the individual encounter must be so identified in order to foster data independence wherever possible. This means avoidance of recording redundant data when that data is independent of the context.

9.7.4 Data elements clarifying time/date, location, type, and source of encounter or episode as they differ from the information already contained in the related major SEGMENTS in 6.4 through 6.15 of Specification E 1238. These should include the problem list, narrative, and coded descriptions of admitting and principal diagnoses following the standardized definitions of these terms. Narrative and coded descriptions of all other diagnoses which are a factor in the patient's care during the specific episode or encounter are also listed here to be added to the problem list segment (see 6.9).

9.7.5 Some of these elements may require updating at each encounter or episode and must satisfy various national standards and regulations such as Joint Commission Standard, Conditions of Participation for Medicare, Uniform Hospital Discharge, Ambulatory, and Long Term Care data sets.

9.7.6 *Attributes of Encounters*:

9.7.6.1 *Encounter Identifier*:

(ST)

A number or string that uniquely identifies each encounter.

9.7.6.2 *Type of Encounter*:

(ID)

| Sample Values: | I | Inpatient | T | Telephone |
|---|---|---|---|---|
| | O | Outpatient | C | Teleconference |
| | E | Emergency Ambulatory Care | V | Televideo |
| | H | Home Visit | | |
| | X | Other | | |

9.7.6.3 *Patient ID*:

(CE)

Identifies patient in this encounter. Uses the EHR's patient identifiers.

9.7.6.4 *Admit/Visit Date-Time*:

PV1–44 (DT)

Admit date-time. To be used if the event date-time is different than the admit date and time, that is, a retroactive update.

9.7.6.5 *Discharge Date-Time*:

OBX-4 (CE)
PV1–45 (TS)

Discharge date-time. To be used if the event date/time is different than the admit date and time, that is, a retroactive update.

9.7.6.6 *Attending Practitioner*:

PV1–7 (CE)

In the form PHYSICIAN IDˆ NAMEˆ UPIN. Depending on local agreements, either ID or NAME may be absent.

9.7.6.7 *Site of Encounter*:

(TYPE?)

Table 16 outlines the classes of settings that maintain primary record of care that contain the identified information segments in some degree.

9.7.6.8 *Patient Class*:

PV1–2 (ID)

Generally as denoted below, subject to site-specific variations:

| Value | Description |
|---|---|
| E | Emergency |
| I | Inpatient |
| O | Outpatient |
| P | Preadmit |
| R | Recurring Patient |
| B | Obstetrics |
| X | Other |

9.7.6.9 *Admit Reason*:

PV2–3 (ST)
Chief complaint/reason for visit
14001.A023. CHIEF COMPLAINT

Reason for episode/encounter and patient's complaints and symptoms reflecting his/her own perceptions of his needs. The nature and duration of symptoms that caused the patient to seek medical attention, as stated in the patient's own words.

NOTE 7—The five fields (PV1–3 through PV1–6 and PV1–11) in 9.7.6.10 through 9.7.6.13 apply to inpatients only.

ASTM E 1384

9.7.6.10 *Assigned Patient Location*:

PV1–3 (ID)

Format is NURSE UNIT ˆ ROOM ˆ BED ˆ FACILITY ID ˆ BED STATUS. New location is the patient's initial assigned location, or the location to which he/she is being moved. For canceling a transaction or discharging a patient, the current room number should be in this field.

9.7.6.11 *Admission Type*:

PV1–4 (ID)

This code indicates the circumstances under which the patient was or will be admitted.

| Value | Description |
|---|---|
| E | Emergency |
| R | Routine |

9.7.6.12 *Pre-Admit Number*:

PV1–5 (ST)

The number that uniquely identifies the patient's pre-admit account. Some system will continue to use the pre-admit number as the billing number after the patient has been admitted.

9.7.6.13 *Prior Patient Location*:

PV1–6 (ID)

The format contains up to five components: NURSE UNIT ˆ ROOMˆ BEDˆ FACILITY IDˆ BED STATUS. The old location is null if the patient is new. It contains the prior patient location if the patient is being transferred.

9.7.6.14 *Temporary Location*:

PV1–11 (ID)

A location other than the assigned location required for a temporary period or time (for example, OR). In the form NURSE UNITˆ ROOMˆ BEDˆ FACILITY IDˆ BED STATUS.

9.7.6.15 *Referring Practitioner*:

PV1–8 (CE)

In the form PHYSICIAN IDˆ NAMEˆ UPIN. Depending on local agreements, either ID or NAME may be absent.

9.7.6.16 *Consulting Practitioner*:

PV1–9 (CE)

Depending on local agreements, either ID or NAME may be absent.

9.7.6.17 *Hospital Service*:

PV1–10 (ID)

The treatment or type of surgery the patient is scheduled to receive.

9.7.6.18 *Pre-Admit Test Indicator*:

PV1–12 (ID)

The code indicates that the patient must have pre-admission testing done in order to be admitted.

9.7.6.19 *Re-Admission Indicator*:

PV1–13 (ID)

"R" for re-admission or else null. The code used to indicate that a patient is being re-admitted to the facility and the circumstances.

9.7.6.20 *Admit Source*:

PV1–14 (ID)

This code contained in this field indicates where the patient was admitted.

9.7.6.21 *Ambulatory Status*:

PV1–15 (ID)

| Value | Description |
|---|---|
| A0 | No functional limitations |
| A1 | Ambulates with assistive device |
| A2 | Wheelchair/stretcher bound |
| A3 | Comatose/non-responsive |
| A4 | Disoriented |
| A5 | Vision impaired |
| A6 | Hearing impaired |
| A7 | Speech impaired |
| A8 | Non-English speaking |
| A9 | Functional level unknown |
| B1 | Oxygen therapy |
| B2 | Special equipment (tunes, IVs, catheters) |
| B3 | Amputee |
| B4 | Mastectomy |
| B5 | Paraplegic |
| B6 | Pregnant |

9.7.6.22 *VIP Indicator*:

PV1–16 (ID)

This coded field identifies type of VIP. Appropriate values are given below.

| V | — | Very restricted |
| R | — | Restricted |
| U | — | Usual control |

9.7.6.23 *Admitting Doctor*:

PV1–17 (CE)

In the form PHYSICIAN ID  NAME  UPIN. Depending on local agreements, either ID or NAME may be absent.

9.7.6.24 *Patient Type*:

PV1–18 (ID)

Site specific values.

9.7.6.25 *Visit Number*:

PV1–19 (NM)

The unique number assigned to each patient visit.

9.7.6.26 *Discharge Disposition*:

PV1–36 (ID)

The disposition of the patient at time of discharge.

9.7.6.27 *Discharged to Location*:

PV1–37 (ST)

A composite value indicating a facility to which the patient was discharged in the form code  description.

9.7.6.28 *Servicing Facility*:

PV1–39 (ID)

Used in a multiple facility environment to indicate the facility with which this visit is associated.

9.7.6.29 *Bed Status*:

PV1–40 (ID)

| Value | Description |
|---|---|
| C | Closed |
| H | Housekeeping |
| O | Occupied |
| U | Unoccupied |
| K | Contaminated |

35

I          Isolated

9.7.6.30 *Pending Location*:

PV1–42 (ID)

This field indicates the nursing station, room, bed, facility ID and bed status to which the patient may be moved.

9.7.6.31 *Prior Temporary Location*:

PV1–43 (ID)

This field can be used when a patient is arriving or departing or for general update events. The format contains up to five components: NURSE UNITˆ ROOMˆ BEDˆˆ FACILITYˆ BED STATUS.

9.7.6.32 *Encounter Attributes Related to Financial Matters*—This segment contains the references to the financial bodies that will cover the cost of care. This segment may be referred to from within the record, as during encounters/episodes. Such reference would obviate the need for redundantly collecting such data during the visit.

9.7.6.33 *Current Patient Balance*:

PV1–46 (NM)

Visit balance due.

9.7.6.34 *Total Charges*:

PV1–47 (NM)

Total charges.

9.7.6.35 *Total Adjustments*:

PV1–48 (NM)

Total adjustments.

9.7.6.36 *Total Payments*:

PV1–49 (NM)

Total payments.

9.7.6.37 *Present Employer Name*:

01075. PRESENT EMPLOYER NAME

Name of workplace (organization) or employer's full name. That part providing a position (and compensation) for an employee.

9.7.6.38 *Primary Payment Source*:

03010. PRIMARY PAYMENT SOURCE

Responsible for largest percentage of patient's current bill. May include address.

9.7.6.39 *Insurance Plan ID*:

IN1–3 (ST)

This field contains the insurance plan identification number.

9.7.6.40 *Insurance Company ID*:

IN1–4 (ST)

This field contains the insurance company identification number.

9.7.6.41 *Group Number*:

(ST) (IN1–9)

This text field identifies the group number of the insured individual.

9.7.6.42 *Group Name*:

IN1–10 (ST)

This text field identifies the group name of the insured individual.

9.7.6.43 *Policy Number*:

IN1–36 (ST)
Insurance identification number:
03010.06. INSURANCE ID NO.

This number is the identifier of the patient's insurance policy. (A new field for insurance referral number will be included in the next revision.)

9.7.6.44 *Medicare Health Insurance Card Number*:

IN2–6 (NM)
Medicare number:
03015. MEDICARE NO.

Unique number assigned by HCFA that identifies a person as eligible for benefits.

9.7.6.45 *Medicaid Case Number*:

IN2–8 (NM)
Medicaid number:
03025. MEDICAID NO.

This is the number assigned to patients eligible for MEDICAID benefits.

9.7.6.46 *Guarantor Name*:

GT1–3 (PN)
Principal payment sponsor:
03010.08. PRINCIPAL PAYMENT SPONSOR

Name of person responsible for bill or whose insurance plan provides coverage for the patient.

9.7.6.47 *Guarantor Address*:

GT1–5 (AD)
Address of sponsor (see Specification E 1238 and Guide E 1239).
03010.10. ADDRESS OF PRINC SPON

This is the mailing address of the principal payment sponsor.

9.7.6.48 *Financial Class*:

PV1–20 (ID)

The primary financial class assigned to the patient for the purpose of identifying sources of reimbursement. The first subfield is the class, the second subfield is the effective date (DT format). Repeats up to four times.

9.7.6.49 *Charge Price Indicator*:

PV1–21 (ID)

The code used to determine which price schedule is to be used for room and bed charges.

9.7.6.50 *Courtesy Code*:

PV1–22 (ID)

A code that indicates whether the patient will be extended certain special courtesies.

9.7.6.51 *Credit Rating*:

PV1–23 (ID)

A user defined code to determine past credit experience.

9.7.6.52 *Contract Code*:

PV1–24 (ID)

This code is used to identify the type of contract entered into by the facility and the guarantor for the purpose of settling outstanding account balances.

9.7.6.53 *Contract Effective Date*:

PV1–25 (DT)

The date the contract is to start.

9.7.6.54 *Contract Amount*:

PV1–26 (NM)

The amount to be paid by the guarantor each period in accordance with the contract.

9.7.6.55 *Contract Period*:

PV1–27 (NM)

Specifies the duration of the contract for user defined periods.

9.7.6.56 *Interest Code*:

PV1–28 (ID)

The code that indicates the amount of interest that will be charged the guarantor on any outstanding amounts.

9.7.6.57 *Clinical Resume or Final Progress Note (Text)*—This subsequent contains all of the data that characterizes the origin of the episode and the manner of arrival at the provider's facility, including the condition of the patient. It also summarizes that administrative and diagnostic conditions concerning the termination of treatment.

9.8 *Appointments*— This section will address planned future encounters.

9.9 *Procedures (to be completed)*:

9.9.1 *Procedures (E)*:

9.9.1.1 Significant data elements on all procedures performed in an operating room for diagnostic, exploratory, or definitive treatment purposes.

9.9.1.2 *Name and Code of the Principal Procedure*:

14001.F001. DISCHG PRINCIP SURG. PROCED.

Principal procedure is performed for definitive therapy, rather than for diagnostic or exploratory purposes, or the procedure most related to principal diagnosis. No symbols or abbreviations.

9.9.1.3 *Narrative Description of the Principal Procedure*:

9.9.1.4 *Date of the Principal Procedure*:

14001.E001.30. OPERATION DATE-TIME

9.9.1.5 Name and code of additional significant procedures.

9.9.1.6 Narrative description of additional significant procedures.

9.9.1.7 Date(s) of additional significant procedures.

9.9.1.8 Findings (gross, microscopic, pathological) of each procedure.

9.9.1.9 Organs explored.

9.9.1.10 Primary surgeon name.

9.9.1.11 Assistant surgeon name(s).

9.9.1.12 Preanesthesia assessment.

9.9.1.13 Type of anesthetic agent.

9.9.1.14 Dosage of all anesthetic agents.

9.9.1.15 Anesthesiologist name.

9.9.1.16 Nurse/anesthetist.

9.9.1.17 Current, regularly monitored vital signs.

9.9.1.18 IV fluids given.

9.9.1.19 Specimens removed.

9.9.1.20 Post anesthesia assessment.

9.9.1.21 *Complications*:

14001.E001.91. OPERATION COMPLICA-TIONS

Surgical misadventures, that is, infections.

9.9.1.22 *Post-Op Diagnosis*:

14001.E001.57. POST-OP DIAGNOSIS

Determination of the case after operating.

9.9.1.23 This subsegment contains data that characterizes those procedural events that accompany treatment of the patient, exclusive of laboratory phases of diagnostic procedures. These are recorded in Section 11 of Specification E 1238.

9.9.2 *Disposition (F)*— Identifies the circumstances under which the patient terminated the encounter or episode and includes data about the length of stay, condition of patient on discharge, recommended treatment, and other information necessary for follow-up care.

9.9.2.1 *Date/Time of Discharge*:

14001.F040. DISCHARGE DATE-TIME

Date-time of formal release from, or termination of, an episode of care when discharged alive.

9.9.2.2 Discharge summary text.

9.9.2.3 *Type of Discharge*:

14001.F046. DISPOSITION TYPE, Specification E 1238

9.9.2.4 *Total Length of Stay*:

14001.F093. TOTAL ACUTE CARE LOS

This period is the number of days calculated according agreed upon formulae denoting the period of inpatient residence in the facility. The period of rehabilitative care is calculated separately, if conducted in the same facility and residence period. Specification E 1633, INTEGER NUMBER.

9.9.2.5 *Disposition To: (Home, SNF, Home Health, etc.)*:

14001.F080. DISPOSITION DESTINATION

This is a description of the actual destination of the patient upon leaving the facility.

9.9.2.6 *Referral*:

14001.F083. DISCHARGE PATIENT IN-STRUCTIONS

For example, instructions to patient that will enhance progress toward a return to health or a stable state. To include: patient activity allowed, medical side effects, med. signs, diet, follow-up instructions, indications for home therapy, safety precautions, maintenance of equipment, frequency/use of machine settings, postural drainage, therapeutic percussion.

9.9.2.7 *Autopsy/Necropsy Report*:

14001.F030.01. ENCOUNTER DIAGNOSIS TYPE

This is addressed as encounter diagnosis type. Values would include provisional anatomic diagnosis and full autopsy/necropsy report.

9.9.2.8 This subsegment contains that data that characterizes the conditions under which the encounter or episode was completed and the arrangements for appropriate follow-up either by the current or by other providers. It contains information needed to maintain continuity of care over several

episodes or multiple encounters.

9.10 *Legal Agreements*:

9.10.1 Data elements indicating legally binding directions or restraints on patient health care, release of information, and disposal of body or body parts, or both, after death.

9.10.1.1 *Consent to Care Acknowledgment and Date*:

02001. CONSENT SIGNED/ADMIT AGREE-MENT

Patient indicates in writing that he/she has been informed of the nature of the treatment, risks, complications, alternative forms of treatment and treatment consequences.

9.10.1.2 *Patient Rights Acknowledgment*:

02005. PATIENT RIGHTS ACKNOWLEDG-MENT

This text states the patient's understanding of his/her rights and the rights associated with the information in the record of care.

9.10.1.3 *Advance Directive to Physician*:

02030. DIRECTIVE TO PHYSICIAN

An advance directive written by the patient to the physician in case of incapacitation to give further instructions. This may include durable power of attorney, living will, organ donation and no cardiopulmonary resuscitation.

9.10.1.4 *Organ Donor Agreement*:

02040. ORGAN DONOR AGREEMENT

To include: donor patient name (transplant recipient) donor patient number: (transplant recipient) recipient patient number (transplant donor) recipient patient name (transplant donor).

9.10.1.5 *Release of Information Authorization*:

02100.12. PERSON AUTHORIZING RE-LEASE

The name or identifier of the individual authorizing the release of the type of information.

9.10.1.6 *Release of Information Purpose*:

02100.10. REL OF INFO PURPOSE

This text describes the purpose for which the released information will be used.

9.10.1.7 *Date of Release of Information Authorization*:

02100.02. TYPE OF RECORD ACTION

This code identifies the type of action involved in the release of information from the patient's record.

9.10.1.8 *Authorization for Autopsy*:

02010. AUTHORITY FOR AUTOPSY

The name of the individual authorizing an autopsy.

9.10.2 This segment is intended to record those legal data that characterize the patient's agreements to care and caveats regarding that care or disposal of his effects.

9.11 *Service/Order/Concept Master*:

9.11.1 Tests, supplies and equipment also have attributes when considered in the abstract (separately from the results or use in a particular patient). These are attributes that would be listed in a catalogue of the available tests, supplies or equipment. The attributes of a test might be when it could be obtained, the preparation requirements for specimens, the price, the normal range, the units, and so on. Much of the same applies to supplies and equipment. The idea of maintaining a "catalogue" or definition table for items such as supplies, orders, observations, equipment is a powerful construct. It permits easy additions and extension to the universe of items in a given class. (New tests and observations can be made up without having to redefine our universe or rewrite programs.) Also, more attributes can be added to the item to give the universe of entities new behaviors without little or no effect on the previous version of the world. Catalogue tables are widely used to implement pharmacy systems (where each drug in the formulary is represented in the catalogue) and laboratory systems (where each orderable battery and each discrete reportable test has its own catalogue). It is an essential (though abstract) component of an EHR where it will be used to represent (at least) the various species of observations and their attributes.

9.11.1.1 *Segment Type ID*:

(ST) (OM1-1)

The string OM1 identifies a segment as a general observation master segment.

9.11.1.2 *Sequence Number*:

(NM) (OM1–2)

The first OM1 segment in a message is described as "1," the second as "2," and so on.

9.11.1.3 *Producer's Test/Observation ID*:

(CE) (OM1–3)

This field contains the producer's usual or preferred identification of the test or observation. The format is that specified in 6.6.2, CE Coded Entry, of Specification E 1238. Only three components should be included: <ID code>ˆ<service text name/description>ˆ<source list of code>. All components should be non-null. The source list may be any of those included in Table 3 and Table 6 of Specification E 1238, or a local code.

9.11.1.4 *Permitted Data Types*:

(ID) (OM1–4)

This field contains the allowed data type(s) for this observation. The codes are the same as those listed in the table on Legal Data Types for Observation Values in Specification E 1238. A given observation may, under different circumstances, take on different data types. Indeed, under limited circumstances, an observation can consist of one or more fragments of different data types. When an observation may have more than one data type, for example, coded (CE) and numeric (NM) the allowable data types should be separated by repeat delimiters.

9.11.1.5 *Specimen Required*:

(ID) (OM1–5)

This field contains a *Y* to indicate that one or more specimens are required to obtain this observation, and an *N* to indicate that a specimen is not required.

9.11.1.6 *Producer ID*:

(CE) (OM1–6)

This field uniquely identifies the service producing the observation described in this segment. The format is that specified in 6.7.1.2. Three components should be included: an

**ASTM E 1384**

identifying code, the name of the producer, and the identity of the coding system (for example, 323–5678ˆ Acme Special Lab ˆ MCR). The identity of the coding system will usually be MCR (Medicare provider number) or HBS (HIBCC site codes) in the United States (see the table on Example Quantity/Timing Field Content in Specification E 1238). Each country may want to specify its preferred coding system and define a coding system ID to identify it. Remember that the magnitude of a treatment or the setting on a machine, such as a ventilator, can be regarded as an observation. Thus, pharmacy, respiratory care, and nursing may be producers of such observations.

9.11.2 *Observation Description*:

(TX) (OM1–7)

This field contains a text description of this observation.

9.11.2.1 *Other Test/Observation IDs for the Observation*:

(CE) (OM1–8)

This field lists all alias codes/identifiers for this observation. The format is that specified in 6.7.1.2 in Specification E 1238 except that only the first three components are used. If more than one alias code needs to be specified, multiple three-component, CE-format entries (<code 1>ˆ<name 1>ˆ<code system 1>) may be given, separated by repeat delimiters. An observation may have as many names/codes as are applicable (for example, ICD9, ACR-NEMA, SNOMED, and READ). We encourage the inclusion of as many different codes as may apply to assist cross-system mapping of terminology. All components of each triplet should be non-null (that is, names and coding system IDs within the CE data type are required in addition to codes). The source list may be any of those included in Table 2 and Table 5. Because the size (dose) of a treatment can also be an observation, codes that identify treatments (for example, NDC, ICCS) may also be included in this field.

9.11.2.2 *Other Names (Recognized by the Producer for the Observation)*:

(ST) (OM1–9)

Include any text aliases, or synonyms for the name in the context of the ordering service. These are alternative names, not associated with a particular coding system, by which the battery, test, or observation (for example, measurement, test, diagnostic study, treatment) is known to users of the system. Multiple names in this list are separated by repeat delimiters.

9.11.2.3 *Preferred Report Name for the Observation*:

(ST) (OM1–10)

This is the preferred name for reporting the observation or battery. The name can contain up to 30 characters (including blanks). It is the preferred name for columnar reports that require a maximum name size.

9.11.2.4 *Preferred Short Name or Mnemonic for the Observation*:

(ST) (OM1–11)

This is a name that can be used in space-limited reports (for example, specimen labels) to identify the observation for the convenience of human readers. The name can contain up to eight characters.

9.11.2.5 *Preferred Long Name for the Observation*:

(ST) (OM1–12)

This is the fully specified name for the observation or battery. It may include the full (unabbreviated) multiple-word names and contain up to 200 characters. It should be as scientifically precise as possible.

9.11.2.6 *Orderability*:

(ID) (OM1–13)

Enter *Y* in this field if the test/observation is an orderable code. Enter *N* if it is not orderable. For example, blood differential count is usually an orderable "test." MCV, contained within the differential count, is usually not independently orderable.

9.11.2.7 *Identity of Instrument Used to Perform This Study*:

(CE) (OM1–14)

When applicable, this field specifies the instrument or device that is used to generate this observation or battery. Examples are the automated instrument in the laboratory, the imaging device and model number in radiology, and the automatic blood pressure machine on the ward. The format should be that specified in 6.7.1.2. The instrument is specified as a coded entry in anticipation that these identifiers could be specified as codes. Initially, we expect that most of the information about devices will be transmitted as text in the second component of the CE identifier. If more than one kind of instrument is used, all of them can be listed, separated by repeat delimiters. Other devices are pain scales and the Braden scale for decubitus ulcer.

9.11.2.8 *Coded Representation of Method*:

(CE) (OM1–15)

The method(s) used to produce the observation should be recorded in a computer-understandable (coded) form here. This field should report the same method(s) reported in narrative in the following field. More than one method may be listed, but only if they produce results that are clinically indistinguishable. Multiple methods must be separated by repeat delimiters.

9.11.2.9 *Portable*:

(OM1–16)

This field contains a value of *Y* if the observation can be obtained with a portable device brought to the patient, and *N* if the patient or specimen must be transported to the device.

9.11.2.10 *Observation Producing Department/Section*:

(ID) (OM1–17)

This field permits the sorting of observation orders and values by the providing service's department/section. It provides "source oriented" reporting when required. The codes for this field should be taken from the table on Codes for Service Intervals in Specification E 1238. Free text may be used instead of these codes, but in that case, they should be recorded as the second "component" of the field to distinguish them from the standard codes. Multiple codes in this field are separated by repeat delimiters.

9.11.2.11 *Telephone Number of Department/Section*:

(TN) (OM1–18)

This field contains the telephone number for calling responsible parties in this section to ask results or advice about the use of this test.

9.11.2.12 *Nature of Test/Observation*:

(ID) (OM1–19)

This field indicates whether the definition entry identifies a test battery, an entire functional procedure or study, a single test value (observation), multiple test batteries or functional procedures as an orderable unit (profile), or a single test value (observation) calculated from other independent observations. The possible options are the following:

| Code | Description |
|---|---|
| A | Atomic test/observation (single test or treatment) |
| C | Single observation calculated via a rule or formula from other independent observations (for example, Alveolar—arterial ratio, cardiac output) |
| P | Profile or battery consisting of many independent atomic observations (for example, SMA12, electrolytes), usually done at one instrument on one specimen |
| F | Functional procedure that may consist of one or more interrelated measures (for example, glucose tolerance test, creatine clearance), usually done at different times or on different specimens, or both |
| S | Superset—a set of batteries or procedures ordered under a single code but processed as separate batteries (for example, routines = CBC, UA, electrolytes). This code indicates that the definition entry being described is a set of multiple test/observation batteries. For example, a client who routinely orders a CBC, a differential, and a thyroxine as an outpatient profile might use a single, special code to order all three test batteries, instead of having to submit three separate order codes. |

*(1)* Codes P, F, and S identify sets (batteries) and should be associated with an OM5 segment that defines the list of elements. The definitions for the contained elements would have to be sent in other independent OMx segments, one for each contained element. In the ASTM context, most text reports; such as discharge summaries, admission H and Ps, and chest X-ray reports—are considered as sets, in which each section of the report (for example, description, impression, and recommendation of an X-ray report) is considered a separate observation.

*(2)* Code A identifies a single direct observation and would usually be associated with an OM2 or OM3 segments, or both.

*(3)* Code C identifies a derived quantity and would usually be associated with an OM6 segment. All of these codes can be associated with one or more OM4 (specimen) segments.

9.11.2.13 *Report Subheader*:

(CE) (OM1–20)

This field contains an optional string that defines the preferred header under which this observation should be listed on a standard display. For example, if the test is hemoglobin, this string might be "complete blood count." It is represented as a coded data type so that a battery can be a header. Only the description part of the string may be included in case the subheader does not have an associated code. When a series of observations is displayed according to the sort order given below, the subheader that groups those observations is presented whenever the subheader changes.

9.11.2.14 *Report Display Order*:

(ST) (OM1–21)

This field contains an optional string that defines the sort order in which this observation is presented in a standard report or display that contains many observations.

9.11.2.15 *Date-Time Stamp for Any Change in Definition Attribute for the Observation*:

(TS) (OM1–22)

This field indicates the date and time that the last of any field change was made in the host's record corresponding to the OM1 segment.

9.11.2.16 *Effective Date-Time of Change in Test Procedure That Makes Results Non-Comparable*:

(ST) (IN1–9)

*(1)* This field indicates the date and time of the last change in the test procedure that would make previous results incompatible with new results, for example, the last time that normal reference range or units changed for a numeric test/observation.

*(2)* We strongly suggest that observation producers never use the same observation ID when the measurement procedures changes in such a way that results produced under the new procedure are clinically different from those produced with the old procedure. Rather the producer should try to adjust the new procedure so that its values are clinically indistinguishable from the old. Failing that, one should create a new observation ID for the observation produced under the new procedure.

*(3)* In the rare circumstances when a procedure change occurs and neither of the above two options are viable, this field shall be used to transmit the effective date-time of the new procedure. The receiving system shall assume that any values that come across under this observation ID are under the new procedure after this date and take appropriate steps to distinguish the old from the new observations.

9.11.2.17 *Typical Turn-Around Time from Receipt of Specimen/Subject to Result Produced*:

(NM) (OM1–24)

Typical processing time for single test/observation. This field indicates the time from the delivery of a specimen or transport of a patient to a diagnostic service and the completion of the study. It includes the usual waiting time. The time is measured in minutes.

9.11.2.18 *Processing Time*:

(NM) (OM1–25)

Usual length of time (in minutes) between the start of a test process and its completion.

9.11.2.19 *Processing Priority*:

(ID) (OM1–26)

This field specifies one or more available priorities for performing the observation or test. This component indicates the corresponding priority with which the producer service will process the specimen, produce the observation, and return results, when this differs from collection priority. Permitted priority values are:

| | |
|---|---|
| S | Stat (do immediately) |
| A | As soon as possible (a priority lower than stat) |
| R | Routine |
| P | Preoperative (to be done prior to surgery) |
| T | Timing critical (do as near as possible to requested time) |
| C | Measure continuously (for example, arterial line blood pressure) |
| B | Do at bedside or portable (may be combined with other codes) |

Multiple priorities may be given, separated by repeat delimiters. For example, S~A~R~P~T indicates that the test may be ordered using codes S, A, R, P, or T.

9.11.2.20 *Reporting Priority*:

(ID) (OM1–27)

This field specifies the available priorities for reporting the test results when the user is asked to specify the reporting priority independent of the processing priority. The available codes are:

    C—Call back results
    R—Rush reporting

9.11.2.21 *Outside Site(s) Where Observation May Be Performed*:

(CE) (OM1–28)

If an outside service or services produce the observation, this field contains the identification(s) of the outside service(s). The format of this CE field is that specified in 6.7.1.2, with the producer ID (as defined in OM1–6) and the name of the service separated by component delimiters. An example is 39221 ACME lab MCR. If multiple services are used, they should be separated by repeat delimiter(s).

9.11.2.22 *Address of Outside Site(s)*:

(AD) (OM1–29)

Record in this field the address of the outside services listed in OM1–28. If multiple services are recorded in that field, their addresses should be separated by repeat delimiters, and the addresses should appear in the same order in which the services appear in the preceding field.

9.11.2.23 *Phone Number of Outside Site(s)*:

(TN) (OM1–30)

This field contains the telephone number of the outside services listed in OM1–28. If multiple services are recorded in that field, their telephone numbers should be separated by repeat delimiters, and the numbers should appear in the same order in which the services appear in field OM1–28.

9.11.2.24 *Confidentiality Code*:

(ID) (OM1–31)

This field indicates the degree to which special confidentiality protection should be applied to the observation. For example, a tighter control may be applied to an HIV titer than to a CBC. Examples of possible codes are the following:

    V — Very restricted
    R — Restricted
    U — Usual control

9.11.2.25 *Observations Required to Interpret This Observation*:

(CE) (OM1–32)

This is the list of variables that the diagnostic service needs to interpret the results of an ordered study. The observations specified here should be sent to the diagnostic service as OBX segments along with the order (OBR) segment. The format of this CE field is that specified in 6.7.1.2.

*(1) Example for Cervical Pap Smear:*
2000.32ˆ date last menstrual periodˆ AS4~2000.33ˆ menstrual stateˆ AS4

*(2) Example for Arterial Blood Gas:*
94700ˆ inspired 02ˆ AS4

*(3)* These examples use AS4 codes in code/text format to identify the variables. Separate multiple items by repeat delimiters.

9.11.2.26 *Interpretation of Observations*:

(TX) (OM1–33)

This field contains clinical information about interpreting test results. Examples are the conditions (drugs) that may cause false abnormals, and the information about the sensitivity and specificity of the test for diagnoses.

9.11.2.27 *Contraindications to Observations*:

(TX) (OM1–34)

*(1)* List diagnosis or problem for which the test is contraindicated or poses a possible danger (for example, pacemaker, pregnancy, diabetes). For example, if the test identified in OM1 was an intravenous pyelogram, this field would include warnings about the use of contrast media in diabetes. The contraindication diagnoses should be separated by repeat delimiters.

*(2)* Most contraindication rules will be transmitted as free text. In such cases, the contents serves only as information for human reading. However, an alternative for machine readable contraindication rules also exists. The rule may be defined formally in the Arden syntax (see Specification E 1460) that has syntax for defining algebraic and transcendental equations, as well as temporal and logical selection criteria based on patient information stored in the computer record. Contraindication rules that are written in Arden syntax should begin and end with a double semi-colon (;;), the Arden slot delimiter.

9.11.2.28 *Reflex Tests/Observations*:

(CE) (OM1–35)

This field includes the test names as type CE (that is, < code>ˆ <text name>ˆ <coding system>) that may be ordered automatically by the diagnostic service, depending on the results obtained from the ordered battery. A screening CBC might trigger a reticulocyte count if the Hgb is less than twelve. Multiple reflex tests are separated by repeat delimiters.

9.11.2.29 *Rules That Trigger Reflex Testing*:

(TX) (OM1–36)

This field contains the rules that trigger the reflex tests listed above. If multiple reflex tests are listed in 19.2.35 (field OM1–35) separated by repeat delimiters, a set of corresponding rules will be included in this section. The first rule will apply to the first test, the second to the second test, and so on.

*(1)* Most reflex rules will usually be transmitted as free text. In such cases, the contents serves only as information for human reading. However, an alternative for machine readable rules also exists. The rule may be defined formally in the Arden syntax (see Specification E 1460), which has syntax for defining algebraic and transcendental equations, as well as temporal and logical selection criteria based on patient information stored in the computer record. Reflex rules that are written in Arden syntax should begin and end with a double semi-colon (;;), the Arden slot delimiter.

9.11.2.30 *Fixed Canned Message*:

(TX) (OM1–37)

This field contains codes and a fixed text message that is always associated with an abbreviation. The field may include multiple messages separated by repeat delimiters.

9.11.2.31 *Patient Preparation*:

(TX) (OM1–38)

*(1)* For tests or observations that require special patient preparation, diet, or medications, record them here. For GI contrast studies, this field would contain the pretest diet, for example, low residue for two days, NPO before study, and the preferred purgatives. Each separate medication, diet, or preparation should be delimited by a repeat delimiter. Separate each requirement by a repeat delimiter. Example for a sigmoidectomy: clear liquid diet full day before procedure~take 8 oz mag citrate 6 pm day before procedure~take two ducat tabs (5 m) at 4 pm day before procedure~NPO past midnight.

*(2)* Most rules about patient testing will be transmitted as free text. In such cases, the contents serves only as information for human reading. However, an alternative for machine readable rules also exists. The rule may be defined formally in the Arden syntax (see Specification E 1460) that has syntax for defining algebraic and transcendental equations, as well as temporal and logical selection criteria based on patient information stored in the computer record. Rules about patient preparation that are written in Arden syntax should begin and end with a double semi-colon (;;), the Arden slot delimiter.

