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Standard Practice for an Object-Oriented Model for Registration, Admitting, Discharge, and Transfer (RADT) Functions in Computer-Based Patient Record Systems¹

This standard is issued under the fixed designation E 1715; 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 practice is intended to amplify Guide E 1239 and to complement Guide E 1384 by detailing the objects that make up the reservation, registration, admitting, discharge, and transfer (RADT) functional domain of the computer-based record of care (CPR). As identified in Guide E 1239, this domain is seminal to all patient record and ancillary system functions, including messaging functions used in telecommunications. For example, it is applicable to clinical laboratory information management systems, pharmacy information management systems, and radiology, or other image management, information management systems. The object model terminology is used to be compatible with other national and international standards for health care data and information systems engineering or telecommunications standards applied to health care data or systems. This practice is intended for those familiar with modeling concepts, system design, and implementation. It is not intended for the general computer user or as an initial introduction to the concepts.

2. Referenced Documents

- 2.1 ASTM Standards:
- E 1238 Specification for Transferring Clinical Observations Between Independent Computer Systems²
- E 1239 Guide for Description of Reservation/Registration-Admission, Discharge, Transfer (RADT) Systems for Automated Patient Care Information Systems²
- E 1384 Guide for Description for Content and Structure of an Automated Primary Record of Care²
- E 1633 Specification for Coded Values Used in Computer-Based Patient Record²
- E 1639 Guide for Functional Requirements of Clinical Laboratory Information Management Systems²
- E 1744 Guide for a View of Emergency Medical Care in the Computer-Based Patient Record²
- F 1629 Guide for Establishing and/or Operating Emergency Medical Services Management Information Systems

2.2 ANSI Standard:

ANSI X3.172 Dictionary of Information Systems³ 2.3 *IEEE Standard:*

IEEE 1157.1 Trial Use Standard for Healthcare Information Interchange—Information Modelling (6 June 1994)⁴ 2.4 Other Document:

HL-7 v2.2 Data Communication Standard⁵

3. Terminology

- 3.1 General terms are defined in ANSI X3.172.
- 3.2 Definitions of Terms Specific to This Standard:
- 3.2.1 *functional domain*—that area of activity that encompasses a given function. (HL-7, v2.2)
- 3.2.2 health care domain—that functional domain encompassing all aspects of the delivery of health care, both preventive and corrective, to patients, and the management of resources enabling that care to be delivered. (HL-7, v2.2)

4. Background

4.1 Object Representation of RADT Processes—Guide E 1239 provides the experiential background of the functions in RADT. These functions are common to all systems that deal with patient data. The minimal essential data elements for RADT were identified and characterized partly in Guide E 1239. Table 1 of that guide identifies a logical data structure for the data elements, but it does not relate these elements to constituent "entities" or "objects" in the sense that they are now used in analysis. Entity-relationship modeling is one major technique used $(1)^6$ to establish the conceptual "things" and their relationships involved in this overall functional domain. "Objects" (2, 3) is another term for these things, and the object concept involves very specific characteristics associated with a defined object such as encapsulation and inheritance. Common ground exists between entity and object representations of models. However, the object terminology is

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² Annual Book of ASTM Standards, Vol 14.01.

 $^{^3}$ Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

⁴ Available from IEEE, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331.

⁵ Available from Health Level Seven, 900 Victors Way, Suite 122, Ann Arbor, MI 48108.

⁶ The boldface numbers in parentheses refer to the list of references at the end of the standard.

TABLE 1 Data Element Datatypes

Туре	Standard Tag/ Mnemonic
Name	Name
Number	Num
Code	Code
Datetime	Dtm
Signature	Sig
Text	Text
Quantity	Qty

still evolving into a clearly established dictionary associated with object modeling at the analysis (2), design (3), and implementation (3) levels of information systems engineering.

