Section B

Clinical Statements
Content Modeling and Clinical Statements in CDA

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Clinical Statements in HL7

- Intentional *happenings* are recorded as **Acts**
- Acts are related through an **ActRelationship**
- **Participation** defines involvement in an Act

**Class code:**
- Living Subject, Person, Organization, Material, Place

**Class code:**
- Patient, Employee, Licensed Entity, Access

**Type code:**
- Performer, Author, Witness, Subject, Destination

**Class code:**
- Observation, Procedure, Supply, Document, Substance Admin, Financial Activity

**Entity**

**Role**

**Participation**

**Act**

**RoleLink**

**ActRelationship**

**Mood code:**
- Definition, Intent, Order, Event

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  - **Role**
  - **Participation**
  - **Act**
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Act

- **Identifier**
- **Code describing the act performed**
- **Indication that the act was or was not performed**
- **Text describing the act**
- **Clinically effective time of the act**
- **Priority**
- **Human language used to describe the act**

```
Act
classCode *: <= x_ActClassDocumentEntryAct
moodCode *: <= x_DocumentActMood
id: SET<ll> [0..*]
code*: CD CWE [1..1] <= ActCode
negationInd: BL [0..1]
text: ED [0..1]
statusCode: CS CNE [0..1] <= ActStatus
effectiveTime: IVL<TS> [0..1]
priorityCode: CE CWE [0..1] <= ActPriority
languageCode: CS CNE [0..1] <= HumanLanguage
```
Encounter

- Identifier
- Code describing the type of encounter
- Text describing the encounter
- Clinically effective time of the encounter
- Priority of the encounter
  - For example, emergent, urgent, normal, elective

```plaintext
Encounter
classCode *: <= ENC
moodCode *: <= x_DocumentEncounterMood
id: SET<II> [0..*]
code: CD CWE [0..1] <= ActEncounterCode
text: ED [0..1]
statusCode: CS CNE [0..1] <= ActStatus
effectiveTime: IVL<TS> [0..1]
priorityCode: CE CWE [0..1] <= ActPriority
```
Procedure

- Identifier
- Code describing the procedure
- Indication of whether procedure was or was not performed
- Text describing the procedure
- Clinically effective time of the procedure
- Priority of the procedure
- Human language used to describe the procedure
- Method used
- Site used in the approach
- Site affected by the procedure

```
Procedure
classCode *: <= PROC
moodCode *: <= x_DocumentProcedureMood
id: SET<ll> [0..*]
code: CD CWE [0..1]
negationInd: BL [0..1]
text: ED [0..1]
statusCode: CS CWE [0..1] <= ActStatus
effectiveTime: IVL<TS> [0..1]
priorityCode: CE CWE [0..1] <= ActPriority
languageCode: CS CWE [0..1] <= HumanLanguage
methodCode: SET<CE> CWE [0..*]
approachSiteCode: SET<CD> CWE [0..*]
targetSiteCode: SET<CD> CWE [0..*]
```
Observation

- Identifier
- Code describing the observation
- Indication of whether the observation was or was not performed
- Formula by which the result was derived
- Text describing observation
- Clinically effective time of the observation
- Priority of the observation
- Position of this observation in a set of repeated observations
- Human language
- Value (result) of the observation
- Interpretation
- Method and body site

```
Observation
classCode*: OBS
moodCode*: x_ActMoodDocumentObservation
id: SET<II>[0..*]

code*: CD CWE [1..1] <= ObservationType

negationInd: BL [0..1]
derivationExpr: ST [0..1]
text: ED [0..1]

statusCode: CS CWE [0..1] <= ActStatus
effectiveTime: IVL<TS> [0..1]
priorityCode: CD CWE [0..1] <= ActPriority
repeatNumber: IVL<INT> [0..1]
languageCode: CS CWE [0..1] <= HumanLanguage

value: ANY [0..1]
interpretationCode: SET<CE> CWE [0..*]

methodCode: SET<CE> CWE [0..*]
targetSiteCode: SET<CD> CWE [0..*]
```
Substance Administration

- **Identifier**
- **Code describing the administration**
- **Indication of whether the substance was or was *not* administered**
- **Text describing the administration**
- **Clinically effective time of administration**
- **Priority**
- **Position of administration in a series of administrations**
- **Route, site, dose and rate**
- **Maximum dose**
- **Unit of administration**
- **Consumable participant is what was administered**

```
SubstanceAdministration
classCode *:: SBADM
moodCode *:: x_DocumentSubstanceMood
id: SET<II> [0..*]
code: CD CWE [0..1]:: SubstanceAdministrationActCode
negationInd: BL [0..1]
text: ED [0..1]
statusCode: CS CWE [0..1]:: ActStatus
effectiveTime: GTS [0..1]
priorityCode: CE CWE [0..1]:: ActPriority
repeatNumber: IVL<INT> [0..1]
routeCode: CE CWE [0..1]:: RouteOfAdministration
approachSiteCode: SET<CD> CWE [0..*]:: ActSite
doseQuantity: IVL<PQ> [0..1]
rateQuantity: IVL<PQ> [0..1]
maxDoseQuantity: RTQ<PQ,PQ> [0..1]
administrationUnitCode: CE CWE [0..1]:: AdministrableDrugForm
```
Supply

- Identifier
- Code describing Supply act
- Text describing the act
- Clinically effective time
- Priority
- Position of supply in a series
- Quantity of item supplied
- Expected time of use
- Product participant is what was supplied

Supply

```plaintext
classCode *: <= SPLY
moodCode *: <= x_DocumentSubstanceMood
id: SET<II> [0..*]
code: CD CWE [0..1] <= ActCode
text: ED [0..1]
statusCode: CS CNE [0..1] <= ActStatus
effectiveTime: GTS [0..1]
priorityCode: SET<CE> CWE [0..*] <= ActPriority
repeatNumber: IVL<INT> [0..1]
indendentInd: BL [0..1]
quantity: PQ [0..1]
expectedUseTime: IVL<TS> [0..1]
```