What Are Clinical Documents?
Clinical documents are the core of a patient’s lifetime record. A “History & Physical,” “Discharge Summary” or an “X-ray Report” are all examples of clinical documents. Typically, they contain narrative as well as discrete data. While certain structures may apply across document types, like the common SOAP note structure, individual document types vary widely in content.

The HL7 CDA defines clinical documents as having these characteristics:
- Persistence
- Stewardship
- Authentication
- Context
- Wholeness
- Human readability

Clinical Documents are the CORE of a patient’s lifetime record. This critical information should be standardized.

Why should clinical documents be standardized?
A consistent approach to electronic clinical documents means that the critical information contained in the documents can be used independently of the applications on which they were produced. For example, a discharge summary created by an electronic health record can be rendered on standard browsers and a repository of transcription documents can be indexed with the same metadata as the output of an EHR. Information created today can be migrated to future systems with little or no data conversion. Findings encoded in clinical documents can be used for third-party decision support and mined at a later date for new applications.

What is CDA?
First published in 2000, the HL7 Clinical Document Architecture (CDA) is a leading standard for the exchange of healthcare information and has become a pillar of interoperability for clinical care and public health. CDA Release 2 utilizes a common syntax for all clinical documents. It preserves the integrity and structure of clinical documents. It conveys authenticated content with fidelity and supports discrete data representation that is both extractable and computable.

CDA Release 2 provides an exchange model for clinical documents (such as discharge summaries and progress notes) - and brings the healthcare industry closer to the realization of an electronic medical record. By leveraging the use of XML, the HL7 Reference Information Model (RIM) and coded vocabularies, the CDA makes documents both machine-readable - so they are easily parsed and processed electronically, and human-readable - so they can be easily retrieved and used by the people who need them. CDA documents can be displayed using XML-aware web browsers or wireless applications such as cell phones.
Who is using CDA?
There are large scale CDA implementations in North and South America, Europe and Asia Pacific. In the U.S., CDA is being implemented by groups such as NewYork Presbyterian, the Military Health System, the University of Pittsburgh Medical Center, Kaiser Permanente and many others. Groups such as the Healthcare Information Technology Standards Panel (HITSP) and Integrating the Healthcare Enterprise (IHE) are also utilizing CDA in their work. The CDA implementation guide, the Continuity of Care Document (CCD) was recently also selected by the U.S. Office of the National Coordinator for Health Information Technology as part of its initial set of standards, implementation specifications and certification criteria for EHR technology.

CDA Implementation Guides
Several implementation guides based on the CDA have been published or are now available as Draft Standard for Trial Use (DSTU) status. They are as follows:

CDA IG Public Health Case Reporting, Release 1 – Common data elements found in multiple states’ reportable condition forms were compiled and standardized in a project initiated in 2007 by the CDC National Center for Public Health Informatics (NCPHI) and Council of State and Territorial Epidemiologists’ (CSTE) Case Report Standardization Workgroup (CRSWg) and leveraged in this project by NCPHI. This IG will allow healthcare facilities/providers to communicate these data elements to the state and local public health departments in CDA format, an interoperable, industry-standard format.

CDA IG Imaging Integration; Basic Imaging Reports in CDA and DICOM, Release 1 – The implementation guide for this informative document was developed by DICOM, with support from the HL7 Imaging Integration Work Group and the Health Story Project. It describes constraints on the CDA header and body elements for Diagnostic Imaging Reports, which contain a consulting specialist’s interpretation of image data. It is intended to convey the interpretation to the referring (ordering) physician and become part of the patient’s medical record.

CDA IG Care Record Summary, Release 1 – The purpose of this document is to describe constraints on the CDA Header and Body elements for Care Record Summary documents. A Care Record Summary document contains patient’s relevant health history for some time period. It is intended for communication between healthcare providers.

CDA IG for Reference Profile for EHR Interoperability, Release 1 – This guide describes characteristics of interoperable EHR records. An EHR record is a persistent artifact which may be independent of the EHR or other system from which it originated. This profile shows how HL7’s CDA, Release 2 fulfills requirements of the Common EHR Record Unit, as specified in the HL7 EHR Interoperability Model DSTU. It is the result of an ongoing collaboration between the HL7 EHR, Structured Documents, and Security Work Groups.

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**CDA IG for Healthcare Associated Infection (HAI) Reports, Releases 2-4**

This implementation guide was developed in conjunction with the Structured Documents Work Group and the Division of Healthcare Quality Promotion, National Center for Preparedness, Detection, and Control of Infectious Diseases (NCPDCID), Centers for Disease Control and Prevention (CDC). The purpose of this implementation guide is to specify a standard for electronic submission of Healthcare Associated Infection (HAI) reports to the National Healthcare Safety Network (NHSN) of the CDC. It defines the overall approach and method of electronic submission and develops a set of appendices defining specific HAI report types. As reports are modified and new report types are defined, additional appendices will be developed and published by CDC and HL7.

**CDA IG for Consultation Notes, Release 1**

The implementation guide for this HL7 Draft Standard for Trial Use (DSTU) was developed in conjunction with the Health Story (formerly CDA4CDT) project, which has an Associate Charter Agreement with HL7. The guide reuses templates developed for the HL7 Continuity of Care Document (CCD) and for the History and Physical DSTU and is suitable for consultation notes.

**CDA IG for Operative Notes, Release 1**

The implementation guide for this HL7 Draft Standard for Trial Use (DSTU) was developed in conjunction with the Health Story project, which has an Associate Charter Agreement with HL7. The guide reuses templates developed for the HL7 Continuity of Care Document (CCD) and is suitable for any type of operative report.

**CDA IG for Quality Reporting Document Architecture (QRDA), Release 1**

This HL7 DSTU was supported by the Child Health Corporation of America (CHCA) with participation from the American College of Physicians, American Health Information Management Association (AHIMA), Alliance for Pediatric Quality, Iowa Foundation for Medical Care, The Collaboration of Performance Measure Integration with EHR Systems ("The Collaborative"), HITSP, Integrating the Healthcare Enterprise (IHE) and others. The guide covers patient-centric quality data reporting and lays out a framework for aggregate, population-based quality reports.

**CDA IG CDA Framework for Questionnaire Assessments, Release 1**

The purpose of this IG is to specify a standard for electronic submission for CDA Questionnaire Assessments that will allow healthcare facilities to communicate reports in an interoperable, industry-standard format.

**CDA IG Care Record Summary, Release 2; Discharge Summary, Release 1**

The implementation guide for this HL7 Draft Standard for Trial Use (DSTU) was developed in conjunction with the Health Story project. The guide describes constraints on the CDA header and body elements for Discharge Summary documents.

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CDA IG for History & Physical Notes, Release 1 – The implementation guide for this Draft Standard for Trial Use was developed in conjunction with the Health Story Project with support from groups such as Kaiser Permanente, Mayo Clinic, Military Health System and others. This guide defines additional constraints on the CDA Header and Body used in a History and Physical document in the U.S. realm, and provides examples of conforming fragments in the body of the document and an example of a conforming XML instance.

CDA IG for Personal Healthcare Monitoring Reports, Release 1 – This implementation guide was co-developed by Continua Health Alliance, which has a Liaison Agreement with HL7. The guide conforms with the HL7 CCD and describes how to use CCD templates for communicating home health data to an electronic health record.

There are five more CDA Release 2 Implementation Guides currently in the balloting process. They include Genetic Testing Reports, Neonatal Care Report, Consent Directives, Procedure Note and Unstructured Documents.