



Implementation Guide for CDA Release 2.0
Operative Note
(U.S. Realm)

Draft Standard for Trial Use
Release 1

Levels 1, 2 and 3

**Published
March 2009**

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Acknowledgments

This Draft Standard for Trial Use (DSTU) was produced and developed through the efforts of a project called Health Story (formerly CDA for Common Document Types (CDA4CDT)) founded by M*Modal, the American Health Information Management Association (AHIMA), and the Association for Healthcare Documentation Integrity (AHDI), formerly the American Association for Medical Transcription (AAMT), now affiliated with the Medical Transcription Industry Association (MTIA).

These founders have been joined by industry benefactors GE Healthcare, Spheris, MedQuist, InterFix, Precyse Solutions, Webmedx, MDinTouch, 3M, Imagetek, ALife, Misys Healthcare, and QuadraMed. Without their support and participation, this DSTU would not have been possible.

In addition, this project has benefited from the participation of Kaiser Permanente, Mayo Clinic, Military Health System and University of Pittsburgh Medical Center. Project management was provided by Alschuler Associates, LLC.

The co-editors would also like to express their appreciation for the support and sponsorship of the Structured Documents Technical Committee.

Finally, we would like to acknowledge the foundational work on Health Level Seven (HL7) Version 3 and the Reference Information Model (RIM), the HL7 domain committees, especially Patient Care, and the work done on CDA itself. We would also like to acknowledge the development of the Care Record Summary, the first published Implementation Guide for CDA, the development of a series of implementation profiles based on CRS by Integrating the Healthcare Enterprise (IHE), and the collaborative effort of ASTM and HL7, which produced the Continuity of Care Document (CCD). All these efforts were critical ingredients to the development of this DSTU and the degree to which it reflects these efforts will foster interoperability across the spectrum of health care.

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1 INTRODUCTION

1.1 Purpose

The purpose of this document is to describe constraints on the CDA Header and Body elements for Operative Note documents. The Operative Note is a frequently used type of procedure note with specific requirements set forth by regulatory agencies.

The Operative Note or Report is created immediately following a surgical or other high-risk procedure and records the pre- and post-surgical diagnosis, pertinent events of the procedure, as well as the condition of the patient following the procedure. The report should be sufficiently detailed to support the diagnoses, justify the treatment, document the course of the procedure, and provide continuity of care.¹

1.2 Audience

The audience for this document includes software developers and consultants responsible for implementation of U.S. realm Electronic Health Record (EHR) systems, Personal Health Record (PHR) systems, dictation/transcription systems, document management applications, and local, regional, and national health information exchange networks who wish to create and/or process CDA documents developed according to this specification.

1.3 Approach

The approach taken in the development of this specification was to review existing draft and final specifications or Implementation Guides for similar artifacts in the U.S., specifically:

- [ASTM's Standard Specifications for Healthcare Document Formats \(E2184.02\)](#) (Headings and subheadings used in the health care industry and associated with specific report types)
- [Clinical LOINC® document and section codes](#)
- [HL7 ASIG CDA R2 Attachment for Clinical Notes](#)
- [IHE Profiles](#), including the content profiles within Patient Care Coordination
- [HL7 Clinical Document Architecture, Release 2 Normative Web Edition, 2005](#)
- HL7 Implementation Guide for CDA Release 2: History and Physical (H&P) Notes
- HL7 Implementation Guide for CDA Release 2: Consultation Notes
- CDA Release 2 – [CCD: Continuity of Care Document](#) (CCD)

¹ http://www.jointcommission.org/AccreditationPrograms/Office-BasedSurgery/Standards/FAQs/Management+of+Info/Patient+Specific+Info/Operative_Reports.htm
http://www.jointcommission.org/NR/rdonlyres/A032623D-02AF-4955-AF7C-08F3D5802E64/0/06_obs_im.pdf.

- [Joint Commission Operative Note Requirements: Standard IM.6.30, Elements of Performance for IM.6.30](#)
- [Centers for Medicare & Medicaid Services \(CMS\) Operative Note Requirements: Survey Protocol, Regulations and Interpretive Guidelines for Hospitals: A-0396 §482.51](#)
- Non-CDA sample documents supplied by participating providers and vendors

In addition, M*Modal provided statistical analysis of approximately 20,000 sample Operative reports and AHIMA, AHDI, and participating providers contributed extensive subject matter expertise. The design was matched against operational templates from transcription vendors and reviewed with the HL7 Structured Documents Technical Committee. While current divergent industry practices cannot be perfectly reflected in any consensus model, this design is designed to increase the degree of consistency with minimal disruption to current practice and workflow.

1.4 Organization of This Guide

The requirements laid out in the body of this DSTU document are on track to become normative after a trial period of use and will be subject to change under the policies for DSTU per the HL7 Governance and Operations Manual². The document is organized into the following major sections:

- General Header Constraints
- Header Constraints Specific to the Operative Note
- Required Sections
- Optional Sections

Each major section or subsection of the document is organized to provide:

- A narrative that provides an overview and scope for that section
- CDA R2 constraints

1.5 Use of Templates

When valued in an instance, the template identifier signals the imposition of a set of template-defined constraints. The value of this attribute provides a unique identifier for the templates in question.

1.5.1 Originator Responsibilities: General Case

An originator can apply a `templateId` if there is a desire to assert conformance with a particular template.

In the most general forms of CDA exchange, an originator need not apply a `templateId` for every template that an object in an instance document conforms to. The

² GOM:

http://www.hl7.org/documentcenter/public/membership/HL7_Governance_and_Operations_Manual.pdf

Implementation Guide (IG) shall assert whenever `templateIds` are required for conformance.

1.5.2 Recipient Responsibilities General Case

A recipient may reject an instance that does not contain a particular `templateId` (e.g., a recipient looking to receive only CCD documents can reject an instance without the appropriate `templateId`).

A recipient may process objects in an instance document that do not contain a `templateId` (e.g., a recipient can process entries that contain Observation acts within a Problems section, even if the entries do not have `templateIds`).

If an object does not have a `templateId`, a recipient shall not report a conformance error about a failure to conform to a particular template on classes that do not claim conformance to that template and that are not required to be conformant by other templates.

1.6 Conventions Used in This Guide

This Implementation Guide is a conformance profile, as described in the [Refinement and Localization](#) section of the HL7 Version 3 standards. The base standard for this Implementation Guide is the [HL7 Clinical Document Architecture, Release 2.0](#). As defined in that document, this Implementation Guide is both an annotation profile and a localization profile. CDA R2 is not fully described in this Guide, so implementers must be familiar with the requirements of the base specification.

1.6.1 Explanatory Statements

As an annotation profile, portions of this Implementation Guide summarize or explain the base standard; therefore, not all requirements stated here are original to the DSTU. Some originate in the base specification. Those requirements that do not add further constraints to the base standard and that can be validated through CDA.xsd do not have corresponding conformance statements.