9.11.2.32 *Procedure Medication*:

(CE) (OM1–39)

This contains treatments that may be needed as part of the procedure. Examples are radioactive iodine for a thyroid screen, and methacholine for a methacholine spirometry challenge. This field should be identified as a CE data type as described in 6.7.1.2.

9.11.2.33 *Factors That May Affect the Observation*:

(TX) (OM1–40)

*(1)* This field contains text description of the foods, diagnoses, drugs, or other conditions that may influence the interpretation of the observation, information about the direction of the effect, and any recommendation about altering the diet, conditions, or drug before initiating the test observation.

*(2)* Most rules about factors that effect the test interpretation will be transmitted as free text. In such cases, the contents serves only as information for human reading. However, an alternative for machine readable rules also exists. The rule may be defined formally in the Arden syntax (see Specification E 1460) that has syntax for defining algebraic and transcendental equations, as well as temporal and logical selection criteria based on patient information stored in the computer record. Rules about factors that affect test interpretation, that are written in Arden syntax, should begin and end with a double semi-colon (;;), the Arden slot delimiter.

9.11.2.34 *Test/Observation Performance Schedule*:

(ST) (OM1–41)

For diagnostic studies/tests that are performed only at certain times during the course of a work day or work week, this field indicates the maximum interval between successive test performances (the test may actually be performed more frequently). The format given in the table on Codes for Duration

in Specification E 1238 should be used. If necessary, multiple codes may be given, separated by repeat delimiters. The use of multiple codes indicates that the test is performed at multiple concurrent intervals. For example, Q6H indicates that the test is performed at least once every 6 h around the clock. Q1J indicates that the test is performed at least every week on Mondays. QAM~QPM indicates that the test is performed at least once every morning and every evening. Q1J~Q3J~Q5J indicates that the test is performed at least every week on Mondays, Wednesdays, and Fridays. C indicates that the test is performed continuously, seven days per week.

9.11.2.35 *Description of Test Methods*:

(TX) (OM1–42)

This field contains a text description of the methods used to perform the test and generate the observation. Bibliographic citations may be included.

9.11.2.36 *Charge by Producing Service*:

(CM) (OM1–43)

This and the subsequent field are included to provide a convenient way for an ordering system to display price information for the purpose of display to ordering physicians. This is not meant to accommodate all billing issues. They are not meant to provide full pricing information required by a financial system. This field contains the charge for an orderable test. The value can contain up to four components:

<patient price>ˆ <charge for ordering practice>ˆ <maximum charge allowed by third-party payor>ˆ <type of money>

Note the following example:

16ˆ 13.50ˆ 14.50ˆ USD

The price may be in American dollars, British pounds, French francs, Swiss francs, German marks, and so on. Use the ISO money code to indicate denomination of money. Multiple values can be included if cost is separated by a repeat delimiter.

9.11.2.37 *Price Modifiers*:

(CM) (OM1–44)

This is a two-component field that lists factors which might modify the price. The first component is the factor affecting the price, and the second component is the difference in price. Suggested factors might be the following:

| | | |
|---|---|---|
| S | — | Stat |
| N | — | Night shift |
| W | — | Weekends |
| A | — | ASAP |

The syntax is as follows:

<kind of charge>  { + ,–}<amount>{%}

A plus sign in front of the special charge indicates that the amount is added to the base price. A minus sign indicates that the amount is subtracted. If no plus or minus sign appears in front of the amount, the amount should replace the base price. If the amount is followed by a percent, compute the increment as a percent rather than an absolute amount. The percent cannot be used if a price is taken to be a replacement. Note the following example:

STATˆ + 20.50~
Weekendsˆ + 15.%

The price adjustment is assumed to be in the same money

**ASTM E 1384**

denomination as the preceding field.

9.12 *Provider Master*:

9.12.1 This segment contains, in one place, the descriptive data about each provider/practitioner and may then be referenced when recording data about the events of health care.

NOTE 8—Clinical segments are considered as accumulated data identified in 6.8 through 6.16 in Specification E 1238.

9.12.2 *Provider*—Identifying data on the primary organization or establishment responsible for the availability of health care services for this specific episode or encounter.

9.12.3 *Practitioner*— Identifying data elements on individuals licensed or certified to deliver care to patients, who had face-to-face contact with the patient, and provided care based on independent judgment.

9.12.3.1 *Provider Name*:

> Type = NM
> 04001. PROVIDER/PRACTITIONER NAME

The name of facility or practice submitting a bill. May be the same as practitioner name. (A business entity that furnishes health care.)

9.12.3.2 *Provider Address*:

> Type = AD
> 04001.03. PROVIDER ADDRESS

Complete address to which the provider wishes the payment sent.

9.12.3.3 *Provider Type*:

> Type = ID
> 04001.05. PROVIDER TYPE

Type of health care setting or practice type. Includes routine home care, respite, inpatient care, acute inpatient care, bereavement follow-up outpatient laboratory, short stay, etc.

9.12.3.4 *Provider Identification Number*:

> 04001.07. PROVIDER ID NO.

Numbers assigned by various payers: Medicare, Medicaid, Blue Cross/Blue Shield, Federal Tax Number (assigned by Federal Government for tax report purposes).

9.12.3.5 *Attending/Referring/Consulting/Operating Practitioner Name*:

> 04001.10. PRACTITIONER NAME

The name of the practitioner, structured in common person name format.

9.12.3.6 *Practitioner Role (Primary, Referring, Consulting, Operating, etc.)*:

> 04001.45. PRACTITIONER CURRENT ROLE

This code identifies the role (primary physician, consultant etc.) that the practitioner plays with this patient.

9.12.3.7 *Practitioner's Profession*:

> 04001.20. PRACTITIONER'S PROFESSION

Profession in which the practitioner is currently engaged.

9.12.3.8 *Practitioner's Address*:

> 04001.25. PRACTITIONER'S ADDRESS

Usual or principal place of practice.

9.12.3.9 *Practitioner's Phone Number*:

> 04001.30. PRACTITIONER'S PHONE

The number where the practitioner may most frequently be reached.

9.12.3.10 *Practitioner's Unique Identification Number*:

> 04001.15. PRACTITIONER'S UNIVERSAL ID NO

The universal numeric identifier will be used to link services for a provider across care systems. All providers/practitioners will each have a unique number that identifies the practitioner from all others and is the same for the practitioner in all settings where he/she may practice.

9.12.3.11 *Practitioner's License Number*:

> 04001.35. PRACTITIONER LICENSE NO

The license identifying no. and state for the license authorizing the practitioner to practice.

9.12.3.12 *Practitioner's License State*:

> 04001.40. PRACTITIONER LICENSE STATE

The abbreviation for the state holding the practitioner's license.

## 10. Electronic Health Record Data Dictionary Resource

10.1 Additional recommended data elements within each segment category specified by individual source data sets are listed in Appendix X1 that contains all elements proposed for the record, including primary and longitudinal records from multiple sources. They are listed as a visual summary only to aid perception of the complete pattern of the record. Each data element is also listed and further detailed with attributes in Annex A1, that is a part of this guide. The reader is again reminded that, though each data element characterization is a part of this guide, it is not required if it is not to be used but, if used, it must have the same meaning and representation as given in Annex A1. Only conformance to that caveat will ensure reliable communication of the same concept across boundaries of time, setting and language. Work is underway to develop the master tables content and vocabulary to support this guide.

## 11. Keywords

11.1 data type; data views; EHR principles; electronic health record; master table; objects; segments

**E 1384**

## ANNEX

### (Mandatory Information)

### A1. ELECTRONIC HEALTH RECORD DATA DICTIONARY RESOURCE

**TABLE A1.1 Electronic Health Record Data Dictionary Resource**

| | | | |
|---|---|---|---|
| 01001. | **PERSON NAME** | PersName | Person receiving health care services and about whom records containing data about those services are collected. ASTM E 1633 PARA 4.2.1 |
| 01002. | PREVIOUSLY REGISTERED NAME (1996) | PersPrevRegName | A last name changed due to marriage or initiated by patient; a former name; a maiden name. ASTM E 1633 PARA 4.2.1 |
| 01005. | PARENTAL MARITAL STATUS | PtParentMaritalStatusCode | A term expressing the current legal status of a pediatric patient's parents. ASTM E 1633 PARA 4.2.6 (5.2.2) |
| 01007. | ADOPTED? | PtAdoptionStatusCode | A term identifying that the patient's recorded parents are not the biological ones who may be needed in establishing family pedigrees. ASTM E 1633 PARA 5.1 (4.2.6) |
| 01010. | ALTERNATE INDIVIDUAL NAME | PersAltName | A name added to, or substituted for, the proper name of a person. An assumed name. ASTM E 1633 PARA 4.2.6 |
| 01010.1. | ALTERNATE INDIVIDUAL NAME USAGE | PersAltNmUsageCode | Category of usage of this alternate individual name. ASTM E 1633 PARA 4.2.1 |
| 01010.2. | ALTERNATE INDIVIDUAL NAME START DATE | PersAltNmStartDtm | Date usage of this alternate individual name became effective. ASTM E 1633 PARA 4.2.4 |
| 01010.3. | ALTERNATE INDIVIDUAL NAME END DATE | PersAltNmEndDtm | Date usage of this alternate individual name ceased to be effective. ASTM E 1633 PARA 4.2.4 |
| 01015. | INDIVIDUAL IDENTIFIER | PtId | Unique number assigned by the provider to: 1) distinguish the patient and his/her medical record from all others in the institution, 2) facilitate retrieval of the record and 3) facilitate posting of payment. ASTM E 1633 PARA 4.2.6 |
| 01015.1. | INDIVIDUAL IDENTIFIER ORGANIZATION | PtIDIssuingAgCode | Identifier or name of the organization issuing the individual identifier. ASTM E 1633 PARA 4.2.6 |
| 01015.2. | INDIVIDUAL IDENTIFIER TYPE | PtIDTypeCode | Category of the individual identifier. ASTM E 1633 PARA 4.2.6 |
| 01015.3. | INDIVIDUAL IDENTIFIER START DATE | PtIDStartDtm | Date the identifier became effective within the issuing organization. ASTM E 1633 PARA 4.2.4 |
| 01015.4. | INDIVIDUAL IDENTIFIER END DATE | PtIDEndDtm | Date the identifier ceased to be effective within the issuing organization. ASTM E 1633 PARA 4.2.4 |
| 01015.5. | INDIVIDUAL IDENTIFIER STATUS | PtIDStatusCode | Status of the identifier within the issuing organization. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| 01016. | **UNIVERSAL PATIENT HEALTH NO.** | PtUniversalHealthNum | Permanent, unique number used by all providers and third party payors in conjunction with establishing and using the longitudinal record. It will link services for the individual across care systems. ASTM E 1633 PARA 4.2.5 |
|---|---|---|---|
| 01020. | SOCIAL SECURITY ACCOUNT NO. SSAN | PersSSANCode | A pseudo social security no. may be assigned if patient does not have an SSAN. ASTM E 1633 PARA 4.2.6 |
| 01025. | ARCHIVE LOCATION | PtRecordArchiveLocText | The locations of linked fragmented records; it also identifies permanent storage locations of inactive archived records. ASTM E 1633 PARA 4.2.6 |
| 01027. | **RECORD-HOLDING LOCATION ID** | PtRecHoldLocationId | Code identifier of a healthcare site which maintains a primary record of care about this patient. ASTM E 1633 PARA 4.2.6 (5.1) |
| 01027.1. | **DATE OF EARLIEST HELD ENTRY** | PtEarliestEntryDtm | The least recent date within the record of a datum about the patient. ASTM E 1633 PARA 4.2.4 (01027.1) |
| 01027.2. | **DATE OF LATEST HELD ENTRY** | PtLatestEntryDtm | The most recent date within the record of a datum about the patient. ASTM E 1633 PARA 4.2.4 |
| 01030. | LOCATION OF CHART | PtPaperChartLocText | Location of the paper chart or the location of automated MR (original location prior to unitization via linkage). ASTM E 1633 PARA 4.2.6 |
| 01032. | **DATE-TIME OF BIRTH** | PersBirthDtm | The exact time of birth event; age is generated from DOB if needed; time can be included for newborns. ASTM E 1633 PARA 4.2.4 |
| 01033. | **BIRTHPLACE** | PersBirthplaceText | The City, State, Nation where the patient's birth records may be found. ASTM E 1633 PARA 4.26 |
| 01035. | NUMBER OF CHILDREN IN BIRTH | PtMultBirthQty | A term to distinguish identical individuals produced in the same gestation period. ASTM E 1633 PARA 4.2.5 (5.2.23) |
| 01036. | | PtDelBirthOrderQty | Integer representing the sequential order of birth during the delivery. ASTM E 1633 PARA 4.2.5 |
| 01037. | BIRTH ORDER | PtFamBirthOrderQty | The order of birth of the patient in a given family; #__of__ children(pediatric use) ASTM E 1633 PARA 4.2.5 (1996) |
| 01040. | **GENDER** | PersGenderCode | Distinction of gender. ASTM E 1633 PARA 5.2.20 |
| 01042. | **RACE** | PersRaceCode | The region of the world from which the patient's ancestors came generally indicating possible inherited biologic diversity. ASTM E 1633 PARA 5.2.3 |
| 01045. | **ETHNIC GROUP** | PtEthnicGroupCode | That cultural group with which the patient identifies him/herself either by means of recorded family data or personal preference. A patient may belong to several such groups depending upon heritage, language, nationality or social association. ASTM E 1633 PARA 5.2.4 |
| 01047. | **RELIGION** | PtReligionCode | A term denoting the current religious affiliation of the patient at the start of care. A particular system of faith or worship. ASTM E 1633 PARA 5.2.7 |

45

**ASTM E 1384**

TABLE A1.1 *Continued*

| | | | |
|---|---|---|---|
| 01050. | MILITARY SVC/VETERAN STATUS | PtMilSvcCode | A term indicating whether the patient is eligible for veteran or military supported care. Y/N ASTM E 1633 PARA 5.1 (4.2.6) |
| 01052. | **MARITAL STATUS** | PersMaritalStatusCode | Marital status of the patient at the start of care. NEVER MARRIED: includes annulment of only marriage. MARRIED: includes common law. SEPARATED: married persons living apart except institutionalized. WIDOWED: spouse died and not remarried. DIVORCED: legally divorced and not remarried. ASTM E 1633 PARA 5.2.2 |
| 01055. | CITIZENSHIP STATUS | PersCitizenshipCode | Position or status of an inhabitant (enfranchised) of a country, as opposed to an alien. ASTM E 1633 PARA 5.2.6 |
| 01057. | PATIENT'S LANGUAGE | PtLanguageCode | A term indicating the language most frequently spoken by the patient in communicating with health care practitioners; if more than one language is spoken, record the frequency with which each one is used in the health care setting. ASTM E 1633 PARA 5.2.5 |
| 01058. | INTERPRETER REQ | PtLangInterpreterReqCode | This code merely indicates whether a language problem exists or not. Y/N ASTM E 1633 PARA 5.1 (4.2.6) |
| 01060. | **EDUCATIONAL LEVEL** | PersEducationalLevelCode | The highest level, in years, within each major (primary, secondary, college, post-baccalaureate) education system, irrespective of any certifications achieved. ASTM E 1633 PARA 5.2.9 |
| 01062. | CURRENT WORK STATUS | PtWorkStatusCode | A term indicating level of employment: employed-full-time, employed-part-time, not employed, retired. ASTM E 1633 PARA 4.26 |
| 01065. | **OCCUPATION** | OccOccupationText | The employment, business, or a course of action in which the patient is engaged (i.e. ″student″) ASTM E 1633 PARA 4.2.6 |
| 01065.1. | OCCUPATION STATUS CODE | OccOccupationStatusCode | A list in reverse chronological order of all of the occupations which the patient held prior to the current one. A person can be considered to have only one primary occupation at one time - namely that activity in which the greatest amount of the working day is spent. Professional activities may span many diverse areas. Therefore the most significant should be considered. The status code should therefore identify the current active occupation and those that have been completed as well as those that are dormant but could be reactivated. ASTM E 1633 PARA 5.2.11 |
| 01065.2. | DATE COMPLETED OCCUPATION | OccCompletedOccupationDtm | The date that an occupation was terminated. ASTM E 1633 PARA 4.2.4 |
| 01067. | CURRENT VOCATION | PtVocationsStatusCode | ASTM E 1633 PARA 5.1 (4.2.6) |
| 01075. | PRESENT EMPLOYER NAME (1996) | EmplrPresentEmployerText | Name of workplace (organization) or employer's full name. That part providing a position (and compensation) for an employee. ASTM E 1633 PARA 4.2.6 |
| 01077. | WORK ADDRESS | EmplrWorkAddressText | The address of the employer at which the patient spends most of his/her day or that which is the location through which he/she can be contacted during working hours. ASTM E 1633 PARA 4.2.2 |

46

**ASTM E 1384**

| | | | |
|---|---|---|---|
| 01080. | WORK (BUSINESS) PHONE | EmplrBusinessPhonePhN | Current work phone no. of patient or guarantor, if applicable. ASTM E 1633 PARA 4.2.3 |
| 01085. | USUAL LIVING ARRANGEMENT | PtUsualLivingArrangCode | A code which denotes whether the patient lives alone or with whom. LEXICON ASTM E 1633 PARA 5.2.27 (4.2.6) |
| 01087. | NUMBER OF PERSONS IN HOUSEHOLD | PtNumberinHouseholdQty | A value, which does not include patient, that denotes the number of individuals living in the patient's household. ASTM E 1633 PARA 4.2.5 |
| 01090. | **FAMILY MEMBER NAME** | FAMMbrName | The name of each family member. ASTM E 1633 PARA 4.2.1 |
| 01090.02. | FAMILY MEMBER DATE-OF-BIRTH | FAMMbrBirthDtm | The date of birth of the family member. ASTM E 1633 PARA 4.2.4 |
| 01090.03. | FAMILY MEMBER GENDER | FAMMbrGenderCode | The biologic sex of the family member. ASTM E 1633 PARA 5.2.20 |
| 01090.05. | FAMILY MEMBER SSAN | FAMMbrSSANId | The Social Security Account Number for each family member. ASTM E 1633 PARA 4.2.5 |
| 01090.07. | **FAMILY MEMBER RELATIONSHIP** | FAMMbrRelationshipCode | A term denoting the relationship of the family member to the patient. ASTM E 1633 PARA 5.2.10 |
| 01090.09. | FAMILY MEMBER MALE PARENT | FAMMbrMaleParentName | The name of the biologic male parent of the patient to be used for family pedigrees. ASTM E 1633 PARA 4.2.1 |
| 01090.11. | FAMILY MEMBER FEMALE PARENT MAIDEN NAME | FAMMbrFemaleParentName | The name of the biologic female parent of the patient to be used for family pedigrees. It is the full current name of a newborn infant's mother. ASTM E 1633 PARA 4.2.1 |
| 01090.13. | FAMILY MEMBER SPOUSE NAME | FAMMbrSpouseName | The full maiden name of a female spouse and the current name of a male spouse of the patient. ASTM E 1633 PARA 4.2.1 |
| 01090.15. | FAMILY MEMBER DATE-OF-DEATH | FAMMbrDeathDtm | The date of death of the family member. ASTM E 1633 PARA 4.2.4 |
| 01090.17. | FAMILY MEMBER HEAD OF HOUSEHOLD | FAMMbrHeadofHouseholdCode | A code used for arranging health services and indicates which family member is the head of the patient's household. Only one individual should be so designated at any one time. ASTM E 1633 PARA 4.2.6 |
| 01090.19. | FAMILY MEMBER PRIMARY CAREGIVER STATUS | FAMMbrPrimCaregiverCode | A code denoting whether this person either acts as, or could act as, the primary giver of care in the home setting. ASTM E 1633 PARA 4.2.6 |
| 01090.21. | FAMILY MEMBER LOCATION | FAMMrLocationText | The location where the member resides during non-working hours. ASTM E 1633 PARA 4.2.6 |
| 01090.23. | FAMILY MEMBER OCCUPATION | FAMMbrOccupationCode | The current occupation of the family member. ASTM E 1633 PARA 5.2.11 |
| 01090.25. | FAMILY MEMBER MAJOR DIAGNOSIS/CAUSE OF DEATH | FAMMbrMajDiagDeathCode | A list of diagnosed major illnesses or injuries suffered by the family member during his lifetime. It is used for family linkage in inherited conditions. ASTM E 1633 PARA 4.2.6 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 01090.27. | FAMILY MEMBER INHERITED GENE ID | FAMMbrInheritedGeneCode | The McKusick number of the phenotype (Mendelian Inheritance in Man 9th Ed Johns Hopkins Press 1990) ASTM E 1633 PARA 4.2.6 |
| 01090.27.01. | FAMILY MEMBER INHERITED GENE EXPRESSION | FAMMbrGeneExpressionCode | A term indicating Mendelian expression (dominant, Recessive, sex-linked); it is somewhat redundant as the McKusik number range also provides this data. ASTM E 1633 PARA 4.2.6 |
| 01090.27.02. | FAMILY MEMBER INHERITED GENE EXTENT-OF-EXPRESSION | FAMMbrGeneExprExtentQty | This is an expression of the percentage of the expression. ASTM E 1633 PARA 4.2.5: A FRACTION IN TWO DIGITS |
| 01095. | **PERSON PERMANENT ADDRESS** | PersPermanentAddressText | The usual residence and/or address of the patient as defined by the payor organization. May be referred to as the "Mailing Address". ASTM E 1633 PARA 4.2.2 |
| 01096. | PATIENT PRIOR ADDRESS | PtPriorAddressText | Address prior to the current one at which the patient resided. ASTM E 1633 PARA 4.2.2 |
| 01096.1. | PRIOR ADDRESS BEGIN DATE | PtPriorAddrBeginDtm | The date on which a previous residence commenced. ASTM E 1633 PARA 4.2.4 |
| 01096.2. | PRIOR ADDRESS END DATE | PtPriorAddressEndDtm | The date that a prior residence terminated. ASTM E 1633 PARA 4.2.4 |
| 01097. | PERSON COUNTY/CENSUS TRACT | PersAddressCntyCensusCode | A code used by the US Bureau of Census to specify a geographic area. ASTM E 1633 PARA 4.2.6 |
| 01099. | FOREIGN RESIDENCY STATUS | PersForeignResidencyCode | A code designating whether the patient regularly maintains a foreign residency. ASTM E 1633 PARA 4.2.6 |
| 01100. | PATIENT HOME PHONE | PersHomePhonePhN | The phone numbers of both permanent and temporary addresses. ASTM E 1633 PARA 4.2.3 |
| 01105. | PERSON'S TEMPORARY ADDRESS | PersTempAddressText | The address of hotel, school or vacation residence May be referred to as "local address". ASTM E 1633 PARA 4.2.2 |
| 01108. | PATIENT TEMPORARY ADDRESS PHONE | PersTmpAddrPhN | The telephone at the temporary address. ASTM E 1633 PARA 4.2.3 |
| 01110. | EMERG. CONT. (REL/FR.) | PtEmergContName | Person to be notified, if needed. ASTM E 1633 PARA 4.2.1 |
| 01112. | EMERG. CONT. RELAT. | PtEmergContRelationCode | A code denoting the relationship of the emergency contact to the patient. ASTM E 1633 PARA 5.2.10 |
| 01115. | EMERG. CONT. ADDRESS | PtEmergContAddressText | The address of the person to contact in any emergency situation. ASTM E 1633 PARA 4.2.2 |
| 01117. | EMERG. CONT. H. PHONE | PtEmergContHPhonePhN | The most appropriate phone number of the emergency contact person. ASTM E 1633 PARA 4.2.3 |
| 01119. | EMERG. CONT. B. PHONE | PtEmergContBPhonePhN | The telephone at which the named emergency contact can be reached during working hours if the contact is at work during these hours. ASTM E 1633 PARA 4.2.3 |
| 01120. | PATIENT GUARDIAN NAME | PtGuardianName | Name of legal guardian. ASTM E 1633 PARA 4.2.1 |

**E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 01125. | PATIENT GUARDIAN ADDRESS | PtGuardianAddressText | The current mailing address of the patient guardian. ASTM E 1633 PARA 4.2.2 |
| 01130. | PATIENT GUARDIAN STATUS | PtGuardianStatusCode | Court appointed guardian: individuals or corporations appointed by the court to manage some or all of the affairs of adults whom the court has found unable to manage for themselves and their affairs with ordinary prudence, or of minors whose parents are not available or who have been found unfit. Includes limited and plenary guardians. |
| 01135. | LNOK NAME | PtLegNxtofKinName | A name in the nuclear family first, then followed by closest relative or friend. ASTM E 1633 PARA 4.2.1 |
| 01137. | LNOK RELATIONSHIP | PtLegNxtofKinRelationCode | This code denotes the relationship of the legal next-of-kin to the patient. ASTM E 1633 PARA 5.2.10 |
| 01140. | LNOK ADDRESS | PtLegNxtofKinAddressText | The address for the person named as the Next-of-Kin. ASTM E 1633 PARA 4.2.2 |
| 01142. | LNOK HOME PHONE | PtLegNxtofKinHPhonePhN | The home phone of the legal next of kin. ASTM E 1633 PARA 4.2.3 |
| 01145. | LNOK B. PH. | PtLegNxtofKinBPhonePhN | The main business phone number of the legal next of kin. ASTM E 1633 PARA 4.2.3 |
| 01150. | R/L HANDED? | HandednessCode | A code representing the patient's handedness ASTM E 1633 PARA 4.2.6 |
| 01155. | COLOR EYES | PtEyeColorCode | The normal eye color in absence of contact lenses or other eyewear. ASTM E 1633 PARA 4.2.6 |
| 01160. | COLOR HAIR | PtHairColorCode | The normal undyed hair color of the patient. ASTM E 1633 PARA 4.2.6 |
| 01165. | BLOOD TYPE | PtBloodTypeCode | The code of the patient's blood type as determined by a laboratory testing procedure. ASTM E 1633 PARA 4.2.6 |
| 01170. | HEIGHT FOR IDENTIFICATION | PtHeightQty(To include birth lengths) | Vertical measurement of the body. This is the most recent measured height standing in bare feet. ASTM E 1633 PARA 4.2.5 |
| 01175. | BUILD FOR IDENTIFICATION | PtPhysiqueBuildCode | A code denoting the major class of patient body build. ASTM E 1633 PARA 4.2.6 |
| 01180. | WEIGHT FOR IDENTIFICATION | PtWeightQty | A measurement of body mass; the most recent value. ASTM E 1633 PARA 4.2.5 |
| 01185. | PATIENT RECORD ACTIVITY STATUS | PtRecrdActivStatusCode | This is the activity status of the current record. ACTIVE/INACTIVE/ARCHIVED/DEAD. ASTM E 1633 PARA 4.2.6 |
| 01190. | CONFIDENTIALITY PROTECTION | PtConfidentialityCode | A code to protect privacy of the patient, to include unwed mothers, celebrities, provider employees, psych/drug/alcohol patients. TEXT ASTM E 1633 PARA 5.2.1 |
| 01195. | DATE REGISTR RECORD INITIATED/UPDATED | HCRegRecordUpdateDtm | The date on which a change is made to the demographic segment of the primary record of care. ASTM E 1633 PARA 4.2.4 |

49

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 01195.02. | PERSON INITIATING/UPDATING | HCRegInitUpdatePersName | The name of a member of a list of persons who change or update the primary record of care. ASTM E 1633 PARA 4.2.1 |
| 01197. | REGISTRATION REVIEW DATE | HCRegRegistrReviewDtm | The date when the registration record was reviewed by a responsible official for its accuracy. ASTM E 1633 PARA 4.2.4 |
| 01200. | REGISTRATION INFORMANT | HCRegRegistrInformantName | The name of the individual who provided the registration data on the latest update. ASTM E 1633 PARA 4.2.1 |
| 01205. | REGISTRATION COMMENT | HCRegRegistrCommentText | A text containing any additional information that relates to the registration process. ASTM E 1633 PARA 4.2.6 |
| 01210. | DATE RECORD TRANSF TO STORAGE | HCRegRecordTranstoStorageDtm | The date on which the record is removed from working storage and sent to archival storage because of death, inactivity or other knowledge that the patient will not return to active status. ASTM E 1633 PARA 4.2.4 |
| 01220. | DATE-TIME OF DEATH | DCertDeathDtm | The recorded date and time of the patient's death; in cases where death was unobserved it is the best estimate of such date and time. ASTM E 1633 PARA 4.2.4 |
| 01225. | PLACE OF DEATH | DCertDeathPlaceText | That location where the patient actually expired. If a health care facility, give its name. If at home give the address. If in the field give a location including an approximate address, optional city, county, state, and nation. TEXT ASTM E 1633 PARA 4.2.6 |
| 01227. | AUTOPSY STATUS | DCertAutopsyStatusCode | A code denoting whether an autopsy was conducted after the patient's death. Y/N. ASTM E 1633 PARA 4.2.6 |
| 01230. | RECORDER OF DEATH | DCertDeathRecorderName | The name of the person recording the patient's death. A physician must certify the patient's death. ASTM E 1633 PARA 4.2.1 |
| 01235. | DATE DEATH RECORDED | DCertDeathRecordedDtm | The date that the patient's death was actually recorded, as differentiated from the time of its occurrence. ASTM E 1633 PARA 4.2.4 |
| 01240. | DEATH CERTIFICATE NO. | DCertText | The state-of-death's actual identifier of the death certificate. ASTM E 1633 PARA 4.2.5 |
| 01245. | STATE DEATH CERTIF RECORDED | DCertRecordeStateCode | The name of the state in which the death is actually recorded. |
| 01250. | CAUSE OF DEATH | DCertDeathCauseCode | A list of codes or terms which together best describe either the immediate or the ultimate cause of death. LEXICON |
| 01251. | UNDERLYING CAUSE OF DEATH (M) | | Hospital Association: used only cause of death and did their own analysis without using traditional vital statistics methods and concluded that hospital discharge abstracts were sufficient information. APHSIS does not agree) |
| 01255. | PATIENT'S MORTUARY PREF | DCertPtMortuaryPrefText | The stated preference, when known, of a terminally ill patient. It is noted in order to allow arrangements to be made on behalf of the survivors, should they not be available. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 01260. | BEREAVEMENT ASSESSMENT | PtBereavementAssessText | Textual assessment of the bereavement situation for this individual. ASTM E 1633 PARA 4.2.6 |
| 01262. | CLERGYMAN'S NAME | PtClergymanName | The name of the patient's identified clergyman at the time of admission to a hospital or inpatient facility. ASTM E 1633 PARA 4.2.6 |
| 01265. | CLERGYMAN'S ADDRESS | PtClergymanAddressText | The mailing address of the patient's clergyman. ASTM E 1633 PARA 4.2.2 |
| 01267. | CLERGYMAN'S PHONE | PtClergymanPhonePhN | The telephone number at which the clergyman is most likely to be reached. ASTM E 1633 PARA 4.2.3 |
| 02001. | **CONSENT SIGNED/ADMIT AGREEMENT** | CAgrmntPtSig | Patient indicates in writing that (s)he has been informed of the nature of the treatment, risks, complications, alternative forms of treatment and treatment consequences. TEXT ASTM E 1633 PARA 4.2.7 (new) 4.2.6 |
| 02005. | **PATIENT RIGHTS ACKNOWLEDGEMENT** | CAgrmntPtRightsAcknSig | A text stating the patient's understanding of his/her rights and the rights associated with the information in the record of care. TEXT ASTM E 1633 PARA 4.2.7 (new) 4.2.6 |
| 02010. | AUTHORITY FOR AUTOPSY | CAgrmntAutopsyAuthName | The name of the individual authorizing an autopsy. ASTM E 1633 PARA 4.2.1 |
| 02015. | RELEASE OF BODY TO MORGUE | CAgrmntRelBodyMorgueText | Written notice that the body has been taken to the morgue. ASTM E 1633 PARA 4.2.6 |
| 02020. | CONSENT FOR VIDEOTP/OBSERV | CAgrmntObsAgrmntText | The text of the agreement signed by the patient consenting to observation or videotaping. Text ASTM E 1633 PARA 4.2.6 |
| 02025. | CONSENT TO RSCH PARTIC | RSCHAgrmntConsentText | A text agreeing to experimental therapies. Text ASTM E 1633 PARA 4.2.6 |
| 02030. | **DIRECTIVE TO PHYSICIAN** | CAgrmntPhysDirectiveText | A living Will written by the patient to the physician in case of incapacitation to giver further instructions. Text ASTM E 1633 PARA 4.2.6 |
| 02040. | ORGAN DONOR AGREEMENT | ORGDonorAgrText | An agreement text. Text should include: Donor Pt name (Transplant Recipient) Donor Pt no. (Transplant recipient) Recipient Pt no. (Transplant donor) Recipient Pt name (Transplant donor) Text ASTM E 1633 PARA 4.2.6 |
| 02045. | COURT-ORDERED CARE | CAgrmntCourtOrderCareText | A description of care received by a child or adult as a result of a court order. ASTM E 1633 PARA 4.2.6 |
| 02050. | LIVING WILL DESIGNEE | CAgrmntLivingWillText | Text of the Living will including identified individuals. ASTM E 1633 PARA 4.2.6 |
| 02052. | DURABLE POWER-OF-ATTORNEY STATUS | PtDurPAttStatusCode | A code representing the values for the legal state of a Durable Power of Attorney. ASTM E 1633 PARA 4.2.6 |
| 02053. | DURABLE POWER OF ATTORNEY FOR HEALTH CARE STATUS | PtDurHPAttStatusCode | A code representing the values for the legal state of a Durable Power of Attorney for health situations. ASTM E 1633 PARA 4.2.6 |
| 02055. | POWER OF ATTORNEY NAME | PtPAttName | The full name of the individual acting as a Power of attorney for the patient. ASTM E 1633 PARA 4.2.1 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 02056. | DURABLE POWER OF ATTORNEY FOR HEALTH CARE NAME | PtDurHPAttName | The full name of the individual acting as a Power of attorney for the patient for health situations. ASTM E 1633 PARA 4.2.1 |
| 02057. | POWER OF ATTORNEY ADDRESS | PtPAtAddrText | The legal address of the individual acting as a Power of attorney for the patient. ASTM E 1633 PARA 4.2.2 |
| 02058. | DURABLE POWER OF ATTORNEY FOR HEALTH CARE ADDRESS | PtDurHPAttAddtText | The legal address of the individual acting as a Power of attorney for the patient for health situations. ASTM E 1633 PARA 4.2.2 |
| 02060. | POWER OF ATTORNEY PHONE | PtPAttPhonePhN | The telephone number of the individual acting as a Power of attorney for the patient. ASTM E 1633 PARA 4.2.3 |
| 02061. | DURABLE POWER OF ATTORNEY FOR HEALTH CARE PHONE | PtDurHPAttPhn | The telephone number of the individual acting as a Power of attorney for the patient for health situations. ASTM E 1633 PARA 4.2.3 |
| 02100. | **REL OF INFO RECRD ACT DATE** | RELINFRcrdRecordActionDtm | The date of each instance when any data from the patient record is released to other than authorized persons caring for the patient. ASTM E 1633 PARA 4.2.4 |
| 02100.02. | **TYPE OF RECORD ACTION** | RELINFRcrdRelActTypeCode | A code that identifies the type of action involved in the release of information from the patient's record. ASTM E 1633 PARA 4.2.6 |
| 02100.04. | REL OF INFO TYP OF INFO | RELINFRcrdInforTypeCode | A code that identifies the type of information released. ASTM E 1633 PARA 4.2.6 |
| 02100.06. | REL OF INFO PERS RELEASING | RELINFRcrdReleasPersName | The name of the person who released information from the patient's record. ASTM E 1633 PARA 4.2.1 |
| 02100.08. | REL OF INFO RELEASED TO | RELINFRcrdPersRelToName | The name of the person to whom the information from the patient's record was released. ASTM E 1633 PARA 4.2.1 |
| 02100.10. | REL OF INFO PURPOSE | RELINFRcrdRelPurposeText | A text describing the purpose for which the released information will used. ASTM E 1633 PARA 4.2.6 |
| 02100.12. | **PERSON AUTHORIZING RELEASE** | RELINFRcrdPersAuthRelName | The name or identifier of the individual authorizing the release of the type of information. ASTM E 1633 PARA 4.2.1 |
| 03001. | WORKMANS COMP CLAIM DATE | WCClmClaimDtm | A narrative of the recorded claims for worker compensation, including data time, location, employer. ASTM E 1633 PARA 4.2.4 |
| 03001.1. | WORKMANS COMP CLAIM NO. | BILLSvcsWrkCmpClaimId | The identifier string for a claim submitted under workman's compensation. ASTM E 1633 PARA 4.2.6 |
| 03005. | INSURANCE CLAIM DATE | HCClmClaimDtm | The date of a recorded insurance claims for the patient. ASTM E 1633 PARA 4.2.4 |
| 03005.02. | INSURANCE CLAIM ID | HCClmClaimId | The unique identifier for each insurance claim. ASTM E 1633 PARA 4.2.6 |
| 03010. | **PAYMENT SOURCE** | HCClmPrimaryPaySourceCode | Responsible for largest % of patient's current bill. May include address. ASTM E 1633 PARA 4.2.6, 5.2.21 |
| 03010.02. | PRIMARY PAYMENT CLASS | HCClmPrimaryPayClassCode | A code representing the class of payment. ASTM E 1633 PARA 4.2.6 |