- 4.1.1 At the analysis level, which is most relevant to implementation-independent standards creation, the static level is first in importance since it identifies the involved objects and their static characteristics, such as definitions, relationships, and inheritance. Subsequently, the service/messages communication properties constitute the second level of importance, because they specify the dynamics of system behavior. However, messages are more difficult to define since system behavior patterns are more complex. This secondary domain also involves the telecommunications aspects that are the focus of other standards bodies. Because of the distributed and networked architectures of the newest systems, telecommunications may be of prime importance in qualifying the definitions of system behavior identified in Guide E 1239. For all of these reasons, it is of special importance to initially establish an object-oriented static model for the RADT functional domain that can be the basis for definitions of health care data management and standards setting and serve as a foundation for modeling telecommunications standards.
- 4.1.2 While this practice was being developed, a joint working group (JWG) on data modeling of the then American National Standards Institute (ANSI) Healthcare Informatics Standards Planning Panel (HISPP), now Health Informatics Standards Board, began work on a common data model (CDM) for the health care information domain. A JWG data modeling convention document (IEEE 1157.1) guides the conventions to be used, and this practice reflects those conventions as they are currently known. It is intended that this practice contribute to establishing the RADT core of the CDM. The exact boundaries of the RADT functional domain have not yet been agreed on formally. The objects included here are those that involve data generally associated with administrative and demographic functions in patient care but that may also be linked with other functional domains involved with health care.
- 4.2 Inclusion of Emergency Medical Systems Functions—This practice also takes note of the recent work of the emergency medical systems (EMS) standards ASTM Subcommittee F30.03.03 on Data Management Systems in defining the pre-hospital and associated emergency room data (Guide F 1629) required for emergency medical service system management. The hospital and emergency room data are a subset of that identified in Guide E 1384 and is consistent with the statement of Steen and Dick (4) that EMS data are part of the primary record of care. This concept has already been recognized in several state statutes that are part of the implementation of an injury control plan by the Centers for Disease

Control (see Guide E 1744). This RADT object model practice extends those data elements already defined in Guide E 1384 and Specification E 1633 by associating them with common RADT objects, as defined here, that form the basis for a predictable system behavior for trauma data. The behavior of clinical data will be defined subsequently in following standards.

4.3 Relationships to Other Systems—This practice also identifies those objects in the RADT functional domain that are required by clinical laboratory information management systems (CLIMS) (Guide E 1639), radiology information systems (RIS), and other ancillary systems. This model also forms the core for a basic ambulatory record system, and specialized variants, in support of clinical specialties in medicine and dentistry. The object models for these ancillary and specialized computer-based patient record (CPR) systems are defined in other standards that constitute the "family of models" that extend the RADT function.

5. Significance and Use

5.1 RADT Object Model as a Basis for Communication— The RADT object model is the first model used to create a common library of consistent entities (objects) and their attributes in the terminology of object analytical models as applied to the health care domain. These object models can be used to construct and refine standards relating to health care information and its management. Since the RADT object model underpins the design and implementation of specific systems, it provides the framework for establishing the systematics of managing observations made during health care. The observations recorded during health care not only become the basis for managing an individual's health care by practitioners but are also used for research and resource management. They define the common language for abstracting and codifying observations. The inconsistency and incompleteness of the data recorded in paper records is well known and has been noted by the Institute of Medicine's study (4). The ability to build the recommended CPR begins with RADT, as noted in Guide E 1239. A more detailed specification of the RADT process and its specific functional domain shall begin with a formal model. Furthermore, following agreement on the initial model, that model shall evolve as knowledge accumulates and the initial view of the health care domain extends to other social and psychologic processes that link health care with other functional domains of society. The management of lifelong cases of care, such as those of birth defects in newborns, will involve interactions with social work and educational functional domains of experience. It has been recognized for some time (5) that a "health care team," in the broader sense, is involved in dealing with these complex cases. The RADT model is the core to linking these functional domains together in a transparent way. For that reason, the object terminology is used to enable the most global view and vernacular that will facilitate communication among technical specialties that participate in managing some aspect of health care or that build systems to manage the required information.