Where no constraints are stated in this Guide, Operative Note instances are subject to and are to be created in accordance with the base CDA R2 specification. Where, for instance, the CDA R2 specification declares an attribute to be optional and the Operative Note specification contains no additional constraints, that attribute remains optional for use in an Operative Note instance.

1.6.2 Conformance Requirements

The general Header constraints for an Operative Note are from the History and Physical Note Implementation Guide (CDAR2_HPRPT_R1_D2_2007SEP³) (See also [2 CDA Header – General Constraints](#)). All other constraints are original to this DSTU. The intention with the CDA4CDT DSTUs is to compile them all into a single Implementation Guide for normative balloting after the DSTU trial periods have completed. The conformance statements are numbered sequentially and listed within the body of the DSTU as follows:

³ This reference will be adjusted to point to the published DSTU as soon as that is available on HL7.org.

CONF-OP-1: This is an example conformance requirement original to this DSTU.

1.6.3 Vocabulary Conformance

Formalisms for value set constraints are based on the latest recommendations from the HL7 Vocabulary Committee. Value set constraints can be “**STATIC**,” meaning that they are bound to a specified version of a value set, or “**DYNAMIC**,” meaning that they are bound to the most current version of a value set. A simplified constraint is used when binding is to a single code.

Syntax for vocabulary binding to **DYNAMIC** or **STATIC** value sets is as follows:

The value for (“pathName of coded element”) (**SHALL** | **SHOULD** | **MAY**) be selected from ValueSet valueSetOID localValueSet Name **DYNAMIC** | **STATIC** (valueSetEffectiveDate).

CONF-ex5: The value for ClinicalDocument/code **SHALL** be selected from ValueSet 2.16.840.1.113883.1.11.10870 DocumentType **DYNAMIC**.

CONF-ex6: The value for ClinicalDocument/code **SHALL** be selected from ValueSet 2.16.840.1.113883.1.11.10870 DocumentType **STATIC** 20061017.

Syntax for vocabulary binding to a single code is as follows:

The value for (pathName of coded element) (**SHALL** | **SHOULD** | **MAY**) be (“code” [“displayName”] codeSystemOID [codeSystemName] **STATIC**.

CONF-ex7: The value for ClinicalDocument/code **SHALL** be “34133-9” “Summarization of episode note” 2.16.840.1.113883.6.1 LOINC® **STATIC**.

1.6.4 XPath Notation

Instead of the traditional dotted notation used by HL7 to represent RIM classes, this document uses XPath notation in conformance statements and elsewhere to identify the XML elements and attributes within the CDA document instance to which various constraints are applied. The implicit context of these expressions is the root of the document. The purpose of using this notation is to provide a mechanism that will be familiar to developers for identifying parts of an XML document.

1.6.5 Keywords

The keywords **SHALL**, **SHALL NOT**, **SHOULD**, **SHOULD NOT**, **MAY**, and **NEED NOT** in this document are to be interpreted as described in the [HL7 Version 3 Publishing Facilitator's Guide](#).

1.6.6 XML Examples

XML examples appear in various figures in this document in this small monospace font. Portions of the XML content may be omitted from the content for brevity, marked by an ellipsis (...) as shown in the example below.

Figure 1: ClinicalDocument example

```
<ClinicalDocument xmlns='urn:h17-org:v3'>
...
</ClinicalDocument>
```

Within the narrative, XML element and attribute names will appear in this larger monospace font. Literal attribute values will appear in *this italic font*.

XPath expressions are used in the narrative and conformance requirements to identify elements because they are familiar to many XML implementers.

1.7 Scope

This specification defines additional constraints on CDA Header and Body elements used in an Operative Note document in the U.S. realm. This DSTU Implementation Guide is the third in a series of DSTUs being developed through the efforts of CDA4CDT, where the CDA architecture is defined down to CDA Level 2 granularity with reuse of previously created entry-level templates where appropriate.

1.7.1 Levels of Constraint

Within this DSTU, the required and optional clinical content within the Body is identified.

This DSTU specifies three levels of conformance requirements:

- Level 1 requirements specify constraints upon the CDA Header and the content of the document.
- Level 2 requirements specify constraints at the section level of the `structuredBody` of the `ClinicalDocument` element of the CDA document.
- Level 3 requirements specify constraints at the entry level within a section. The only Level 3 entries defined in this Implementation Guide are those that may be used in the Plan section, reusing the CCD Plan of Care Template and an optional entry for identifying specimens removed.

Note that these levels are rough indications of what a recipient can expect in terms of machine-processable coding and content reuse. They do not reflect the level or type of clinical content and many additional distinctions in reusability could be defined.

Conformance to the DSTU carries with it an implicit adherence to Level 1. Level 1 asserts header element constraints. Therefore, conformance to the DSTU with no level specified or with Level 1 specified asserts header element constraints and allows for the use of a non-XML body or an XML body that may or may not conform to additional templates defined herein. Likewise, conformance to the DSTU at Level 2 does not require conformance to entry-level templates, but does assert conformance to Header- and section-level templates. In all cases, required clinical content must be present. For example, a CDA Operative Note carrying the `templateId` that asserts conformance with Level 1 may use a PDF or HTML format for the body of the document that contains the required clinical content.

1.7.2 Future Work

Future work includes the definition of increasingly refined (granular) machine-verifiable processing structures. This work will be performed in conjunction with other HL7 technical committees and in cooperation with professional societies and other Standards Development Organizations (SDOs). There are many parallel efforts to create CDA IGs and standards based on CDA. Future work will address libraries of templates,

including those defined and reused here, and refinement of the document type hierarchy.

Future related work may create a broad Procedure Note with Level 2 and Level 3 constraints according to type of procedure, specialty, or clinical setting.

Development of related specifications for the History and Physical Note, Consultation Note, Discharge Summary, and others may lead to consolidation of requirements into a single publication providing guidance across a range of document types.

2 CDA HEADER – GENERAL CONSTRAINTS

General constraints that apply to the Operative Note and to other types of CDA documents defined for general exchange are defined in the first of the CDA4CDT specifications, the History and Physical Note (CDAR2_HPRPT_R1_D2_2007SEP⁴). The template defined there should be reused wherever these “general Header constraints” are applied.

Note also that elements defined here may be further constrained within this Implementation Guide. For example, general constraints limit the document type code to the LOINC[®] document type vocabulary. In [3.1.3 ClinicalDocument/code](#), the document type code is further constrained, specifically for Surgical Operation Note documents.

