HL7			Health Level 7 : ISO and ANSI standard (7 from the OSI 7th layer)
			Based on message paradigm. Trigger events
Segments			Message line corresponding to one type of info
	MSH		Message Header : contains type and trigger events
		DF 1	DF separator
		DF 2	Other separators
		DF 3 → 6	Receiving/Sending apps/app instances
		DF 9	Msg Type & Trigger Event
		DF 10	Msg control ID
		DF 11	Msg processing ID (Debugging, Production, Training) or mode (Archive, Restore…)
		DF 12	HL7 version
	PID		
	EVN		
Data Fields			Compose the segments. Separated by “|” (pipe)
	Components		Compose the data fields. Separated by the “^” (carret). Repetition by ~ (tilde)
	SEQ		Sequence : position of the DF
	LEN		Max length of DF
	Optionality		R required O optional C Conditional
	DT		Data types
		ST	String
		DT	Date
		TM	Time
Types			
	ADT		Admission Discharge Transfer
		A01, A02,…	Event types (transfer, register, update etc…)
	ACK		General acknowledgment
		AA, AE, AR	App Accept, App Error, App Reject
		CA, CR, CE	Commit Accept, Commit Reject, Commit Error
	ORM		Order Message
	ORR		Order Ackwnowledgment
	ORU		Observation Result/unsolicited
	QRY		Query (request)
	SIU		Scheduling Information Unsolicited

	BAR	Biling Account Record
	DFT	Detailed Financial Situation
XML		Extensible Markup Language
UML		Unified Modeling Language
	Use case	Describe actors, responsibilities, situations
	Sequence diagram	Define transfer mode
	Activity Diagram	Detail message exchanges
DTD		Document type definition : define elements and attribute to make valid XML file
	messages.dtd	
	ACK.dtd	
	segments.dtd	
	fields.dtd	
	datatypes.dtd	
XSD		XML Schema : same as dtd but used more often nowadays

DICOM			Digital Imaging and Communication in Medicine : Image format AND communication standard
	Book		
		Part 3,5,6	Defining the data format
		Part 4,7,8	Defining the network communication protocols
		Part 12	Defining communication on media
DSC			DICOM Standard Committee
	WG		Workgroups
		Supplement	New developments
		CP	Correction Proposal for small modifications
PACS			Picture Archiving and Communication System
SOP Class			Service Object Pair
	SG		Service Groupe
		DIMSE	DICOM Message Service Element
	IOD		Information Object Definition → Composite or Normalized
		OD	Object Definition
		IE	Information Entity
			Module — Logical group of information
			Attributes — Pixel values, metadata, etc… → Unit of information
			VR — Value Representation (DICOM Data Type)
			VM — Value Multiplicity (Cardinalityà
UIDs			Unique Identifiers
DIMSE-C			Composite DIMSE
	C-ECHO		Verification
	C-STORE		Storage
	C-FIND		Query/Retrieve
	C-GET		Query/Retrieve
	C-MOVE		Query/Retrieve
	C-CANCEL		Cancel
	C-PRINT		Print

		RQ	Request
		RSP	Response
DUL			DICOM upper layer protocol for network transfer
	PDU		Protocol Data Unit
		A-ASSOCIATION	Association service message to establish communication channel
		P-DATA	To exchange data value
		PDV	Presentation Data Value
	SCU		Service Class User
	SCP		Service Class Provider
MWL			Modality Worklist : Communication between RIS and DICOM for scheduling
MMPS			Modality Performed Procedures : Communication between RIS and DICOM during procedure

HIPAA				Health Insurance Portability & Accountability Act
	Administrative procedures			
	Physical safeguards			
	Technical security services			
	Technical mechanismes			
			DF 1	DF separator
			DF 2	Other separators
			DF 3 → 6	Receiving/Sending apps/app instances
			DF 9	Msg Type & Trigger Event
			DF 10	Msg control ID
			DF 11	Msg processing ID (Debugging, Production, Training) or mode (Archive, Restore…)
			DF 12	HL7 version
	(e)PHI			(electronic) Protected Health Information
CIA triad				Confidentiality Integrity Availability
NIST				National Institute of Standards and Technology
	NIST 800-53			Special Publication 800-53 (26 families of controls) Requirement standard
	NIST CSF			Cybersecurity Framework (5 sections of controls 22 categories) Guideline standard
	NIST RMF			Risk Management Framework
ISO				International Organization for Standardization
	ISO/IEC 27002			InfoSec controls
	Types			
GDPR		ADT		Admission Discharge Transfer
			A01, A02,…	Event types (transfer, register, update etc…)
		ACK		General acknowledgment
			AA, AE, AR	App Accept, App Error, App Reject
			CA, CR, CE	Commit Accept, Commit Reject, Commit Error
AAA triad (triple A model)		ORM		Order Message
		ORR		Order Ackwnowledgment
	IdM	ORU		Observation Result/unsolicited
		QRY		Query (request)
DS		SIU		Scheduling Information Unsolicited