5.2 Common Terminology as a Basis for Education—The use of models and their associated terminology implies that education of the health care practitioners shall incorporate this

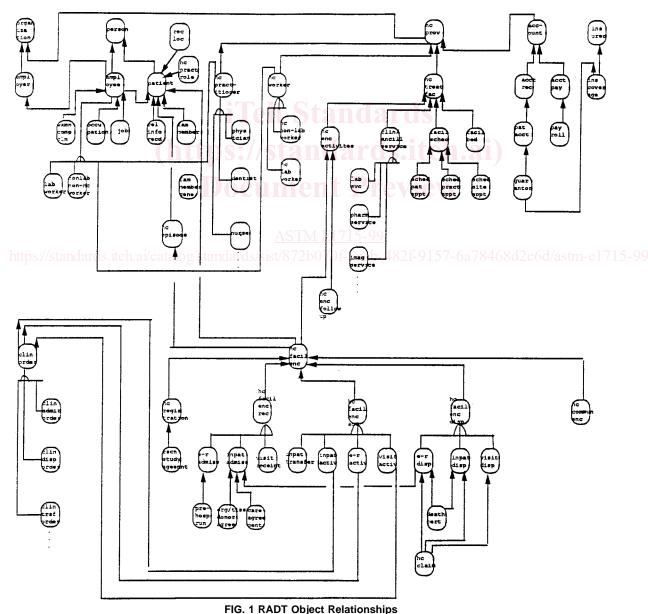


view to a significant extent. While a detailed specification of systems requires extensive lexicons of carefully defined terms, a more understandable terminology shall evolve for the process of educating practitioners during their formal education as well as continuing to educate current practioners concerning how this new technology can be integrated with their existing practices. This challenge has yet to be met, but the objects and modeling concepts presented here are intended to be named with the most intuitive titles in order to promote clear understanding during their use in instruction. Nevertheless, relating these objects and their properties to everyday practice remains a significant challenge, for both the implementors of systems and educators. The perspectives cataloged here can be used in the creation of system documentation and curricula represented in a variety of media.

6. Graphic Representation

6.1 The graphic representation in Fig. 1 of the relationships

among the objects depicts the static inheritance properties of the constituent objects. They are exploded in Fig. 2 and Fig. 3. These properties and others, such as definitions, are given in tabular form in Section 7. Graphic depiction provides a more comprehensive overview of the global structure of this functional domain, thus enabling the reader to appreciate all of the parts of the model at a glance. This depiction also aids the reader when probing the specific attributes and other properties of the objects given in the tabular section. There are five object groups/subject areas (2), or subaggregates of objects with certain common characteristics. These relationships are more easily understood graphically. The notation is from Coad and Yourdon (2). Two main concepts are involved. The first, represented by separate lines and arrowheads, is the "is a component of" relationship, which implies the parts of a whole. The second concept, represented by a branching tree, is the "is a special case of" relationship, which implies encapsulation of



3

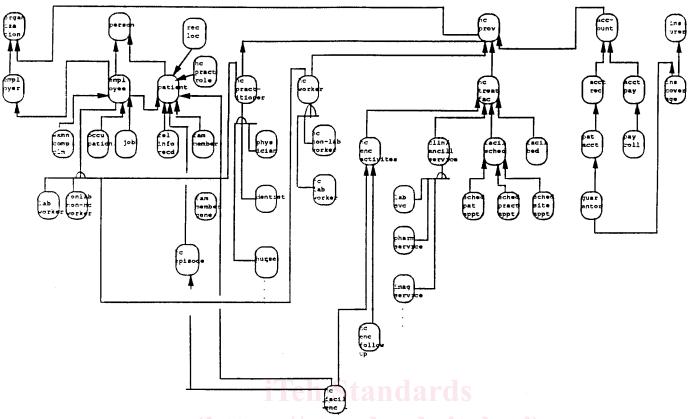


FIG. 2 People, Organization, Fiscal, Facilities Relationships

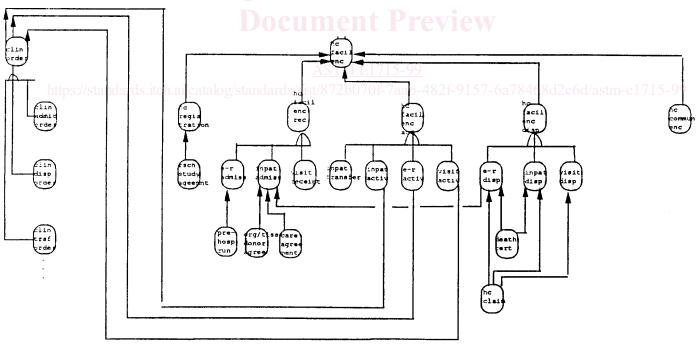


FIG. 3 Clinical Activity and Encounter Relationships

the special attributes that differentiate the individual characteristics of a more general object. The combination of these two relationships permits all of the complexities in the static interrelationships of the constituent objects comprising the model to be represented. Instance connections are a weaker