Since the general Header constraints are adopted from the H&P and there are additional Header constraints specific to the Operative Note, two templateId roots are required as identified in CONF-OP-1 and [CONF-OP-2](#):

CONF-OP-1: A document conforming to the general header constraints in this DSTU are from the History and Physical Implementation Guide and **SHALL** indicate so by including the following templateId in the header of the document
<templateId root="2.16.840.1.113883.10.20.3"/>

Figure 2: Clinical Document/general header constraints, templateId example

```
<ClinicalDocument xmlns= "urn:hl7-org:v3">
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.3"/> <!-- indicates conformance with H&P
    general header constraints -->
  <templateId root="2.16.840.1.113883.10.20.7"/> <!-- indicates conformance with
    the DSTU -->
  <id extension="999021" root="2.16.840.1.113883.19"/>
  <code code="34874-8" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="Surgical Operation Note"/>
  <title>Surgical Operation Note</title>
  <effectiveTime value="20050329224411+0500"/>
  <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>
  <languageCode code="en-US"/>
  <setId extension="999021" root="2.16.840.1.113883.19"/>
  <versionNumber value="1"/>
  ...
</ClinicalDocument>
```

The general constraints apply to:

- Clinical document and associated metadata
- ID, type ID
- Level of constraint
- Code, title

⁴ This reference will be adjusted to point to the published DSTU as soon as that is available on HL7.org.

- Set ID and Version number
- Effective time, confidentiality code
- Language code, realm code
- Participants
- Record target (patient)
- Author
- Authenticator and legal authenticator
- Custodian
- Data enterer (transcriptionist)
- Informant
- Health care providers
- Personal relations and unrelated persons
- Information recipient (entered in “cc” field)
- Participant telephone number

3 CDA HEADER – OPERATIVE NOTE-SPECIFIC CONSTRAINTS

3.1 Header Constraints Specific to Operative Note Documents

3.1.1 ClinicalDocument

The namespace for CDA Release 2.0 is *urn:hl7-org:v3*. Appropriate namespace declarations shall be used in the XML instance of the ClinicalDocument. In the examples in this specification, all elements are shown unprefixes, assuming that the default namespace is declared to be *urn:hl7-org:v3*.

3.1.2 ClinicalDocument/templateId

CONF-OP-2: ClinicalDocument/templateId element **SHALL** be present with the value 2.16.840.1.113883.10.20.7

Figure 3: ClinicalDocument/templateId example

```
<templateId root='2.16.840.1.113883.10.20.7' /> <!-- conforms to the DSTU -->
```

3.1.3 ClinicalDocument/code

CDA R2 states that LOINC® is the preferred vocabulary for document type specification. As of publication of this Implementation Guide, the current LOINC® codes that meet the criteria in Operative Note Conformance Statement 3 can be found in [Table 1: Surgical Operation Note LOINC® Document Codes](#). These codes may be added to or deleted in LOINC®.

Some of the LOINC® codes recommended in this IG also indicate the practice setting or the training or professional level of the author. These are pre-coordinated document type codes. When these codes are used, any coded values describing the author or performer of the service act or the practice setting must be consistent with the LOINC® document type.

CONF-OP-3: The value of ClinicalDocument/code **SHALL** be selected from Value Set 2.16.840.1.113883.11.20.1.1LOINC
SurgicalOperationNoteDocumentTypeCode **DYNAMIC**.

Table 1: Surgical Operation Note LOINC® Document Codes

Value Set: 2.16.840.1.113883.11.20.1.1 Code System: LOINC® 2.16.840.1.113883.6.1			
LOINC® Code	Type of Service 'Component'	Setting 'System'	Specialty/Training/Professional Level 'Method_Type'
11504-8	Surgical operation note	{Setting}	{Provider}
34137-0	Surgical operation note	Outpatient	{Provider}
28583-3	Surgical operation note	{Setting}	Dentistry
28624-5	Surgical operation note	{Setting}	Podiatry
28573-4	Surgical operation note	{Setting}	Physician
34877-1	Surgical operation note	{Setting}	Urology
34874-8	Surgical operation note	{Setting}	Surgery
34870-6	Surgical operation note	{Setting}	Plastic surgery
34868-0	Surgical operation note	{Setting}	Orthopedics
34818-5	Surgical operation note	{Setting}	Otorhinolaryngology

The following code should not be used, as it is a duplicate:

34871-4	Surgical operation note	{Setting}	Podiatry
---------	-------------------------	-----------	----------

Figure 4: ClinicalDocument/code example

```
<code codeSystem="2.16.840.1.113883.6.1"
  codeSystemName="LOINC"code="11504-8"displayName="SURGICAL OPERATION NOTE"/>
```

3.1.4 Consent

The CDA Header provides a construct for handling consents associated with a procedure and information about the the patient's consent may also be recorded in the CDA Body.

The type of consent (e.g., a consent to perform the related ServiceEvent or a consent for the information contained in the document to be released to a third party) is conveyed in Consent.code. Consents referenced in the CDA Header have been finalized (Consent.statusCode must equal "Completed") and should be on file.

CONF-OP-4: A consent, if present, **SHALL** be represented as
ClinicalDocument/authorization/consent.

Figure 5: Consent example

```
<authorization typeCode="AUTH">
  <consent classCode="CONS" moodCode="EVN">
    <id extension="99370125" root="2.16.840.1.113883.19"/>
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="
      CONSP-X" displayName="Consent for Surgical Procedure"/>
    <statusCode code="completed"/>
  </consent>
</authorization>
```

3.1.5 ServiceEvent

This class represents the main act, such as a colonoscopy or an appendectomy, being documented. A ServiceEvent can further specialize the act inherent in the ClinicalDocument.code, such as where the ClinicalDocument.code is simply "Surgical Operation Note" and the procedure is "Appendectomy." ServiceEvent is required in the Operative Note and it must be equivalent to or further specialize the value inherent in the ClinicalDocument.code and shall not conflict with the value inherent in the ClinicalDocument.code, as such a conflict would create ambiguity. ServiceEvent.effectiveTime can be used to indicate the time the actual event (as opposed to the encounter surrounding the event) took place.

CONF-OP-5: An Operative Note **SHALL** contain one or more serviceEvent elements.

CONF-OP-6: The value of Clinical Document
/documentationOf/serviceEvent/code **SHALL** be from ICD9 CM Procedures (codeSystem 2.16.840.1.113883.6.104), CPT-4 (codeSystem 2.16.840.1.113883.6.12), or values descending from 71388002 (Procedure) from the SNOMED-CT (codeSystem 2.16.840.1.113883.6.96) ValueSet 2.16.840.1.113883.3.88.12.80.28 **DYNAMIC**.

When modeling procedure length, if only the date is known, the date is placed in both the low and high elements. However, if only the date and the duration of the procedure is known, only serviceEvent/effectiveTime/low is used with a width element.

CONF-OP-7: The ServiceEvent/effectiveTime **SHALL** be present with effectiveTime/low and **SHALL** include effectiveTime/high if a width is not present. The ServiceEvent/effectiveTime **SHALL** be accurate to the day, and **MAY** be accurate to the second. If only the date and the length of the procedure are known a width element **SHALL** be present and the ServiceEvent/effectiveTime/high **SHALL** not be present.