ASTM **E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 03010.04. | **PAYOR GROUP NO.** | HCClmPayorGroupId | An identification number, control no., or code assigned by the carrier or administrator, to identify the group under which the individual is covered. ASTM E 1633 PARA 4.2.6 |
| 03010.06. | **PAYOR ID NO.** | HCClmPayorPolicyId | The identifier of the patient's insurance policy. ASTM E 1633 PARA 4.2.5 |
| 03010.08. | **PAYMENT SPONSOR** | HCClmPaySponsorName | The name of the person responsible for bill or whose insurance plan provides coverage for the patient. ASTM E 1633 PARA 4.2.1 |
| 03010.10. | **ADDRESS OF SPONSOR** | HCClmPaySponAddrText | The mailing address of the principal payment sponsor. ASTM E 1633 PARA 4.2.2 |
| 03010.12. | PAYOR PRIORITY | HCClmPayorPriorityCode | The value indicating the sequence of priority of payors; it is an ordinal number. ASTM E 1633 PARA 4.2.6 |
| 03017. | MEDICARE TO YR | ACCPtMedicareToYrDtm | The current terminal date for patient coverage under Medicare. ASTM E 1633 PARA 4.2.4 |
| 03020. | MEDICARE A EFFECT. DATE | ACCPtMedicareAEffectDtm | The date that Part A of Medicare became effective for the patient. ASTM E 1633 PARA 4.2.4 |
| 03022. | MEDICARE B EFFECT. DATE | ACCPtMedicareBEffectDtm | The date that Part B of Medicare became effective for the patient. ASTM E 1633 PARA 4.2.4 |
| 03030. | BILLING ACCOUNT NO. | ACCPtBillingId | The identifier of the patient business account. ASTM E 1633 PARA 4.2.6 |
| 04001. | **PROVIDER/PRACTITIONER NAME** | HCPrvProviderName | The name of the facility or practice submitting a bill. May be the same as practitioner name. (A business entity which furnishes health care). ASTM E 1633 PARA 4.2.1 |
| 04001.01. | PROVIDER GROUP/ORGANIZATION TITLE | HCProvProviderOrgTitleText | The formal title of the organization or provider group. ASTM E 1633 PARA 4.2.6 |
| 04001.03. | **PROVIDER ADDRESS** | HCPrvProviderAddressText | The complete address to which the provider wishes the payment sent. ASTM E 1633 PARA 4.2.2 |
| 04001.05. | **PROVIDER TAXONOMY CATEGORY** | HCPrvProviderTypeCode | The code indicating the category of health care setting or practice type. Includes routine home care, respite, inpatient care, acute inpatient care, bereavement follow-up outpatient laboratory, short stay, etc. ASTM E 1633 PARA 4.2.6 |
| 04001.07. | **PROVIDER ID NO.** | HCPrvProviderId | The numbers assigned by various payor agencies(e.g. Medicare, Medicaid, BlueCross/Blue Shield federal Tax no. (assigned by Federal Govt for tax report purposes). ASTM E 1633 PARA 4.2.6 |
| 04001.07.01. | **PROVIDER AGENCY ID NUM** | HCPrvAgencyIDCode | The agency associated with this unique identifier of this provider ASTM E 1633 PARA 4.2.6 |
| 04001.10. | **PRACTITIONER NAME** | HCPractPractitionerName | The name of the practitioner, structured in common person name format. ASTM E 1633 PARA 4.2.1 |
| 04001.12. | PRACTITIONER SSAN | HCPractSSANId | The Social Security Account Number Identifier of the practitioner as a generic identifier code. ASTM E 1633 PARA 4.2.5 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 04001.15. | PRACTITIONER'S NATIONAL PROVIDER IDENTIFIER | HCPractUniversalPractId | The universal numeric identifier which will be used to link services for a provider across care systems. A providers/practitioners will each have a unique number that identifies the practitioner from all others and is the same for the practitioner in all settings where he/she may practice. ASTM E 1633 PARA 4.2.6 |
| 04001.20. | **PRACTITIONER'S PROFESSION/OCCUPATION/ SPECIALTY** | HCPractProfessionCode | The profession in which the practitioner is currently engaged. ASTM E 1633 PARA 4.2.6, 5.1.16 |
| 04001.25. | **PRACTITIONER'S ADDRESS** | HCPractAddressText | The usual or principal place of practice. ASTM E 1633 PARA 4.2.2 |
| 04001.30. | PRACTITIONER'S PHONE | HCPractPhonePhN | The number where the practitioner may most frequently be reached. ASTM E 1633 PARA 4.2.3 |
| 04001.31. | PRACTITIONER'S FAX PHONE | PractFaxPhonePhN | Telephone attached to a FAX machine. ASTM E 1633 PARA 4.2.3 |
| 04001.32. | PRACTITIONER'S E-MAIL ADDRESS | PractEMailAddrText | The electronic mail address string for the practitioner's office. ASTM E 1633 PARA 4.2.2 |
| 04001.35. | PRACTITIONER'S LICENSE CATEGORY | HCPractLicenseId | The license identifying no. and state for the license authorizing the practitioner to practice. ASTM E 1633 PARA 4.2.6 |
| 04001.35.01. | PRACTITIONER LICENSING STATE | HCPractLicenseStateCode | The code for the state of the practitioner's license. ASTM E 1633 PARA 4.2.6 |
| 04001.35.02. | PRACTITIONER LICENSE CODE | HCPractLicenseCode | The code identifying the nature of the practitioner's license. ASTM E 1633 PARA 4.2.6 |
| 04001.35.03. | PRACTITIONER LICENSE NUMBER | HCPractLicenseId | Identifier of the practitioner's license. ASTM E 1633 PARA 4.2.6 |
| 04001.35.04. | PRACTITIONER LICENSE EFFECTIVE DATE | HCPractLicenseEffDtm | Time and date the license is effective. ASTM E 1633 PARA 4.2.6 |
| 04001.35.05. | PRACTITIONER LICENSE EXPIRATION DATE | HCPractLicenseExpDtm | Time and Date the License expires. ASTM E 1633 PARA 4.2.6 |
| 04001.35.06. | PRACTITIONER LICENSE TERMINATION DATE | HCPractLicenseTermDtm | Time and date license was terminated or expired. ASTM E 1633 PARA 4.2.6 |
| 04001.40. | PRACTITIONER CERTIFICATION CATEGORY (M) | HCPractCertCatCode | The abbreviation for the state holding the practitioner's license. ASTM E 1633 PARA 4.2.6 |
| 04001.40.1. | CERTIFICATION NUMBER | HCPractCertId | Identifier of Practitioner Certification. ASTM E 1633 PARA 4.2.6 |
| 04001.40.2. | CERTIFICATION EFFECTIVE DATE | HCPractCertEffDtm | Time and Date Certification was effective. ASTM E 1633 PARA 4.2.6 |
| 04001.40.3. | CERTIFICATION EXPIRATION DATE | HCPractCertExpDtm | Time and Date the Certification expires. ASTM E 1633 PARA 4.2.6 |
| 04001.40.4. | CERTIFICATION TERMINATION DATE | HCPractCertTermDtm | Time and Date the Certification was terminated or expired. ASTM E 1633 PARA 4.2.6 |
| 04001.40.5. | CERTIFICATION CODE | HCPractCertCode | Code identifying the nature of the Practitioner Certification. ASTM E 1633 PARA 4.2.6 |
| 04001.40.6. | CERTIFICATION BOARD | HCPractCertBoardId | Identifier of the Certifying Board. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

TABLE A1.1 *Continued*

| | | | |
|---|---|---|---|
| 04001.45. | PRACTITIONER CURRENT ROLE | HCPractCurrentRoleCode | The role (primary care practitioner, physician, consultant etc.) that the practitioner plays with this patient. ASTM E 1633 PARA 4.2.6 |
| 04001.45.01. | PRACTITIONER DATE ROLE BEGAN | HCPractRoleBeganDtm | The date that this particular role was assumed by the practitioner for this patient. ASTM E 1633 PARA 4.2.4 |
| 04001.45.02. | PRACTITIONER DATE ROLE ENDED | HCPractRoleEndedDtm | The date that this particular role by the practitioner has ended. ASTM E 1633 PARA 4.2.4 |
| 04001.50. | PRACTITIONER SPECIALTY | HCPractSpecialtyCode | The particular branch of medicine, dentistry or surgery; by virtue of advanced training certifies individual to be qualified to so limit his/her practice. ASTM E 1633 PARA 5.2.16 |
| 04001.50. | | HCPractLocCode | Identifier of the Location where the Practitioner practices. ASTM E 1633 PARA 4.2.6 |
| 04001.50.1. | DATE LOCATION EFFECTIVE | HCPractLocEffDtm | ASTM E 1633 PARA 4.2.4 |
| 04001.50.2. | DATE LOCATION TERMINATED | HCPractLocTermDtm | ASTM E 1633 PARA 4.2.4 |
| 04001.50.3. | LOCATION CODE | HCPractLoc | |
| 04001.60. | **PRACTITIONER ELECTRONIC SIGNATURE** | HCPractPractitionerSig | The electronic signature of the practitioner. ASTM E 1633 PARA 4.2.7 |
| 05001. | **PROBLEM NUMBER** | PHProbId | The problem identifier for this unique problem. Note: a systematic procedure for assigning these numbers across all practitioners has not been agreed upon. For the present, it should be considered a sequential integer number. ASTM E 1633 PARA 4.2.6 |
| 05001.01. | **PROBLEM NAME** | PHProbTitleText | A term uniquely identifying the nature of the problem. ASTM E 1633 PARA 4.2.6 |
| 05001.02. | PROBLEM CLINICAL INDICATION | PHProbIndicText | The reason for establishing a separate problem; the reason may be either a diagnosis or a pattern of symptoms. TEXT ASTM E 1633 PARA 4.2.6 |
| 05001.03. | **PROBLEM ESTD DATE OF ONSET** | PHProbProbOnsetDtm | The estimated date that the problem first occurred. ASTM E 1633 PARA 4.2.4 |
| 05001.05. | PROBLEM CAUSE/ETIOL. | PHProbCauseCode | The underlying disease, external cause, etc. ASTM E 1633 PARA 4.2.6 |
| 05001.07. | PROBLEM DATE RECORDED | PHProbRecordedDtm | The date at which the problem was actually entered into the record. ASTM E 1633 PARA 4.2.4 |
| 05001.09. | PROBLEM DIAGNOSIS | PHProbDiagnosisText | The term naming the established diagnosis for this problem. ASTM E 1633 PARA 4.2.6 |
| 05001.10. | PROBLEM DATE DIAGNOSED | PHProbDiagnosisDtm | The date that the problem was clinically recognized. ASTM E 1633 PARA 4.2.4 |
| 05001.12. | PROBLEM PROVIDER ASSIGNING DIAGNOSIS | PHProbDiagAssProvName | The name or identifier of the practitioner who assigns the diagnosis or recognizes the problem. ASTM E 1633 PARA 4.2.1 |
| 05001.13. | PROBLEM, FACILITY WHERE DIAGNOSIS ASSIGNED | PHProbDiagFacId | The identifier of the facility at which the practitioner assigning the diagnosis for this problem conducts a practice. ASTM E 1633 PARA 4.2.6 |

**TABLE A1.1** *Continued*

| 05001.15. | PROBLEM DATE RESOLVED | PHProbProbResolvedDtm | The date that this particular problem is considered resolved and no longer needs active consideration. ASTM E 1633 PARA 4.2.4 |
|---|---|---|---|
| 05001.17. | PROBLEM RESPONSIBLE PRACTITIONER | PHProbResponPractName | The practitioner currently responsible for this problem. |
| 05001.20. | **PROBLEM CURRENT STATUS** | PHProbStatusCode | The activity category of the problem e.g. Active,Inactive. ASTM E 1633 PARA 4.2.6 |
| 05001.20.01. | PROBLEM DATE OF STATUS | PHProbStatusDtm | The date that the status code was assigned. ASTM E 1633 PARA 4.2.4 |
| 05001.22. | PROBLEM SUBJECTIVE DATA | PHProbSubjectiveText | The textual synopsis of the subjective (e.g. symptoms) data for this problem. ASTM E 1633 PARA 4.2.6 |
| 05001.25. | PROBLEM OBJECTIVE DATA | PHProbObjectiveText | The plain text description of the findings of examination by the practitioner. ASTM E 1633 PARA 4.2.6 |
| 05001.30. | PROBLEM BODY SYSTEM | PHProbROSBdySysCode | The category name of the principal body system for this problem. ASTM E 1633 PARA 5.2.22 |
| 05001.30.01. | PROBLEM BODY SYSTEM REVIEW TEXT | PHProbROSBdySysText | The textual summary text stating the status of the named body system. |
| 05001.32. | PROBLEM ENCOUNTER DATES | PHProbEncDtm | The date of an encounter at which this problem was considered. ASTM E 1633 PARA 4.2.4 |
| 05001.32.01. | PROBLEM MONITORING VARIABLE | PHProbMonitorVarCode | The measured parameter or variable to be monitored for tracking this problem. ASTM E 1633 PARA 4.2.6 |
| 05001.32.01.01. | PROBLEM PARAMETER VALUE | PHProbParamValueQty | This value is the numeric continuous value of the indicated parameter. ASTM E 1633 PARA 4.2.5 |
| 05001.35. | PROBLEM ASSESSMENT | PHProbAssessText | A statement of the problem current situation. TEXT ASTM E 1633 PARA 4.2.6 |
| 05001.40. | PROBLEM PLAN | PHProbPlanText | Text describing the plan for dealing with this patient problem. TEXT ASTM E 1633 PARA 4.2.6 |
| 05001.41. | PROBLEM TREATMENT PLAN ID | PHProbTrtPlId | Identifier of the Treatment Plan relating to this Health Condition/Problem. ASTM E 1633 PARA 4.2.6 |
| 05001.45. | PROBLEM ORDERS | PHProbOrdersId | The codes that identify the orders in segment 10 of the record. ASTM E 1633 PARA 4.2.6 |
| 06001. | **IMMUNIZATION NAME** | ImmText | The name or identifier of the immunization procedure conducted. ASTM E 1633 PARA 4.2.6 |
| 06001.01. | **IMMUNIZATION DATE** | ImmDtm | The date the immunization procedure was conducted. ASTM E 1633 PARA 4.2.4 |
| 06001.01.01. | IMMUNIZATION DOSE NUMBER IN SERIES | ImmDoseQty | The amount of immunizing agent administered. ASTM E 1633 PARA 4.2.5 |
| 06001.01.02. | IMMUNIZATION BATCH (1996) | ImmBatchId | The identifier of the batch of an agent used to induce immunity. ASTM E 1633 PARA 4.2.6 |
| 06001.01.03 | IMMUNIZATION MANUFACTURER | ImmBatchMfrId | Identifier of the batch if immunizing agent. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 06001.01.04. | IMMUNIZATION EXPIRATION DATE | ImmBatchExpDtm | ASTM E 1633 PARA 4.2.4 |
| 06001.01.05. | IMMUNIZATION LOT NO. | ImmLotIdCode | The individual lot number of the batch of an agent used to induce immunity. ASTM E 1633 PARA 4.2.6 (1996) |
| 06001.01.10. | IMMUNIZATION NUMBER OF UNITS | ImmUnitsQty | ASTM E 1633 PARA 4.2.5 |
| 06001.01.11. | IMMUNIZATION INJECTION SITE | ImmInjSiteId | Body site where immunizing agent was injected. ASTM E 1633 PARA 4.2.6 |
| 06001.01.12. | IMMUNIZATION ADMINISTERING TREATMENT FACILITY | ImmFacilId | The name or identifier of the treatment facility administering the agent. ASTM E 1633 PARA 4.2.6 |
| 06001.01.15. | IMMUNIZATION REACTION/RESULT | ImmReactOrResultCode | Text describing the result of the immunization and any adverse reaction. ASTM E 1633 PARA 4.2.6 |
| 06001.01.17. | IMMUNIZATION SEVERITY (1996) | ImmReactSevCode | A term classifying the severity of the reaction. ASTM E 1633 PARA 4.2.6 |
| 06001.01.20. | IMMUNIZATION REMARKS | ImmRemarksText | Text amplifying the observations associated with the immunization procedure. ASTM E 1633 PARA 4.2.2 (4.2.6) |
| 06001.01.25. | PRACTITIONER IMMUNIZATION ADMINISTERING | HCPractPractitionerName | The name of the practitioner, structured in common person name format. ASTM E 1633 PARA 4.2.1 |
| 07001. | HAZARDOUS AGENT NAME | EStrAgentText | The name or identifier of the environmental stressor. ASTM E 1633 PARA 4.2.6 |
| 07001.01. | HAZARD TOTAL LIFETIME EXPOSURE | EStrTotLifeExpQty | The collective total lifetime exposure of the patient to this agent. ASTM E 1633 PARA 4.2.5 |
| 07001.03. | HAZARD UNIT OF EXPOSURE (1996) | EStrUnitExpCode | The units of lifetime exposure in SI units. ASTM E 1633 PARA 4.2.6 |
| 07001.05. | HAZARD EXPOSURE BEGIN DATE | EStrExposureBeginDtm | The date that the period of exposure began. ASTM E 1633 PARA 4.2.4 |
| 07001.05.01. | HAZARD EXPOSURE TERMINATION DATE (1996) | EStrExposureTerminDtm | The date that this exposure period ceased. ASTM E 1633 PARA 4.2.4 |
| 07001.05.02. | HAZARD EMPLOYER (1996) | EStrExposureEmployerText | The name of the employer associated with the exposure period. ASTM E 1633 PARA 4.2.6 |
| 07001.05.03. | HAZARD SETTING OF EXPOSURE | EStrExposureWorkCntrText | The name of the employer's work area where this period of exposure occurred. ASTM E 1633 PARA 4.2.6 |
| 07001.05.05. | HAZARD ROUTE OF EXPOSURE | EStrExposeWorkActyCode | The nature of the patient's activity at the name work area. ASTM E 1633 PARA 4.2.6 |
| 07001.05.07. | HAZARD EXPOSURE INTERVAL DOSE | EStrExposureIntervDoseQty | The dose resulting from the exposure period. ASTM E 1633 PARA 4.2.5 |
| 07001.05.09. | HAZARD PLANT PROCESS | EStrPlantProcessCode | The plant process related to the work area. ASTM E 1633 PARA 4.2.6 |
| 07001.05.11. | HAZARD PLANT LOCATION | EStrPlantLocationCode | The location of the plant site. ASTM E 1633 PARA 4.2.6 |
| 07001.05.13. | HAZARD WORK PERFORMED | EStrWorkPerformedText | The name of the hazardous work performed on the job. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 07001.05.15. | HAZARD PERSONAL PROTECTION USED | EStrPersProtectCode | The names of the personal protection clothing/devices used during this exposure period. ASTM E 1633 PARA 4.2.6 |
| 07001.07. | HAZARD TEST DATE | EStrTestDtm | The testing date for measuring environmental levels of this agent. ASTM E 1633 PARA 4.2.4 |
| 07001.07.01. | HAZARD NATURE AND FORM OF MEASURED AGENT | EStrNatFormAgentCode | A term identifying the nature and form of the stressor being measured. ASTM E 1633 PARA 4.2.6 (1996) |
| 07001.07.02. | HAZARD SAMPLE UNIT COLLECT | EStrSampleCollUnitCode | The unit of measure for the specimen collected. ASTM E 1633 PARA 4.2.6 (1996) |
| 07001.07.03. | HAZARD SAMPLE COLLECTION TIME | EStrCollTimeIntervQty | The time period over which the environmental specimen was collected. ASTM E 1633 PARA 4.2.6 |
| 07001.07.05. | HAZARD SAMPLE COLLECT DEVICE | EStrCollectDeviceCode | The device by which the environmental specimen is obtained. ASTM E 1633 PARA 4.2.6 |
| 07001.07.07. | HAZARD TEST SAMPLE METHOD (1996) | EStrTestSampleMethodCode | The method by which the sample is obtained. ASTM E 1633 PARA 4.2.6 |
| 07001.07.09. | HAZARD TYPE OF DETERMINATION (1996) | EStrDeterTypeCode | The method by which the amount of stressor was measured. |
| 07001.07.11. | HAZARD PEAK MEASUREMENT VALUE | EStrPeakMeasurmntQty | The value of the peak level measurement. ASTM E 1633 PARA 4.2.5 |
| 07001.07.13. | HAZARD PEAK MEASUREMENT UNIT | EStrPeakMeasurmntUnitCode | The unit of the peak level measurement. ASTM E 1633 PARA 4.2.6 |
| 08001. | NO. OF PREV PREGNANCIES | HHistPrevPregQty | The count of all pregnancies experienced regardless of outcome. ASTM E 1633 PARA 4.2.5 |
| 08003. | NO. OF COMPLETED DELIVERIES | HHistCompletedDeliveryQty | The count of pregnancies which went to term with live births. ASTM E 1633 PAR 4.2.5 |
| 08005. | ESTD DATE OF PREGNANCY BEGIN | PRHistPregnancyBeginDtm | The date on which it is estimated the current pregnancy began. ASTM E 1633 PARA 4.2.4 |
| 08005.01. | PRENATAL & PERINATAL HISTORY | PRHistPregPerinatalHistText | A textual description of the current pregnancy. TEXT ASTM E 1633 PARA 4.2.6 |
| 08005.03. | ESTIMATED DATE OF DELIVERY | PRHistEstDelDtm | The date on which it is estimated that delivery will occur. ASTM E 1633 PARA 4.2.4 |
| 08005.05. | DATE FIRST SAW PRENATAL PRACT | PRHistInitPrenatPractDtm | The date the patient first consulted a healthcare practitioner about the current pregnancy. ASTM E 1633 PARA 4.2.4 |
| 08005.07. | TYPE OF PRENATAL PRACTITIONER | PRHistPrenatPractTypeCode | The specialty of this practitioner. ASTM E 1633 PARA 5.1 (5.2.9) |
| 08005.09. | BIRTHING PLAN | PRHistBirthPlanText | The route of delivery selected for the current pregnancy. ASTM E 1633 PARA 4.2.6 |
| 08005.11. | LENGTH OF GESTATION | PRHistGestLengthQty | The total length in days of completed pregnancies. ASTM E 1633 PARA 4.2.5 |
| 08005.13. | GYNECOLOGIC ABNORMALITIES | PRHistGynecolAbnText | A textual description of abnormalities of the mother relating to the birth process. ASTM E 1633 PARA 4.2.6 |

58

**ASTM E 1384**

**TABLE A1.1** *Continued*

| 08005.15. | BIRTH METHOD | PRHistBirthMethodCode | A class term for the category of delivery method. ASTM E 1633 PARA 4.2.6 |
|---|---|---|---|
| 08005.17. | DELIVERY COMPLICATIONS | PRHistDelivCompText | A textual description of the complications of each pregnancy, including the current one. ASTM E 1633 PARA 4.2.6 |
| 08005.19. | NO. OF FETUSES IN PREGNANCY | PRHistFetusCountQty | A count of the total number of fetuses in the gestation period. ASTM E 1633 PARA 4.2.5 |
| 08010. | PATIENT NEWBORN BIRTHWT | HHistBirthWtQty | The weight at birth if the newborn infant, recorded at the time the record is initiated. ASTM E 1633 PARA 4.2.5 |
| 08013. | PATIENT NEWBORN BIRTHLNGTH | HHistBirthLngthQty | The length of the newborn infant recorded at the time the record is initiated. ASTM E 1633 PARA 4.2.5 |
| 08017. | ESTIMATE OF FETAL MATURITY AT BIRTH | HHistBirthMatCode | A class term for the category of maturity of newborns. ASTM E 1633 PARA 4.2.6 |
| 08020. | PATIENT NEWBORN ABNORMALITIES | HHistBirthAbnCode | A textual description of the abnormalities observed at birth recorded when the record is first opened. ASTM E 1633 PARA 4.2.6 |
| 08023. | ONSET OF RESPIRATION | HHistRespOnsetDtm | The date time post birth that respiration commenced. ASTM E 1633 PARA 4.2.4 |
| 08027. | 1 MIN APGAR | HHist1MApgarQty | The APGAR score computed at 1 minute post birth. ASTM E 1633 PARA 4.2.5 |
| 08030. | 5 MIN APGAR | HHist5MApgarQty | The APGAR score computed at 5 minutes post birth. ASTM E 1633 PARA 4.2.5 |
| 08033. | NEWBORN HEAD CIRCUMFERENCE | HHistNbHeadCircQty | The measured circumference of the head recorded at birth when the record is opened. ASTM E 1633 PARA 4.2.5 |
| 08037. | NEWBORN CHEST CIRCUMFERENCE | HHistNbChestCircQty | The measured circumference of the chest at birth when the record is opened. ASTM E 1633 PARA 4.2.5 |
| 08050. | FAMILY HEALTH HISTORY | HHistFamilyHealthHistText | A textual summary of the health history of the parents and siblings of the patient. ASTM E 1633 PARA 4.2.6 |
| 08052. | CHILD HEALTH HISTORY | HHistChildHealthHistText | A textual summary of the development of the infant through adolescence period. ASTM E 1633 PARA 4.2.6 |
| 08054. | ADULT HEALTH HISTORY | HHistAdultHealthHistText | A textual summary of the significant health events from adolescence to current. ASTM E 1633 PARA 4.2.6 |
| 08055. | PATIENT HEALTH EDUCATION HISTORY | HHistHealthEdHistText | A patient's self reported history including risk factors (may be a standard questionnaire) ASTM E 1633 PARA 4.2.6 |
| 08056. | SEXUAL/REPRODUCTIVE HISTORY | HHistSexReprodHistText | A textual summary of the sexual history of both male and female patients. ASTM E 1633 PARA 4.2.6 |
| 08058. | DATE OF LAST MENSTRUAL PERIOD | HHistLastMenstPerDtm | For a female only, the date of last menstrual period prior to a suspected pregnancy. ASTM E 1633 PARA 4.2.4 |
| 08060. | AGE AT MENARCHE | HHistMenarcheAgeQty | The age at which menstruation began. ASTM E 1633 PARA 4.2.5 |
| 08062. | MENSTRUAL STATUS | HHistMenstrualStatusCode | The category of current menstrual functioning. ASTM E 1633 PARA 4.2.6 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 08064. | BIRTH CONTROL METHOD | HHistBirthContrMethCode | A textual description of the method of birth control for both male and female patients. ASTM E 1633 PARA 4.2.6 |
| 08070. | JOB START DATE | JobStartDtm | The HIRE DATE for each chronological paid (or significant non-paid regular) position held by the patient. These are identified for the purpose of recognizing the timpacts of the work environment on the health status of the patient. ASTM E 1633 PARA 4.2.4 |
| 08070.01. | JOB EMPLOYER | JobEmployerText | The name of the employing organization. ASTM E 1633 PARA 4.2.6 |
| 08070.03. | JOB FULL/PARTIME STATUS | JobTime PresentStatusCode | A term categorizing the amount of time spent on the job. ASTM E 1633 PARA 5.1 (4.2.6) |
| 08070.05. | JOB STATUS | JobStatusCode | Code representing current priority of job. ASTM E 1633 PARA 4.2.6 |
| 08070.07. | JOB TITLE | JobTitleText | The name of the position. ASTM E 1633 PARA 4.2.6 |
| 08070.09. | JOB CODE | JobCode | Identifier for the nature of the job. ASTM E 1633 PARA 4.2.6 |
| 08070.11. | JOB CLASSIFICATION | JobClassificationCode | Code representing the category of the job. ASTM E 1633 PARA 4.2.6 |
| 08070.13. | JOB EMPLOYEE NUMBER | JobEmployeeId | A number assigned by the company to identify the employee. ASTM E 1633 PARA 4.2.6 |
| 08070.14 | OCCUPATIONAL CATEGORY | JobOccCategoryCode | Code for the category of occupation required for the job position. ASTM E 1633 PARA 4.2.6 |
| 08070.15. | JOB PROCESS/ACTIVITY | JobProcessActivityCode | The category name of the work activity conducted. ASTM E 1633 PARA 4.2.6 |
| 08070.16. | JOB STANDARD INDUSTRIAL CLASSIFICATION | JobStdIndCode | The USDOL Stand Industrial Class associated with the job. ASTM E 1633 PARA 4.2.6 |
| 08070.17. | JOB TERMINATION DATE | JobTerminationDtm | The date this position terminated. ASTM E 1633 PARA 4.2.4 |
| 08070.19. | JOB COMMENTS | JobCommentsText | Textual remarks about any aspect of this position. ASTM E 1633 PARA 4.2.6 |
| 08070.20. | WORK LOCATION | JobworkLocCode | Code for the location at which the job primarily is carried out. ASTM E 1633 PARA 4.2.6 |
| 08070.21. | JOB WORK ACTIVITY | JobWorkActivityCode | Code represzenting the nature of the work activity for this job position. ASTM E 1633 PARA 4.2.6 |
| 08070.23. | JOB PROTECTIVE EQUIP | JobProtectiveEquipText | The textual name of any equipment, clothing or devices used to protect against the work environment. ASTM E 1633 PARA 4.2.6 |
| 08070.25. | JOB STRESSORS EXPOSED TO | JobExposureStressorIDCode | The names or identifiers of chemical, physical, biological or radiological stressors exposed to in the workplace as a result of this position. ASTM E 1633 PARA 4.2.6 |
| 08075. | **DATE OF HEALTH HISTORY** | HHistDtm | Time and Date of the Health History. ASTM E 1633 PARA 4.2.4 |