		BAR	Biling Account Record
	ITU-T X500	DFT	Detailed Financial Situation
	LDAP		Lightweight Directory Access Protocol – Standard network protocol
XML	DIT		Extensible Markup Language
	LDIF		LDAP Data Interchangeable Format
UML			Unified Modeling Language
	Use case		Describe actors, responsibilities, situations
	Sequence diagram		Define transfer mode
	Activity Diagram		Detail message exchanges
DTD			Document type definition : define elements and attribute to make valid XML file
	messages.dtd		
	ACK.dtd		
	segments.dtd		Identity Provider
	fields.dtd		
	datatypes.dtd		Desktop-base SSO – Based on Ticket Granting Ticket
	SAML		Security Assertion Markup Language – Server redirects Client to IdP which generates a SAML token
XSD	Oauth2		XML Schema : same as dtd but used more often nowadays

HL7 v3				OO version of HL7
	Acts			
	Relationships			
	Participation			
	Roles			
	Entities			
RIM				Reference Information Model
→→→→→→	D-MIM			Domain-Message Information Model
	→→→→→→	R-MIM		Refined-Message Information Model
		→→→→→→	HMDS	Hierarchical Message Description
			→→→→→→	XML Schemas
CDA				Clinical Document Architecture
	Level 1			CDA header
		Level 2		XML Body Content
			Level 3	CDA entries
CCR				Continuity of Care Record → XML Schema
CCD				Continuity of Care Document
C-CDA				Consolidated CDA
FHIR				Fast Healthcare Interoperable Resource
				Brings HL7 v2 HL7 v3 & CDA together – RESTful
	RESTful			Representational state transfer
		Client/Server replaceble independently		
		Client can cache response		
		No client data stored on the server between requests		

IHE		Integration the Healthcare Enterprise
	IHE-RAD	IHE Radiology
	IHE-RO	IHE Radiation Oncology
	IHE-ITI	IHE Infrastructure
	…	
Domain		Focus on one specialized integration
	Planning Committee	Discuss issues and defines workflow
	Technical Committee	Develop corresponding integration profiles
SWF		Scheduled WorkFlow
IHE-RAD SWF		
	HIS →	Hospital Information System
	RIS →	
	Modality →	
		PACS →
		Workstation
UML		
	Use Case Diagram	Interaction between actors
	Information Flow Diagram	How the data is exchanged
TF-1		Technical Framework Volume 1 → Description of each integration profile
TF-2		Technical Framework Volume 2 → Detailed description of each int prof transaction
		Role of actors, DICOM SIP classes and HL7 messages defined
		Semantic
EUA		Enterprise User Authentication
IHE-ITI XDS		Cross-Enterprise Document Sharing
	XDS-i	Image Data Exchange over Internet
TPS		Treatment planning system

CIM (*ICD*)				Classification Internationales des Maladies (finalité statistique)
	ICD-9			3 chiffres + 1 chiffre de spécification
	ICD-10			
			DF 1	DF separator
			DF 2	Other separators
			DF 3 → 6	Receiving/Sending apps/app instances
			DF 9	Msg Type & Trigger Event
			DF 10	Msg control ID
			DF 11	Msg processing ID (Debugging, Production, Training) or mode (Archive, Restore…)
			DF 12	HL7 version
Codes INAMI				Finalité administrative
CPT				Current Procedural Terminology
ICPC-2				International Classification of Primary Care
POMR				Problem Oriented Medical Report
	SODA (*SOAP*)			Subjectif Objectif Diagnostique Actes
SNDO				Standard Nomenclature of Diseases and Operations (2 axes)
	SNOP			Systemized Nomenclature of Pathology (4 axes)
	SNOMED			Systemized Nomenclature of Medicine (6 axes)
	Types			7 à 11 axes
		ADT		Admission Discharge Transfer
			A01, A02,…	Event types (transfer, register, update etc…)
NIH		ACK		General acknowledgment
			AA, AE, AR	App Accept, App Error, App Reject
			CA, CR, CE	Commit Accept, Commit Reject, Commit Error
	NLM	ORM		Order Message
		ORR		Order Ackwnowledgment
	MeSH	ORU		Observation Result/unsolicited
	UMLS	QRY		Query (request)
		SIU		Scheduling Information Unsolicited

DSM		BAR	Biling Account Record
ACR		DFT	Detailed Financial Situation
LOINS			Biologie Clinique
XML			Extensible Markup Language
KMEHR			Kind Messages for Electronic Healthcare Records (Analogue CDA (XML))
UML			Unified Modeling Language
	Use case		Describe actors, responsibilities, situations
	Sequence diagram		Define transfer mode
	Activity Diagram		Detail message exchanges
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