Figure 6: serviceEvent example

```
<serviceEvent classCode="PROC">
  <code code="801460020" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" displayName="Laparoscopic Appendectomy"/>
  <effectiveTime value="20050329"/>
  ...
</serviceEvent>
```

3.1.6 Performer

The performer participant represents clinicians who actually and principally carry out the serviceEvent. Typically, these are clinicians who have surgical privileges in their institutions such as Surgeons, Obstetrician/Gynecologists, and Family Practice Physicians. The performer may also be Nonphysician Providers (NPP) who have surgical privileges. There may be more than one primary performer in the case of complicated surgeries. There are occasionally co-surgeons. Usually they will be billing separately and will each dictate their own notes. An example may be spinal surgery, where a general surgeon and an orthopaedic surgeon both are present and billing off the same CPT codes. Typically there are two Operative Notes generated; however, each will list the other as a co-surgeon.

CONF-OP-8: The primary performers (PPRF) **SHALL** be identified.

CONF-OP-9: For all performers:

ServiceEvent/performer/assignedEntity/code **SHOULD** be present.

CONF-OP-10: The value of ServiceEvent/performer/assigned entity/code **SHALL** be selected from Healthcare Provider Taxonomy Code (NUCC) (codeSystem 2.16.840.1.113883.11.19465).

CONF-OP-11: Any assistants **SHALL** be identified and **SHALL** be identified as secondary performers (SPRF).

Figure 7: Performer example

```
<performer typeCode="PPRF">
  <assignedEntity>
    <id extension="1" root="2.16.840.1.113883.19"/>
    <code code="2086S0120X" codeSystem="2.16.840.1.113883.11.19465"
      codeSystemName="NUCC" displayName="Pediatric Surgeon"/>
    <addr>
      <streetAddressLine>1013 Healthcare Drive</streetAddressLine>
      <city>Ann Arbor</city>
      <state>MI</state>
      <postalCode>99999</postalCode>
      <country>USA</country>
    </addr>
    <telecom value="tel:(555)555-1013"/>
    <assignedPerson>
      <name>
        <prefix>Dr.</prefix>
        <given>Carl</given>
        <family>Cutter</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</performer>
```

3.2 Rendering Header Information for Human Presentation

Metadata carried in the header may already be available for rendering from EHRs or other sources external to the document; therefore, there is no strict requirement to render directly from the document. An example of this would be a doctor using an EHR that already contains the patient's name, date of birth, and current address and phone number. When a CDA document is rendered within that EHR, those pieces of information may not need to be displayed since they are already known and displayed within the EHR's user interface.

In an Operative Note, the following information is typically displayed in the EHR and/or rendered directly in the document:

- The performers of the surgery, including any assistants
- The surgery performed (ServiceEvent)
- The date of the surgery

Best practice would recommend that the following also be present whenever a document is viewed:

- Document title and document date
- Service and encounter types, and dates and date ranges as appropriate
- All persons named along with their roles, participations, participation date ranges, identifiers, and address and telecommunications information
- Selected organizations named along with their roles, participations, participation date ranges, identifiers, and address and telecommunications information
- Date of birth for recordTarget(s)

4 BODY

An Operative Note shall have either a `structuredBody` or `nonXMLBody` element. The contents of this element includes the human-readable text of the document. This information shall be organized into sections and may have subsections. A `nonXMLBody` element may contain the actual CDA content or may reference it by URL.

4.1 Section Descriptions

The scope of the CDA4CDT project is to define a set of frequently used clinical documents in Level 2 CDA format – reusing CCD or other Implementation Guide entry-level templates when possible – but not to define new clinical statement entries.⁵ These DSTUs will then be implemented and their success evaluated before being balloted as normative standards.

Therefore, note that certain elements that otherwise might best be described as clinical statement entries within a section are represented in this DSTU as sections. This is to enable some degree of machine-processability of the regulatory agency-mandated Operative Note data elements for implementers who are not yet ready to embrace implementing Level 3 CDA. In some instances, corresponding text elements such as estimated blood loss are optionally representable within designated sections rather than separate sections to allow for variation in workflow. In addition, the fact that clinical statement entries are not described does not preclude a knowledgeable implementer from defining and implementing them.

This Implementation Guide defines required and optional sections.

All section elements in the Body of the document shall have a code and some nonblank text or one or more subsections, even if the purpose of the text is only to indicate that information is unknown.

CONF-OP-12: LOINC® codes **SHALL** be used with the sections in an Operative Note. Operative Note sections are shown in [Table 2: LOINC® Codes for Sections](#). Other sections not listed in [Table 2](#) **MAY** be present as well. The exact text of the section names are not mandated.

CONF-OP-13: All sections **MAY** occur in any order and **MAY** be nested under other sections according to local policy.

CONF-OP-14: Sections and subsections **SHALL** have a title and the title **SHALL NOT** be empty.

Note that section titles are shown in all caps per [ASTM's Standard Specifications for Healthcare Document Formats \(E2184.02\)](#).

⁵ One exception to this scope has been made. Within the Specimens Removed section, an optional clinical statement entry was defined for capturing specimen(s) removed.

Table 2: LOINC® Codes for Sections

Section Category	R/O	Code	Component Name
Preoperative Diagnosis	R	10219-4	SURGICAL OPERATION NOTE PREOPERATIVE DX
Postoperative Diagnosis	R	10218-6	SURGICAL OPERATION NOTE POSTOPERATIVE DX
Surgery Description	R	8724-7	SURGICAL OPERATION NOTE DESCRIPTION
Surgical Operation Note Findings	R	10215-2	SURGICAL OPERATION NOTE FINDINGS
Anesthesia	R	10213-7	SURGICAL OPERATION NOTE ANESTHESIA
Estimated Blood Loss	R	55103-6 ⁶ OR 8717-1	SURGICAL OPERATION NOTE ESTIMATED BLOOD LOSS (nar) SURGICAL OPERATION NOTE ESTIMATED BLOOD LOSS (qn)
Specimens Removed	R	10221-0	SURGICAL OPERATION NOTE SPECIMENS TAKEN
Complications	R	10830-8	SURGICAL OPERATION NOTE COMPLICATIONS
Planned Procedure	O	55104-4	SURGICAL OPERATION NOTE PLANNED PROCEDURE
Indications	O	10217-8	SURGICAL OPERATION NOTE INDICATIONS
Disposition	O	55102-8	SURGICAL OPERATION NOTE DISPOSITION
Plan	O	18776-5	PLAN OF TREATMENT
The following codes may be used as subsections			
Operative Note Fluids	O	10216-0	SURGICAL OPERATION NOTE FLUIDS
Operative Note Surgical Procedure	O	10223-6	SURGICAL OPERATION NOTE SURGICAL PROCEDURE
Surgical Drains	O	11537-8	SURGICAL DRAINS
Implants	O	55122-6	SURGICAL OPERATION NOTE IMPLANTS

4.2 Required Sections

Required sections in an Operative Note are determined by data that is mandated by regulatory agencies. Each section must contain text that addresses the section title. If no content is available, this must be denoted in the appropriate section. Local practice

⁶ Claims Attachment Implementation Guides have taken the approach that a quantitative LOINC® code may be used in a narrative report, with the provision that what is reported in the section is the quantitative value. However, “minimal” or “scant” is often dictated – therefore , technically not quantitative. In order not to conflict with the Claims Attachments Operative Note section specification, the Operative Note DSTU will allow the 8717-1 qn LOINC® code as a deprecated code.

must ensure that their legal authenticator is aware that the “no content” delineation must be included in the legally authenticated document.