ASTM E 1384

TABLE A1.1 *Continued*

| | | | |
|---|---|---|---|
| 08075.01. | PURPOSE | HHistPurposeText | Statement of the reason for recording Health History. ASTM E 1633 PARA 4.2.6 |
| 08075.03. | HISTORY SITE OF EXAM | HHistSiteCode | The location where the health history is updated. ASTM E 1633 PARA 4.2.6 |
| 08075.05 | **SOURCE OF HISTORY: CONTACT NAME** | HExmHistSourceName | The name of an individual who relates the patient's history to the practitioner. ASTM E 1633 PARA 4.2.1 |
| 08075.07. | **HISTORY RELAT SOURCE TO PT** | HExmHistSourceRelPtCode | The relationship of the source of data used in updating the health history to the patient, if it is not the patient. ASTM E 1633 PARA 5.2.10 |
| 08075.09. | **HISTORY PRESENT HEALTH** | HExmPresentHlthText | A statement of the current state of the patient's health at the time of the health history updating. ASTM E 1633 PARA 4.2.6 |
| 08075.10. | STATE OF ORAL HYGIENE | HExmOralHlthStatusText | Statement of the state of patient's health. ASTM E 1633 PARA 4.2.6 |
| 08075.11. | **PAST HIST.-SOCIAL** | HEXmSocialHistText | A statement of the current social aspects of the patient's functioning. ASTM E 1633 PARA 4.2.6 |
| 08075.13. | **CURRENT.-HABITS** | HExmHabitsText | A current statement of personal habits at the time of the health history updating. ASTM E 1633 PARA 4.2.6 |
| 08075.15. | HISTORY CURRENT OCCUPATION | HxmCurrOccCode | A statement of the patient's occupation at the time of the history updating. ASTM E 1633 PARA 4.2.6 |
| 08075.17. | PAST HIST.-PREV. ILLNESS | HExmPastHistPrevIllText | A statement of the illnesses experienced since the last history updating. ASTM E 1633 PARA 4.2.6 |
| 08080. | PAST HIST.-SURGERY DATE | HHistPastSurgDtm | The date of a past surgical procedure. ASTM E 1633 PARA 4.2.4 |
| 08080.01. | PAST HISTORY OPERATION IDENTIFIER | HHistPastHistOperId | The name of a surgical procedure. ASTM E 1633 PARA 5.1 (4.2.6) |
| 08083. | MEDICATION HISTORY | HHistMedcnIDText | A textual summary of past medications used by the patient. ASTM E 1633 PARA 4.2.6 |
| 08085. | TRAUMA HISTORY | HHistTraumaText | A textual summary of trauma experienced by the patient during his lifetime. ASTM E 1633 PARA 4.2.6 |
| 08088. | ALLERGY HISTORY | HHistAllDrgSensText | A textual description of prior allergies. ASTM E 1633 PARA 4.2.6 |
| 08090. | DATE OF HISTORY GEN CMMENT | HHistCommentsDtm | The date of a textual remark. ASTM E 1633 PARA 4.2.4 |
| 08090.1. | HISTORY GENERAL COMMENTS | HHistCommentsText | The statement of the remark. ASTM E 1633 PARA 4.2.6 |
| 08095. | HEALTH HISTORY RESPONSE | HHistRespCode | A response term concerning a health history observation. ASTM E 1633 PARA 4.2.6 |
| 08095.01. | HEALTH HISTORY RESPONSE DATE | HHistRespDtm | A list of dates when this response was given. ASTM E 1633 PARA 4.2.4 |
| 08095.01.01. | HISTORY RESPONSE COMMENT | HHistRespCommentText | A remark amplifying a response about a patient's health history. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 09001. | **EXAM/HISTORY DATE** | HExmDtm | The date on which a physical examination and attendant history update was conducted. ASTM E 1633 PARA 4.2.4 |
| 09001.01. | EXAM/HISTORY PURPOSE | HExmPurposeCode | The purpose for which the patient was being examined. ASTM E 1633 PARA 4.2.6 |
| 09001.02. | EXAM RISK FACTORS | HExmRiskFactorCode | Code representing a value for factors of risk being considered during the examination. ASTM E 1633 PARA 4.2.6 |
| 09001.03. | EXAM/HISTORY FACILITY | HExmFaciltyId | The location of the examination site. ASTM E 1633 PARA 4.2.6 |
| 09001.04. | EXAM EXAMINERS NAME | HExmExaminerName | The name or identifier of the examiner. ASTM E 1633 PARA 4.2.1 |
| 09001.09. | **SOURCE HISTORY OF PRESENT ILLNESS/STATUS OF PRESENT HEALTH** | HExmPresentIllnessText | A detailed chronological description of the development of the pt's illness from the appearance of the first symptom to the present time. Include data of onset. ASTM E 1633 PARA 4.2.6 |
| 09001.11. | EXAM INITIAL IMPRESSIONS | HExmInitImpressionText | A textual statement of the examiner's initial observations. ASTM E 1633 PARA 4.2.6 |
| 09001.12. | **EXAM REVIEW OF SYSTEMS** | HExmReviewSystemsText | This data element contains the textual summary of the systematic review of the status and functioning of the body's systems and regions. ASTM E 1633 PARA 4.2.6 |
| 09001.13. | **EXAM FINDING** | HExmFindingCode | A term for an observation name made by the examiner. ASTM E 1633 PARA 4.2.6 |
| 09001.13.01. | EXAM FINDING VALUE | HExmFindingValueQty | The number value for the measurement made by the examiner. ASTM E 1633 PARA 4.2.5 |
| 09001.13.02 | EXAM FINDING UNIT | HExmFindingUnitCode | The appropriate unit of measure for the observation. ASTM E 1633 PARA 4.2.6 |
| 09001.13.03. | EXAM FINDING INTERP CODE | HExmFindingInterpCode | A remark about the observation made by the examiner. ASTM E 1633 PARA 4.2.6 |
| 09001.13.04. | **EXAM FINDING COMMENT** | HExmFindingCommentText | A textual remark about the particular finding. ASTM E 1633 PARA 4.2.2 (4.2.6) |
| 09001.15. | **EXAM/HISTORY TEXT** | HExmText | A textual narrative of the observations made by the examiner. ASTM E 1633 PARA 4.2.6 |
| 09001.16. | PATIENT HEALTH STATUS MEASURE NAME | HExmHlthStatTMeasText | Title of the Total Health Status Measure and Instrument. ASTM E 1633 PARA 4.2.6 |
| 09001.17. | PATIENT HEALTH STATUS MEASURE TOTAL VALUE | HExmHlthStatTMeasQty | Numeric Value of the Health Status Measure Total magnitude. ASTM E 1633 PARA 4.2.5 |
| 09001.19. | PATIENT HEALTH STATUS MEASURE ELEMENT NAME | HExmHlthStatMeasElCode | Code representing the identity of the Health Status Measure Element. ASTM E 1633 PARA 4.2.6 |
| 09001.19.01. | PATIENT HEALTH STATUS MEASURE ELEMENT VALUE | HExmHlthStatMeasElQty | Numeric Value of the Magnitude of the Health Status measurement element. ASTM E 1633 PARA 4.2.5 |
| 09001.21. | **EXAM SUMMARY** | HExmSummaryText | A textual synopsis of the narrative of the examination, if appropriate. ASTM E 1633 PARA 4.2.6 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 09001.23. | EXAMINER/CONSULT RECOMMENDTN | HExmRecommdText | The examiner/consultant's opinion, diagnosis or impression. TEXT ASTM E 1633 PARA 4.2.6 |
| 09001.25. | EXAM ASSESSSMENT OF NUTRITIONAL STATUS | HExmNutritionAssessText | A textual summary of the nutritional status of the patient at this examination. ASTM E 1633 PARA 4.2.2 (4.2.6) |
| 09001.30. | TOOTH (M) | HExmToothId | Tooth identifier code with ISO or ADA. ASTM E 1633 PARA 4.2.6 |
| 09001.30.01. | TOOTH STATUS | HExmToothStatusCode | Status category code of the tooth. ASTM E 1633 PARA 4.2.6 |
| 09001.30.03. | COMMENT | HExmToothCommentText | A textual comment observation or discussion about the identified tooth ASTM E 1633 PARA 4.2.6 |
| 09001.30.05. | SURFACE (M) | HExmToothSurfaceId | The surface identifier code for the specified tooth. ASTM E 1633 PARA 4.2.6 |
| 09001.30.05.1. | LEVEL OF DECAY | HExmToothSurfLevDecayCode | An ordinal code for increasing level of decay for the specified tooth and surface. ASTM E 1633 PARA 4.2.6 |
| 09001.30.05.2. | RESTORATIVE MATERIAL | HExmToothSurfRestMatCode | Identifier of restorative material used for the specified tooth and surface restoration. ASTM E 1633 PARA 4.2.6 |
| 09001.30.06. | TOOTH SENSITIVITY CODE | HExmToothSensCode | Code representing the patient perceived sensitivity to touch of this tooth. ASTM E 1633 PARA 4.2.6 |
| 09001.30.07. | TOOTH MOBILITY CODE | HExmToothMobilityCode | Code representing the degree of mobility of this tooth. ASTM E 1633 PARA 4.2.6 |
| 09001.30.08. | TOOTH LINGUAL POCKET DEPTH | HExmToothLingPocketDepthQty | A numeric value fore the depth of the lingual periodontal pocket. ASTM E 1633 PARA 4.2.6 |
| 09001.30.09. | TOOTH BUCCAL POCKET DEPTH | HExmToothBucPocketDepthQty | A numeric value for the depth of the Buccal periodontal pocket. ASTM E 1633 PARA 4.2.6 |
| 09001.30.11. | TOOTH IMPLANT MATERIAL CODE | HExmToothImplantMatlCode | Code denoting the nature of the the implant material. ASTM E 1633 PARA 4.2.6 |
| 09001.30.07. | PERIODONTAL TISSUE STATUS (M) | HExmToothPerioStatusCode | Ordinal code for normal/abnormal condition of the specified tooth and region. ASTM E 1633 PARA 4.2.6 |
| 09001.30.09. | IMPLANT STATUS (M) | | Coded value for the category of implant condition in the specified tooth position. ASTM E 1633 PARA 4.2.6 |
| 09001.30.13. | PLANNED PROCEDURE (M) | HExmToothPlannedProcIDCode | The identifier of the restorative procedure planned of the specified tooth. ASTM E 1633 PARA 4.2.6 |
| 09001.30.13.1. | SCHEDULED DATE | HExmToothPlannedProcDtm | The date of the specified planned procedure and tooth. ASTM E 1633 PARA 4.2.6 |
| 09001.40. | PROSTHESIS (M) | ProsthIDCode | The identifier of prosthesis installed with the patient mouth. ASTM E 1633 PARA 4.2.6 |
| 09001.40.01. | PROSTHESIS TYPE | ProsthTypeCode | The coded category of the installed prosthesis. ASTM E 1633 PARA 4.2.6 |
| 09001.40.03. | PROSTHESIS ABUTMENT (M) | ProsthAbutCode | The identifier of the tooth site where the abutment for the specified prosthesis is located. ASTM E 1633 PARA 4.2.6 |

**E 1384**

TABLE A1.1  *Continued*

| 09001.40.05. | DATE OF TEMPORARY PROSTHESIS | ProsthTempDtm | Date of installation of a temporary prosthesis preceding the permanent prosthetic device. ASTM E 1633 PARA 4.2.4 |
|---|---|---|---|
| 09001.40.07. | DATE OF PERMANENT PROSTHESIS | ProsthPermDtm | Date when the permanent restorative prosthetic device replaced to temporary device as the specified prosthesis. ASTM E 1633 PARA 4.2.4 |
| 09001.40.09. | INSTALLING PRACTITIONER | ProsthInstalPractId | The identifier of the practitioner installing the prosthesis. ASTM E 1633 PARA 4.2.6 |
| 09001.40.11. | OPPOSING ARCH STATUS | ProsthOpposArchStatusCode | Coded category for the condition of dental arch opposing the specified prosthesis. ASTM E 1633 PARA 4.2.6 |
| 09001.40.13. | OCCUSAL SURFACE MATERIAL | ProsthOcclusSurfMatCode | Identifier of the material used on the occusal surface of the specified prosthesis. ASTM E 1633 PARA 4.2.6 |
| 09001.40.15. | PATIENT SATISFACTION CODE | ProsthPatSatisCode | Ordinal code indicating the patient's satisfaction with the specified prosthesis. ASTM E 1633 PARA 4.2.6 |
| 10001. | **CLIN ORDER ID NUMBER** | COrdIDId | The unique identifier for a clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.001. | **CLIN ORDER ENCOUNTER DATETIME** | COrdEncDtm | The date and time of the Encounter that generated this clinical order. ASTM E 1633 PARA 4.2.4 |
| 10001.002. | CLIN ORDER PATIENT STATUS | COrdPtStatusCode | The categorical term classifying the patient in terms of the health care setting under which treatment is being given such as: ambulatory, inpatient, home health, long term care, etc.). |
| 10001.009. | CLIN ORDER DATE-TIME | COrdDtm | The date time point that the order was created by the originating practitioner. ASTM E 1633 PARA 4.2.4 |
| 10001.010. | CLIN ORDER TYPE | COrdTypeCode | The categorical term classifying the action addressee and identifying the special data requirements of that addressee. ASTM E 1633 PARA 4.2.6 |
| 10001.013. | CLIN ORDER ACTION | COrdActionCode | A code for the category of action to be taken on this order. ASTM E 1633 PARA 4.2.6 |
| 10001.015. | CLIN ORDER PRIORITY | COrdPriorityCode | A categorical term classifying the urgency for carrying out his clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.017. | CLIN ORDER PRE-ADMIT STATUS | COrdPreAdmStatusCode | A categorical term classifying whether the patient situation is a pre-admission one. ASTM E 1633 PARA 4.2.6 |
| 10001.019. | CLIN ORDER ORIGIN | COrdOriginCode | The location from which the order was originated. ASTM E 1633 PARA 4.2.6 |
| 10001.021. | CLIN ORDER PARENT ORDER | COrdParentOrdId | The identifier of the triggering order of a secondary order. ASTM E 1633 PARA 4.2.6 |
| 10001.022. | CLIN ORDER MULTIPLE SEQ STATUS | COrdMultSeqStatusCode | The categorical terms classifying the actions of this clinical order as multiple and sequential in time. |
| 10001.023. | CLIN ORDERS RELATED ORDERS | COrdRelatedOrdersIDCode | A list of order identifiers for clinical orders that are dependent upon or which are coordinated with the actions requested by this clinical order. ASTM E 1633 PARA 4.2.6 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 10001.025. | CLIN ORDER USER | COrdUserName | The identity of the staff individual who entered the order on behalf of a practitioner. ASTM E 1633 PARA 4.2.1 |
| 10001.027. | CLIN ORDER USER SIG | COrdUserSig | The electronic signature of the entering staff individual. ASTM E 1633 PARA 4.2.7 (4.2.6) |
| 10001.029. | CLIN ORDER NURSE ID | COrdNurseIDCode | The name or identifier of the nurse signing this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.031. | CLIN ORDER NURSE SIG | COrdNurseSig | The electronic signature of the nurse signing this clinical order. ASTM E 1633 PARA 4.2.7 (4.2.6) |
| 10001.033. | CLIN ORDER ORDERING PRACTITIONER NAME | COrdOrderingPractName | The name or identifier of the practitioner creating this clinical order. ASTM E 1633 PARA 4.2.1 |
| 10001.034. | ORDERING PRACTITIONER ROLE | COrdOrdering PractRoleCode | Code representing the role of the ordering practitioner for this Clinical Order. ASTM E 1633 PARA 4.2.6 |
| 10001.035. | CLIN ORDER ORDERING PRACTITIONER SIG | COrdOrderingPractSig | The electronic signature of the practitioner creating this clinical order. |
| 10001.037. | CLIN ORDER COUNTERSIGNING PRACTITIONER NAME | COrdCSignPractName | The name or identifier of the duly authorized practitioner countersigning this clinical order. ASTM E 1633 PARA 4.2.1 |
| 10001.039. | CLIN ORDER COUNTERSIGNING PRACTITIONER SIG | COrdCSignPractSig | The electronic signature of the duly authorized practitioner countersigning this clinical order. ASTM E 1633 PARA 4.2.7 |
| 10001.041. | CLIN ORDER NURSE SIG NEEDED STATUS | COrdNursSigNeedStatusCode | The categorical term classifying the conditions under which a nurse signature is required on this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.043. | CLIN ORDER NURSE SIG NEEDED DATETIME | COrdNursSigNeedDtm | The date time point by which a nurse signature is required on this clinical order. ASTM E 1633 PARA 4.2.4 |
| 10001.045. | CLIN ORDER PRACTITIONER SIG NEEDED STATUS | COrdPrctSigNeedStatusCode | A categorical term classifying the conditions under which a practitioner signature is required to activate this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.047. | CLIN ORDER PRACTITIONER SIG NEEDED DATETIME | COrdPrctSigNeedDtm | The date time by which the signature of an ordering practitioner is required for this clinical order. ASTM E 1633 PARA 4.2.4 |
| 10001.049. | CLIN ORDER COUNTERSIG NEEDED STATUS | COrdCSigNeedDtm | The categorical term classifying the conditions under which a countersignature is required to activate this clinical order. ASTM E 1633 PARA 4.2.4 |
| 10001.051. | CLIN ORDER COUNTERSIG NEEDED BY DATETIME | COrdCSigNeedStatusCode | The date time point by which a practitioner countersignature is required for this clinical order to be activated. ASTM E 1633 PARA 4.2.6 |
| 10001.052. | CLIN ORDER DISCONTINUED BY PRACTITIONER NAME | COrdDisconbyPractName | The name or identifier of the practitioner who discontinues this clinical order. ASTM E 1633 PARA 4.2.1 |
| 10001.053. | CLIN ORDER DISCONTINUED PRACTITIONER SIG | COrdDisconbyPractSig | The electronic signature of the practitioner who discontinues this clinical order. ASTM E 1633 PARA 4.2.7 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 10001.055. | CLIN ORDER CONFIRMATION RECD CODE | COrdConfirmationRecdCode | Internal mechanism to ensure receipt of order. ASTM E 1633 PARA 4.2.6 |
| 10001.057. | CLIN ORDER ACTIVE/PENDING FLAG | COrdActPendStatusCode | Code for the active/pending state of the Clinical Order. ASTM E 1633 PARA 4.2.6 |
| 10001.059. | CLIN ORDER ACTIVE STATUS | COrdActiveStatusCode | Code for the completion state of the Clinical Order. ASTM E 1633 PARA 4.2.6 |
| 10001.061. | CLIN ORDER PENDING STATUS | COrdPendingStatusCode | Code for the category characterizing the pending nature of the Clinical Order. ASTM E 1633 PARA 4.2.6 |
| 10001.063. | CLIN ORDER INACTIVE STATUS FLAG | COrdInactiveStatusCode | Code denoting the nature and reason for inactivity of the Clinical Order. ASTM E 1633 PARA 4.2.6 |
| 10001.065. | CLIN ORDER START STATUS | COrdStartStatusCode | Code denoting the conditions for starting the Clinical Order. ASTM E 1633 PARA 4.2.6 |
| 10001.067. | CLIN ORDER EXECUTION FREQUENCY | COrdExecFreqQty | A textual statement of the frequency with which the requested action should be executed over the duration of this clinical order. ASTM E 1633 PARA 4.2.5 |
| 10001.069. | CLIN ORDER DURATION OF SERVICE | COrdDurationText | The time period over which the service is to be performed, including start and stop times. ASTM E 1633 PARA 4.2.6 |
| 10001.071. | CLIN ORDER LATEST STATUS CHG DATETIME | COrdLastStatusChgDtm | The date time associated with a change in the category of any of the control data elements. ASTM E 1633 PARA 4.2.4 |
| 10001.073. | CLIN ORDER REACTIVATION DATETIME | COrdReactivationDtm | The date time of the point at which this clinical order was changed from inactive to active. ASTM E 1633 PARA 4.2.4 |
| 10001.075. | CLIN ORDER REQ FM ANCILLARY | COrdReqFmAncillaryText | Statement of the identify of the Ancillary service which is to provide the ordered service. ASTM E 1633 PARA 4.2.6 |
| 10001.077. | CLIN ORDER ANCILLARY ACTIV DATETIME | COrdAncillary ActivDtm | Time and Date the Ancillary was notified. ASTM E 1633 PARA 4.2.4 |
| 10001.079. | CLIN ORDER RESULT EXPECTATION DATETIME | COrdRsltExpectDtm | The date time of the expected instant that a result from the actions requested in this clinical order might be available. ASTM E 1633 PARA 4.2.4 |
| 10001.081. | CLIN ORDER TELEPHONE RESULT FLAG | COrdTeleRsltStatusCode | The categorical term classifying the situations in which the result requested as a result of the actions in this clinical order should be communicated by telephone to the designated location. ASTM E 1633 PARA 4.2.6 |
| 10001.083. | CLIN ORDER TELEPHONE RESULT DESTINATION | COrdTelRsltDestinText | The name of the location to which a telephoned result which may be required should be returned. ASTM E 1633 PARA 4.2.6 |
| 10001.085. | CLIN ORDER REQUEST SCHEDULED FLAG | COrdReqSchedStatusCode | The categorical term classifying the appointment request associated with this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.087. | CLIN ORDER REQUESTED APPT TIME | COrdReqApptDtm | The date time requested for the appointment associated with the services requested in this clinical order. ASTM E 1633 PARA 4.2.4 |
| 10001.089. | CLIN ORDER REQ APPT TYPE | COrdReqApptTypeCode | The categorical term classifying the appointment associated with the services requested in this clinical order. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 10001.091. | CLIN ORDER APPT TRANSPORT STATUS | COrdApptTranspStatusCode | The categorical term classifying the transportation for the patient in conjunction with the appointment associated with delivering the services requested by this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.093. | CLIN ORDER APPT STATUS | COrdApptStatusCode | The categorical term classifying the current action in carrying out this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.095. | CLIN ORDER ASSIGNED APPT TIME | COrdAssignApptDtm | The date time of the appointment assigned by the delivering activity that is associated with the services requested in this clinical order. ASTM E 1633 PARA 4.2.4 |
| 10001.097. | CLIN ORDER HEALTH SERVICE ORDERED | COrdServiceOrderedCode | The name or identifier of the health service requested by this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.098. | TREATMENT PLAN INVOLVED | COrdTrPInvId | Identifier of the Treatment Plan involved in this Clinical Order. ASTM E 1633 PARA 4.2.6 |
| 10001.099. | PROBLEM NUMBER | PHProbId | The problem identifier for this unique problem. Note: a systematic procedure for assigning these numbers across all practitioners has not been agreed upon. For the present, it should be considered a sequential integer number. ASTM E 1633 PARA 4.2.6 |
| 10001.100. | **CLIN ORDER FULL TEXT** | COrdOrderText | The textual content of the order detailing what action is to be taken and the means to go about it. ASTM E 1633 PARA 4.2.6 |
| 10001.102. | CLIN ORDER LOCATION OF SERVICE | COrdServiceLocationId | The location at which the ordered service is to be delivered. ASTM E 1633 PARA 4.2.6 |
| 10001.104. | CLIN ORDER FREQ ORDERED SVC | COrdOrderedSvcFeqQty | A term denoting how often the service is performed and the number of times it is performed. ASTM E 1633 PARA 4.2.5 |
| 10001.106. | CLIN ORDER MODIFY STATUS | COrdModifyStatusCode | The categorical term classifying the conditions under which the order can be, or has been, modified. ASTM E 1633 PARA 4.2.6 |
| 10001.108. | CLIN ORDER MODIFICATION REASON | COrdModifReasonText | The textual statement as to why the order has been modified. ASTM E 1633 PARA 4.2.6 |
| 10001.110. | CLIN ORDER NON-MODIFY FLAG | COrdNonModifyStatusCode | The categorical term classifying the situation restricting modifications to this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.112. | CLIN ORDER INSTRUCTIONS | COrdInstructionsText | The text describing the conduct of the requested action, including criteria for D/C or other decisions to be made about conduct of the service. ASTM E 1633 PARA 4.2.6 |
| 10001.114. | CLIN ORDER SECONDARY ORDERS | COrdSecondaryOrderListText | The list of identifiers of named clinical order types which are sequentially initiated when this clinical order is activated. ASTM E 1633 PARA 4.2.6 |
| 10001.116. | CLIN ORDER MESSAGE | COrdMessageText | A textual comment sent to the performer of the requested action. ASTM E 1633 PARA 4.2.6 |

**ASTM** **E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 10001.120. | CLIN ORDER RESULT ACKNOWL DATETIME | COrdRsltAcknDtm | The date time that the receipt of the result was acknowledged by the orderer. ASTM E 1633 PARA 4.2.4 |
| 10001.120.01. | CLIN ORDER SHIFT CARE PLAN | COrdShiftCarePlanText | Identifier of the Shift Care Plan involved with this Clinical Order. ASTM E 1633 PARA 4.2.6 |
| 10001.120.02. | CLIN ORDER RESULT RETURN FLAG | COrdRsltRetCode | A categorical term classifying the situation associated with this clinical order regarding whether a result is to be returned as part of the actions requested. ASTM E 1633 PARA 4.2.6 |
| 10001.120.03. | CLIN ORDER RESULT RETURN STATUS | COrdResltRetStatusCode | The category of the situation where results from a clinical order are being awaited. |
| 10001.120.04. | CLIN ORDER RESULT RETURN DATETIME | COrdRsltRetDtm | The date time of the instant that a result that may be associated with this clinical order is returned to the care record. ASTM E 1633 PARA 4.2.4 |
| 10001.120.05. | CLIN ORDER RESULT RETURN ACKNL BY | COrdRsltRetAcknbyName | The identity of the individual who acknowledged the receipt of the results. ASTM E 1633 PARA 4.2.1 |
| 10001.120.06. | CLIN ORDER RESULT RETURN COMMENT | COrdRsltRetCommentText | A textual remark associated with the result returned as requested by this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.123. | CLIN ORDER DATE-TIME COMPLETED | COrdOrderCompletionDtm | The date time of the point at which all requested actions have been completed on this clinical order. ASTM E 1633 PARA 4.2.4 |
| 10001.140. | CLIN ORDER Q-A WARNING DATETIME | COrdQAWarnDtm | The date time of the point at which a warning about the actions associated with this clinical order was generated. ASTM E 1633 PARA 4.2.4 |
| 10001.140.1. | CLIN ORDER Q-A WARNING TEXT | COrdQAWarnText | The textual content of the generated warning associated with this clinical order and date time. ASTM E 1633 PARA 4.2.6 |
| 10001.140.2. | CLIN ORDER Q-A WARNING DISPOSITION | COrdQAWarnDispositionCode | The categorical term classifying the response to the warning. ASTM E 1633 PARA 4.2.6 |
| 10001.140.3. | CLIN ORDER WARN OVERRIDE PRACTITIONER | COrdQAWarnOverrdPractName | The name or identifier of the practitioner overriding the warning associated with this clinical order. ASTM E 1633 PARA 4.2.1 |
| 10001.140.4. | CLIN ORDER Q-A WARN OVERRIDE AUTH BY PRACTITIONER | COrdQAWarnOverrdAuthName | A textual statement of the actions overriding the warning issued in association with this clinical order. ASTM E 1633 PARA 4.2.1 |
| 10001.140.5. | CLIN ORDER Q-A WARNING OVERRIDE JUSTIFICATION | COrdQAWarnOverrdJustText | A textual description of the reasons for overriding the warning associated with this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10001.160. | CLIN ORDER Q-A REVIEW DATE | COrdReviewDtm | The date upon which the situation leading to a warning on this clinical order was reviewed. ASTM E 1633 PARA 4.2.4 |
| 10001.160.01. | CLIN ORDER Q-A REVIEW EVENT TYPE | COrdQAEventTypeCode | The categorical term classifying the review events for this clinical order. ASTM E 1633 PARA 4.2.6 |
| 10010. | **TREATMENT PLAN ID (M)** | TPIId | Identifier of a specified treatment plan. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 10010.01. | TREATMENT PLAN NAME | TPlNameText | A human readable name of the treatment plan. ASTM E 1633 PARA 4.2.6 |
| 10010.02. | **DESCRIPTION** | TPlDescrText | Textual description of the plan. ASTM E 1633 PARA 4.2.6 |
| 10010.03. | PRIMARY PRACTITIONER | TPlPriPractId | Identifier of the practitioner who takes responsibility for the ideas stated in the plan over the interval specified in the plan. ASTM E 1633 PARA 4.2.6 |
| 10010.04. | TEAM MEMBERS (M) | TPlTeamMbrId | Identifiers of the practitioners participating in the planning and execution of the specified plan. ASTM E 1633 PARA 4.2.6 |
| 10010.04.01. | TEAM MEMBER ROLE | TPlTeamMbrRoleCode | The identifier code for the role the team member is specified to play in the specified plan. ASTM E 1633 PARA 4.2.6 |
| 10010.05. | TOTAL OUTCOME MEASURE | TPlTotOutcomeMeasId | Identifier of the quantitative/ordinal measure of the global outcome of the treatment for which this plan was created. ASTM E 1633 PARA 4.2.6 |
| 10010.06. | PLAN COMMENTS | TPlCommentsText | Textual discussion of the plan, its progress and effectiveness. ASTM E 1633 PARA 4.2.6 |
| 10010.07. | PLAN COST | TPlCostQty | The estimated/measured overall cost of the planned treatment. ASTM E 1633 PARA 4.2.5 |
| 10010.10. | **PHASE IDENTIFIER (M)** | TPlPhaseId | Identifier of specified phases declared in the planned treatment episode. ASTM E 1633 PARA 4.2.6 |
| 10010.10.01. | **PROBLEM** | TPlPhaseHcondId | The identifier of the health condition(s) from the health condition list toward treatment in this phase is directed. ASTM E 1633 PARA 4.2.6 |
| 10010.10.02. | CLINICAL ORDER ID | TPlCOrdId | The identifier of the clinical order(s) which potentially (when authenticated) implement(s) the specified treatment in a phase. ASTM E 1633 PARA 4.2.6 |
| 10010.10.03. | CLINICAL ORDER STATUS | TPlCOrdStatusCode | Identifier code for the current status for the activating clinical order for the specified plan and phase. ASTM E 1633 PARA 4.2.6 |
| 10010.10.04. | PHASE TARGET DATE | TPlPhaseTargetDtm | Date of the expected completion of this phase of the specified treatment plan and clinical order. ASTM E 1633 PARA 4.2.4 |
| 10010.10.05. | OUTCOME GOAL | TPlPhaseOUtcomeGoalText | Textual statement of expected health condition status resulting from the specified treatment in this phase. ASTM E 1633 PARA 4.2.6 |
| 10010.10.06. | OUTCOME MEASURE | TPlPhaseOutcomeMeasureCode | Identifier of the property which reflects the status of the outcome goal attainment of the specified treatment plan and phase. ASTM E 1633 PARA 4.2.6 |
| 10010.10.07. | ACTUAL PHASE COST | TPlPhaseActualCostQty | The numerical value of the actual cost of the specified phase and treatment plan. ASTM E 1633 PARA 4.2.5 |
| 10010.10.08. | TREATMENT PLAN STATUS | TPlStatusCode | Code representing the state of the treatment plan. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 10010.10.09. | TREATMENT PLAN PATIENT MANAGEMENT NEEDS | TPlPTMgtNeedText | Statement of the particular additional management steps needed to manage the patient using this treatment plan. ASTM E 1633 PARA 4.2.6 |
| 10010.10.10. | TREATMENT EVENT DATE-TIME (M) | TPlTrtEvDtm | The time point of a specific scheduled encounter for execution of the proposed procedures for this phase and treatment plan. ASTM E 1633 PARA 4.2.4 |
| 10010.10.10.01. | LOCATION | TPlTrtEvLocCode | The location of the scheduled encounter for the execution of the specified phase and treatment plan. ASTM E 1633 PARA 4.2.6 |
| 10010.10.10.02. | PRACTITIONER | TPlTrtEvPractId | The identifier of the practitioner responsible for the scheduled encounter executing the specified phase and treatment plan. ASTM E 1633 PARA 4.2.6 |
| 10010.10.10.03. | PROCEDURE (M) | TPlTrtEvProcIdCode | The identifier of the procedures to be executed during the scheduled encounter(s) for execution of the specified treatment event. ASTM E 1633 PARA 4.2.6 |
| 10010.10.10.04. | APPOINTMENT COST | TPlTrtEvAppCostQty | The numeric value of the identified encounter scheduled to execute the specified treatment event. ASTM E 1633 PARA 4.2.6 |
| 10010.10.09. | TREATMENT REGIMEN ID | TPRegimenId | Identifier of the specific regimen to be used in this treatement plan. ASTM E 1633 PARA 4.2.6 |
| 10010.11. | DATE-TIME STARTED | TPlStarttm | The date the treatment plan was started using the initial phase. ASTM E 1633 PARA 4.2.4 |
| 10010.12. | DATE-TIME EXPECTED COMPLETION | TPlExprComplDtm | The date that the entire treatment plan is expected to be complete. ASTM E 1633 PARA 4.2.4 |
| 10010.13. | DATE-TIME ACTUAL COMPLETION | TPlActualComplDtm | The date that the entire treatment plan was actually completed. ASTM E 1633 PARA 4.2.4 |
| 10010.14. | AUTHENTICATION | TPlAuthentCode | The practitioner authenticator for the scheduled encounter completion for the specified phase and treatment plan. ASTM E 1633 PARA 4.2.6 |
| 11001. | **TEXT/EXAM/SPEC-COLLECTION DATETIME** | DXProcSpecExamDtm | The date and time when the specimen was collected from the patient or the measurement was made. ASTM E 1633 PARA 4.2.4 |
| 11001.01. | **TEST REQUESTED** | DXProcTestId | The name of the diagnostic test. ASTM E 1633 PARA 4.2.6 |
| 11001.01.03. | TEST REQ ENCOUNTER ID | DXProcTestEncIDCode | The name or identifier of the encounter from subsegment 14a during which the test/exam was conducted. The date and time when the specimen was collected from the patient or the measurement was made. ASTM E 1633 PARA 4.2.4 |
| 11001.01.06. | **TEST REQ ORDERING TREAT FAC** | DXProcOrderingFacilCode | The name or identifier of the facility from which the test as requested in a clinical order. ASTM E 1633 PARA 4.2.6 |
| 11001.01.09. | **TEST REQ PERFORMING FAC** | DXProcPerformFacilCode | The name or identifier of the facility performing the test or examination. ASTM E 1633 PARA 4.2.4 |