form of relationship that have not been included in the basic framework for this model. Instance connections show references to master system tables of context-insensitive entities. These same terms appear in the tabular representation. The sequential application of these relationships, visually from the



top down in Fig. 1, depict the inheritance properties since the objects later in the sequence of the relationships inherit the attributes from those earlier in the sequence. These concepts are all explained by Coad and Yourdon (2).

7. Tabular Representation

7.1 Table 1 and Table 2 and Annex A1 provide the detailed attributes of the objects and should be compared with Table 1 of Guide E 1239 and Annex A1 of Guide E 1384, which show the integrated logical structure of the computer-based primary record of care. The latest revision of Guide E 1384 associates each data element with an index that uniquely identifies its segment location in Annex A1 and provides a definition and references its representation. Certain data elements with coded values have their value sets, which are also identified in that specification by its specific index contained in Guide E 1384. The definitions, mnemonics, and associated attributes of the objects in the RADT object model are given in Table A1.1 of Annex A1 of this practice. The object mnemonics that are used in the construction of standardized short names for the data elements indexed and characterized in Guide E 1384 are given as attributes in this practice. A standardized short name begins with the object mnemonic and ends with a datatype substring given in Table 1. The object mnemonics are given in Table 2. Each substring begins with a sequence of uppercase letters followed by a sequence of lowercase letters. The beginning object mnemonic and ending datatype substrings are required. These characterizations provide the static properties of the RADT object model. The operational global implications of the dynamic properties of the RADT functional domain will be detailed in future versions of Guide E 1239, while the specific attributes comprising messages involving RADT objects will be specified in other standards, such as Specification E 1238, HL-7 v2.2, IEEE 1157.1, and others. The interrelationship of the objects defined here to other objects in ancillary or specialized CPR systems will be found in the standards focused on those specialty systems, such as Guide E 1639.

8. Explanation of Subject Areas

8.1 People Subject Area—This group of objects characterizes the properties of individuals in the RADT functional domain. The top level in this hierarchy is the person object. The generic attributes of all persons are contained in that object. The employee/worker object is included because it encapsulates attributes of the employee properties of not only patients but also those of workers in health care, including those generally skilled in addition to those skilled in ancillary as well as practitioner skills, in order to deal with the occupational illness and injury of these workers in an entirely consistent fashion. The guarantor status of each recipient is thus dealt with in a consistent manner, whether or not the individual works for the health care organization. The employee/worker object also inherits from the "organization" subject area because he/she works for an "employer." The "occupation" object is a component multiple attribute of person objects because it is context insensitive, but" job" objects relate to the "employee/worker" object since their attributes are a function of the work environment, tasks, and potential hazards.