4.2.1 Preoperative Diagnosis 10219-4

The Preoperative Diagnosis section records the surgical diagnosis or diagnoses assigned to the patient before the surgical procedure and is the reason for the surgery. The Preoperative diagnosis is, in the opinion of the surgeon, the diagnosis that will be confirmed during surgery.

CONF-OP-15: The Operative Note **SHALL** contain exactly one and **SHALL NOT** contain more than one Preoperative Diagnosis Section.

CONF-OP-16: The Preoperative Diagnosis Section **SHALL** contain Section/code.

CONF-OP-17: The value for Section/code **SHALL** be “10219-4” “SURGICAL OPERATION NOTE -PREOPERATIVE DX” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-18: The Preoperative Diagnosis section **SHALL** include a section/text element either directly or contained within a (sub)section text element

CONF-OP-19: The Preoperative Diagnosis section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.1.

CONF-OP-20: The Preoperative Diagnosis section **MAY** contain clinical statements. If present, the clinical statements **SHALL** conform to CCD problem observation template (CCD templateId 2.16.840.1.113883.10.20.1.28).

Figure 8: Preoperative Diagnosis section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.1"/>
    <code code="10219-4" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE-PREOPERATIVE
DX"/>
    <title>PREOPERATIVE DIAGNOSIS</title>
    <text>Appendicitis</text>
  </section>
</component>
```

4.2.2 Postoperative Diagnosis 10218-6

The Postoperative Diagnosis section records the diagnosis or diagnoses discovered or confirmed during the surgery. Often it is the same as the preoperative diagnosis.

CONF-OP-21: The Operative Note **SHALL** contain exactly one and **SHALL NOT** contain more than one Postoperative Diagnosis section.

CONF-OP-22: The Postoperative Diagnosis section **SHALL** contain Section/code.

CONF-OP-23: The value for Section/code **SHALL** be “10218-6” “SURGICAL OPERATION NOTE -POSTOPERATIVE DX” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-24: The Postoperative Diagnosis section **SHALL** include a section/text element either directly or contained within a (sub)section text element

CONF-OP-25: The Postoperative Diagnosis section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.2.

CONF-OP-26: The Postoperative Diagnosis section **MAY** contain clinical statements. If present, the clinical statements **SHALL** conform to CCD problem observation template (CCD templateId 2.16.840.1.113883.10.20.1.28).

Figure 9: Postoperative Diagnosis section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.7.2"/>
    <code code="10218-6" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE-POSTOPERATIVE
DX"/>
    <title>Postoperative Diagnosis</title>
    <text>Appendicitis</text>
  </section>
</component>
```

4.2.3 Surgery Description 8724-7

The Operative Note Surgery Description section records the particulars of the surgery with an extensive narrative and may include surgical site preparation, pertinent details related to sedation/anesthesia, measurements and markings, waiting times, incisions, surgical approach, instrumentation, sponge counts, tissue manipulation, wound closure, sutures used, and vital signs and other monitoring data. Complications may be recorded in this section. Local practice often identifies the level and type of detail required based on the procedure or specialty.

CONF-OP-27: The Operative Note **SHALL** contain exactly one and **SHALL NOT** contain more than one Surgery Description section

CONF-OP-28: The Surgery Description Section **SHALL** contain Section/code.

CONF-OP-29: The value for Section/code **SHALL** be “8724-7” “SURGICAL OPERATION NOTE DESCRIPTION” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-30: The Surgery Description section **SHALL** include a section/text element either directly or contained within a (sub)section text element

CONF-OP-31: The Surgery Description section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.3.

CONF-OP-32: The Surgery Description section **SHALL** include a statement regarding whether or not a sponge and needle count was completed.

CONF-OP-33: The Surgery Description section **SHOULD** include a statement regarding whether or not an instrument count was completed.

CONF-OP-34: If the Operative Note Fluids section is NOT present, there **MAY** be a statement in the Surgery Description section providing details of the fluids administered or explicitly stating there were no fluids administered ([4.3.5 Operative Note Fluids Section 10216-0](#)).

CONF-OP-35: If the Surgical Drains section is NOT present, there **MAY** be a statement in the Surgery Description section providing details of the drains placed or explicitly stating there were no drains placed ([4.3.6 Surgical Drains Section 11537-8](#)).

Figure 10: Surgery Description section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.7.3"/>
    <code code="8724-7" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE-SURGICAL
DESCRIPTION"/>
    <title>Surgery Description</title>
    <text> The patient was brought to the operating room, placed in the supine
      position, and general anesthesia was induced. A detailed technical
      narrative of a laparoscopic appendectomy from initial incision to
      placement of any dressings follows.
    </text>
  </section>
</component>
```

4.2.4 Surgical Operation Note Findings 10215-2

The Findings section records clinically significant observations confirmed or discovered during the surgery. Often this section is a subsection of the Surgery Description section. This section is not for diagnostic findings that may be found in a History and Physical Note, as the results of observations generated by laboratories, imaging procedures, and other procedures would not yet be available.

CONF-OP-36: The Operative Note **SHALL** contain exactly one and **SHALL NOT** contain more than one Findings Section.

CONF-OP-37: The Operative Note Findings Section **SHALL** contain Section/code.

CONF-OP-38: The value for Section/code **SHALL** be “10215-2” (SURGICAL OPERATION NOTE FINDINGS)” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-39: The Operative Notes section **SHALL** include a section/text element either directly or contained within a (sub)section text element

CONF-OP-40: The Operative Note Findings section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.4.

Figure 11: Findings section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.7.4"/>
    <code code="10215-2" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE-FINDINGS"/>
    <title>Operative Note Findings</title>
    <text>The appendix was found to be inflamed consistent with acute
      suppurative appendicitis.
    </text>
  </section>
</component>
```

4.2.5 Anesthesia 10213-7

The Anesthesia section briefly records the type of anesthesia (e.g., general or local) and may state the actual agent used. This may or may not be a subsection of the Surgery

Description section. The full details of anesthesia are usually found in a separate Anesthesia Note.

CONF-OP-41: The Operative Note **SHALL** contain exactly one and **SHALL NOT** contain more than one Anesthesia section.

CONF-OP-42: The Anesthesia section **SHALL** contain Section/code.

CONF-OP-43: The value for Section/code **SHALL** be “10213-7” “(SURGICAL OPERATION NOTE ANESTHESIA)” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-44: The Anesthesia section **SHALL** include a section/text element either directly or contained within a (sub)section text element.

CONF-OP-45: The Anesthesia section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.5.

CONF-OP-46: The Anesthesia section **SHOULD** state the type and **MAY** state the actual agent.