70

**ASTM E 1384**

| | | | |
|---|---|---|---|
| 11001.01.12. | ATTENDING PRACTITIONER NAME | DXProcAttPractName | The name or identifier of the practitioner ordering the test or exam. ASTM E 1633 PARA 4.2.1 |
| 11001.01.15. | TEST REQ CLIN ORDER ID | DXProcClinOrderId | The identifier of the clinical order from segment 10 requesting the test or exam. ASTM E 1633 PARA 4.2.6 |
| 11001.01.18. | RESIDENT PHYS. NAME | DXProcRes PractName | The name or identifier of the subordinate practitioner under supervision of the responsible practitioner. ASTM E 1633 PARA 4.2.1 |
| 11001.01.21. | PROBLEM NUMBER | PHProbId | The problem identifier for this unique problem. Note: a systematic procedure for assigning these numbers across all practitioners has not been agreed upon. For the present, it should be considered a sequential integer number. ASTM E 1633 PARA 4.2.6 |
| 11001.01.24. | TEST SPECIMEN SOURCE | DXProcSpecimenSourceCode | A term stating the specimen origin taken from the list of specimen categories. ASTM E 1633 PARA 4.2.6 |
| 11001.01.27. | SPECIMEN/CYTOLOGY NO. | DXProcSpecimenId | A unique identifier assigned by the performer. ASTM E 1633 PARA 4.2.6 |
| 11001.01.30. | SPECIMEN COLLECTION EMPLOYEE IDENTIFIER | DXProcSpecCollectorName | The name or identifier of the collector of the specimen to be used for the test or the examiner for other whole body tests. ASTM E 1633 PARA 4.2.1 |
| 11001.01.33. | TEST SPECIMEN RECEIPT DATETIME | DXProcSpecReceiptDtm | The time that the specimen was actually received in the diagnostic facility. ASTM E 1633 PARA 4.2.6 |
| 11001.01.36. | TEST SPECIMEN CONDITION | DXProcSpecConditionCode | A text statement of the state of the specimen following either harvesting from the patient or receipt in the testing facility. It may also include a statement of patient condition for a whole body test. |
| 11001.01.39. | TEST SPECIMEN TOTAL VOLUME | DXProcSpecTotVolQty | The total volume of specimen collected. ASTM E 1633 PARA 4.2.5 |
| 11001.01.42. | TEST SPECIMEN PREPARATIONS | DXProcSpecPrepText | A statement of the preparations required prior to the test or examination of the specimen. ASTM E 1633 PARA 4.2.6 |
| 11001.01.45. | **TEST DATE-TIME RESULT REPTD** | DXProcResultReportedDtm | Date-time that the results were reported from the performing facility. ASTM E 1633 PARA 4.2.4 |
| 11001.01.48. | TEST DATE OF REPORT DICTATION | DXProcReportDictationDtm | The date that the text of report was dictated for transcription. ASTM E 1633 PARA 4.2.4 |
| 11001.01.51. | **TEST REPORT TEXT** | DXProcReportText | The body of the report on tests producing a narrative. ASTM E 1633 PARA 4.2.6 |
| 11001.01.54. | DIAGNOSTIC REPORT DESTINATION | DXProcReportDestinCode | The location to which to send the reported results of testing or examination. ASTM E 1633 PARA 4.2.6 |
| 11001.01.57. | **NUMERIC MEASUR/ANALYTE NAME** | DXProcNmeasAnalCode | The name of the exact measured species or measurement made during the test or examination. ASTM E 1633 PARA 4.2.6 |
| 11001.01.57.01. | **NUMERIC MEASUR/ANALYTE VALUE** | DXProcNmeasAnalValQty | The numeric value of the measurement. ASTM E 1633 PARA 4.2.5 |
| 11001.01.57.02. | NUMERIC MEASUR/ANALYTE UNITS | DXProcNmeasAnalUnitCode | The unit of measure for the measurement. ASTM E 1633 PARA 4.2.6 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 11001.01.57.03. | **NUMERIC MEASUR/ANALYTE INTERP** | DXProcNmeasAnalInterpCode | A term of interpretation for the measurement. ASTM E 1633 PARA 4.2.6 |
| 11001.01.57.04. | NUMERIC MEASUR/ANAL ABN BASIS | DXProcNmeasAnalAbnBasCode | The population basis term for the interpretation. ASTM E 1633 PARA 4.2.6 |
| 11001.01.60. | **TEST REQ MICROBIOL ORGANISM** | DXProxMicroOrgCode | The name of the microbiological organism evaluated in the test. ASTM E 1633 PARA 4.2.6 |
| 11001.01.60.01. | **MICRO ORG ATTRIBUTE** | DXProcMicroOrgAttrCode | A list of attributes for a microbiological organism. ASTM E 1633 PARA 4.2.6 |
| 11001.01.60.02. | **MICRO BIOL ORG RESIST PATT** | DXProcMicroResistPattCode | A list of therapeutic agents for which the microbiologic organism is resistant. ASTM E 1633 PARA 4.2.6 |
| 11001.01.60.02.01. | ANTIMICROBIAL RESISTANCE PATTERN DRUG MIC | MicroResistPattDrugMIC | Minimal concentration inhibiting this cultured organism and antimicrobial. ASTM E 1633 PARA 4.2.5 |
| 11001.01.60.03. | **MICROBIOL ORG SPEC COMMENT** | DXProcMicroCommentText | A remark about the microbiologic organism tested. ASTM E 1633 PARA 4.2.6 |
| 11001.01.63. | **TEST COMMENTS** | DXProcCommentText | Textual remarks on the test or examination. ASTM E 1633 PARA 4.2.6 |
| 11001.01.66. | TEST PERFORMER/CYTOTEC HNOLOGIST | DXProcPerformerName | The name or identifier of the individual performing the test or examination. ASTM E 1633 PARA 4.2.1 |
| 11001.01.69. | TEST DIAGNOSTIS/CYTO DIAG & CODES | DXProcDiagCode | A list of diagnostic codes associated with this test or examination, either prior to or subsequent to the test. ASTM E 1633 PARA 4.2.6 |
| 12001. | **MEDICATION PRESC/ORD DATETIME** | MedcnOrdDtm | The date time the prescription or medication order was initiated. ASTM E 1633 PARA 4.2.4 |
| 12001.03. | MEDICATION/PRESCRIPTION ENCOUNTER ID | MedcnEncIdentCode | A unique identifier for the encounter originating a prescription or medication order. ASTM E 1633 PARA 4.2.6 |
| 12001.06. | **MEDICATION NAME** | MedcnNameText | Description of the current product. ASTM E 1633 PARA 4.2.6 |
| 12001.09. | MEDICATION CLINICAL ORDER NO. | MedcnClinOrderId | The unique identifier of the prescription or medication order from segment 10. ASTM E 1633 PARA 4.2.6 (4.2.5) |
| 12001.12. | MEDICATION PRESCRIPTION NO. | MedcnPrescripId | Unique number assigned to identify each prescription. ASTM E 1633 PARA 4.2.6 |
| 12001.15. | **MEDICATION PRESCRIBER** | MedcnPrescriberName | The identity of the person with prescribing authority who wrote the prescription/order. ASTM E 1633 PARA 4.2.1 |
| 12001.18. | MEDICATION PRESCRIBER LOCATION | MedcnPrescriberLocCode | The location of the prescriber when the prescription/medication order was written. ASTM E 1633 PARA 4.2.6 |
| 12001.21. | PROBLEM NUMBER | PHProbId | The problem identifier for this unique problem. Note: a systematic procedure for assigning these numbers across all practitioners has not been agreed upon. For the present, it should be considered a sequential integer number. ASTM E 1633 PARA 4.2.6 |
| 12001.24. | MEDICATION REASON FOR ADMIN | MedcnAdminReasonText | The statement of the reason for this prescription/medication order. ASTM E 1633 PARA 4.2.6 |

**E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 12001.27. | MEDICATION STATUS OF PRESC/ORD | MedcnPrescStatusCode | A status code of: Current, discontinued or PRN is used to focus on specific classes of orders. |
| 12001.30. | **MEDICATION DOSE** | MedcnDoseQty | The strength, dosage or concentration ASTM E 1633 PARA 4.2.5 |
| 12001.33. | MEDICATION DOSE UNIT | MedcnDoseUnitCode | The unit of measure of the dose. ASTM E 1633 PARA 4.2.6 |
| 12001.36. | **MEDICATION VEHICLE/FORM** | MedcnVehicleFormCode | The form of the medication, including the vehicle. ASTM E 1633 PARA 4.2.6 |
| 12001.39. | **MEDICATION ROUTE** | MedcnAdminRouteCode | A term identifying the route of administration. ASTM E 1633 PARA 4.2.6 |
| 12001.42. | **MEDICATION FREQ.** | MedcnAdminFreqCode | The number of doses to be administered per day or the interval between doses. ASTM E 1633 PARA 4.2.6 |
| 12001.45. | **MEDICATION INSTRUCTIONS** | MedcnInstructionText | Signature: prescription part that gives directions as to the taking of the medication. ASTM E 1633 PARA 4.2.6 |
| 12001.48. | MEDICATION TOT NO. DOSES/REFILL | MedcnDosePerRefillQty | The number of doses to be issued at each filling. ASTM E 1633 PARA 4.2.5 (1996) |
| 12001.51. | MEDICATION NO. OF REFILLS | MedcnTotRefillQty | The number of times the prescription is authorized to be refilled. ASTM E 1633 PARA 4.2.5 |
| 12001.54. | **MEDICATION DATE OF REFILL** | MedcnRefillDtm | The date of each refill of the prescription. ASTM E 1633 PARA 4.2.4 |
| 12001.54.01. | MEDICATION REFILL DISP FACIL | MedcnRefilDispFacilCode | The name of the facility dispensing a refill of a specific prescription. ASTM E 1633 PARA 4.2.6 |
| 12001.57. | MEDICATION START DATE-TIME | MedcnStartDtm | The date-time that an inpatient medication order is to be started. ASTM E 1633 PARA 4.2.4 |
| 12001.60. | MEDICATION STOP DATE-TIME | MedcnStopDtm | The date-time that an inpatient medication order is to be stopped. ASTM E 1633 PARA 4.2.4 |
| 12001.63. | **MEDICATION NOTES** | MedcnNoteText | The effects/results of medication administration, which include drug interactions, adverse effects, etc. or a change in the patient's clinical status and/or lab findings caused by drugs. ASTM E 1633 4.2.6 |
| 13001. | SCHEDULED VISIT DATE-TIME | SCHPTApptDtm | The date and time of the appointed visit/encounter. ASTM E 1633 PARA 4.2.4 |
| 13001.01. | SCHEDULED VISIT TREAT FACILITY | SCHPTApptTreatFacilText | The name of the facility where the appointed visit/encounter is to take place. ASTM E 1633 PARA 4.2.6 |
| 13001.02. | SCHEDULED VISIT EXPECTED DURATION | SCHPTApptExpDurQty | Numeric value for the length of time for this appointment. |
| 13001.03. | SCHEDULED VISIT CLINIC NAME | SCHPTApptClinicText | The name of the organizational unit within the facility where the visit/encounter will take place. ASTM E 1633 PARA 4.2.6 |
| 13001.04. | SCHEDULED VISIT PREVIOUS ENC DATE | SCHPTApptPrevEncDtm | The date that the patient last had an encounter with this practitioner. ASTM E 1633 PARA 4.2.4 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 130001.05. | SCHEDULED VISIT PRACTITIONER ID | SCHPTApptPractIDCode | The name or identifier of the practitioner who is to receive the patient. ASTM E 1633 PARA 4.2.6 |
| 13001.06. | SCHEDULED VISIT | SCHPTApptRequestorId | Identifier of the individual requesting this appointment. |
| 13001.07. | SCHEDULED VISIT PURPOSE | SCHPTApptPurposeText | The nature of the activities or focus of interest during the visit/encounter. ASTM E 1633 PARA 4.2.6 |
| 13001.09. | SCHEDULED VISIT REMARKS | CHPTApptRemarksText | The text describing additional factors surrounding the visit/encounter ASTM E 1633 PARA 4.2.6 |
| 13001.11. | SCHEDULED VISIT APPT STATUS | SCHPTApptStatus Code | Code representing the state of this appointment. |
| 13001.12. | SCHEDULED VISIT EXPECTED SERVICES | SCHPTApptExp ServId | Identifier of the services the patient expects to receive. |
| 13001.13. | SCHEDULED VISIT TYPE | SCHPTApptTypCode | Code for category of expected appointment. |
| 13001.14. | SCHEDULED VISIT UGENCY | SCHPTApptUrgencyQty | Numeric value for the magnitude of the urgency for this appointment. |
| 13001.15. | SCHEDULED VISIT CANCELLATION REASON | SCHPTApptReason Text | Statement of the reason given for this appointment. |
| 13001.16. | SCHEDULED VISIT CANCELLATION DATETIME | SCHPTAppDtm | Time and Date for this appontment. |
| 13001.17. | SCHEDULED VISITOVERBOOK STATUS | SCHPTApptStatusCode | Code denoting the stae of Overbooking for this appointment slot. |
| 13001.18. | SCHEDULED VISIT ENCOUNTER DISPOSITION | SCHPTApptDispCode | Code denoting the category of disposition for this Appointment. |
| 14001. | **DATE-TIME ENCOUNTER/ADMISSION** | HCFEncEncAdmDtm | The month, day, year and hour which patient began episode/encounter of care ASTM E 1633 PARA 4.2.4 |
| 14001.A001. | **TREATMENT FACILITY NAME** | HCFEncTreatFacilText | The name of the facility at which treatment is rendered. It is applicable in any setting. This element identifies the PROVIDER ORGANIZATION, such as a private practice name. ASTM E 1633 PARA 4.2.6 |
| 14001.A002. | **ENCOUNTER TYPE** | HCFEncEncounterTypeCode | Code representing the Category of the Encounter. ASTM E 1633 PARA 5.2.17 |
| 14001.A003. | ENCOUNTER ID | HCFEncEncounterIDCode | A unique identifier for each encounter. ASTM E 1633 PARA 4.2.6 |
| 14001.A0031. | **EPISODE ID** | HCEpiIDCode | An identifier code of the sequence of encounters relating to a single health problem. ASTM E 1633 PARA 4.2.6 |
| 14001.A004. | ENCOUNTER SECURITY PROTECTION | HCFEncConfidentialityCode | The level of protection of confidentiality assigned to a patient because of special conditions e.g. (celebrity, unwed mothers, staff, mental health patient, etc.) ASTM E 1633 PARA 5.2.1 |
| 14001.A010. | ENCOUNTER STATUS | HCFEncEncounterStatusCode | A term for the category denoting whether the encounter is complete, suspended, in progress or prematurely terminated. ASTM E 1633 PARA 4.2.6 |
| 14001.A013. | TREATMENT FACILITY TYPE | HCFEncFacilTypeCode | The category of facility where the encounter/episode occurred. ASTM E 1633 PARA 5.2.18 |

TABLE A1.1 *Continued*

| | | | |
|---|---|---|---|
| 14001.A016. | **ENCOUNTER REASON FOR VISIT** | HCFEncReasonVisitCode | The purpose for which the encounter was sought by the patient. ASTM E 1633 PARA 5.2.19 |
| 14001.A020. | ENCOUNTER PT ARRIVAL COND | HCFERecPtArrivCondCode | The severity condition of the patient on arrival for the encounter. ASTM E 1633 PARA 4.2.6 |
| 14001.A021. | MODE OF ARRIVAL | HCFEPiIDCode | The mode of arrival. It may include a variety of land, water and aircraft in addition to walk-in or other mode. ASTM E 1633 PARA 4.2.6 |
| 14001.A022. | ORIGIN FACILITY ID | IAdmOrigFacId | The identifier of the facility that transferred the patient to this facility. ASTM E 1633 PARA 4.2.6 |
| 14001.A023. | **CHIEF COMPLAINT** | HCVRecChiefComplaintText | The reason for the episode/encounter and patient's complaints and symptoms reflecting his/her own perceptions of his needs. The nature and duration of symptoms that caused the patient to seek medical attention, as stated in the patient's own words. ASTM E 1633 PARA 4.2.6 (1996) |
| 14001.A027. | DATE-TIME OF INJURY | ERAdmInjDtm | The date-time injury to the patient actually occurred and which relates to this encounter. ASTM E 1633 PARA 4.2.4 |
| 14001.A030. | ENCOUNTER NATURE OF INJURY | HCFERecNatInjCode | A list of terms describing the actual nature of injury. ASTM E 1633 PARA 4.2.6 |
| 14001.A033. | ENCOUNTER MODE OF INJURY | HCFERecModeInjCode | A list of terms describing the causes (etiology) of the injury sustained. ASTM E 1633 PARA 4.2.6 |
| 14001.A034. | PRODUCT OF INJURY | HCEncProdInjCode | Indentifier for the product causing the injury to the patient. ASTM E 1633 PARA 4.2.6 |
| 14001.A036. | ENCOUNTER LOC WHERE INJURED | HCFERecInjGeogrLocCode | The geographic local where the injury took place. ASTM E 1633 PARA 4.2.6 |
| 14001.A040. | INJURY ON THE JOB STATUS | HCFEncJobInjStatusCode | A code categorizing the injury on the job. ASTM E 1633 PARA 4.2.6 |
| 14001.A043. | INJURY CIRCUMSTANCES | HCFERecInjCircumText | A textual description of the events surrounding the injury. ASTM E 1633 PARA 4.2.6 |
| 14001.A044. | PROTECTIVE EQUIPMENT USED | HCFERecProtEqUsedCode | The name of the devices used for personal protection prior to injury, such as seat belts. ASTM E 1633 PARA 4.2.6 |
| 14001.A046. | INJURY SEV SCORE | ERAdmInjSevScoreQty | The score calculated as the sum of squares of the three highest Abbreviated Injury Scale (1-6) from the list of injuries; it cannot exceed 75. ASTM E 1633 PARA 4.2.5 |
| 14001.A050. | ENCOUNTER DATETIME OF PHYSICAL EXAM | HCFEncPhysExamDtm | The date time index of the physical examination from segment 9 associated with this encounter. ASTM E 1633 PARA 4.2.4 |
| 14001.A053. | PROBLEM NUMBER | PHProbId | The problem identifier for this unique problem. Note: a systematic procedure for assigning these numbers across all practitioners has not been agreed upon. For the present, it should be considered a sequential integer number. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

| | | | |
|---|---|---|---|
| 14001.A056. | CURRENT LIVING ARRANGEMENT | IAdmLivingArrText | The environment in which the patient lives at home. ASTM E 1633 PARA 4.2.6 |
| 14001.A060. | ENCOUNTER COMMENTS | HCFEncCommentText | Textual general remarks about this encounter. ASTM E 1633 PARA 4.2.6 (1996) |
| 14001.A063. | ADMISSION TYPE | HCFERecAdmissionTypeCode | The coded lexicon for the category of the admission. ASTM E 1633 PARA 5.2.12 |
| 14001.A066. | ADMISSION AUTHORITY | IAdmAuthorityCode | The coded authority for the admission. ASTM E 1633 PARA 4.2.6 |
| 14001.A070. | REFERRAL TYPE | IAdmReferralTypeCode | Referral source. ASTM E 1633 PARA 4.2.6 |
| 14001.A073. | REFER. PROVIDER | IAdmReferProvName | SEE PRACTITIONER NAME. ASTM E 1633 PARA 4.2.1 |
| 14001.A083. | PRIVATE PHYSICIAN NAME | IAdmPrivPractName | Practitioner(s) having the major responsibility of providing/coordinating the medical services to a patient. SEE PRACTITIONER NAME. ASTM E 1633 PARA 4.2.1 |
| 14001.A093. | PRIV. PHYSICIAN NOTIFIED | IAdmPrivPractNotifCode | A code used at emergency facilities to record whether the patient's private practitioner has been notified. ASTM E 1633 PARA 4.2.6 |
| 14001.A096. | ADMISSION HOSPITALIZATION TYPE CODE | IAdmHospTypeCode | Category of the Hospitalization component of the Admission. Code representing the category of the Hospital Admission. ASTM E 1633 PARA 4.2.6 |
| 14001.A100. | PATIENT BOARD FROM | IAdmPatBdCode | ASTM E 1633 PARA 4.2.6 |
| 14001.A103. | ADMISSION HOSP REGISTER NO. | IAdmHospitalRegisterText | The number that MAY be assigned for each new admission of a patient. It is not required and is not used in many facilities. ASTM E 1633 PARA 4.2.6 |
| 14001.A106. | AGE | HCFEncPtAgeQty | The patient's age in years at the start of the encounter or episode. ASTM E 1633 PARA 4.2.5 |
| 14001.A110. | ADMITTING SERVICE | IAdmAdmittingServiceCode | The clinical service within the resident treatment facility which accepts responsibility for the care of the patient during the stay. ASTM E 1633 PARA 5.2.15 |
| 14001.A113. | ORIGIN SVC | IAdmOriginServiceCode | The clinical service that either originated the request for admission or which referred the patient to the service which admitted him. This element is not applicable when referred by a practitioner not a member of an institutional clinical service. ASTM E 1633 PARA 5.2.15 |
| 14001.A116. | ADMISSION CONSULT SERVICE | IActAdmConsultSvcCode | The clinical service is one which is requested by the admitting service to provide advice regarding an aspect of the patient's health condition and who is being considered for admission to the facility. ASTM E 1633 PARA 5.2.15 |
| 14001.A116.01. | CONSULT DATE | IActConsultDtm | The date on which the requested consultation was made. ASTM E 1633 PARA 4.2.4 |
| 14001.A116.02. | CONSULT TEXT | IActConsultText | The text of the recommendations made by the consulting practitioner. ASTM E 1633 PARA 4.2.6 (1996) |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.A116.03. | CONSULTING PRACTITIONER NAME | IActConsultPractName | The name of the practitioner called in for advice and counsel. ASTM E 1633 PARA 4.2.1 |
| 14001.A120. | ENC/ATTEND. PRACTITIONER NAME | IAdmAttendingPractName | An individual at any level of professional specialization who requires a public license/certification to practice the delivery of care to patients. A practitioner can also be a provider. The attending practitioner is that individual who is an established member of the admitting clinical service who accepts the responsibility for the care of the patient while assigned to that services's responsibility. ASTM E 1633 PARA 4.2.1 |
| 14001.A123. | E-R/ADMITTING PHYSICIAN | ERAdmAdmPhysName | The practitioner authorizing the episode of care for the patient. ASTM E 1633 PARA 4.2.1 |
| 14001.A126. | PATIENT CURRENT LOCATION | IActPtCurrentLocText | The location in terms of a care unit and physical location within that unit that the patient's residence is located. This may be the room and bed or a ward. ASTM E 1633 PARA 4.2.6 |
| 14001.A130. | ADMITTING ROOM & BED | IAdmAdmitRoomBedText | The room and bed which is originally assigned and which may be different from the current location. The chronology of locations where the patient resided during this stay can be found in the intrafacility transfer date multiple data element. ASTM E 1633 PARA 4.2.6 (1996) |
| 14001.A133. | ADMISSION TYPE OF ACCOMMOD | IAdmAccommodationTypeCode | The type of the accommodation assigned to the patient when first admitted to the facility. This may change and the change can be found associated with the intrafacility transfer date list. ASTM E 1633 PARA 5.2.15 |
| 14001.A136. | PRIMARY NURSING/THERAPY UNIT | IAdmPriNursinUnitText | The organizational title for the functional unit. ASTM E 1633 PARA 4.2.6 |
| 14001.A140. | ADMITTING FLOOR | IAdmFloorText | The floor of the nursing unit to which the patient is admitted. ASTM E 1633 PARA 4.2.6 |
| 14001.A143. | WARNINGS | IAdmWarningCode | A list of conditions that may be hazardous either to the patient or to the care staff that attend the patient upon admission to resident status. ASTM E 1633 PARA 4.2.6 |
| 14001.A146. | ADMISSION RECORDS RECD | IAdmRecordsRecdCode | A code reflecting the nature of the records received during admitting that are from another site. ASTM E 1633 PARA 4.2.6 |
| 14001.A150. | PERSONAL VALUABLES LEFT | IAdmValuableListText | A list containing names of the actual items left in custody of the facility. ASTM E 1633 PARA 4.2.6 (1996) |
| 14001.A151. | LOCATION OF PERSONAL VALUABLES | IadmPersVal LocCode | Institutional site where personal valuables are stored. ASTM E 1633 PARA 4.2.6 |
| 14001.A153. | IMPAIRMENT GROUP | IActImpairmentGroupCode | The impairment group from the FIM document. ASTM E 1633 PARA 4.2.6 |
| 14001.A154. | ADMITTING RANCHO SCORE | IAdmRANCHOScoreQty | A severity score calculated _____ at admission to resident status. ASTM E 1633 PARA 4.2.5 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.A154. | PATIENT RECEIPT HEALTH STATUS MEASURE NAME | IAdmHlthStatTMeasText | Title of the Total Health Status Measure and Instrument. ASTM E 1633 PARA 4.2.6 |
| 14001.A156. | PATIENT RECEIPT HEALTH STATUS MEASURE TOTAL VALUE | IAdmHlthStatTMeasQty | Numeric Value of the Health Status Measure Total magnitude. ASTM E 1633 PARA 4.2.5 |
| 14001.A160. | PATIENT RECEIPT HEALTH STATUS MEASURE ELEMENT NAME | IAdmHlthStatMeasElCode | Code representing the identity of the Health Status Measure Element. ASTM E 1633 PARA 4.2.6 |
| 14001.A160.01. | PATIENT RECEIPT HEALTH STATUS MEASURE ELEMENT VALUE | IAdm | The value for the individual FIM element. ASTM E 1633 PARA 4.2.5 |
| 14001.A163. | ADMISSION INTRA-FAC XFR DATE | ITrnsTransferDtm | The date upon which an intrafacility transfer took place. ASTM E 1633 PARA 4.2.4 |
| 14001.A163.01. | ADMISSION INTRA-FAC XFR TYPE | ITrnsTransferTypeCode | A code that classifies the transfer into a discrete number of classes. ASTM E 1633 PARA 5.2.13 |
| 14001.A163.02. | ADMISSION INTRA-FAC NURS UNIT | ITrnsNursingUnitId | The name of the nursing unit to which the patient is transferred. ASTM E 1633 PARA 4.2.6 |
| 14001.A163.06. | ADMISSION INTRA-FAC CLIN SVC | ITrnsTransfServiceCode | The name of the clinical service assigned to the receiving unit in an intrafacility transfer. ASTM E 1633 PARA 5.2.15. |
| 14001.A163.10. | ADMISSION INTRA-FAC RM/BED | ITrnsTransfRoomBedName | The actual location of the functional nursing unit into which the patient is transferred. ASTM E 1633 PARA 4.2.6 |
| 14001.A163.13. | ADMISSION INTRA-FAC DIAGNOSIS | ITrnsTransfDiagnosisCode | The diagnosis that characterizes the patient at the time the transfer is made. ASTM E 1633 PARA 4.2.6 |
| 14001.A163.16. | ADMISSION INTRA-FAC PROVIDER | ITrnsTransfPractName | The name of the practitioner who actually orders the transfer. ASTM E 1633 PARA 4.2.1 |
| 14001.A170. | **PATIENT DIAGNOSIS** | IAdmDiagnosisCode | A name or surrogate code for a diagnosis term in the list of diagnoses for this stay. ASTM E 1633 PARA 4.2.6 |
| 14001.A170.01. | DIAGNOSIS TYPE | IAdmDiagnosisTypeCode | This element is a modifier for each term/code used to list the diagnoses for a patient, either concurrent with care or in discharge summary. Each diagnosis will have a single type that is its most important in any single list. ASTM E 1633 PARA 4.2.6 |
| 14001.A170.02. | DIAGNOSIS STATUS | IAdmDiagnosisStatusCode | Major/minor-significant conditions vs. insignificant. R/O-diagnostic possibility to be considered. Inactive-not important at the present time, but could have implication for future care. Status post-condition no longer clinically relevant but historically important. ASTM E 1633 PARA 4.2.6 |
| 14001.A170.03. | DIAGNOSIS NARRATIVE | IAdmDiagnosisNarrText | The diagnosis narrative in plain text. ASTM E 1633 PARA 4.2.6 (1996) |
| 14001.A173. | INDICATED SURGERY | IAdmIndSurgText | Description of anticipated surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.A186. | CURRENT PT STATUS DT | IActCurrPtStatusDtm | This date-time is that at which the status-code was assigned. ASTM E 1633 PARA 4.2.4 |

78

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.A186.01. | CURRENT PT STATUS | IActCurrPtStatusCode | This code classifies the patient's clinical status with respect to severity of illness. ASTM E 1633 PARA 4.2.6 |
| 14001.A186.02. | CURRENT PROGNOSIS | IActCurrProgCode | The expected status or outcome of the resident stay at the time noted. ASTM E 1633 PARA 4.2.6 |
| 14001.A195. | ADMISSION CUSTOD PERS EFF | IAdmCustPersEffName | The name of the person holding the patient's personal effects or valuables during the current stay. ASTM E 1633 PARA 4.2.6 |
| 14001.A200. | NOTIFIED BY WHOM | IActNOKNotifiedbyName | The name of the facility staff members who notify the family or next-of-kin regarding the patient's death or major worsening of the patient's condition. ASTM E 1633 PARA 4.2.1 |
| 14001.A203. | DATETIME NOTIFIED FAMILY/NOK | IActNOKNotifiedDtm | The time that the notifying person contacted the patient's family regarding the patient's death or major worsening of condition. ASTM E 1633 PARA 4.2.4 |
| 14001.A206. | POLICE HOLD | IAdmPoliceHoldStatusCode | The code classifying the patient with respect to police holding status. ASTM E 1633 PARA 4.2.6 |
| 14001.A210. | DATE-TIME NOTIFIED POLICE | IAdmPoliceHoldNotifDtm | The date-time that the police were notified regarding the need to hold the patient. ASTM E 1633 PARA 4.2.4 |
| 14001.A213. | NOTIFIED MED. EXAMINER | IActMedexaminerNotifDtm | The class of the patient regarding notification of the medical examiner about the patient's death. Y/N ASTM E 1633 PARA 4.2.4 |
| 14001.A216. | DATETIME CHAPLAIN NOTIFIED | IActChaplainNotifDtm | The time that the pastoral staff was notified of the severity or terminal status of a patient. ASTM E 1633 PARA 4.2.4 |
| 14001.A220. | MINISTRATIONS ADMINISTERED | IActMinistrationsText | The text describing the nature of the pastoral care rendered. ASTM E 1633 PARA 4.2.6 |
| 14001.A223. | ADMISS/ENC SOURCE OF PAYMENT | IAdmExpectPaySourceCode | The code identifying the class of payment mechanism by which the services rendered will be paid. ASTM E 1633 PARA 4.2.6 |
| 14001.A223.01. | PAYMENT TYPE | IAdmExpectPayTypeCode | A category of payment list. ASTM E 1633 PARA 4.2.6 |
| 14001.A223.02. | PAYMENT CARRIER | IAdmExpectPayCarrierId | The name of the insurance carrier providing the named category of payment. ASTM E 1633 PARA 4.2.6 |
| 14001.A223.03. | PAYMENT MECHANISM | IAdmExpectPayMechCode | The means (funds transfer, check, cash, etc.) by which the payment will be made. ASTM E 1633 PARA 4.2.6 |
| 14001.B0001. | PRE-HOSP DATETIME CALL RECEIVED | PREHospCallReceivedDtm | The date time the call was received at the dispatch center. ASTM E 1633 PARA 4.2.4 |
| 14001.B0002. | PRE-HOSP DATETIME RUN DISPATCHED | PREHospRunDispatchDtm | The date time the provider was notified of the need to respond. ASTM E 1633 PARA 4.2.4 |
| 14001.B0003. | PRE-HOSP DATETIME RUN ARRIVED AT SCENE | PREHospSceneArrivalDtm | The date time the provider's vehicle arrived at the scene. ASTM E 1633 PARA 4.2.4 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.B00031. | PRE-HOSP ORDER AGENCY ARRIVED | PREHospOrderAgencyArrQty | The sequence order that the responding agency arrived at the scene to administer pre-hospital care. ASTM E 1633 PARA 4.2.5 |
| 14001.B0004. | PRE-HOSP DATETIME PATIENT LEFT THE SCENE | PREHospPtLeftSceneDtm | The date time that the provider's vehicle departed from the scene. ASTM E 1633 PARA 4.2.4 |
| 14001.B0005. | PRE-HOSP DATETIME PATIENTARRIVED AT TREATMENT FACILITY | PREHospArrivTreatFacilDtm | The date time that the provider's vehicle arrived at the first health care facility destination. ASTM E 1633 PARA 4.2.4 |
| 14001.B0006. | PRE-HOSP DATTIME UNIT RETURNED TO SERVICE | PREHospReturntoServiceDtm | The date time that the providers vehicle was ready to respond to a subsequent call. ASTM E 1633 PARA 4.2.4 |
| 14001.B00061. | DATE-TIME TRAUMA SURGEON ARRIVED | ERAdmTraumaSurgArrDtm | The clock time that the trauma surgeon arrived in the Emergency Dept. in response to this case. ASTM E 1633 PARA 4.2.4 |
| 14001.B00062. | DATE-TIME NEUROSURGEON ARRIVED | ERAdmNeuroSurgArrDtm | The time that the Neurosurgeon arrived in the Emergency Dept. in response to this case. ASTM E 1633 PARA 4.2.4 |
| 14001.B001. | PRE-HOSPITAL EQUIPMENT/PROCEDURES | PREHospEquipProcedCode | The name of a treatment or procedure given to the patient during the pre-hospital care. ASTM E 1633 PARA 4.2.6 |
| 14001.B001.01. | PRE-HOSPITAL PROCEDURE DATE-TIME | PREHospProcedureDtm | The date time that the treatment or procedure was conducted. ASTM E 1633 PARA 4.2.4 |
| 14001.B003. | PRE-HOSP. CARE NARRATIVE | PREHospCareNarrativeText | The description of First Aid and other pre-arrival care delivered. ASTM E 1633 PARA 4.2.2 (1996) |
| 14001.B004. | SEVERITY AT DISPATCH | PREHospDispSeverityQty | The ordinal category of severity at the time of dispatch. ASTM E 1633 PARA 4.2.5 |
| 14001.B005. | SEVERITY AT ARRIVAL ON SCENE | PREHospSceneSeverityQty | The ordinal category of severity at the time of arrival on scene. ASTM E 1633 PARA 4.2.5 |
| 14001.B0051. | INCIDENT RUN NUMBER | PREHospIncidentRunId | A uniqe (preferable pre-numbered) alphanumeric sequence for each provider organization in a state to be assigned to each vehicle dispatch for each patient regardless of whether a patient was transported. ASTM E 1633 PARA 4.2.6 |
| 14001.B006. | PRE-HOSPITAL AGENCY ID | PREHospAgencyId | A unique alphanumeric sequence assigned for identification by each state to first responder organizations. ASTM E 1633 PARA 4.2.6 |
| 14001.B0065. | PRE-HOSP VEHICLE ID | PREHospVehicleId | The identification of the vehicle responding to the pre-hosp run. ASTM E 1633 PARA 4.2.6 |
| 14001.B007. | PRE-HOSP DISPATCH NO. | PREHospDispatchId | A unique pre-numbered alphanumeric sequence for each request for service made to the dispatch center. ASTM E 1633 PARA 4.2.6 |
| 14001.B0071. | TRAUMA NUMBER | PREHospTraumaId | An identifier for each Trauma incident in a region used for record linking. ASTM E 1633 PARA 4.2.6 |
| 14001.B010. | PRE-HOSP SCENE DESCRIPTION | PREHospSceneDescriptText | A categorical term and code describing the scene in which the patient was first encountered. ASTM E 1633 PARA 4.2.6 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.B011. | PRE-HOSP CREW ID | PREHospCrewId | The state license number of the crew member which should be a unique alphanumeric sequence. ASTM E 1633 PARA 4.2.6 |
| 14001.B011.01. | PRE-HOSP CREW MEMBER SKILL LEVEL | PREHospCrewSkillCode | A categorical term describing the highest level of certification. ASTM E 1633 PARA 4.2.6 |
| 14001.B011.02. | PRE-HOSP CREW PROCEDURE PERFORMED | PREHospCrewProcedureId | The identifier of a procedure conducted or missed during pre-hospital care. |
| 14001.B012. | PRE-HOSPITAL OBSERVATION | PREHospObservationCode | The name of an observation made during pre-hospital care. ASTM E 1633 PARA 4.2.6 |
| 14001.B012.01. | PRE-HOSP OBSERVATION VALUE | PREHospObservationQty | The numeric value of the observation made during pre-hospital care. ASTM E 1633 PARA 4.2.5 |
| 14001.B012.02. | PRE-HOSP OBSERVATION DATETIME | PREHospObsDtm | The time point at which an observation was made during pre-hospital care. ASTM E 1633 PARA 4.2.4 |
| 14001.B015. | TIME OF TRIAGE | ERAdmTriageDtm | The time that the emergency department assigned priority to the patient for determining the nature and sequence of care. ASTM E 1633 PARA 4.2.4 |
| 14001.B016. | CONDITION AT TRIAGE | ERAdmTRiageCondCode | A statement of the patient's physiologic state at the time triage was conducted. ASTM E 1633 PARA 4.2.6 |
| 14001.B030. | BURNS-LOCATION | ERAdmBurnLocCode | The anatomic names of the ares of the body which are burned. ASTM E 1633 PARA 4.2.6 |
| 14001.B030.01. | BURNS-PCT BODY | ERAdmBurnPctqty | The percent of the total body area that the burned area covers. ASTM E 1633 PARA 4.2.5 |
| 14001.B030.02. | BURNS-DEGREE | ERAdmBurnDegreeCode | The severity of the area burned. ASTM E 1633 PARA 4.2.6 |
| 14001.B033. | FRACTURES-LOCATION | ERAdmFractLocCode | The names of the bones which are fractured. ASTM E 1633 PARA 4.2.6 |
| 14001.B033.01. | FRACTURES-TREATMENT | ERAdmFractTreatCode | The pre-hospital treatment of a fracture. ASTM E 1633 PARA 4.2.6 |
| 14001.B036. | TOURNIQUET-DATETIME | ERAdmTournDtm | The date and time that each tourniquet is established. ASTM E 1633 PARA 4.2.4 |
| 14001.B036.01. | TOURNIQUET LOC | ERAdmTournLocCode | The name of the location for each tourniquet established. ASTM E 1633 PARA 4.2.6 |
| 14001.B039. | ER PROCEDURES | ERAdmERProcCode | The names of the diagnostic or therapeutic procedures conducted in the emergency department. ASTM E 1633 PARA 4.2.6 |
| 14001.B042. | TUBE TYPE | ERAdmTubeTypeCode | The name of the device used to ensure a patient airway. ASTM E 1633 PARA 4.2.6 |
| 14001.B045. | OXYGEN TIME STARTED | ERAdmOxyStartDtm | The time that oxygen therapy was commenced. ASTM E 1633 PARA 4.2.4 |
| 14001.B048. | OXYGEN PERCENT | ERAdmOxyPctQty | The percent of oxygen in the administered breathing gasses. ASTM E 1633 PARA 4.2.5 |
| 14001.B051. | XRAY LOCATION | ERAdmXrayLocCode | The body location for which a radiograph is taken. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