8.2 Fiscal Subject Area—This subject area characterizes the

TABLE 2 Names of Objects Contained in the RADT Mode

TABLE 2 Names of Objects Containe	d in the RADT Model
Object Name	Tag/Mnemonic
Clinical Activities	
Care agreement	CAgrmnt
Care record location	RLoc COrd
Clinical order/service request Clinical admission order	CADOrd
Clinical disposition order	CDOrd
Clinical transfer order	CTOrd
Death certificate	DCert
Emergency room admission	ERAdm
Emergency room activities	ERAct
Emergency room disposition Health care ambulatory visit receipt	ERDisp HCAVRec
Health care ambulatory visit activities	HCAVAct
Health care ambulatory visit disposition	HCAVDisp
Health care communication encounter	HCCEnc
Health care encounter activity	HCEAct
Health care encounter followup	HCEFup
Health care episode Health care facility encounter	HCEp HCFEnc
Health care facility encounter activities	HCFEAct
Health care facility encounter disposition	HCFEDisp
Health care facility encounter receipt	HCFERec .
Health care registration	HCReg
Health care visit	HCVis
Inpatient activities Inpatient admission	IAct IAdm
Inpatient dumission Inpatient transfer	ITrns
Inpatient disposition	IDis
Organ/tissue donor agreement	Urg
Pre-hospital run	PREHosp
Research study agreement	RSCHAgr
Scheduled appointment	SCHAppt
Scheduled patient appointment Scheduled equipment appointment	SCHPIAppt SCHEQAppt
Scheduled practitioner appointment	SCHPRAppt
Scheduled site appointment	SCHSITAppt
Facilities	
Health care treatment facility	HCTFac
Facility bed Facility schedule	FACBed FACSch
Clin/ancillary service	CANSvc
Clinical laboratory organizational service	CLAB
Pharmacy ancillary service	PHARANSvc
Imaging ancillary service 57-6878468d20	MANSvc1-e1715-99
Fiscal Account	Acc
Account payable	ACCPay
Account receivable	ACCRec
Patient account	ACCPt
Other account	ACCOth
Guarantor Health care claim	Guar
Insurer	HCCIm Insr
Insurance coverage	INSCov
Workman's compensation claim	WCCIm
Organization	
Organization	Orgn
Employer/company Health care provider	Emplr HCPrv
People	HOFIV
Person	Pers
Employee/worker	Emply
Family member	FAMMbr
Patient	Pt
Release of information record Health care practitioner	REINRcd HCPract
Health care practitioner, physician	HCPPhy
Health care practitioner, dentist	HCPDent
Health care practitioner, nurse	HCPNur
Health care practitioner, nurse practitioner	HCPNPr
Health care worker	HCWkr
Occupation	Occ
Job	Job



most basic properties of the claims and benefits properties. It is included to contain those data needed by the practitioners in devising treatment plans that are within the means of the individual as well as those data that characterize the resources allocated to the staff. It is an initial framework for understanding the management of resources within health care.

8.3 Organizational Subject Area—The objects in this subject area characterize the general properties of organizations and the responsibilities they have for the individuals they employ, including the elected or mandated benefits and workplace health and safety responsibilities. These properties are inherent in health care-providing organizations, in addition to their clients to whom they provide services. The "organization" object encapsulates the most general attributes of an organization without employees, while the employer function is represented by the employer object. A health care provider in the facilities subject area characterizes the highest level business functions of a health care organization.

8.4 Facilities Subject Area—This subject area is intended to characterize the properties of each facility and health care work site, both from the contribution to resource management as well as support of care to individual patients at the time of clinical encounters. The inheritance of these attributes into the primary record of care still requires study. The common designation of specialty and subspecialty subunits of a health

care provider ("clinical service") is dependent on a yet-to-beagreed-on naming rules convention that would define the special cases and their attendent unique attributes. Some commonality in these designations would aid health service and outcomes research that identify the best recommended services for identified populations and problems.

8.5 Clinical Activities Subject Area—This subject area is the important core to all aspects of the primary record of care and the supporting ancillary services. The health care facility encounter, and the immediate hierarchy of objects under it that characterize the properties of the range of health care settings outlined in Guide E 1384, provides the partitioning of attributes that enable the characterization of all situations of encounter and settings of care. They encapsulate the attributes of such situations and settings that we enumerate currently but do not restrict any further partitioning or identification of new attributes. All encounters have been recognized to have three major phases, with registration review an implicit fourth component and communication situations still assigned provisionally in the hierarchy.

9. Keywords

9.1 computer-based patient record (CPR); object modeling; registration, admitting, discharge, and transfer (RADT); reservation

(https://stannex.ards.iteh.ai)

(Mandatory Information)

A1. PROPERTIES OF RADT OBJECTS

A1.1 The definitions, mnemonics, and associated attributes of the objects in the RADT object model are given in Table A1.1.