CONF-OP-47: The Anesthesia section **MAY** contain clinical statements. If present, the clinical statements **SHALL** conform to CCD procedure activities template (CCD templateID 2.16.840.1.113883.10.20.1.29) or CCD medication activities template (CCD templateID 2.16.840.1.113883.10.20.1.24).

(Note: If there is no ID the ID can be nulled or a UUID generated.)

Figure 12: Anesthesia section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.5" />
    <code code="10213-7" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE ANESTHESIA"/>
    <title>Anesthesia</title>
    <text>General</text>
  </section>
</component>
```

4.2.6 Estimated Blood Loss 55103-6 or 8717-1 (Deprecated)

Estimated blood loss must be recorded in an Operative Note. The Estimated Blood Loss section may be a subsection of another section such as the Surgery Description section. The Estimated Blood Loss section records the approximate amount of blood that the patient lost during the surgery. It may be an accurate quantitative amount, e.g., 250 milliliters, or may be descriptive, e.g., “minimal” or “none.” A clinical statement entry modeling the estimated blood loss is not precluded, but is not described.

CONF-OP-48: The Operative Note **SHALL** contain exactly one and **SHALL NOT** contain more than one Estimated Blood Loss section.

CONF-OP-49: The Estimated Blood Loss section **SHALL** contain Section/code.

CONF-OP-50: The value for Section/code **SHALL** be “55103-6” or “8717-1”
“(SURGICAL OPERATION NOTE ESTIMATED BLOOD LOSS)”
2.16.840.1.113883.6.1 LOINC **STATIC**.⁷

CONF-OP-51: The Estimated Blood Loss section **SHALL** include a section/text element either directly or contained within a (sub)section text element

CONF-OP-52: The Estimated Blood Loss section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.6.

CONF-OP-53: The Estimated Blood Loss section **SHALL** include a statement providing an estimate of the amount of blood lost during the procedure, even if text such as minimal or none.

Figure 13: Estimated Blood Loss section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.6 " />
    <code code=" 55103-6 " codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE ESTIMATED BLOOD
LOSS"/>
    <title>Estimated Blood Loss</title>
    <text>Minimal</text>
  </section>
</component>
```

4.2.7 Complications 10830-8

The Complications section records problems that occurred during surgery. The complications may have been known risks or unanticipated problems. The Complications section may be a subsection of another section such as the Surgery Description section.

CONF-OP-54: The Operative Note **SHALL** contain exactly one and **SHALL NOT** contain more than one Complications section.

CONF-OP-55: The Complications section **SHALL** contain Section/code.

CONF-OP-56: The value for Section/code **SHALL** be “10830-8” “(SURGICAL OPERATION NOTE COMPLICATIONS)” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-57: The Complications section **SHALL** include a section/text element either directly or contained within a (sub)section text element.

CONF-OP-58: The Complications section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.10.

CONF-OP-59: There **SHALL** be a statement providing details of the complication(s) or it **SHALL** explicitly state there were no complications.

⁷ Claims Attachment Implementation Guides have taken the approach that a quantitative LOINC® code may be used in a narrative report, with the provision that what is reported in the section is the quantitative value. However, “minimal” or “scant” is often dictated – therefore , technically not quantitative. In order not to conflict with the Claims Attachments Operative Note section specification, the Operative Note DSTU will allow the 8717-1 qn LOINC® code as a deprecated code.

CONF-OP-60: The Complications section **MAY** contain clinical statements. If present, the clinical statements **SHALL** conform to CCD problem observations template (CCD problem observation templateId 2.16.840.1.113883.10.20.1.28).

Figure 14: Complications section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.10"/>
    <code code="10830-8" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE COMPLICATIONS"/>
    <title>Complications</title>
    <text>None</text>
  </section>
</component>
```

4.2.8 Specimens Removed 10221-0

The Specimens Removed section records the tissues, objects, or samples taken from the patient during surgery. The narrative may include a description of the specimens.

CONF-OP-61: The Operative Note **SHALL** contain exactly one and **SHALL NOT** contain more than one Specimens Removed section.

CONF-OP-62: The Specimens Removed Section **SHALL** contain Section/code.

CONF-OP-63: The value for Section/code **SHALL** be “10221-0” “(SURGICAL OPERATION NOTE SPECIMENS REMOVED)” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-64: The Specimens Removed section **SHALL** include a section/text element either directly or contained within a (sub)section text element.

CONF-OP-65: The Specimens Removed section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.7.

CONF-OP-66: Specimens Removed section **SHALL** list all specimens removed or **SHALL** explicitly state that no specimens were removed.

CONF-OP-67: Specimens Removed section **MAY** contain one or more specimen participants to reflect specimens that were obtained as part of the procedure.

CONF-OP-68: Each specimen **SHOULD** contain one specimen/specimenRole/id.

Figure 15: Specimens Removed section with entry example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.7"/>
    <code code="10221-0" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE SPECIMENS
REMOVED"/>
    <title>Specimens Removed</title>
    <text>
      <list>
        <item>Thickened inflamed appendix</item>
      </list>
    </text>
    <entry>
      <procedure classCode="PROC" moodCode="EVN">
        <id root="d68b7e32-7810-4f5b-9cc2-acd54b0fd86d"/>
        <code code="80146002" codeSystem="2.16.840.1.113883.6.96"
          displayName="Appendectomy"/>
        <specimen typeCode="SPC">
          <specimenRole classCode="SPEC">
            <id root="c2ee9ee9-ae31-4628-a919-fec1cbb58683"/>
            <specimenPlayingEntity>
              <code code="421615004" codeSystem="2.16.840.1.113883.6.96"
                displayName="Appendix specimen"/>
            </specimenPlayingEntity>
          </specimenRole>
        </specimen>
      </procedure>
    </entry>
  </section>
</component>
```

4.3 Optional Sections

An Operative Note may contain additional sections that provide more information.

4.3.1 Planned Procedure 55104-4

The Planned Procedure section records the procedure(s) that the surgeon thought would need to be done based on the preoperative assessment. The section will contain the procedure or procedures the patient specifically consented to. It may be important to record the procedure(s) that were originally planned for, consented to, and perhaps pre-approved by the payor, particularly if different from the actual procedure(s) and procedure details, to provide evidence to various stakeholders that the providers are aware of the discrepancy and the justification can be found in the procedure details.

CONF-OP-69: The Operative Note **MAY** contain exactly one and **SHALL NOT** contain more than one Planned Procedure section.

CONF-OP-70: The Planned Procedure section **SHALL** contain Section/code.

CONF-OP-71: The value for Section/code **SHALL** be "55104-4" "(SURGICAL OPERATION NOTE PLANNED PROCEDURE)" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-72: The Planned Procedure section **SHALL** include a section/text element either directly or contained within a (sub)section/component/section element(s).

CONF-OP-73: The Planned Procedure section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.8.

CONF-OP-74: If present, the Planned Procedure section shall state the planned procedure(s).