TABLE A1.1 *Continued*

| | | | |
|---|---|---|---|
| 14001.B051.01. | XRAY VIEW | ERAdmXrayViewId | The view of the radiographed location. ASTM E 1633 PARA 4.2.6 |
| 14001.B054. | PRE-HOSPITAL BLOOD RUN NO. | ERAdmPreHospBldRunId | The number of the specimen taken at the scene destined for the blood bank and tested to speed the availability of blood units at the receiving facility. ASTM E 1633 PARA 4.2.6 |
| 14001.B057. | BLOOD PRODUCT ID | ERAdmBldProdId | The identifying number on each unit. ASTM E 1633 PARA 4.2.6 |
| 14001.B057.01. | BLOOD DONOR ID | ERAdmBldDonorId | The identifier of the donor of the blood product unit. ASTM E 1633 PARA 4.2.6 |
| 14001.B057.02. | BLOOD PRODUCT TYPE | ERAdmBldProdTypeCode | This is the product type (e.g. whole blood, packed red cells, fresh frozen plasma, etc.). ASTM E 1633 PARA 4.2.6 |
| 14001.B057.03. | BLOOD PRODUCT TIME STARTED | ERAdmBldProdStartDtm | The time when administration was started. ASTM E 1633 PARA 4.2.4 |
| 14001.B057.04. | BLOOD PRODUCT TIME FINISHED | ERAdmBldProdEndDtm | The time when administration was finished. ASTM E 1633 PARA 4.2.4 |
| 14001.B057.05. | BLOOD PRODUCT BLOOD TYPE | ERAdmBldProdBldTypeCode | Code for Bld Type of product. ASTM E 1633 PARA 4.2.6 |
| 14001.B057.06. | BLOOD PRODUCT CROSSMATCH | ERAdmBldProdCrosmatchText | This is the crossmatch data string. ASTM E 1633 PARA 4.2.6 |
| 14001.B057.07. | BLOOD VOLUME TRANSFUSED | ERAdmBldVolTranf.Qty | Amount of each unit transfused in milliliters. ASTM E 1633 PARA 4.2.5 |
| 14001.B057.08. | BLOOD PRODUCT CUMULATIVE VOLUME | ERAdmBldCumVolQty | The total volume of blood or blood products administered. ASTM E 1633 PARA 4.2.5 |
| 14001.B057.09. | BLOOD PRODUCT COMMENTS | ERAdmBldProdCommentText | The textual remarks about blood product administration. ASTM E 1633 PARA 4.2.6 |
| 14001.B060. | ADMITTING DIET ORDER | IAdmDietOrderId | Identifier of the Clinical order for the admitted patient's diet. ASTM E 1633 PARA 4.2.6 |
| 14001.B063. | IV FLUID TYPE & ADDITIVES | IVFluidAddTypeCode | Name of the fluid and its additives. ASTM E 1633 PARA 4.2.6 |
| 14001 B063.1. | DATE-TIME IV HUNG | IVFluidStartDtm | Time the IV Fluid container was started. ASTM E 1633 PARA 4.2.4 |
| 14001.B063.2. | IV LINE NEW START DATE-TIME | IVFluidLineStartDtm | Time a new IV line was installed. ASTM E 1633 PARA 4.2.4 |
| 14001.B063.3. | IV SITE | IVFluidLineSiteCode | Site of the Intravenous line. ASTM E 1633 PARA 4.2.6 |
| 14001.B063.4. | IV LINE NEW START:GAUGE&LNGTH | IVFluidLineDescText | Size and length of the line when started. ASTM E 1633 PARA 4.2.6 |
| 14001.B063.5. | IV FLUID INFUSION DATETIME | IVFluidInfusStartDtm | Time when the infusion commenced. ASTM E 1633 PARA 4.2.4 |
| 14001.B063.5.01. | IV FLUID VOLUME INFUSED | IVFluidVolQty | Volume of fluid infused during this period. ASTM E 1633 PARA 4.2.5 |
| 14001.B063.5.02. | IV FLUID BOTTLE ID | IVFluidContId | Identifier of the fluid container. ASTM E 1633 PARA 4.2.6 |
| 14001.B063.6. | IV FLUID RATE | IVFluidInfRateQty | Rate of fluid infusion. ASTM E 1633 PARA 4.2.5 |
| 14001.B063.7. | IV FLUID CUMULATIVE VOLUME INFUSED | IVFluidCumVolQty | Aggregate volume of fluid infused for this session. ASTM E 1633 PARA 4.2.5 |

**⟨ASTM⟩ E 1384**

**TABLE A1.1**  *Continued*

| 14001.B063.9. | IV CARE | IVFluidSiteCareText | Description of care at the body infusion site. ASTM E 1633 PARA 4.2.6 |
|---|---|---|---|
| 14001.B069. | FLUID INTAKE IV SOURCE | FluidIntSourceCode | Name of source of fluid intake. ASTM E 1633 PARA 4.2.6 |
| 14001.B069.01. | FLUID INTAKE VOL-TOTAL | Fluid IntTotQty | Volume of the total intake from the named source. ASTM E 1633 PARA 4.2.5 |
| 14001.B069.02. | FLUID INTAKE DATE-TIME | FluidIntDtm | Time of fluid movement from the named source. ASTM E 1633 PARA 4.2.4 |
| 14001.B069.02.01. | FLUID IN/OUT | FluidIntDirectionCode | Direction of fluid movement. ASTM E 1633 PARA 4.2.6 |
| 14001.B069.02.02. | FLUID VOLUME | Fluid IntQty | Volume of fluid moving this period. ASTM E 1633 PARA 4.2.5 |
| 14001.B070. | VITAL SIGNS TIMES | VitSignDtm | Time of measurement of vital signs. ASTM E 1633 PARA 4.2.4 |
| 14001.B070.01. | VITAL SIGNS TRACKING VARIABLE | VitSignCode | Name of variable used for tracking physiologic state. ASTM E 1633 PARA 4.2.6 |
| 14001.B070.01.01. | VITAL SIGNS TRACK VAR VALUE | VitSignQty | Value of the measuring variable. ASTM E 1633 PARA 4.2.5 |
| 14001.B070.01.02. | VITAL SIGNS TRACK VAR UNIT | VitSignUnitCode | Name of the unit of measure. ASTM E 1633 PARA 4.2.6 |
| 14001.B072. | MEDICATION ID | MedcnId | Identifier of the medication administered. ASTM E 1633 PARA 4.2.6 |
| 14001.B072.01. | ADMISSION MEDICATION DATETIME ADMINISTERED | MedcnDtm | Time the medication was administered. ASTM E 1633 PARA 4.2.4 |
| 14001.B072.01.01. | ADMISSION MEDICATION PERSON ADMINISTERING | MedcnAdminIndivId | Name of the person administering the medication. ASTM E 1633 PARA 4.2.6 |
| 14001.B072.01.02. | ADMISSION MEDICATION CLINICAL ORDER ID | MedcnClinOrdId | Identifier of the clinical order for the medication. ASTM E 1633 PARA 4.2.6 |
| 14001.B072.01.03. | ADMISSION MEDICATION DATETIME OF NEXT DOSE | MedcnNextAdminDtm | Tie of next expected administration of this medication during this admission. ASTM E 1633 PARA 4.2.4 |
| 14001.B072.01.04. | ADMISSION MEDICATION ADMINISTRATION COMMENT | MednCommText | Comment about this dose administration. ASTM E 1633 PARA 4.2.6 |
| 14001.B072.02. | ADMISSION MEDICATION NO. DOSES ADMINISTERED | MedcnTotDoseQty | Total count of doses administered during this admission. ASTM E 1633 PARA 4.2.5 |
| 14001.B075. | ADMISSION DIAGNOSTIC TEST ID | DiagTestId | Identifier of a diagnostic test for this admission. ASTM E 1633 PARA 4.2.6 |
| 14001.B075.01. | ADMISSION DIAGNOSTIC TEST DATETIME | DiagTestDtm | Time of the test or drawing of the specimen for the test attending this admission. ASTM E 1633 PARA 4.2.4 |
| 14001.B075.01.01 | ADMISSION DIAGNOSTIC TEST SPECIMEN ID | DiagTestSpecId | Identifier of the specimen for this diagnostic test. ASTM E 1633 PARA 4.2.6 |
| 14001.B078. | INTENSIVE CARE SUMMARY DATETIME | IntensCareSummDtm | Narrative intensive care summary date-time for this admission. ASTM E 1633 PARA 4.2.4 |
| 14001.B078.01. | INTENSIVE CARE SUMMARY TEXT | IntensCareSummText | Narrative text of intensive care summary. ASTM E 1633 PARA 4.2.6 |
| 14001.B078.02. | INTENSIVE CARE SUMMARY PRACTITIONER ID | IntensCareSumPractNam | Name of the practitioner preparing the intensive care summary. ASTM E 1633 PARA 4.2.1 |

ASTM **E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.B081. | ADMISSION CLINICAL ORDER ID | IAdmClinOrdId | Identifier of the clinical for admission to the facility. ASTM E 1633 PARA 4.2.6 |
| 14001.B084. | ADMISSION PROBLEM ID | Id | Identifier of the problem(s) causing admission to the facility. ASTM E 1633 PARA 4.2.6 |
| 14001.C001. | PRIMARY NURSE THERAPIST | PrimNursTherapId | Identifier of the primary nurse therapist for the admission. ASTM E 1633 PARA 4.2.6 |
| 14001.C003. | NURSING DIAGNOSIS/PAT. PROB. | NursDiagId | Identifier of nursing diagnosis/problem. ASTM E 1633 PARA 4.2.6 |
| 14001.C006. | LONG TERM CARE GOALS | LongTerGoalText | Statement of long term patient care goals. ASTM E 1633 PARA 4.2.6 |
| 14001.C009. | NURSING SHORT TERM GOAL | NursShortTermGoalText | Statement of short term nursing care goals. ASTM E 1633 PARA 4.2.6 |
| 14001.C012. | NURS. SHORT TERM GOAL DEADLINE | NursShorTermGDeadDtm | Datetime of deadline for achieving short term nursing care goals. ASTM E 1633 PARA 4.2.4 |
| 14001.C015. | NURSING REQUIREMENT CATEGORY | NursReqCatCode | Identifer of the nursing requirement category. ASTM E 1633 PARA 4.2.6 |
| 14001.C018. | PATIENT PROFILE ATTRIBUTE | PatProfilAttrCode | Name of attribute of patient profile. ASTM E 1633 PARA 4.2.6 |
| 14001.C018.01. | PATIENT PROFILE ATTRIBUTE VALUE | PatProfilAtrtrValQty | Values of the attribute from patient profile. ASTM E 1633 PARA 4.2.5 |
| 14001.C021. | COMMUNITY SVCS USED | CommunSvcUsedText | Description of community services used in care plan. ASTM E 1633 PARA 4.2.6 |
| 14001.C024. | NURSING APPROACH/ACT. PLAN | NursActPlanText | Text of nursing approach and action plan statement. ASTM E 1633 PARA 4.2.6 |
| 14001.C027. | CLINICAL COURSE MEASUREMENT | ClinCourseMeasurCode | Name of clinical course measurement variable. ASTM E 1633 PARA 4.2.6 |
| 14001.C027.01. | CLINICAL COURSE MEASUREMENT VALUE | ClinCourseMeasValQty | Value of clinical course measurement variable. ASTM E 1633 PARA 4.2.5 |
| 14001.C027.02. | CLINICAL COURSE MEASUREMENT VALUE UNIT | ClinCourseMeasurUnitCode | Identifier of unit of measure for clinical course measurement variable. ASTM E 1633 PARA 4.2.6 |
| 14001.C055. | DIET CHANGE DATE-TIME | DietChgDtm | Time of diet change assignment. ASTM E 1633 PARA 4.2.4 |
| 14001.C055.01 | DIET CHANGE DIET TYPE | DietChgTypeCode | Name of new diet assignment. ASTM E 1633 PARA 4.2.6 |
| 14001.C058. | ADMISSION HYGIENE STATUS | IAdmHygiene StatusCode | Category of admission hygiene. ASTM E 1633 PARA 4.2.6 |
| 14001.C060. | ADMISSION VITAL SIGN FREQUENCY | Iadm VitSiagn FreqCode | Category of admission vital sign frequency. ASTM E 1633 PARA 4.2.6 |
| 14001.C062. | ADMISSION ALLERGIES | IAdmAllergiesText | Statement of allergies on admission. ASTM E 1633 PARA 4.2.6 |
| 14001.C065. | ADMISSION DISCHARGE OBJECTIVE ID | IAdmDischObjId | Identifier of discharge objective for this admission. ASTM E 1633 PARA 4.2.6 |
| 14001.C065.01. | ADMISSION DISCHARGE OBJECTIVE TEXT | IAdmDiscgObjText | Name of discharge objective for this admission. ASTM E 1633 PARA 4.2.6 |
| 14001.C065.03. | ADMISSION FUNCTIONAL GOAL | IAdmFunctGoalText | Identifier of admission functional goal. ASTM E 1633 PARA 4.2.6 |
| 14001.C065.06. | ADMISSION OBJECTIVE TARGET DATETIME | IAdmObjTargetDtm | Datetime of achievement of discharge objective. ASTM E 1633 PARA 4.2.4 |

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.C065.09. | ADMISSION DISCHG OBJECTIVE ACTION | IAdmDischObjActCode | Action to be taken to achieve discharge objective. ASTM E 1633 PARA 4.2.6 |
| 14001.C068. | ANTIC. DIPSOSITION | IAdmAnticDispCode | Category of disposition expected. ASTM E 1633 PARA 4.2.6 |
| 14001.C070. | ADMISSION ESTIMATED DISCHARGE DATETIME | IadmEstDischDtm | Estimated datetime of disposition for this admission. ASTM E 1633 PARA 4.2.4 |
| 14001.C073. | DISCHARGE/AFTERCARE PLAN/PROBS | IAdmDischAftercarePlanCode | To provide reasonable assurance of continued care, developed with patient and family participation. ASTM E 1633 PARA 4.2.6 |
| 14001.C075. | ADMISSION NURSING PROBLEM NUMBER | IADMNursProbId | ASTM E 1633 PARA 4.2.6 |
| 14001.C078. | ADMISSION ROS BODY SYSTEM ID | IAdmROSSysCode | Identifier of body system. ASTM E 1633 PARA 5.2.22 |
| 14001.C078.01. | ADMISSION ROS BODY SYSTEM REVIEW TEXT | IAdm ROSStatusText | Statement of status of admission ROS body system. ASTM E 1633 PARA 4.2.6 |
| 14001.C080. | ADMISSION SCHEDULED TEST/CONSULT/SURGERY DATETIME | IAdmSchedEventDtm | Time test/consult/surgery scheduled at admission. ASTM E 1633 PARA 4.2.4 |
| 14001.C080.01. | ADMISSION TEST/CONSULT/SURGERY TYPE | IAdmEventCatCode | Category of test/consult/surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.C080.02. | ADMISSION TEST/CONSULT/SURGERY LOC CONDUCTED | IAdmEventLocCode | Location identifier where test/consult/surgery was conducted. ASTM E 1633 PARA 4.2.6 |
| 14001.C080.03. | ADMISSION TEST/CONSULT/SURGERY DATETIME ORDERED | IAdmEventOrderDtm | Datetime test/consult/surgery was ordered. ASTM E 1633 PARA 4.2.4 |
| 14001.C080.04 | ADMISSION TEST/CONSULT/SURGERY DATETIME COMPLETED | IAdmEventComplDtm | Datetime test/consult/surgery was completed. ASTM E 1633 PARA 4.2.4 |
| 14001.C085. | ADMISSION TREATMENT | IAdmTreatId | Identifier of treatment given in this admission. ASTM E 1633 PARA 4.2.6 |
| 14001.C085.01. | ADMISSION TREATMENT DATE ORDERED | IAdmTreatOrdDtm | The time that a treatment was ordered. ASTM E 1633 PARA 4.2.4 |
| 14001.C085.02. | ADMISSION TREATMENT DATE SCHED | IAdmTreatSchedDtm | The time that an ordered treatment was scheduled. ASTM E 1633 PARA 4.2.4 |
| 14001.C085.03. | ADMISSION TREATMENT DATE COMPLETE | IAdmTreatComplDtm | The time that an ordered treatment was completed. ASTM E 1633 PARA 4.2.4 |
| 14001.C090. | ADMISSION PATIENT INSTRUCTION DATETIME | IAdmPatInstrDtm | Datetime instruction was given to the patient in this admission. ASTM E 1633 PARA 4.2.4 |
| 14001.C090.01. | ADMISSION PATIENT INSTRUCTION TYPE | IAdmPatInstrTypeCode | Category of patient instruction. ASTM E 1633 PARA 4.2.6 |
| 14001.C090.02 | ADMISSION PATIENT INSTRUCTION TEXT | IAdmPatInstrText | Text of instruction given to the patient. ASTM E 1633 PARA 4.2.6 |
| 14001.C090.03. | ADMISSION PATIENT INSTRUCTION VERIFICATION | IadmPatInstrPatSig | Signature of patient acknowledging instructure. ASTM E 1633 PARA 4.2.7 |
| 14001.C110. | | IAdmOrdRehabSvcId | Identifier of rehabilitative service ordered. ASTM E 1633 PARA 4.2.6 |
| 14001.C110.01. | | IAdmOrdRehabSvcUnitCode | Unit of measure of rehabilitative service ordered. ASTM E 1633 PARA 4.2.6 |
| 14001.C110.02. | | IAdmOrdRehabSvcDescText | Statement of rehabilitative service ordered. ASTM E 1633 PARA 4.2.6 |
| 14001.C120. | | IAdmFoodIntakeDtm | Datetime of food intake. ASTM E 1633 PARA 4.2.4 |

**TABLE A1.1**  *Continued*

| | | | |
|---|---|---|---|
| 14001.C120.01. | | IAdmFoodId | Identifier of the food taken in. ASTM E 1633 PARA 4.2.6 |
| 14001.C120.01.01. | | IAdmFoodQty | Amount of food taken in. ASTM E 1633 PARA 4.2.5 |
| 14001.C120.01.02. | | IAdmFoodUnitCode | Unit of measure of food taken in. ASTM E 1633 PARA 4.2.6 |
| 14001.C120.02. | | IAdmNutrCode | Identifier of the nutrient resulting from food consumed. ASTM E 1633 PARA 4.2.6 |
| 14001.C120.02.01. | | IAdmNutrQty | Amount of nutrient from food consumed. ASTM E 1633 PARA 4.2.5 |
| 14001.C120.02.02. | | IAdmNutrUnitCode | Identifier of unit of measure of nutrient from consumed food. ASTM E 1633 PARA 4.2.6 |
| 14001.C122. | | IAdmNutritlAssessText | ASTM E 1633 PARA 4.2.6 |
| 14001.C123. | | IAdmDietRespText | ASTM E 1633 PARA 4.2.6 |
| 14001.C125. | | IAdmDietTypeCode | ASTM E 1633 PARA 4.2.6 |
| 14001.C128. | | IAdmDietCommentText | ASTM E 1633 PARA 4.2.6 |
| 14001.C130. | **CLINICAL PROGRESS NOTE DATE-TIME** | IAdmClinProgrNoteDtm | The time point that the physicians textual assessment was composed or written. ASTM E 1633 PARA 4.2.4 |
| 14001.C130.01. | **CLINICAL PROGRESS NOTE** | IAdmClinProgrNoteText | A textual description of the physician's observations, their interpretations and conclusions about the clinical course of the patient or the steps taken, or to be taken, in the care of the patient. |
| 14001.C130.03. | **SIGNATURE/AUTHENTICATOR** | IAdm ClinProgrNotePractSig | An electronic unique signature of the physician identifying that individual. ASTM E 1633 PARA 4.2.7 |
| 14001.C110. | REHABILITATIVE SERVICE ORDERED | | |
| 14001.C110.01. | REHABILITATIVE SVC UNIT | | |
| 14001.C110.02. | REHABILITATIVE SVC DESCRIPTION | | |
| 14001.C120. | FOOD INTAKE DATE-TIME | | ASTM E 1633 PARA 4.2.4 |
| 14001.C120.01. | FOOD ID | | |
| 1400.C120.01.01. | FOOD AMOUNT | | ASTM E 1633 PARA 4.2.5 |
| 14001.C120.01.02. | FOOD AMOUNT UNIT | | |
| 14001.C120.02. | NUTRIENT ID | | |
| 14001.C120.02.01. | NUTRIENT AMOUNT | | ASTM E 1633 PARA 4.2.5 |
| 14001.C120.02.02. | NUTRIENT UNIT | | |
| 14001.C122. | NUTRITIONAL ASSESSMENT | | An overview of the nutritional status of the patient and the perceived nutritional needs that must be provided. TEXT |
| 14001.C123. | RESPONSE TO DIET | | A textual synopsis of the effects of a particular diet. |
| 14001.C125. | DIET TYPE | | A categorical term identifying a particular class of diet. |
| 14001.C128. | DIET COMMENTS | | A textual remark ampliyfing aspects of the patient's diet. ASTM E 1633 PARA 4.2.6 |

**ASTM** **E 1384**

**TABLE A1.1** *Continued*

| 14001.D001. | **NAME OF THERAPY/SVC** | TherapNameText | The identifier or name of the therapeutic service conducted. ASTM E 1633 PARA 4.2.6 |
|---|---|---|---|
| 14001.D001.01. | **THERAPY START DATE-TIME** | TherapStartDtm | The time point that the service was commenced. ASTM E 1633 PARA 4.2.4 |
| 14001.D001.01.01. | **THERAPY FINISH DATE-TIME** | TherapEndDtm | The time point that the therapy ceased. ASTM E 1633 PARA 4.2.4 |
| 14001.D001.01.03. | THERAPY PROBLEM ID | TherapProbId | The identifier or name of the main problem associated with the therapy. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.05. | THERAPY CLINICAL ORDER ID | TherapClinOrdId | The identifier of the clinical order which requested the therapy. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.06. | THERAPY NAME OF ORDERING PRACTITIONER | TherapOrdPractName | Name of the Practitioner ordering the therapy. ASTM E 1633 PARA 4.2.2 |
| 14001.D001.01.07. | THERAPY LOCATION DELIVERED | TherapDelLocId | The care facility location at which the therapeutic procedure was conducted. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.11. | THERAPY PATIENT BEGIN CONDIT | TherapPatBeginStatusCode | The beginning status of the patient, includes behavioral aspects. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.13. | THERAPY PATIENT END CONDIT | TherapPatEndStatusCode | The concluding status of the patient, including behavioral aspects. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.15. | THERAPY STATUS | TherapStatusCode | The category term describing the state of the therapeutic procedure. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.17. | THERAPY SPECIFIC PREPARATION | TherapSpecPrepText | The names of the preparative procedures required before the primary procedure can be conducted, such as positioning, procedures etc. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.18. | THERAPY PRODUCTS GIVEN | TherapProdGivenText | The name and attributes of the products utilized in the therapeutic procedure, including nature of product, dosages, ingredients. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.18.01. | AMT OF THERAP PRODUCT GIVEN | TherapProdAmtQty | The total dose or amount of the product, as opposed to dose rates. ASTM E 1633 PARA 4.2.5 |
| 14001.D001.01.19. | THERAPY EQUIPMENT USED | TherapEquipUsedText | The names or identifiers of the devices used to deliver or conduct the therapeutic procedure. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.21. | **THERAPISTS RESPONSE ASSESSMENT** | TherapResponsAssText | Therapists documentation of pt's attitude toward the plan, including estimates of further therapeutic potential. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.22. | THERAPY RESULTS OF TREATMENT | TherapResultText | Text description of treatment outcome. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.23. | THERAPY RESULT EVALUATION | TherapEvalText | A textual judgment of the overall effect produced by the therapeutic procedure. ASTM E 1633 PARA 4.2.6 |
| 14001.D001.01.25. | **THERAPY PERF PRACTITIONER** | TherapPractName | The name or identifier of the individual practitioner who administered the therapy. ASTM E 1633 PARA 4.2.1 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.D001.01.27. | **THERAPISTS RECOMMENDATIONS** | TherapRecommText | Further plans for continued treatment and/or services, including an assessment of patient's ability to improve and to what level. ASTM E 1633 PARA 4.2.6 |
| 14001.E001. | **DATE-TIME PATIENT IN** | OpRepPatInDtm | The time point of the patient's arrival in the operating room complex. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.02. | OPER PT ISOLATION STATUS | OpRepPatIsolStatusCode | The category term reflecting the nature of the procedures for isolating the patient from the environment or for protecting the environment from the patient with respect to infectious, or potentially infectious conditions. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.04. | OPER PT CATEGORY | OpRepOpPatCategCode | The category term for the class of operative procedure for this patient. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.06. | OPER PT CASE TYPE | OpRepOpPatCaseTypeCode | Category of Operative Case. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.08. | OPER PT CASE NO. | OpRepPatCaseId | The unique identifier for this operative case. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.10. | OR NO. | OpRepOpRmId | The name or identifier of the operating room in which this patient's procedures will be conducted. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.11. | PATIENT ISOLATION STATUS | OpRepPatIsolStatusCode | Identified for contagious disease condition state. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.12. | ORDERING STA NO. | OpRepOrdStaCode | The identifier of the location for which supplies or services are ordered for this operative event. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.14. | ORGAN DONOR TYPE | ORGDonorAgrTypeCode | The name of the individual donating tissue or organs to this recipient patient. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.14.01. | BLOOD/SKIN DONOR NAME | OpRepDonorName | The name of a blood or skin donor to this patient. ASTM E 1633 PARA 4.2.1 |
| 14001.E001.17. | OPERATIVE POSITIONS | OpRepOpPosCode | The name of the position to be used to be used for the procedure to be conducted. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.20. | POSITIONAL AIDS | OpRepPosAidsCode | The nature of the devices used to aid the patient assume the body position required for the procedure to be conducted. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.22. | EVIDENCE REMOVED | OpRepEvidRemovdText | A textual description of the specimens or other material removed for legal purposes as evidence in judicial or administrative procedures. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.24. | DATE-TIME SEEN BY ANESTHESIOL | OpRepAnesthesiolSeenDtm | The time point of pre-anesthesia assessment. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.26. | ANESTHESIA START TIME | OpRepAnesthStartDtm | The date time when the procedure for administering all anesthetic agents is commenced. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.28. | ANESTHESIA RDY TIME | OpRepAnesthesRdyDtm | The date time when the anesthetic agents have produced their desired biological effect which will be maintained during the surgery. ASTM E 1633 PARA 4.2.4 |

**ASTM E 1384**

**TABLE  A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.E001.30. | OPERATION DATE-TIME | OpRepOperStartDtm | The date time at which the operative procedures commenced during this surgery. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.32. | OPERATION END TIME | OpRepOperEndDtm | The date time at which the operative procedures were completed during this surgery. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.34. | ANeSTHESIA END TIME | OpRepAnesthesEndDtm | The date time when the biologic effect of all anesthetic agents has disappeared. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.36. | PATIENT OUT TIME | OpRepPatOutDtm | The time point at which the patient leaves the operating room complex. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.38. | PATIENT PHYSICAL STATUS | OpRepPatPhysStatusCode | A textual description of the patient's overall physiological status. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.40. | OPERATION DESCRIPTION | OpRepOPerDescText | A textual description of the operation to be performed written before conduct of the procedures. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.42. | OPER PT PRE-OP COMMENT | OpRepPreOpCommentText | The textual remarks made before the surgical procedures begin. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.44. | OPERATION MEASUREMENT | OpRepOperMeasId | The name or identifier of the measurement or observation made during this surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.44.01. | OPERATION MEASUREMENT VALUE | OpRepOperMeasValueQty | The numeric amount of the property to be measured during the surgery. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.46. | CHECK RECORD | OpRepRecordCheckCode | A category term for classifying the complete review of the care record and surgery request before commencing the surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.48. | CHECK PATIENT | OpRepPatientCheckCode | A category term for classifying the complete review of the patient before commencing the surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.50. | O-R NURSE ID | OpRepORNurseName | The name or identifier of the lead nurse in the operating room. ASTM E 1633 PARA 4.2.1 |
| 14001.E001.51. | OPER PT RESP STATUS | OpRepPatRespStatusCode | The category term classifying the general respiratory condition of the patient. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.52. | OPER PT CIRC STATUS | OpRepPatCircStatusCode | The category term classifying the general circulatory condition of the patient. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.53. | OPER PT CNS STATUS | OpRepCNSStatusCode | The category term classifying the general central nervous system condition of the patient. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.54. | PREVIOUS ANESTHETIC COMPLIC. | OpRepPrevAnesComplicText | Textual description of prior difficulties the patient may have had with anesthesia. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.55. | PRE-OP MED NAME | OpRepPreOpMedId | Identifier of the Pre-operative Medication. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.55.01. | PRE-OP MED DOSE | OpRepPreOpMedDoseQty | The numerical measure of the amount of medicinal product given to the patient before surgery. ASTM E 1633 PARA 4.2.5 |

**ASTM E 1384**

TABLE A1.1 *Continued*

| | | | |
|---|---|---|---|
| 14001.E001.55.02. | PRE-OP MED ROUTE | OpRepPreOpMedRiuteCode | The categorical term for the avenue by which the medicinal product given to the patient prior to surgery was introduced into the patient. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.55.03. | PRE-OP MED TIME | OpRepPreOpMedDtm | The date time point at which the medicinal product was administered to the patient. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.55.04. | PRE-OP MED EFFECT | OpRepPreOpMedEffectText | Textual description of the outcome of administering the medicinal product to the patient prior to surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.56. | PRE-OP DIAGNOSIS | OpRepPreOpDiagCode | Determination of the case prior to operating. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.57. | POST-OP DIAGNOSIS | OpRepPostOpDiagnosisCode | Determination of the case after operating. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.58. | OPERATIVE EVENT SURGEON | OpRepOpEvSurgeonName | Clinicians who performed the principle procedure. These data are also needed for the operating practitioner in the episode summary (7170.) ASTM E 1633 PARA 4.2.1 |
| 14001.E001.58.01. | SURGEON ROLE | OpRepOpEvSurgeonRoleCode | The category term for the role played by the named surgeon during this surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.60. | **ANESTHESIOL/ANESTHETIST** | OpRepAnesthiolAnestName | The name of the practitioner responsible for the induction and maintenance of anesthesia during this surgery. ASTM E 1633 PARA 4.2.1 |
| 14001.E001.61. | ANESTHESIOL. RESIDENT | OpRepAnesthesiolResName | The practitioner in training who assists the anesthesiologist responsible for this patient and this surgery. ASTM E 1633 PARA 4.2.1 |
| 14001.E001.62. | ANESTHETIST | OpRepAnesthetName | The name or identifier of the nurse-anesthetist participating in the operation. ASTM E 1633 PARA 4.2.1 |
| 14001.E001.63. | O-R STAFF POSITION | OpRepORStaffPosId | The unique name of the position staffed during this surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.63.01. | O-R STAFF NAME | OpRepORStaffPosPersName | The name of the individual filling the O-R staff position. ASTM E 1633 PARA 4.2.1 |
| 14001.E001.64. | ANESTHESIA INDUCTION | OpRepAnesthInductText | Description of the anesthesia induction period. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.65. | ANESTHETIC INDUCTION COMMENTS | OpRepAnesthesInductCommentText | The textual remarks relating to the induction of anesthesia in this patient. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.66. | ENDOTRACHEAL TUBE TYPE | OpRepETTubeTypeCode | The category of endotracheal tube used in this surgery and this patient. ASTM E 1633 PARA 4.2.6 |
| 14001 E001.67. | ENDOTRACHEAL TUBE COMMENT | OpRepETTubeCommentText | The textual remarks concerning the endotracheal tube used in this surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.68. | TIME OR BLOOD ORDERED | OpRepORBloodOrdDtm | The date time the request for blood units is to be used in the operating room was placed. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.68.01. | NO. UNITS BLOOD ORD IN O-R | OpRepUnitsORBloodOrdQty | The count of the units of blood ordered for the operating room to be used during this surgery. ASTM E 1633 PARA 4.2.5 |