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TABLE A1.1 Properties of RADT Objects

Cara Agraement	Object and Class
Care Agreement	Object and Class
	Relationships:
	Is a component of: inpatient admission
	Inherits from:
	Inpatient admission
	Health care facility encounter
	Health care facility encounter receipt
	Patient
	Person
	A legal document detailing the conditions that the patient consents
	to care during residency in this facility.
	Attributes:
02001	consent signed/admit agreement
02005	patient rights acknowledgment
02010	authority for autopsy
02015	release of body to morgue
02020	consent for videotp/observ
02030	directive to physician
02040	organ donor type
02045	court-ordered care

Relationships:



Is a special case of: clinical order/service request Inherits from: Clinical order/service request Health care facil encounter Health care facil encounter activities Person Patient Health care encounter activity Health care treatment facility Health care provider Organization This object characterizes the special properties of the action to induct a patient into a resident status in a health care treatment facility. Attributes: Object and Class Clinical Disposition Order Relationships: Is a special case of: clinical order/service request Inherits from: Clinical order/service request Person Patient Health care facility encounter Health care facility encounter activities Health care encounter activity Inpatient activities Organization Health care provider Health care treatment facility This object characterizes the special properties of the action to release a resident patient from the responsibility of a health care treatment facility. Attributes: Clinical Order/Service Request Class Relationships: Is a component of: emergency room activities Is a component of: health care ambulatory visit activities Is a component of: inpatient activities Inherits from: Person Patient Health care encounter activity Health care treatment facility Health care provider Organization Health care facility encounter Health care facility encounter activities This object encompasses the general properties of a clinical action message, or "clinical order." It characterizes the properties common to all types of clinical orders by identifying the addressee, subject, circumstances, and control properties of the action ordered. It does not include those special properties of the addressee specialty. Attributes: 10001 CLIN order ID number 10001.002 CLIN order patient status 10001.009 CLIN order date-time of order 10001.010 CLIN order type 10001.013 CLIN order action 10001.015 CLIN order priority CLIN order pre-admit status 10001.017 10001.019 CLIN order origin 10001.021 CLIN order parent order 10001.022 CLIN order multiple seq status 10001.023 CLIN order related orders 10001.025 CLIN order user 10001.027 CLIN order user sig 10001.029 CLIN order nurse ID 10001.031 CLIN order nurse sig 10001.033 CLIN order ordering practitioner name 10001.035 CLIN order ordering practitioner sig 10001.037 CLIN order countersigning practitioner name 10001.039 CLIN order countersigning practitioner sig 10001.041 CLIN order nurse sig needed status 10001.043 CLIN order nurse sig needed datetime

	IABLE AT.1	Continued
10001.045		CLIN order practitioner sig needed status
10001.047		CLIN order practitioner sig needed datetime
10001.049		CLIN order countersig needed status
10001.051		CLIN order countersig needed by datetime
10001.052		CLIN order discontinued by practitioner name
10001.053		CLIN order discontinued practitioner sig
10001.055		CLIN order confirmation recd datetime
10001.057		CLIN order commitmation record date time CLIN order active/pending flag
		· · ·
10001.059		CLIN order active status
10001.061		CLIN order pending status
10001.063		CLIN order inactive status flag
10001.065		CLIN order start status
10001.067		CLIN order execution frequency
10001.069		CLIN order duration of service
10001.071		CLIN order latest status chg datetime
10001.073		CLIN order reactivation datetime
10001.075		CLIN order reg fm ancillary
10001.077		CLIN order ancillary activ datetime
10001.079		CLIN order result expectation datetime
10001.081		CLIN order telephone result flag
10001.083		CLIN order telephone to request destination
10001.085		CLIN order request scheduled flag
10001.087		CLIN order requested appt time
10001.089		CLIN order appt type
10001.009		CLIN order appt transport status
		···
10001.093		CLIN order appt status
10001.095		CLIN order assigned appt time
10001.097		CLIN order health service ordered
10001.099		CLIN order principal problem
10001.100		CLIN order full text
10001.102		CLIN order location of service
10001.104		CLIN order freq ordered SVC
10001.106		
10001.108		CLIN order modification reason
10001.110		CLIN order non-modify flag
10001.112		CLIN order instructions
10001.114		CLIN order secondary orders
10001.116		CLIN order message
10001.118		CLIN order date-time completed
10001.120		CLIN order result acknowl datetime
10001.120.01		CLIN order result shiftcare plan date
10001.120.02		CLIN order result return flag
10001.120.03		
10001.120.04		CLIN order result return datetime
10001.120.05		CLIN order result return acknl by 68d2c6d/astm-e1715-99
10001.120.06		CLIN order result return comment
10001.123		CLIN order date-time order completed
10001.140		CLIN order Q-A warning datetime
10001.140.1		CLIN order Q-A warning text
10001.140.2		CLIN order Q-A warning disposition
10001.140.3		CLIN order Q-A warn override practitioner
10001.140.4		CLIN order Q-A warn authorized by practitioner
10001.140.5		CLIN order Q-A warning override justification
10001.160		CLIN order Q-A review date
10001.160.01		CLIN order Q-A review event type
Clinical Transfer Order		Object and Class
Cirrical Haristel Older		Object and Olass
		B 1 / 11