Figure 16: Planned Procedure section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.8" />
    <code code=" 55104-4 " codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE PLANNED
PROCEDURE"/>
    <title>Planned Procedure</title>
    <text>Laparoscopic Appendectomy</text>
  </section>
</component>
```

4.3.2 Indications 10217-8

The Indications section records further details about the reason for the surgery. This section may be a subsection of another section such as Preoperative Diagnosis or Surgery Description.

CONF-OP-75: The Operative Note **SHOULD** contain exactly one and **SHALL NOT** contain more than one Indications section.

CONF-OP-76: The Indications section **SHALL** contain Section/code.

CONF-OP-77: The value for Section/code **SHALL** be “10217-8” “(SURGICAL OPERATION NOTE INDICATIONS)” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-78: The Indications section **SHALL** include a section/text element either directly or contained within a (sub)section text element

CONF-OP-79: The Indications section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.9.

CONF-OP-80: The Indications section **MAY** contain clinical statements. If present, there **SHALL** be an entry relationship: RSON: This entry relationship **SHALL** adhere to CCD CONF 439: A procedure activity **MAY** contain one or more entryRelationship/@typeCode=“RSON”, the target of which represents the indication or reason for the procedure.

Figure 17: Indications section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.9" />
    <code code="10217-8" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE INDICATIONS"/>
    <title>INDICATIONS</title>
    <text> This 8 year old male presented with periumbilical pain, followed
      by nausea and vomiting with pain progressing to somatic,
      steady, severe pain in the right lower abdominal quadrant,
      aggravated by motion and cough. The patient was anorexic.
      Severe rebound tenderness was elicited. He had a fever of 38.4
      and an elevated WBC of 16.7. I had a strong suspicion the patient
      had acute appendicitis and informed consent for a laparoscopic
      appendectomy was obtained from his parents.
    <text>
  </section>
</component>
```

Figure 18: Complications section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.10"/>
    <code code=" 10830-8" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE COMPLICATIONS"/>
    <title>Complications</title>
    <text>None</text>
  </section>
</component>
```

4.3.3 Disposition 55102-8

The Disposition section records the status and condition of the patient at the completion of the surgery. It often also states where the patient was transferred to for the next level of care. The Disposition section may be a subsection of another section such as Procedure Details.

Following are some examples of typical disposition narrative:

- The patient was taken to the Post Anesthesia Care Unit (PACU) in stable condition.
- The patient was returned to the Intensive Care Unit (ICU) intubated in critical but stable condition.
- The patient remained in the Operating Room for her orthopaedic procedure.

CONF-OP-81: The Operative Note **MAY** contain exactly one and **SHALL NOT** contain more than one Disposition section.

CONF-OP-82: The Disposition section **SHALL** contain Section/code.

CONF-OP-83: The value for Section/code **SHALL** be “55102-8” “(SURGICAL OPERATION NOTE DISPOSITION)” 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-84: The Disposition section **SHALL** include a section/text element either directly or contained within a (sub)section text element.

CONF-OP-85: The Disposition section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.11.

Figure 19: Disposition section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.11" />
    <code code=" 55102-8 " codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE DISPOSITION"/>
    <title>Disposition</title>
    <text>The patient was taken to the Post Anesthesia Care Unit in stable
      condition.</text>
  </section>
</component>
```

4.3.4 Plan 18776-5

In an Operative Note, the Plan section may be used to indicate follow-up that the patient needs any planned or potential future surgeries. This is more common in an ambulatory surgery center. The Plan section may be a subsection of another section such as Surgery Description.

CONF-OP-86: The Operative Note **MAY** contain exactly one and **SHALL NOT** contain more than one Plan section.

CONF-OP-87: The Plan section **SHALL** contain Section/code.

CONF-OP-88: The value for Section/code **SHALL** be “18776-5” (PLAN OF TREATMENT) 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-89: The Plan section **SHALL** include a section/text element either directly or contained within a (sub)section text element

CONF-OP-90: The constraints from this section **SHALL** come from the CCD plan of care templateId element where @root is 2.16.840.1.113883.10.20.1.10.

Figure 20: Plan section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.10"/>
    <code code=" 18776-5" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="PLAN OF TREATMENT"/>
    <title>Plan</title>
    <text> The patient will be discharged to home tonight on broad spectrum
      antibiotics from Good Health Hospital
      . He is
      scheduled to follow up in 4 days at the GHH
      Outpatient Clinic.
    </text>
  </section>
</component>
```

4.3.5 Operative Note Fluids Section 10216-0

The Operative Note Fluids section may be used to record fluids administered during the surgical procedure. Optionally, Operative Note fluids may be represented with a text element in the Surgery Description section (See also [CONF-OP-34:](#))

- CONF-OP-91:** The Operative Note **MAY** contain exactly one and **SHALL NOT** contain more than one Operative Note Fluids section.
- CONF-OP-92:** The Operative Note Fluid section **SHALL** contain Section/code.
- CONF-OP-93:** The value for Section/code **SHALL** be “10216-0” (SURGICAL OPERATION NOTE FLUIDS) 2.16.840.1.113883.6.1 LOINC **STATIC**.
- CONF-OP-94:** The Operative Note Fluids section **SHALL** include a section/text element either directly or contained within a (sub)section text element
- CONF-OP-95:** The Operative Note Fluids section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.12.
- CONF-OP-96:** If the Operative Note Fluids section is present, there **SHALL** be a statement providing details of the fluids administered or **SHALL** explicitly state there were no fluids administered.

Figure 21: Operative Note Fluids section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.12"/>
    <code code="10216-0" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE FLUIDS"/>
    <title>Operative Note Fluids</title>
    <text>250 ML Ringers Lactate</text>
  </section>
</component>
```

4.3.6 Surgical Drains Section 11537-8

The Surgical Drains section may be used to record drains placed during the surgical procedure. Optionally, surgical drain placement may be represented with a text element in the Surgery Description Section (See also [CONF-OP-35:](#).)

CONF-OP-97: The Operative Note **MAY** contain exactly one and **SHALL NOT** contain more than one Surgical Drains section.

CONF-OP-98: The Surgical Drains section **SHALL** contain Section/code.

CONF-OP-99: The value for Section/code **SHALL** be “11537-8” (SURGICAL DRAINS) 2.16.840.1.113883.6.1 LOINC **STATIC**.

CONF-OP-100: The Surgical Drains section **SHALL** include a section/text element either directly or contained within a (sub)section text element.

CONF-OP-101: The Surgical Drains section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.13.

CONF-OP-102: If the Surgical Drains section is present, there **SHALL** be a statement providing details of the drains placed or **SHALL** explicitly state there were no drains placed.