**ASTM  E 1384**

TABLE  A1.1  *Continued*

| | | | |
|---|---|---|---|
| 14001.E001.69. | **OPERATIVE PROCEDURE** | OpRepOperProcedCode | The unique name of the procedure conducted during surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.69.001. | OPERATIVE PROCEDURE DATE-TIME | OpRepOperProcedDtm | The moment the surgical procedure commenced. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.69.002. | OPERATIVE PROCEDURE PRIORITY | OpRepOperProcedPriorCode | The order of importance of the operative procedure in the operating room stay. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.69.003. | OPERATIVE PROCEDURE DESCRIPTION | OpRepOPerProcedDescText | A narrative of what was done during the procedure. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.69.01. | OPERATIVE PROCEDURE EVAL. | OpRepOperProcEvalText | A textual report of the specific procedure conducted during surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.69.02. | OPERATIVE PROCEDURE FINDINGS | OpRepOperProcedFindingsText | A narrative of what was observed as a result of the procedure. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.70. | SURGICAL SPECIMEN ID | OpRepSurgSpecId | The unique identifier for a specimen obtained during surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.70.01. | SURGICAL SPECIMEN SITE | OpRepSurgSpecSiteCode | The anatomic location from which the specimen was obtained during surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.70.02. | SURGICAL SPECIMEN PROCESSING | OpRepSurgSpecPocCode | The procedural steps taken to prepare a specimen obtained during surgery for examination. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.70.03. | SURGICAL SPECIMEN FINDINGS | OpRepSurgSpecFindingsText | A narrative of the observations on the specimen. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.71. | **ANESTHETIC AGENT** | OpRepAnesthetAgCode | Type of agent used to induce diminished, or loss of, feeling or sensation. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.71.01. | ANESTHETIC AGENT DOSE VALUE | OpRepAnesthetAgDoseQty | The numeric measure of the amount of anesthetic administered. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.71.02. | ANESTHETIC AGENT DOSE UNIT | OpRepAnesthetAgDoseUnitCode | The unit of measure associated with the anesthetic dose value. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.71.03. | ANESTHETIC TECHNIQUE | OpRepAnesthetTechTypeCode | The name of the technique(s) used to administer the anesthetics used in the operation. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.72. | **POST-ANESTHESIA ASSESSMENT** | OpRepPostAnesthesAssText | A textual synopsis of the effectiveness and adverse effects of the anesthesia. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.73. | **OPERATIVE EVENT DATE-TIME** | OpRepOpEvDtm | The time point for each operative event including temp, pulse, resp, BP from start of procedure through recovery. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.73.01. | OPERATIVE EVENT CODE | OpRepOpEvCode | An identifier or name of the event occurring during the operation for which an attribute was observed. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.73.02. | OPERATIVE EVENT VALUE | OpRepOpEvValueQty | The value, either quantitative (numeric) or qualitative, associated with this operative event. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.73.03. | OPERATIVE EVENT FLUID TYPE | OpRepOpEvFluidTypeCode | The name or identifier of the fluid associated with this operative event. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.E001.73.04. | OPERATIVE EVENT FLUID VOLUME | OpRepOpEvFluidVolQty | The measure of the fluid associated with this operative event. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.73.05. | OPERATIVE EVENT POSITION | OpRepOpEvPositCode | The name or identifier of the patient position associated with this event. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.73.06. | OPERATIVE EVENT POSITIONAL AID | OpRepOpEvPositAidCode | The name of a positional aid utilized during this operative event. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.74. | BLOOD LOSS, TOTAL | OpRepBloodLossQty | Total blood loss, in units of blood, during the operation. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.75. | EXTRA OR SUPPLIES | OpRepExtrSupplyCode | The name or identifier of supplies used in this operation that are additional to those regularly used. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.75.01. | EXTRA OR SUPPLIES-AMT | OpRepExtrSupplyAmtQty | The numeric quantity of those additional supplies. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.76. | K-THERMIA | OpRep | |
| 14001.E001.78. | CAUTERY SITE | OpRepCauterySiteCode | The anatomic location of the site cauterized during surgery. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.80. | CASTS | OpRepCastCode | A description of the locations and types of casts applied during the operation. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.82. | IMPLANTS & DRAINS | OpRepImpDrainLocCode | A list of the locations and descriptions of any surgical implants or drains left in the patients at the conclusion of the operation. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.84. | TOURNIQUET TIMES | OpRepTournDtm | The list of times that tourniquets are established to control blood flow. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.84.01. | TOURNIQUET LOC | OpRepTournLocCode | The name of the location for each tourniquet established. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.85. | URINARY CATHET. PLACE DATETIME | OpRepUrCathPlaceDtm | The time point at which a catheter was placed in the urinary tract. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.86. | NEEDLE CTS-1ST:3RD | OpRepNeedleCtsQty | A sequence of numbers representing the visual counts of suturing needles at three time points. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.87. | INSTRUMENT CT-1ST:3RD | OpRepInstrumCtsQty | A sequence of numbers representing the visual counts of surgical instruments at three time points. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.88. | SPONGE CTS-1ST:3RD | OpRepSpongeCtsQty | A sequence of numbers representing the visual counts of surgical sponges at three time points. ASTM E 1633 PARA 4.2.5 |
| 14001.E001.90. | RECOVERY NOTE TEXT | OpRepRecovNoteText | A textual account of the course of the patient's recovery following the operation. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.91. | **OPERATION COMPLICATIONS** | OpRepOperComplicText | A textual account of surgical misadventures, i.e., infections. ASTM E 1633 PARA 4.2.6 |
| 14001.E001.92. | OPERATIVE COMMENTS | OpRepOperCommentsText | A textual remark during the operative event. ASTM E 1633 PARA 4.2.6 |

**ASTM E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.E001.93. | DISCH. OPER RPT DICT. DATE | OpRepDischOpRptDictDtm | The date the operating surgeon actually dictated the operative report. ASTM E 1633 PARA 4.2.4 |
| 14001.E001.94. | OP-REPORT DICTATED BY | OpRepSurgeonName | The name or identifier of the surgeon dictating the operative report. ASTM E 1633 PARA 4.2.1 |
| 14001.F006. | **ADMISSION ENCOUNTER SURGEON** | IDispSurgeonName | The surgeon participating in the principal operative procedure of this admission. ASTM E 1633 PARA 4.2.1 |
| 14001.F006.1. | **ADMISSION ENCOUNTER SURGEON ROLE** | IDispSurgeonRoleCode | The role of the surgeon in the principal operative procedure of this admission. ASTM E 1633 PARA 4.2.6 |
| 14001.F013. | ADMISS OPER PROCEDURE | IDispOperProcCode | The name of operative procedures other than the principal on conducted during this admission. ASTM E 1633 PARA 4.2.6 |
| 14001.F013.01. | ADMISS OPER PROC DATE | IDispOperProcDtm | The date on which other operative procedures than the principal on was conducted. ASTM E 1633 PARA 4.2.4 |
| 14001.F013.02. | ADMISS OPER PROC SURGEON | IDispOperProcSurgName | The name of the surgeon performing operative procedures other than the principal one. ASTM E 1633 PARA 4.2.1 |
| 14001.F013.03. | ADMISS OPER PROCEDURE TYPE | IDispOperProcTypeCode | The code identifying the procedure type (e.g., principal, primary, secondary). ASTM E 1633 PARA 4.2.6 |
| 14001.F014. | ENCOUNTER PROCEDURE | HCAVDispEncounterProcCode | A list of procedures conducted on the patient during this encounter/stay. ASTM E 1633 PARA 4.2.6 |
| 14001.F030. | **ENCOUNTER DIAGNOSIS** | HCFEDispDiagICDCode | A list of all conditions co-existing at the time of the episode that effect the treatment received or LOS. A condition of sufficient signficance to warrant inclusion for investigative medical studies. No symbols or abbreviations. Complications are additional diagnoses describing conditions arising after the beginning of the episode and modifying the course of the patient's illness or the medical care required. Also describes undesired result and/or misadventure in the medical care of a patient. LEXICON ASTM E 1633 PARA 4.2.6 |
| 14001.F030.01. | ENCOUNTER DIAGNOSIS TYPE | HCFEDispDiagTypeCode | A term identifying priority (e.g. secondary, tertiary etc.) of the diagnosis code. ASTM E 1633 PARA 4.2.6 |
| 14001.F030.02. | ENCOUNTER DIAGNOSIS NARRATIVE | HCFEDispDiagNarrText | The narrative text of the diagnosis. ASTM E 1633 PARA 4.2.6 |
| 14001.F036. | ENCOUNTER ETIOLOGY | HCFEDispEtiolCode | A name of causes of the conditions which led to this stay. ASTM E 1633 PARA 4.2.6 |
| 14001.F036.1. | ENCOUNTER ETIOLOGY TYPE | HCFEDispEtiolTypeCode | The type of the cause of the patient's primary diagnosis for this stay. The name may refer to either illness or traumatic injury conditions. ASTM E 1633 PARA 4.2.6 |
| 14001.F040. | **DISPOSITION DATE-TIME** | HCFEDispDispDtm | Date-time of formal release from, or termination of, an episode of care when discharged alive. ASTM E 1633 PARA 4.2.4 |

**E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.F043. | PHYSICIAN AUTHORIZ DISPOSITION | HCFEDispPrctAuthDischName | The responsible physician actually authorizing the patient's discharge. ASTM E 1633 PARA 4.2.1 |
| 14001.F046. | **DISPOSITION TYPE** | HCFEDisposTypeCode | Code representing the term categorizing the Disposition. ASTM E 1633 PARA 4.2.6 |
| 14001.F050. | DISCHG./ENCOUNTER DISPOSITION | HCFEDispDisposCode | The provider's statement of the next steps in the care of the patient. It applies to all encounters including inpatient stays and gives the basic cateory and subcategory of the disposition action (e.g. D/C to home, died, left AMA, follow-up, etc.). This lexicon is used in both the UACDS and the UHDDS of the NCHS. ASTM E 1633 PARA 4.2.6 |
| 14001.F053. | ENCOUNTER DEPART DATETIME | HCAVDispDepartDtm | The date time the patient actually departed the facility. ASTM E 1633 PARA 4.2.4 |
| 14001.F056. | ENCOUNTER FOLLOWUP ACTION | HCAVDispEncFolowupActCode | A description of any follow-up actions resulting from this encounter. ASTM E 1633 PARA 4.2.6 |
| 14001.F060. | ENCOUNTER FOLLOWUP STATUS | HCAVDispEncFolowupStaCode | A list of terms depicting the current status of the follow-up action. ASTM E 1633 PARA 4.2.6 |
| 14001.F063. | ENCOUNTER FOLLOWUP TARGET DATE | HCAVDispEncFollowTargDtm | The date by which the intended follow-up action is to be completed. ASTM E 1633 PARA 4.2.4 |
| 14001.F066. | COND. ON DISCHG. | IDispCondonDischgCode | The health status upon discharge. Text. ASTM E 1633 PARA 4.2.6 |
| 14001.F067. | PATIENT DISPOSITION HEALTH STATUS MEASURE NAME | IDispHlthStatTMeasText | Title of the Total Health Status Measure and Instrument. ASTM E 1633 PARA 4.2.6 |
| 14001.F068. | PATIENT DISPOSITION HEALTH STATUS MEASURE TOTAL VALUE | IDispHlthStatTMeasQty | Numeric Value of the Health Status Measure Total magnitude. ASTM E 1633 PARA 4.2.5 |
| 14001.F069. | PATIENT DISPOSITION HEALTH STATUS MEASURE ELEMENT NAME | IDispHlthStatMeasElCode | Code representing the identity of the Health Status Measure Element. ASTM E 1633 PARA 4.2.6 |
| 14001.F069.01. | PATIENT DISPOSITION HEALTH STATUS MEASURE ELEMENT VALUE | IDispHlthStatMeasElQty | Numeric Value of the Magnitude of the Health Status measurement element. ASTM E 1633 PARA 4.2.5 |
| 14001.F070. | REASON FOR DISCHARGE | IDispDischgReasonCode | The term categorizing the reason for terminating the patient's resident status such as: moved, died, no medical supervision needed, requested by family, referral elsewhere, lack of reimbursement, refusal of treatment, treatment goals met (maximum benefit achieved), left AMA. ASTM E 1633 PARA 4.2.6 |
| 14001.F073. | PERSON ACCOMPANYING PATIENT FROM FACILITY | IDispPersonAccompPtName | The person who actually accompanies the patient from the facility after a discharge or encounter. ASTM E 1633 PARA 4.2.1 |
| 14001.F076. | DISPOSITION TRANSPORT TYPE | IDispDisposTransTypeCode | A list of the categories of transport by which the patient left the facility. ASTM E 1633 PARA 4.2.6 |
| 14001.F080. | **DISPOSITION DESTINATION** | IDispDisposDestText | A description of the actual destination of the patient upon leaving the facility. ASTM E 1633 PARA 4.2.6 |

94

**⟨ASTM⟩ E 1384**

**TABLE A1.1** *Continued*

| | | | |
|---|---|---|---|
| 14001.F083. | **DISPOSITION PATIENT INSTRUCTIONS** | HCFEDispPtInstructText | The instructions for care or follow-up issued to a patient who left the facility. ASTM E 1633 PARA 4.2.6 |
| 14001.F086. | PATIENT SIGNATURE | IDispPatientSig | Signature of the Patient to Instructions. ASTM E 1633 PARA 4.2.7 |
| 14001.F090. | DISCHG SUMM DICT DATE-TIME | IDispDischgSummDictDtm | The date and time that the responsible physician actually dictated the text of the summary. ASTM E 1633 PARA 4.2.4 |
| 14001.F093. | TOTAL ACUTE CARE LOS | IDispTotAcuteCarLOSDayQty | This period is the number of days calculated according to agreed upon formulae denoting the period of inpatient residence in the facility. The period of rehabilitative care is calculated separately, if conducted in the same faciity and residence period. ASTM E 1633 PARA 4.2.5 |
| 14001.F096. | LENGTH OF REHAB SERVICES | IDispRehabSvcDayCnt | The number of days denoting the period of residence in a rehabilitative status. ASTM E 1633 PARA 4.2.5 |
| 14001.F100. | TOTAL ICU DAYS | IDispTotalICUDayCnt | ASTM E 1633 PARA 4.2.5 |
| 14001.F101. | DATE-TIME OF DISPOSITION NOTE | HCFEDispDispNoteDtm | The date and time of the note describing the care rendered in the emergency department. ASTM E 1633 PARA 4.2.4 |
| 14001.F105. | **TEXT OF NOTE/REPORT** | HCFEDispNoteText | The textual content of the report. ASTM E 1633 PARA 4.2.6 |
| 14001.F110. | **SIGNATURE/AUTHENTICATOR** | HCPractSig | An electronic unique signature of the physician identifying that individual. ASTM E 1633 PARA 4.2.7 |
| 14001.G001. | CHARGE ITEM NAME | BILLItmText | The name for a reimbursement, for D/C DRG charge-all charges for procedures and services rendered by the provider or his/her associates, during or in conjunction with the episode. It includes procedures occurring subsequent to the episode but ordered during the episode, and a facility fee, if billed separately from the professional fee. NUMERIC. ASTM E 1633 PARA 4.2.6 |
| 14001.G001.01. | MEDICAL SERVICE CODE | BILLItmServiceCode | The identifying character string for a service rendered during this encounter. ASTM E 1633 PARA 4.2.6 |
| 14001.G001.02. | MEDICAL SERVICE DATE | BILLItmServiceDtm | The date of the service rendered, which may be different from the encounter data-time, conducted off-site. ASTM E 1633 PARA 4.2.4 |
| 14001.G001.03. | MEDICAL SERVICE COMMENT | BILLItmCommentText | The notation associated with this Service Code. ASTM E 1633 PARA 4.2.6 |
| 14001.G001.04. | MEDICAL SERVICE CHARGE VALUE | BILLItmChargeValue | The monetary value associated with the Service Code. ASTM E 1633 PARA 4.2.5 |
| 14001.G003. | WORKMANS COMP CLAIM FILING STATUS | BILLSvcsWrkCmpFilStatCode | The code for the status of any claim filed for Workman's Compensation at either the state or federal level associated with this visit/encounter. ASTM E 1633 PARA 4.2.6 |
| 14001.G006. | WORKMANS COMP CLAIM NO. | BILLSvcsWrkCmpClaimId | The identifier string for a claim submitted under workman's compensation. ASTM E 1633 PARA 4.2.6 |

 **E 1384**

## APPENDIX

### (Nonmandatory Information)

### X1. MEDICAL DENTAL RECORD OF CARE STRUCTURE

**TABLE X1.1  EHR Vocabulary Content Master List**

Electronic Health Record Summary List of Content
# = DOD/CHCS Registration data element
+ = Uniform Discharge Dataset
& = Uniform Ambulatory Minimum Dataset
M = Master Patient Index
% = VA Data Dictionary
$ = VA March AFB Data Dictionary Additions
* (post) = FMF reqd elements

I. Demographic/Administrative

| | |
|---|---|
| 01001. | %+&M#Patient Name * |
| 01002. | Previous Name - Previously Registered Name |
| 01005. | Parental Marital Status |
| 01007. | Adoption status |
| 01010. | % Alias - Individual Alternate Name (M) |
| 01010.1. | Usage |
| 01010.2. | Start date |
| 01010.3. | End date |
| 01015. | &M+Unique Personal Identifier/Facility Unit Number - Individual Identifier (M) |
| 01015.1. | Organization |
| 01015.2. | Type |
| 01015.3. | Start date |
| 01015.4. | End date |
| 01015.5. | Status |
| 01025. | MArchive data (M) |
| 01027. | Record Holding Location ID (M)→Facility Data File |
| 01027.1. | Date of earliest held entry |
| 01027.2. | Date of latest held entry |
| 01030. | %MLocation of paper chart (chartbase) |
| 01032. | %&M+#Date-time of Birth * |
| 01033. | %Birthplace |
| 01035. | Multiple Birth Market - Number of Children in the birth |
| 01037. | Birth order |
| 01040. | %&M+#Sex * |
| 01042. | %+#Race * |
| 01045. | Ethnic Group(M) |
| 01047. | %#Religion * |
| 01050. | Military Service/Veteran Status |
| 01052. | %Marital Status |
| 01055. | Citizenship Status |
| 01057. | Patient's Language |
| 01058. | Enabling Interpreter Reqd |
| 01060. | Education level |
| 01062. | %Current work Status |
| 01065. | %Occupation (M) |
| 01065.1. | Occupation Status Code |
| 01065.2. | Date completed occupation |
| 01065.3. | Std Industrial Code |
| 01067. | Current Vocational Status |
| 01070. | Previous occupations |
| 01070.1. | Date completed occupation |
| 01075. | Patient current workplace - Present employer name |
| 01077. | Work Address |
| 01080. | %#Work Phone |
| 01085. | Usual living arrangement |
| 01087. | No. persons in household |
| 01090. | Family member's name (M) |
| 01090.02. | SSAN |
| 01090.03. | Relationship |
| 01090.05. | Male parent name |
| 01090.07. | Female parent maiden (birth) name - Female parent name |
| 01090.11. | Sex |

**TABLE  X1.1**   *Continued*

| | |
|---|---|
| 01090.13. | Date of birth |
| 01090.15. | Date of Death |
| 01090.17. | Head of Household Status |
| 01090.19. | Principal Caregiver Status |
| 01090.21. | Location |
| 01090.23. | Occupation |
| 01090.25. | Major Diagnosis/Cause of Death (M) |
| 01090.27. | Inherited Gene ID (M) |
| 01090.27.01. | Expression |
| 01090.27.02. | Extent |
| 01095. | %&+Patient. Home Address |
| 01096. | Patient Previous Address (M) |
| 01096.1. | Previous address begin date |
| 01096.2. | Previous address end date |
| 01097. | Patient County/Census tract |
| 01099. | Code for foreign residence |
| 01100. | %&+Patient Home Phone |
| 01105. | Patient Temporary Address |
| 01108. | Patient Temporary Address Phone |
| 01110. | %Emergency Contact name |
| 01112. | %Emergency Contact relationship |
| 01115. | %Emergency Contact Addr. |
| 01117. | %Emergency Contact phone |
| 01119. | Emergency Contact Business phone |
| 01120. | Patient Legal Guardian Name |
| 01125. | Patient Legal Guardian Address |
| 01130. | Patient Guardian Status |
| 01135. | %#Next of Kin (NOK) Name |
| 01137. | %#NOK Relationship |
| 01140. | %#NOK Address |
| 01142. | %#NOK H. Phone |
| 01145. | NOK B. Phone |
| 01150. | Handedness Code |
| 01155. | Color Eyes |
| 01160. | Color Hair |
| 01165. | Blood Type |
| 01170. | %Height for identification |
| 01175. | Build for identification |
| 01180. | %Weight for identification * |
| 01185. | %Patient Record-Activity Status |
| 01190. | Confidentiality Protection |
| 01195. | Date Record Initiated or Updated(M) |
| 01195.02. | Person initiating/updating |
| 01197. | Record review date |
| 01200. | Registration Informant |
| 01205. | Registration Comment |
| 01210. | Date Record transferred to Storage |
| 01220. | Date-time of Death |
| 01225. | Place of Death |
| 01227. | Autopsy (Y/N) |
| 01230. | Recorder of death |
| 01235. | Date recorded |
| 01240. | Death Certif. no. |
| 01245. | State recorded |
| 01250. | Cause of Death (M) |
| 01255. | Mortuary preference/internment |
| 01260. | Bereavement assessment |
| 01262. | Clergyman Name |
| 01265. | Clergyman Address |
| 01267. | Clergyman phone |

II. Legal Agreements

| | |
|---|---|
| 02001. | Admit agreements/Consent to care |
| 02005. | Patients rights Acknowledgement |
| 02010. | Authority for Autopsy |
| 02015. | Body release to Morgue |

**E 1384**

**TABLE X1.1** *Continued*

| | |
|---|---|
| 02020. | Consent for video tape/observation |
| 02025. | Consent to Research participation |
| 02030. | Directive to Physician |
| 02040. | Organ Donor Consent |
| 02045. | Court-ordered care |
| 02050. | Living Will Designee |
| 02052. | Durable Power of Attorney status |
| 2053. | Durable Power of Attorney for health care status |
| 2054. | Durable Power of Attorney for health care name |
| 2055.. | Durable Power of Attorney for health care address |
| 2056. | Durable Power of Attorney for health care address |
| 2057. | Durable Power of Attorney for health care phone |
| 02055. | Power of Attorney Name |
| 02057. | Power of Attorney Address |
| 02060. | Power of Attorney Phone |
| | |
| IIA. Release of Information Record | |
| 02100. | Record action date (M) |
| 02100.02. | Type of action |
| 02100.04. | Type of information |
| 02100.06. | Person releasing |
| 02100.08. | Released to |
| 02100.10. | Purpose of release |
| 02100.12. | Person Authorizing |
| | |
| III. Financial | |
| 03001. | Workman Comp Claim Date (M) |
| 03001.1. | Workman Comp Claim ID |
| 03005. | Insurance Claim Date (M) |
| 03005.02. | Claim ID |
| 03010. | Payer (M) |
| 03010.02. | Payer type/class |
| 03010.04. | Patient Insurance Group no. |
| 03010.06. | Insurance Subscriber ID |
| 03010.08. | Payment Sponsor |
| 03010.10. | Address of Sponsor |
| 03010.12. | Payer Priority |
| 03010.15. | (MEDICARE NO.) |
| 03017. | Medicare to yr |
| 03020. | Medicare A eff date |
| 03022. | Medicare B eff date |
| 03030. | Billing Account no. |
| | |
| IV. Providers | |
| 04001. | Provider/Practitioner name (M) |
| 04001.01. | Provider Group/Organization title |
| 04001.03. | Provider Address |
| 04001.05. | Provider Taxonomic Category |
| 04001.07. | Provider ID# (M) |
| 04001.07.01. | ID Agency |
| 04001.10. | Practitioner Name (M)→PROVIDER/PRACTITIONER NAME |
| 04001.12. | Practitioner SSAN |
| 04001.15. | Practitioner number ID - Practitioner National Provider ID (NPI) |
| 04001.20. | Practitioner Profession - Practitioner profession/occupation/specialty (M) |
| 04001.25. | Practitioner Office Address |
| 04001.30. | Practitioner Office Phone |
| 04001.31. | Practitioner FAX Phone |
| 04001.32. | Practitioner E-mail Address |
| 04001.35. | Practitioner License Number - Practitioner License Category (M) |
| 04001.35.01. | Practitioner Licensing State |
| 04001.35.02. | Practitioner License Code |
| 04001.35.03. | Practitioner License Number |
| 04001.35.04. | Practitioner License Effective Date |
| 04001.35.05. | Practitioner License Expiration Date |
| 04001.35.06. | Practitioner License Termination Date |
| 04001.40. | Practitioner Licensing State - Practitioner Certification Category (M) |
| 04001.40.01. | Certification Number |
| 04001.40.02. | Certification Effective date |
| 04001.40.03. | Certification Expiration date |
| 04001.40.04. | Certification Termination Date |
| 04001.40.05. | Certification Code |

| | |
|---|---|
| 04001.40.06. | Certification Board |
| 04001.45. | Practitioner Current role for this patient (M) |
| 04001.45.01. | Date role began |
| 04001.45.02. | Date role ended |
| 04001.50. | Practitioner Location (M) |
| 04001.50.01. | Date Location Effective |
| 04001.50.02. | Date Location Terminated |
| 04001.50.03. | Location Code |
| 04001.60. | Practitioner Signature - Practitioner Electronic Signature |
| | |
| V. Problem List - Health Condition List | |
| 05001. | Problem ID (M) |
| 05001.01. | Problem Statement |
| 05001.02. | Problem Indication |
| 05001.03. | Problem Date of Onset |
| 05001.05. | Problem Cause |
| 05001.07. | Problem Date Recorded |
| 05001.09. | Problem Diagnosis |
| 05001.10. | Problem Date Diagnosed |
| 05001.12. | Problem Provider Assigning Diagnosis→PRACTITIONER SEGMENT |
| 05001.13. | Problem Facility Where Diagnosed |
| 05001.15. | Problem Date Resolved |
| 05001.17. | Problem Responsible Practitioner→PRACTITIONER SEGMENT |
| 05001.20. | Problem - Status (active, suspended, nactive, resolved,alert) (M) |
| 05001.20.01. | Problem Date of Status |
| 05001.22. | Problem - Subjective (text) |
| 05001.25. | Problem - Objective (text) |
| 05001.30. | Problem - Body System (M)→BODY SYSTEM TERM |
| 05001.30.01. | Problem - Review text |
| 05001.32. | Problem - Encounter date-times (M)→ENCOUNTER SEGMENT |
| 05001.32.01. | Problem - Monitoring variable/service (M) |
| 05001.32.01.01. | Problem - Value |
| 05001.35. | Problem - Assessment (text) |
| 05001.40. | Problem - Plan (text) |
| 05001.45. | Problem - Health Condition Order ID (M)→ORDERS SEGMENT |
| | |
| VI. Immunizations | |
| 06001. | Type of procedure(vaccine,test or Toxoid name, including blood type) (M) * |
| 06001.01. | Immunization Date (M) |
| 06001.01.01. | Dose - Immunization Dose number in series |
| 06001.01.02. | Batch - Immunization Batch |
| 06001.01.03. | Immunization Manufacturer |
| 06001.01.04. | Immunization Expiration date |
| 06001.01.05. | Lot No. - Immunization Lot no |
| 06001.01.10. | No of Units - Immunization No of Units |
| 06001.01.11. | Immunization Injection site |
| 06001.01.12. | Administering Treatment Facility - Immunization Administering Treatment Facility |
| 06001.01.15. | Reaction/Result - Immunization Reaction/Result |
| 06001.01.17. | Severity - Immunization Severity |
| 06001.01.20. | Immunization Remarks |
| 06001.01.25. | Provider - Immunization Administering Practitioner-ID→PRACTITIONER SEGMENT |
| | |
| VII. Record of Exposure to Environmental Stressors | |
| 07001. | Hazard type (M)→STRESSOR FILE |
| 07001.01. | Total Lifetime Exposure - Hazard Total Lifetime Exposure |
| 07001.03. | Unit of Exposure - Hazard Unit of Exposure |
| 07001.05. | Hazard Exposure begin date-time (M) |
| 07001.05.1. | Termination date - Hazard Exposure Termination Date |
| 07001.05.02. | Employer - Hazard Employer→EMPLOYER SUBSEGMENT OF MED HIST |
| 07001.05.03. | Work Center - Hazard Setting of Exposure |
| 07001.05.05. | Work Activity - Hazard Route of Exposure |
| 07001.05.07. | Interval Dose - Hazard Interval Dose |
| 07001.05.09. | Plant Process - Hazard Plant Process Code |
| 07001.05.11. | Plant Location - Hazard Plant Location Code |
| 07001.05.13. | Work Performed - Name of Hazard Work Performed |

**TABLE X1.1** *Continued*

| | |
|---|---|
| 07001.05.15. | Protection Practice Used - Hazard Personal Protection Used (M) |
| 07001.07. | Hazard Test Date (M) |
| 07001.07.01. | Nature and Form of Measured Agent - Hazard Nature and Form of Measured Agent |
| 07001.07.02. | Hazard Unit of Hazard Sample collected |
| 07001.07.03. | Collection Time - Hazard Sample Collection Time |
| 07001.07.05. | Collection Device - Hazard Sample Collection Device |
| 07001.07.07. | Sample Method - Hazard Test Sample method |
| 07001.07.09. | Measurement Method - Hazard Type of Determination |
| 07001.07.11. | Peak Value - Hazard Peak Measurement Value |
| 07001.07.13. | Measurement Unit - Hazard Peak Measurement Unit |

**VIII. Health History**

*Prenatal*

| | |
|---|---|
| 08001. | No. prev pregnancies |
| 08003. | No. completed deliveries |
| 08005. | Est date of beginning of pregnancy (M) |
| 08005.01. | Prenatal/perinatal history |
| 08005.03. | Estimated/Actual Date of Delivery |
| 08005.05. | Date first saw pre-natal practitioner |
| 08005.07. | Type of prenatal practitioner seen |
| 08005.09. | Birthing plan |
| 08005.11. | Length of Gestation (Wks) |
| 08005.13. | Gynecologic Abnormalities |
| 08005.15. | Birth method |
| 08005.17. | Delivery complications |
| 08005.19. | No. of fetuses in pregnancy |

*Perinatal*

| | |
|---|---|
| 08010. | Patient newborn birth weight |
| 08013. | Patient newborn birth length |
| 08017. | Estimate of patient fetal maturity at birth |
| 08020. | Patient newborn abnormalities |
| 08023. | Onset of respiration |
| 08027. | 1 min Apgar |
| 08030. | 5 min Apgar |
| 08033. | Newborn Head circumference (cm) |
| 08037. | Newborn Chest circumference (cm) |

*Individual*

| | |
|---|---|
| 08050. | Family History (text) |
| 08052. | Child History (text) |
| 08054. | Adult History (text) |
| 08055. | Patient Reported Health History - Health Education History |
| 08056. | Sexual/Reproductive History (text) |
| 08058. | Date of last missed menstrual period |
| 08060. | Age at menarche |
| 08062. | Current Menstrual Status |
| 08064. | Birth Control Method |
| 08070. | Job Hire date (M) |
| 08070.01. | Employer |
| 08070.03. | Full/Part-time |
| 08070.05. | Job Status(primary,secondary) |
| 08070.07. | Job title |
| 08070.09. | Job code |
| 08070.11. | Job classification |
| 08070.13. | Employee no. |
| 08070.14. | Occupational Category |
| 08070.15. | Job Process/activity |
| 08070.16. | Job Std Industrial Category |
| 08070.17. | Termination date |
| 08070.19. | Comments |
| 08070.20. | Work Location |
| 08070.21. | Work activity (M) |
| 08070.23. | Protective equipment (M) |
| 08070.25. | Stressors exposed to (M) |
| 8075. | Date of history |
| 8076. | Purpose |
| 08075.3. | History site/location |
| 08075.5. | Source of history |

**TABLE X1.1** *Continued*

| | |
|---|---|
| 08075.7. | Source of history data name |
| 08075.9. | State of present health |
| 08075.10. | State of oral hygiene |
| 08075.11. | Social history |
| 08075.13. | Current Habits - smoking, alcohol, etc. |
| 08075.15. | Current occupation |
| 08075.17. | History of present illness since last visit |
| 08080. | Operation date (M) |
| 08080.01. | Name |
| 08083. | Past medications(M) |
| 08085. | Trauma History (text) |
| 08088. | Drug Sensitivities/Allergies (text) |
| 08090. | General Comments Date (M) |
| 08090.1. | Text |
| 08095. | Health History Question Response (M) |
| 08095.01. | Date (M) |
| 08095.01.01. | Comment |