Relationships: Is a special case of: clinical order/service request

Inherits from:

Person

Patient

Health care encounter activity

Health care treatment facility

Health care provider

Organization
Health care facility encounter
Health care facility encounter activities

Inpatient activities

Clinical order/service request
This object characterizes the special properties of the action to
move a resident patient from the responsibility of one organizational
component of a health care treatment facility to another such

component. Attributes:



Death Certificate	Object and Class
	Relationships:
	Is a component of: inpatient disposition
	Is a component of: emergency room disposition
	Inherits from:
	Patient
	Person
	The official record of the patient's death.
	Attributes:
01220	date-time of death
01225	place of death
01227	autopsy done
01230	recorder of death
01235	date death recorded
01240	death certificate no.
01245	state death certif recorded
01250	cause of death
01255	patient's mortuary pref
Emergency Room Activities	Object and Class
	Relationships:
	Is a special case of: health care facility encounter activities.
	Inherits from:
	Health care facility encounter activities
	Patient
	Person
	Health care facility encounter
	Health care treatment facility
	Health care provider
	Organization
	This object contains data that document the events occurring
	between admission to the emergency department and disposition
	therefrom.
	Attributes:
10001	clinical order ID no.
Emergency Room Admission	Object and Class
	Relationships:
	Is a special case of: health care facility encounter receipt
	Inherits from:
	Health care encounter activity
	Health care encounter activity Health care episode
	Health care episode Patient
	Health care episode Patient
	Health care episode Patient Person482 £ 9 157 _ 6a78468 d2 c6d/astm_c1715_0
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility
	Health care episode Patient Person ARA FOLIATE AND ARA HEALTH CARE facility encounter Health care facility encounter receipt Health care treatment facility Health care provider
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care reatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this
	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes:
14001.A027	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury
14001.A027 14001.A030	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury
14001.A027 14001.A030 14001.A033	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury
14001.A027 14001.A030 14001.A033 14001.A036	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured injury circumstances
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured injury circumstances injury sev score
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123 14001.B015	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A046 14001.B015 14001.B015	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage condition at triage
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123 14001.B015 14001.B016	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123 14001.B015 14001.B016 14001.B0061.	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage condition at triage date-time trauma surgeon arrived
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123 14001.B015 14001.B016 14001.B0061.	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage condition at triage date-time trauma surgeon arrived dobject and Class
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123 14001.B015 14001.B016 14001.B0061.	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care treatment facility Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage condition at triage date-time trauma surgeon arrived date-time neurosurgeon arrived Object and Class Relationships:
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123 14001.B015 14001.B016 14001.B0061.	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage condition at triage date-time trauma surgeon arrived Object and Class Relationships: Is a special case of: health care facility encounter disposition
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A043 14001.B015 14001.B016 14001.B0062. Emergency Room Disposition	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage condition at triage date-time trauma surgeon arrived Object and Class Relationships: Is a special case of: health care facility encounter disposition Inherits from:
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123 14001.B015 14001.B016 14001.B0061.	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage condition at triage date-time trauma surgeon arrived date-time neurosurgeon arrived Object and Class Relationships: Is a special case of: health care facility encounter disposition Inherits from: Health care facility encounter disposition
14001.A027 14001.A030 14001.A033 14001.A036 14001.A043 14001.A046 14001.A123 14001.B015 14001.B016 14001.B0061.	Health care episode Patient Person Health care facility encounter Health care facility encounter receipt Health care facility encounter receipt Health care provider Organization This object characterizes the formal acceptance of responsibility for emergency care of the patient by the emergency department. Its attributes are the special aspects of a health care facility encounter receipt that are the special emergency department properties of this acceptance phase. Attributes: date of injury encounter nature of injury encounter mode of injury encounter loc where injured injury circumstances injury sev score E-R/admitting physician time of triage condition at triage date-time trauma surgeon arrived Object and Class Relationships: Is a special case of: health care facility encounter disposition Inherits from:



TABLE A	1.1 Continued
	Health care facility encounter Health care treatment facility Health care provider
	Organization This object characterizes the data that document the outcome of care in the emergency department. The destination and followup of
	the patient care subsequent to release from the responsibility of the emergency department. If subsequent care is to be regular inpatient care within the facility, the attributes documenting this transfer of responsibility must be consistent with the attributes documenting the inpatient admission object. Attributes:
Health Care Ambulatory Visit Activities	Object and Class
	Relationships:
	Is a special case of: health care facility encounter activities Inherits from:
	Health care facility encounter
	Health care facility encounter activities
	Health care encounter activity Health care treatment facility
	Patient
	Person
	Health care provider Organization
	This object characterizes the activities surrounding a health care
	facility encounter and health care ambulatory visit, including the
	observations made, procedures conducted, treatments planned, and orders entered.
	Attributes:
10001.	CLIN order ID no.
Health Care Ambulatory Visit Disposition	Object and Class
	Relationships: Is a component of: health care facility encounter disposition
	Inherits from:
	Tiodili out viole
	Health care facility encounter Health care facility encounter disposition
	Health care encounter activity
	Health care treatment facility
	Patient Person 0
	Health care provider
	2b070 Organization 321-9157-6a78468d2c6d/astm-e1715-9
	This object characterizes the concluding actions of a health care ambulatory visit by gathering the special properties that summarize the activities or plan the followup actions resulting from the event.
	Attributes:
14001.F014 14001.F053	encounter procedure encounter depart date-time
1400111 000	chooditer depart date time
14001.F056	encounter followup action
14001.F060	encounter followup status
14001.F060 14001.F063	encounter followup status encounter followup target date
14001.F060 14001.F063	encounter followup status
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from:
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from:
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care encounter activity Health care treatment facility
14001.F060	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care encounter activity Health care treatment facility Patient
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care encounter activity Health care treatment facility
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care encounter activity Health care treatment facility Patient Person Health care provider Organization
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care encounter activity Health care treatment facility Patient Person Health care provider Organization This object characterizes the circumstances for initiating a health
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care encounter activity Health care treatment facility Patient Person Health care provider Organization
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care facility encounter Health care encounter activity Health care treatment facility Patient Person Health care provider Organization This object characterizes the circumstances for initiating a health care ambulatory visit. Its attributes record the general properties that precipitated the event or surrounded the means by which the patient reached the health care facility to receive care.
14001.F060 14001.F063 Health Care Ambulatory Visit Receipt	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care encounter activity Health care treatment facility Patient Person Health care provider Organization This object characterizes the circumstances for initiating a health care ambulatory visit. Its attributes record the general properties that precipitated the event or surrounded the means by which the patient reached the health care facility to receive care. Attributes:
14001.F060 14001.F063	encounter followup status encounter followup target date Object and Class Relationships: Is a component of: health care visit Inherits from: Health care visit Health care facility encounter Health care encounter activity Health care treatment facility Patient Person Health care provider Organization This object characterizes the circumstances for initiating a health care ambulatory visit. Its attributes record the general properties that precipitated the event or surrounded the means by which the patient reached the health care facility to receive care.