Figure 22: Surgical Drains section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.13"/>
    <code code="11537-8" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL DRAINS"/>
    <title>Surgical Drains</title>
    <text>Penrose drain placed</text>
  </section>
</component>
```

4.3.7 Implants Section 55122-6

The Implants section may be used to record implants placed during the surgical procedure.

CONF-OP-103: The Operative Note **MAY** contain exactly one and **SHALL NOT** contain more than one Implants section.

CONF-OP-104: The Implants section **SHALL** contain Section/code.

- CONF-OP-105:** The value for Section/code **SHALL** be “55122-6” (SURGICAL OPERATION NOTE IMPLANTS) 2.16.840.1.113883.6.1 LOINC static.
- CONF-OP-106:** The Implants section **SHALL** include a section/text element either directly or contained within a (sub)section text element.
- CONF-OP-107:** The Implants section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.15.
- CONF-OP-108:** If the Implants section is present, there **SHALL** be a statement providing details of the implants placed or **SHALL** explicitly state there were no implants placed.
- CONF-OP-109:** The Implants section **MAY** contain clinical statements. If present, the clinical statements **SHALL** include one or more supply activities (CCD templateId 2.16.840.1.113883.10.20.1.34), **MAY** include product instance (CCD templateId 2.16.840.1.113883.10.20.1.52) and **MAY** include one or more medication activities (CCD templateId 2.16.840.1.113883.10.20.1.24).

Figure 23: Implants section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.15"/>
    <code code="55122-6" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE IMPLANTS"/>
    <title>Implants</title>
    <text>No implants were placed.</text>
  </section>
</component>
```

4.3.8 Operative Note Surgical Procedure Section 10223-6

The Operative Note Surgical Procedure section may be used to restate the procedures performed if appropriate for an enterprise workflow. The procedure(s) performed associated with the Operative Note are formally modeled in the Header using serviceEvent.

- CONF-OP-110:** The Operative Note **MAY** contain exactly one and **SHALL NOT** contain more than one Surgical Procedure section.
- CONF-OP-111:** The Surgical Procedure section **SHALL** contain Section/code.
- CONF-OP-112:** The value for Section/code **SHALL** be “10223-6” (SURGICAL OPERATION NOTE – SURGICAL PROCEDURE) 2.16.840.1.113883.6.1 LOINC **STATIC**.
- CONF-OP-113:** The Surgical Procedure section **SHALL** include a section/text element either directly or contained within a (sub)section text element.
- CONF-OP-114:** The Surgical Procedure section **SHALL** include a templateId element where @root is 2.16.840.1.113883.10.20.7.14.
- CONF-OP-115:** If the surgical procedure section is present there **SHALL** be text indicating the procedure performed.

Figure 24: Operative Note Surgical Procedure section example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.7.14"/>
    <code code="10223-6" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="SURGICAL OPERATION NOTE SURGICAL
PROCEDURE"/>
    <title>Surgical Procedure</title>
    <text>Laparoscopic Appendectomy</text>
  </section>
</component>
```


5 REFERENCES

- [ASTM's Standard Specifications for Healthcare Document Formats \(E2184.02\)](#) (Headings and subheadings used in the health care industry and associated with specific report types)
- [LOINC®](#): Logical Observation Identifiers Names and Codes, Regenstrief Institute
- [CDAR2AIS0000R021](#): HL7 Additional Information Specification Implementation Guide [HL7 Attachments Special Interest Group (ASIG)]
- [CDAR2AIS0004R030](#): Additional Information Specification 0004, Clinical Reports Attachment
- [HL7 ASIG CDA R2 Attachment for Clinical Notes](#)
- [CDA: Clinical Document Architecture Release 2](#): Clinical Document Architecture (CDA) Release 2, May 2005
- [IHE XDS-MS](#): IHE Patient Care Coordination, Technical Framework, Volumes 1, 2, 3 and 10, Revision 3.0, 2007-2008
- HL7 Implementation Guide for CDA Release 2: History and Physical (H&P) Notes, DSTU Release 1 CDAR2_HPRPT_R1_D2_2007SEP approved as DSTU - Published July 2008. DSTU period: begin Aug 20, 2008, end Aug 20, 2010.
- HL7 Implementation Guide for CDA Release 2: Consultation Notes
- [CCD: Continuity of Care Document](#) (CCD) ASTM/HL7
- [Joint Commission Operative Note Requirements: Standard IM.6.30, Elements of Performance for IM.6.30](#)

APPENDIX A — VALIDATION

Introduction

This appendix describes the vocabulary used for Operative Note document codes.

Vocabulary

Table 3: Surgical Operation Note LOINC® Document Codes

Value Set: SurgicalOperationNote 2.16.840.1.113883.11.20.1.1 Code System: LOINC® 2.16.840.1.113883.6.1			
LOINC® Code	Type of Service 'Component'	Setting 'System'	Specialty/Training/Professional Level 'Method_Type'
11504-8	Surgical operation note	{Setting}	{Provider}
34137-0	Surgical operation note	Outpatient	{Provider}
28583-3	Surgical operation note	{Setting}	Dentistry
28624-5	Surgical operation note	{Setting}	Podiatry
28573-4	Surgical operation note	{Setting}	Physician
34877-1	Surgical operation note	{Setting}	Urology
34874-8	Surgical operation note	{Setting}	Surgery
34870-6	Surgical operation note	{Setting}	Plastic surgery
34868-0	Surgical operation note	{Setting}	Orthopedics
34818-5	Surgical operation note	{Setting}	Otorhinolaryngology

The following code should not be used, as it is a duplicate:

34871-4	Surgical operation note	{Setting}	Podiatry
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APPENDIX B — TEMPLATE IDS IN THIS GUIDE

Template ID	Description
2.16.840.1.113883.10.20.3	General header constraints from the History and Physical Implementation Guide
2.16.840.1.113883.10.20.7	Operative Note Clinical Document
2.16.840.1.113883.10.20.7.1	Preoperative Diagnosis Section
2.16.840.1.113883.10.20.7.2	Postoperative Diagnosis Section
2.16.840.1.113883.10.20.7.3	Description of Surgery
2.16.840.1.113883.10.20.7.4	Operative Note Findings Section
2.16.840.1.113883.10.20.7.5	Anesthesia Section
2.16.840.1.113883.10.20.7.6	Estimated Blood Loss Section
2.16.840.1.113883.10.20.7.7	Specimens Removed Section
2.16.840.1.113883.10.20.7.8	Planned Procedure Section
2.16.840.1.113883.10.20.7.9	Indications Section
2.16.840.1.113883.10.20.7.10	Complications Section
2.16.840.1.113883.10.20.7.11	Disposition Section
2.16.840.1.113883.10.20.1.10	Plan Section
2.16.840.1.113883.10.20.7.12	Operative Note Fluids Section
2.16.840.1.113883.10.20.7.13	Surgical Drains Section
2.16.840.1.113883.10.20.7.15	Implants Section
2.16.840.1.113883.10.20.7.14	Operative Note Surgical Procedure Section
CCD Template ID	Description
2.16.840.1.113883.10.20.1.28	Problem Observation
2.16.840.1.113883.10.20.1.29	Procedure Activities
2.16.840.1.113883.10.20.1.24	Medication Activities
2.16.840.1.113883.10.20.1.34	Supply Activities
2.16.840.1.113883.10.20.1.52	Product Instance