**IX Examination**

| | |
|---|---|
| 09001. | Exam Date (M) |
| 09001.01. | Purpose |
| 09001.02. | Risk Factors (M) |
| 09001.03. | Treatment Facility |
| 09001.04. | Examiner's name→PRACTITIONER SEGMENT |
| 09001.05. | History of Present Illness/Status of Present Health - Source of History data:name |
| 09001.11. | Initial impression |
| 09001.12. | Review of Systems(text) |
| 09001.13. | Exam Finding (M) |
| 09001.13.01. | Finding value |
| 09001.13.02. | Finding Units |
| 09001.13.03. | Finding Interpretation Code |
| 09001.13.04. | Comment on Finding |
| 09001.14. | Exam Procedure |
| 09001.15. | Comments on Exam |
| 09001.17. | Functional Independence Measure Total |
| 09001.19. | FIM Element name (M) |
| 09001.19.1. | FIM Element value |
| 09001.21. | Summary of Defects/Diagnosis |
| 09001.23. | Recommendations |
| 09001.25. | Assessment of nutritional status |
| 09001.26. | Patient Generated Functional Health Status |
| 09001.30. | Tooth (M) |
| 09001.30.01. | Tooth Status |
| 09001.30.03. | Comment |
| 09001.30.05. | Surface (M) |
| 09001.30.05.1. | Level of Decay |
| 09001.30.05.2. | Restorative Material |
| 09001.30.05.3. | Periodontal Tissue Status |
| 09001.30.06. | Sensitivity |
| 09001.30.07. | Mobility |
| 09001.30.08. | Periodontal Lingual Pocket Depth |
| 09001.30.09. | Periodontal Buccal Pocket Depth |
| 09001.30.10. | Implant Type |
| 09001.30.11. | Implant material |
| 09001.30.13. | Planned Procedure |
| 09001.30.13.1. | Scheduled Date |
| 09001.40. | Prosthesis (M) |
| 09001.40.01. | Prosthesis Type |
| 09001.40.03. | Prosthesis Abutment(M) |
| 09001.40.05. | Date of Temporary Prosthesis |
| 09001.40.07. | Date of Permanent Prosthesis |
| 09001.40.09. | Installing Practitioner |
| 09001.40.11. | Opposing Arch Status |
| 09001.40.13. | Occusal Surface Material |
| 09001.40.15. | Patient Satisfaction Code |

**X. Orders/Treatment Plans**

| | |
|---|---|
| 10001. | Order ID # (M) |
| | *Patient /Subject* |
| 10001.001. | Encounter date-time/ID (M)→ENCOUNTER SEGMENT |
| 10001.002. | Patient Residential Status |
| | *Type/Addressee* |
| 10001.009. | Order Date-time |

**ASTM E 1384**

| | |
|---|---|
| 10001.010. | Order type (ancillary service ID)→ANCILLARY SERVICE LEXICON |
| 10001.013. | Order Action |
| 10001.015. | Priority of order |
| 10001.017. | Pre-admit order |
| 10001.019. | Origin of order(verbal/phone etc) |
| 10001.021. | Parent order- if secondary |
| 10001.022. | Is order multiple sequential |
| 10001.023. | Related Orders (M)→ORDER SEGMENT |
| | Orderer/Originator |
| 10001.025. | User→Personnel list |
| 10001.027. | User SIG |
| 10001.029. | Nurse |
| 10001.031. | Nurse SIG |
| 10001.033. | Ordering Practitioner→PRACTITIONER SEGMENT |
| 10001.034. | Ordering Practitioner Role |
| 10001.035. | Ordering Practitioner SIG |
| 10001.037. | Countersigning Practitioner→PRACTITIONER SEGMENT |
| 10001.039. | Countersigning Practitioner SIG |
| 10001.041. | Nurse SIG needed |
| 10001.043. | Time Nurse SIG needed |
| 10001.045. | Practitioner SIG needed |
| 10001.047. | Time Practitioner SIG needed |
| 10001.049. | Countersignature needed |
| 10001.051. | Time countersignature needed |
| 10001.052. | Order D/Ced by→PRACTITIONER SEGMENT |
| 10001.053. | D/C SIG |
| 10001.055. | Date-time Order confirmed by addressee |
| | Control |
| 10001.057. | Active/pending flag |
| 10001.059. | Active status |
| 10001.061. | Pending status |
| 10001.063. | Inactive status flag |
| 10001.065. | Start today/tomorrow |
| 10001.067. | Order timing-every or every nth day |
| 10001.069. | Duration order in effect |
| 10001.071. | Last status change |
| 10001.073. | Reactivation date |
| 10001.075. | Ask from ancillary |
| 10001.077. | Time of ancillary activ. |
| 10001.079. | Time to expect stat result |
| 10001.081. | Telephone result flag |
| 10001.083. | Telephone result to other than location ordered from |
| 10001.085. | Request scheduled |
| 10001.087. | Requested appt time |
| 10001.089. | Appointment type |
| 10001.091. | Transport needed |
| 10001.093. | Appointment status |
| 10001.095. | Assigned appt time |
| | Text |
| 10001.097. | Health Service Ordered→HEALTH SERVICE TERM |
| 10001.098. | Treatment Plan Involved→TREATMENT PLAN |
| 10001.099. | Principal Problem - Health Condition Affected→PROBLEM LIST SEGMENT |
| 10001.100. | Full text of order |
| 10001.102. | Location of Service |
| 10001.104. | Daily frequency |
| 10001.106. | Order modified? |
| 10001.108. | Reason for Modification |
| 10001.110. | Non-modifiable flag |
| 10001.112. | Instructions for the order (Including D/C Criteria) |
| 10001.114. | Secondary orders→Order ID #(ORDER/TREATMENT PLAN SEGMENT) |
| 10001.116. | Message (M) |
| | Results |
| 10001.120. | Result acknowledgement date-time (M) |
| 10001.120.01. | Shift care plan date |
| 10001.120.02. | Result return flag |
| 10001.120.03. | Result status |
| 10001.120.04. | Result date-time |
| 10001.120.05. | Acknowledged by→PRACTITIONER SEGMENT |
| 10001.120.06. | Comment |
| 10001.123. | Date-time order completed |
| | Quality Assurance |
| 10001.140. | Q-A Warning date-time (M) |

| | |
|---|---|
| 10001.140.1. | Text of warning |
| 10001.140.2. | Disposition of warning |
| 10001.140.3. | Over-ridden by practitioner→PRACTITIONER SEGMENT |
| 10001.140.4. | Authorized by practitioner→PRACTITIONER SEGMENT |
| 10001.140.5. | Justification |
| 10001.160. | Q-A Review date (M) |
| 10001.160.01. | Event Type |
| 10001.170. | Care/treatment plans |
| 10001.170.1. | Care plan goals |
| 10001.170.2. | Date-time care plan started |
| 10001.170.3. | (AUTHORIZED BY PRACTITIONER) |
| | Treatment plan |
| 10010. | Treatment Plan ID (M) |
| 10010.01. | Treatment Plan Name |
| 10010.02. | Description |
| 10010.03. | Primary Practitioner ID |
| 10010.04. | Team Members(M) |
| 10010.04.01. | Team Member Role |
| 10010.05. | Total Outcome measure |
| 10010.06. | Plan Comments |
| 10010.07. | Plan Cost |
| 10010.08. | Treatment Plan Status |
| 10010.09. | Patient Management Needs (M) |
| 10010.10. | Phase Identifier (M) |
| 10010.10.01. | Problem - Health Condition (M) |
| 10010.10.02. | Clinical Order ID |
| 10010.10.03. | Clinical Order Status |
| 10010.10.04. | Target Date |
| 10010.10.05. | Outcome Goal |
| 10010.10.06. | Outcome Measure |
| 10010.10.07. | Phase Cost |
| 10010.10.09. | Treatment Regimen ID |
| 10010.10.10. | Appointment Date-time (M) |
| 10010.10.10.01. | Location |
| 10010.10.10.02. | Practitioner→PRACTITIONER SEGMENT |
| 10010.10.10.03. | Procedure (M) |
| 10010.10.10.03.01. | Problem - Health Condition ID |
| 10010.10.10.04. | Appointment Cost |
| 10010.11. | Date-time Started |
| 10010.12. | Date-time expected completion |
| 10010.13. | Date-time actual completion |
| 10010.14. | Authentication |
| | |
| XI. Diagnostic Tests | |
| | |
| 11001. | Test type identification (M) |
| 11001.01. | Specimen collection date-time |
| 11001.01.03. | Encounter ID→ENCOUNTER SEGMENT |
| 11001.01.06. | Treatment facility ordering |
| 11001.01.09. | Performing facility |
| 11001.01.12. | Attending Specialist ID |
| 11001.01.15. | Clinical Order ID→ORDERS SEGMENT |
| 11001.01.18. | Requesting Provider ID |
| 11001.01.21. | Problem/Diagnosis→PROBLEM LIST SEGMENT |
| 11001.01.24. | Source of specimen |
| 11001.01.27. | Specimen ID |
| 11001.01.30. | Collector of Specimen |
| 11001.01.33. | Data-time specimen received |
| 11001.01.36. | Condition of specimen |
| 11001.01.39. | Specimen volume |
| 11001.01.42. | Specimen Information/Preparations reqd |
| 11001.01.45. | Date-time result returned to requester |
| 11001.01.48. | Report dictation date-time |
| 11001.01.51. | Report Text |
| 11001.01.54. | Report Destination (M) |
| 11001.01.57. | Numeric Measurement/Analyte name (M) |
| 11001.01.57.01. | Value |
| 11001.01.57.02. | Units |
| 11001.01.57.03. | Interpretation |
| 11001.01.57.04. | Abnormality Basis |
| 11001.01.60. | Microbiologic organism (M) |
| 11001.01.60.01. | Attribute pattern |
| 11001.01.60.02. | Resistance pattern |
| 11001.01.60.03. | Specific Comments |
| 11001.01.63. | General Comments |
| 11001.01.66. | Performer/Technologist |

99

**E 1384**

**TABLE X1.1** *Continued*

| | |
|---|---|
| 11001.01.69. | Diagnosis Terms/Codes (M) |
| **XII. Medications** | |
| 12001. | Date-time of Prescription/Medication Order (M) |
| 12001.03. | Encounter ID→ENCOUNTER SEGMENT |
| 12001.06. | Medication name→MEDICATION PROPERTIES |
| 12001.09. | Clinical Order ID→ORDERS SEGMENT |
| 12001.12. | Prescription no. |
| 12001.15. | Prescriber ID→PRACTITIONER SEGMENT |
| 12001.18. | Prescriber location |
| 12001.21. | Problem ID→PROBLEM LIST SEGMENT |
| 12001.24. | Reason for administration |
| 12001.27. | Status of Prescription/Order |
| 12001.30. | Dose |
| 12001.33. | Unit |
| 12001.36. | Form |
| 12001.39. | Route |
| 12001.40. | Site of Administration |
| 12001.42. | Interval/Frequency |
| 12001.45. | Instructions for use (SIG) |
| 12001.48. | Total Dose prescribed/refill |
| 12001.51. | No. refills authorized |
| 12001.54. | Date of refill (M) |
| 12001.54.01. | Refill dispensing facility |
| 12001.57. | Medication Start date-time |
| 12001.60. | Medication Stop date-time |
| 12001.63. | Medication Notes |
| **XIII. Scheduled Visits** | |
| 13001. | % Date-time (M) |
| 13001.01. | Treatment Facility |
| 13001.03. | % Clinic Name |
| 13001.04. | Previous Encounter datetime→ENCOUNTER SEGMENT |
| 13001.05. | Provider ID→PRACTITIONER SEGMENT |
| 13001.07. | % Purpose/Chief Complaint |
| 13001.09. | Remarks |
| **XIV. Encounter/Episodes** | |
| 14001. | %+#Date-time of encounter/admission (M) * |
| 14001.A001. | # Name of Treatment Facility * |
| 14001.A002. | Type of Encounter (Patient Type) |
| 14001.A003. | Encounter ID |
| 14001.A004. | Confidentiality Status |
| **A. Administrative/Diagnostic Summary** | |
| 14001.A010. | Encounter Status Amb Care |
| 14001.A013. | & Treatment facility type |
| 14001.A016. | &Reason for visit |
| 14001.A020. | Encounter Patient Arrival Condition |
| 14001.A021. | Mode of Arrival (M) |
| 14001.A022. | Origin Facility ID |
| 14001.A023. | & Chief Complaint |
| 14001.A027. | Datetime of injury Trauma |
| 14001.A030. | Encounter Nature of Injury/Illness (M) |
| 14001.A033. | Encounter Mode of Injury/illness (M) [See also F003/F036] |
| 14001.A034. | Product of Injury |
| 14001.A036. | Location where injured/ill |
| 14001.A040. | Inj. on Job Status |
| 14001.A043. | Injury circumstances |
| 14001.A044. | Protective equipment used (M) |
| 14001.A046. | Injury Severity Score |
| 14001.A050. | Date of Phys Exam→PHYS EXAM SEGMENT |
| 14001.A053. | Problems (M)→PROBLEM LIST SEGMENT |
| 14001.A056. | Current Living arrangements |
| 14001.A060. | Comments |
| 14001.A063. | % Admission type InP Care |
| 14001.A066. | Admission authority |
| 14001.A070. | %# Location Admitted/Referred/Sent from |
| 14001.A073. | Referring Practitioner name→PROVIDER SEGMENT |
| 14001.A083. | Private Practitioner name→PROVIDER SEGMENT |
| 14001.A093. | Private Practitioner Notified? |
| 14001.A096. | Hospitalization type |

**TABLE X1.1** *Continued*

| | |
|---|---|
| 14001.A100. | Patient Board from |
| 14001.A103. | # Hospital Register no |
| 14001.A106. | $ Age |
| 14001.A110. | #Admitting Service |
| 14001.A113. | Referring Service |
| 14001.A116. | % Consulting Service (M) |
| 14001.A116.01. | Date assigned |
| 14001.A116.02. | Consult text |
| 14001.A116.03. | Consult Practitioner →PRACTITIONER SEGMENT |
| 14001.A120. | Provider/Attending physician (M)→PRACTITIONER SEGMENT |
| 14001.A123. | % E-R/Admitting physician→PRACTITIONER SEGMENT |
| 14001.A126. | %Ward |
| 14001.A130. | %Location admitted to |
| 14001.A133. | Type of Accommodation |
| 14001.A136. | Current Nursing Unit Assigned |
| 14001.A140. | %Floor Assigned |
| 14001.A143. | Warnings |
| 14001.A146. | Records received |
| 14001.A150. | Personal Valuables left |
| 14001.A151. | Location of Personal Valuables |
| 14001.A153. | Impairment group |
| 14001.A154. | Admit RANCHO |
| 14001.A156. | Total Admit/Encounter FIM |
| 14001.A160. | Admit FIM Element name (M) |
| 14001.A160.01. | FIM Element value |
| 14001.A163. | %Transfer date (M) |
| 14001.A163.01. | % Transfer type |
| 14001.A613.02. | % Transferred to Nursing unit |
| 14001.A163.06. | Clinical service |
| 14001.A163.10. | % Room/Bed |
| 14001.A163.13. | % Transfer diagnosis |
| 14001.A163.16. | Provider→PRACTITIONER SEGMENT |
| 14001.A170. | Diagnosis/Problem (M)→DIAGNOSIS TERM |
| 14001.A170.01. | Type(Admitting,pri,sec) |
| 14001.A170.02. | Status(Major,Minor,R/O,Inact,S/P) |
| 14001.A170.03. | Narrative |
| 14001.A173. | Indicated surgery |
| 14001.A174. | Discharge Rancho |
| 14001.A180.0 | Discharge FIM element name |
| 14001.A180.1. | FIM element value |
| 14001.A183 | Current Status SI/VSI |
| 14001.A186. | #Date-time of Clinical Status (M) |
| 14001.A186.1. | # Status (SI/VSI) |
| 14001.A186.2. | # Prognosis |
| 14001.A195. | Custodian of Personal Effects |
| 14001.A200. | NOK notified by whom |
| 14001.A203. | #Date-time NOK notified |
| 14001.A206. | Police hold |
| 14001.A210. | Date-time Notif. police |
| 14001.A213. | Date-time Notif med. examiner |
| 14001.A216. | Date-time Chaplain notified |
| 14001.A220. | Ministrations administered * |
| 14001.A223. | +Source of payment (M) |
| 14001.A223.01. | Type(primary, secondary,other) |
| 14001.A223.02. | Carrier |
| 14001.A223.03. | Mechanism |
| **B. Trauma Care/History of Present Illness** | |
| | Pre-hospital care |
| 14001.B0001. | Date-time Call Received |
| 14001.B0002. | Date-time Run Dispatched |
| 14001.B0003. | Date-time Run Arrived at the Scene |
| 14001.B00031. | Order Agency Arrived at Scene |
| 14001.B0004. | Date-time Patient Left the Scene |
| 14001.B0005. | Date-time Patient arrived at the Treatment Facility |
| 14001.B0006. | Date-time Returned to Service |
| 14001.B00061. | Date-time Trauma Surgeon arrived |
| 14001.B00062. | Date-time Neurosurgeon arrived |
| 14001.B001. | Pre-hospital Equipment/procedures (M) |
| 14001.B001.01 | Procedure date-time |
| 14001.B003. | Narrative |
| 14001.B004. | Severity in Dispatch |
| 14001.B005. | Severity at Arrival on Scene |
| 14001.B0051. | Run Number |
| 14001.B006. | Agency ID |
| 14001.B0065. | Vehicle ID |

**ASTM** E 1384

TABLE X1.1  *Continued*

| | |
|---|---|
| 14001.B007. | Dispatch Number |
| 14001.B0071. | <u>Trauma Number</u> |
| 14001.B010. | Scene Description |
| 14001.B011. | Crew ID (M) |
| 14001.B011.1. | Skill level |
| 14001.B011.2. | Procedure Performed (M) |
| 14001.B012. | Observation (M)→Consciousness |
| 14001.B012.01. | Observation value      Pre-hospital condition |
| | Pupils |
| | Neck veins |
| | Skin |
| 14001.B012.02. | Observation date-time |
| | Emergency Room Care |
| | |
| 14001.B015. | Time of Triage * |
| 14001.B016. | Condition at Triage |
| 14001.B020. | ER Disposition |
| 14001.B021. | ER Disposition Date-time |
| 14001.B024. | ER comment |
| 14001.B027 | ER Patient discharge instructions |
| 14001.B030. | Burns/location (M) |
| 14001.B030.01. | %Body |
| 14001.B030.02. | Degree |
| 14001.B033. | Fracture/location (M) |
| 14001.B033.01. | Treatment |
| 14001.B036. | Tourniquet date-time (M) |
| 14001.B036.01. | Location |
| 14001.B039. | ER Procedures (M) |
| 14001.B039.01 | Procedure Date-time |
| 14001.B042. | Tube Type (M) |
| 14001.B045. | Oxygen time started |
| 14001.B048. | Oxygen % |
| 14001.B051. | Xray-location (M) |
| 14001.B051.01. | View (M) |
| 14001.B054. | Blood Run No. |
| | |
| | Critical Care |
| 14001.B057. | Blood product Unit ID (M) |
| 14001.B057.01. | Donor ID |
| 14001.B057.02. | Product Type |
| 14001.B057.03. | Time started |
| 14001.B057.04. | Time completed |
| 14001.B057.05 | Blood type |
| 14001.B057.06 | Crossmatch Data |
| 14001.B057.07. | Volume |
| 14001.B057.08. | Cumulative volume |
| 14001.B057.09. | Comments |
| 14001.B060. | Current Diet-type |
| 14001.B063. | IV Solution/Fluid type (M) |
| 14001.B063.1. | Time started |
| 14001.B063.2. | Time last tubing change |
| 14001.B063.3. | Location |
| 14001.B063.4. | Gauge needle |
| 14001.B063.5. | Time (M) |
| 14001.B063.5.1. | Volume |
| 14001.B063.5.2. | Bottle ID |
| 14001.B063.6. | Infusion rate |
| 14001.B063.7. | Total volume (mL) |
| 14001.B063.9. | IV care |
| 14001.B069. | Fluid intake source (M) |
| 14001.B069.1 | Total vol |
| 14001.B069.2. | Time (M) |
| 14001.B069.21. | IN/OUT |
| 14001.B069.22. | Volume |
| 14001.B070. | Vital Signs/Tracking Variable Date-time (M) * |
| 14001.B070.01. | Tracking variable name (M)→Body Wt |
| 14001.B070.01.1. | Value Temp |
| 14001.B070.01.2. | Unit Pulse rate |
| | Airway clear/obs |
| | Resp rate |
| | Resp effort |
| | BP Posture |
| | Systolic BP |
| | Diastolic BP |
| | Mean BP |
| | Wedge P |

TABLE X1.1  *Continued*

| | |
|---|---|
| | Level of consciousness |
| | Verbal Resp |
| | Pupil size |
| | Pupil reaction |
| | Eye opening |
| | Motor resp |
| | Capillary refill |
| | GCS |
| | Trauma score |
| 14001.B072. | Medication ID (M)→MEDICATION/PRESCRIPTION SEGMENT |
| 14001.B072.01. | Date-time administered (M) |
| 14001.B072.01.01. | Person administering |
| 14001.B072.01.02. | Clinical Order ID→ORDERS SEGMENT |
| 14001.B072.01.03 | Time next dose |
| 14001.B072.01.04. | Comments |
| 14001.B072.02. | No. doses administered |
| 14001.B075. | Lab test ID (M)→DIAGNOSTIC TEST SEGMENT |
| 14001.B075.01. | Date-time (M) |
| 14001.B075.01.01. | Specimen ID |
| 14001.B078. | Intensive Care date-time (M) |
| 14001.B078.01. | Summary text |
| 14001.B078.02. | Practitioner ID→PRACTITIONER SEGMENT |
| 14001.B081. | Order ID (M)→ORDERS SEGMENT |
| 14001.B084. | Problem ID (M)→PROBLEM LIST SEGMENT |
| | |
| C. Clin Course/Nursing Care Plan | |
| | |
| 14001.C001. | Primary Nurse/Therapist |
| 14001.C003. | Nursing Diagnosis |
| 14001.C006. | Long Term Care goals |
| 14001.C009. | Nursing Short Term Goals |
| 14001.C012. | Nursing Short Term Goal Deadline |
| 14001.C015. | Nursing Requirement Category (Acuity) |
| 14001.C018. | Patient Profile Attribute (M) |
| 14001.C018.1. | Attribute Value |
| 14001.C021. | Community Services Used |
| 14001.C024. | Nursing Approach |
| 14001.C027. | Clinical Course Measurement→Wt This Admission |
| 14001.C027.1. | Clinical Course Measurement Value Ideal Body Weight |
| 14001.C027.2. | Clinical Course Measurement Unit Ht This Admission |
| | Body Surface Area |
| | Skinfold Thickness |
| | Arm Circumference |
| | Wrist Circumference |
| | Skinfold as % of std |
| | Muscle as % of std |
| 14001.C055. | Diet chg date-time (M) |
| 14001.C055.1. | Type |
| 14001.C058. | Hygiene (oral & general) (M) |
| 14001.C061. | Vital sign frequency |
| 14001.C062. | Allergies (M) |
| 14001.C065. | Discharge objective ID (M) |
| 14001.C065.01. | Objective text |
| 14001.C065.03. | Functional Goal (M) |
| 14001.C065.06. | Objective Date |
| 14001.C065.09. | Actions |
| 14001.C068. | Anticipated Disposition |
| 14001.C070. | Est Discharge date |
| 14001.C073. | Aftercare Plan |
| 14001.C075. | Nursing Problem no (M)→PROBLEM SEGMENT |
| 14001.C078. | General Review of Systems (M) |
| 14001.C078.01. | Text |
| 14001.C080. | Date-time sched. tests/consults/Surgery (M) |
| 14001.C080.01. | Type |
| 14001.C080.02. | Place to be conducted |
| 14001.C080.03. | Date-time ordered |
| 14001.C080.04. | Date-time completed |
| 14001.C085. | Treatment types (M) |
| 14001.C085.01. | Date-time ordered |
| 14001.C085.02. | Date-time scheduled |
| 14001.C085.03. | Date-time completed |
| 14001.C090. | Patient Instruction date (M) |
| 14001.C090.01. | Type |
| 14001.C090.02. | Text |
| 14001.C090.03. | Verification |

**E 1384**

**TABLE X1.1**  *Continued*

C. Clinical Course Nursing Notes

| | |
|---|---|
| 14001.C100 | Nursing Notes date-time |
| 14001.C100.1 | Text |
| 14001.C100.2 | Nurse ID |

C. Clin Course/Rehabilitative Care Section

| | |
|---|---|
| 14001.C110. | Rehabilitative Service ordered (M) |
| 14001.C110.01. | Unit |
| 14001.C110.02. | Description |

C. Clin Course Dietetics/Nutritional Care Plan

| | |
|---|---|
| 14001.C120. | Food intake date-time (M) |
| 14001.C120.01. | Food ID (M) |
| 14001.C120.01.01. | Amt |
| 14001.C120.01.02. | Unit |
| 14001.C120.02. | Nutrient (M) |
| 14001.C120.02.01. | Level/day |
| 14001.C120.02.02. | Unit |
| 14001.C122. | Nutritional Status |
| 14001.C123. | Response to Diet |
| 14001.C125. | Diet type |
| 14001.C128. | Diet/Nutrition Comments |

C. Clin course/Progress Notes

| | |
|---|---|
| 14001.C130. | Progress Notes date-time (M) |
| 14001.C130.01. | Text |
| 14001.C130.03. | Physician - Authenticator ID→PRACTITIONER SEGMENT |

D. Therapies

| | |
|---|---|
| 14001.D001. | Therapy type (M) |
| 14001.D001.01. | Date-time commenced (M) |
| 14001.D001.01.01. | Date-time completed |
| 14001.D001.01.03. | Problem ID→PROBLEM LIST SEGMENT |
| 14001.D001.01.05. | Clinical Order ID→ORDERS SEGMENT |
| 14001.D001.01.07. | Location delivered |
| 14001.D001.01.11. | Beginning patient condition |
| 14001.D001.01.13. | Ending patient condition |
| 14001.D001.01.15. | Status of Therapy |
| 14001.D001.01.17. | Specific preparation for therapy |
| 14001.D001.01.18. | Type of Product/Service (M) |
| 14001.D001.01.18.01. | Amount of product |
| 14001.D001.01.19. | Durable Equipment Used |
| 14001.D001.01.21. | Progress Assessment |
| 14001.D001.01.22. | Results of Treatment |
| 14001.D001.01.23. | Clinical Evaluation of results |
| 14001.D001.01.25. | Performing Practitioner name→PRACTITIONER SEGMENT |
| 14001.D001.01.27. | Recommendations |

E. Operative Procedures

| | |
|---|---|
| 14001.E001. | Operation Patient arrival Date-time (M) * |
| 14001.E001.02. | Isolation |
| 14001.E001.04. | Category |
| 14001.E001.06. | Case type |
| 14001.E001.08. | Case no. |
| 14001.E001.10. | O.R. no. |
| 14001.E001.12. | Ordering station no. |
| 14001.E001.14. | Donor type (M) |
| 14001.E001.14.01. | Name |
| 14001.E001.17. | Operative Positions |
| 14001.E001.20. | Positional aids |
| 14001.E001.22. | Was evidence removed from patient? |
| 14001.E001.24. | Patient seen by anesthesiol. date-time |
| 14001.E001.26. | Anesthesia start time |
| 14001.E001.28. | Anesthesia ready time |
| 14001.E001.30. | Operation start time |
| 14001.E001.32. | Operation complete time |
| 14001.E001.34. | Anesthesia end time |
| 14001.E001.36. | Patient depart time |
| 14001.E001.38. | Physical status |
| 14001.E001.40. | Operation description * |
| 14001.E001.42. | Pre-operative Comment |

**TABLE X1.1**  *Continued*

| | |
|---|---|
| 14001.E001.44. | Operation Measurement (M)→Vitals(T,P,R,BP,Wt) |
| 14001.E001.44.1. | Measurement value HGB |
| | RBC |
| | HCT |
| | Lab-Test-ID (M) |
| | Result |
| | UA Nor/Abn |
| 14001.E001.46. | Check Record |
| 14001.E001.48. | Check Patient |
| 14001.E001.50. | OR Nurse ID |
| 14001.E001.51. | Resp status (text) |
| 14001.E001.52. | Circulatory status (text) |
| 14001.E001.53. | CNS status (text) |
| 14001.E001.54. | Prev. anesth. complications (text) * |
| 14001.E001.55. | Premedication name (M) * |
| 14001.E001.55.01 | Dose |
| 14001.E001.55.02 | Route |
| 14001.E001.55.03. | Time |
| 14001.E001.55.04. | Effect |
| 14001.E001.56. | Preoperat. diagnosis * |
| 14001.E001.57. | Postoperative diagnosis * |
| 14001.E001.58. | Surgeon (M) *→PRACTITIONER SEGMENT |
| 14001.E001.58.01. | Role (Primary,Assistant,Resident) |
| 14001.E001.60. | Anesthesiologist→PRACTITIONER SEGMENT |
| 14001.E001.61. | Anesthesiology Resident→PRACTITIONER SEGMENT |
| 14001.E001.62. | Anesthetist→PRACTITIONER SEGMENT |
| 14001.E001.63. | O.R. Staff position (M) |
| 14001.E001.63.01. | Name |
| 14001.E001.64. | Induction (Sat/Unsat) * |
| 14001.E001.65. | Induction comments |
| 14001.E001.66. | Endotracheal tube type * |
| 14001.E001.67. | E.T. tube comments |
| 14001.E001.68. | Time blood ordered for O.R. (M) |
| 14001.E001.68.01. | No units |
| 14001.E001.69. | Operative procedure (M) * |
| 14001.E001.69.001. | Procedure Datetime |
| 14001.E001.70. | Specimen ID (M) |
| 14001.E001.70.01. | Site |
| 14001.E001.70.02. | Processing |
| 14001.E001.70.03 | Findings |
| 14001.E001.71. | Anesthetic agent (M) * |
| 14001.E001.71.01. | Dose |
| 14001.E001.71.02. | Unit |
| 14001.E001.71.03. | Anesthetic technique |
| 14001.E001.72. | Post anesthesia assessment |
| 14001.E001.73. | Event-time (M) |
| 14001.E001.73.01 | Event code |
| 14001.E001.73.02 | Value |
| 14001.E001.73.03 | Fluid type * |
| 14001.E001.73.04 | Fluid volume * |
| 14001.E001.73.05. | Position |
| 14001.E001.73.06. | Positional aid |
| 14001.E001.74. | Blood loss tital (No units used) |
| 14001.E001.75. | Extra supplies name (M) |
| 14001.E001.75.01. | Amount |
| 14001.E001.76. | K-Thermia |
| 14001.E001.78. | Cautery site |
| 14001.E001.80. | Casts applied |
| 14001.E001.82. | Implants/Drains/Ligatures (M) |
| 14001.E001.84. | Tourniquet time (M) |
| 14001.E001.84.01. | Tourniquet location |
| 14001.E001.85. | Urinary catheter place time |
| 14001.E001.86. | Needle counts(M) |
| 14001.E001.87. | Instrument counts(M) |
| 14001.E001.88. | Sponge counts(M) |
| 14001.E001.90. | Recovery (text) |
| 14001.E001.91. | Complications |
| 14001.E001.92. | Post operative Remarks * |
| 14001.E001.93. | Operative Report dictation date |
| 14001.E001.94. | Operative Report dictated by→PRACTITIONER SEGMENT |
| 14001.E001.95. | Operative report text |

F. Disposition

| | |
|---|---|
| 14001.F001 | (PRINCIPAL OPERATIVE PROCEDURE) |

**ASTM E 1384**

| | |
|---|---|
| 14001.F003 | (PRIMARY SURGEON) |
| 14001.F006. | Assistant Surgeon - Surgeon (M)→PRACTITIONER SEGMENT |
| 14001.F013. | + Operative procedure (M) *→PROCEDURE TERM/CODE |
| 14001.F013.01. | Date |
| 14001.F013.02. | Surgeon→PRACTITIONER SEGMENT |
| 14001.F013.03. | Type (pri,sec,etc) |
| 14001.F014. | Encounter Procedure (M)→PROCEDURE TERM/CODE |
| 14001.F016 | Primary diagnosis code |
| 14001.F020 | Primary diagnosis narrative |
| 14001.F023 | Principal diagnosis code |
| 14001.F026 | Principal diagnosis narrative |
| 14001.F030. | + Patient Diagnosis (M)→DIAGNOSIS TERM/CODE |
| 14001.F030.01. | Type (pri,sec,etc) |
| 14001.F030.03. | Narrative |
| 14001.F036. | Encounter Etiology (M)→ETIOLOGY TERM/CODE) |
| 14001.F040. | +#Disposition Datetime * |
| 14001.F043. | Physician Authorizing Discharge→PRACTITIONER SEGMENT |
| 14001.F046. | #%Disposition type |
| 14001.F050. | & Disposition |
| 14001.F053. | Departure Date/time |
| 14001.F056. | Followup action |
| 14001.F060. | Follow-up status |

| | |
|---|---|
| 14001.F063. | Follow-up target date |
| 14001.F066. | Condition on discharge/departure |
| 14001.F070. | Reason for discharge |
| 14001.F073. | Person Accompanying patient from facility |
| 14001.F076. | Disposition transport type |
| 14001.F080. | #$ Disposition Destination |
| 14001.F083. | Patient Disposition Instructions |
| 14001.F086. | Patient signature |
| 14001.F090. | Discharge Summary Dictation date |
| 14001.F093. | Length of acute care stay |
| 14001.F096. | Length of Rehabilitation services |
| 14001.F100. | Total ICU days |
| 14001.F101. | % Dischg Summary date |
| 14001.F105. | Narrative Discharge Summary |
| 14001.F110. | # Physician ID→PRACTITIONER SEGMENT |
| G. Charges | |
| | |
| 14001.G001. | Charge Item Name (M) |
| 14001.G001.01. | Medical Service Code |
| 14001.G001.02. | Medical Service date |
| 14001.G001.03. | Medical Service Comment |
| 14001.G001.04. | Charge Value |
| 14001.G003. | Workman's Comp Claim filing status |
| 14001.G006. | Workman's Comp Claim ID |

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## ADDITIONAL MATERIAL

(1) Guide E 1869 for Confidentiality, Privacy, Access and Data Security Principles for Health Information Including Computer Based Patient Records[2]

(2) Guide E 1985 for User Authentication and Authorization[2]

(3) Guide E 1986 for Information Access Privileges to Health Information[2]

(4) Guide E 1987 for Individual Rights Regarding Health Information[2]

(5) Guide E 1988 for Training of Persons who have Access to Health Information[2]

(6) Guide E 2017 for Amendments to Health Information[2]

(7) Specification E 2084 for Authentication of Healthcare Information Using Digital Signatures[2]

(8) Guide E 2085 on Security Framework for Healthcare Information[2]

(9) Guide E 2086 for Internet and Intranet Healthcare Security[2]

(10) Specification E 2147 for Audit and Disclosure Logs for Use in Health Information Systems[2]

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