

AllergyCCDA: Data Preparation Checklist

The Allergy section details any allergies, adverse relations, and intolerances to medication, food and other substances. There is a separate **Entry** section for each allergy or intolerance.

This topic details the data elements that must be present in the Allergy section of a Continuity of Care Document (CCD) for it to be processed in the *Clinical:AllergyCdda* data space (hosted in Data Engine).

(R) - Required elements for the Allergy section and its sub-sections to be processed correctly in the *Clinical:AllergyCdda* data space.

(O) - Optional elements that are processed if provided in correct format.

Required **(R)** elements that are children of an Optional **(O)** element are only required for the immediate parent element to be processed.

- Header
- Component
 - **(O)** Section
 - **(R)** `templateId` (*root="2.16.840.1.113883.10.20.22.2.6.1"* see Allergy Section Template ID)
 - **(R)** `code` (*code="48765-2"* and *codeSystem="2.16.840.1.113883.6.1"* see Allergy Section Code)
 - **(O)** text
 - **(R)** entry
 - **(R)** `act` (*classCode="ACT"* and *moodCode="EVN"* see Allergies Concern Act)
 - **(R)** `templateId` (*root="2.16.840.1.113883.10.20.22.2.4.30"* see Allergies Concern Act Template ID)
 - **(O)** `statusCode` (see Allergy Concern Act Status Code)
 - **(R)** `entryRelationship` (*typeCode="SUBJ"* see Allergy-Intolerance Observation)
 - **(R)** `observation` (*classCode="OBS"* and *moodCode="EVN"* and **(O)** *negationInd="true"* or *false*)
 - **(R)** `templateId` (*root="2.16.840.1.113883.10.20.22.4.7"* see Allergy-Intolerance Observation Template ID)
 - **(O)** `effectiveTime` (see Allergy-Intolerance Observation Effective Time)
 - **(O)** `value` (see Allergy-Intolerance Observation Value)
 - **(O)** `author` (see Allergy-Intolerance Observation Author)
 - **(O)** `assignedAuthor`
 - **(R)** `id`
 - **(R)** `participant`
 - **(R)** `participantRole`
 - **(R)** `playingEntity` (see Playing Entity)
 - **(R)** `code`
 - **(O)** `entryRelationship` (*typeCode="MFST"* see Reaction Observation)
 - **(O)** `observation`
 - **(R)** `templateId` (*root="2.16.840.1.113883.10.20.22.4.9"* see Reaction Observation Template ID)
 - **(O)** `value` (see Reaction Observation Value)
 - **(O)** `effectiveTime` (see Reaction Observation Effective Time)
 - **(O)** `entryRelationship` (*typeCode="SUBJ"* see Reaction Severity Observation Entry Relationship)
 - **(O)** `observation`
 - **(R)** `templateId` (*root="2.16.840.1.113883.10.20.22.4.8"* see Reaction Severity Observation Template ID)
 - **(O)** `value` (see Reaction Severity Observation Value)
 - **(O)** `entryRelationship` (*typeCode="SUBJ"* see Severity Observation)
 - **(O)** `observation` (*classCode="OBS"* and *moodCode="EVN"*)
 - **(R)** `templateId` (*root="2.16.840.1.113883.10.20.22.4.8"* see Severity Observation Template ID)
 - **(O)** `value` (see Severity Observation Value)
 - **(O)** `entryRelationship` (*typeCode="SUBJ"* see Criticality Observation)
 - **(O)** `observation` (*classCode="OBS"* and *moodCode="EVN"*)
 - **(R)** `templateId` (*root="2.16.840.1.113883.10.20.22.4.145"* see Criticality Observation Template ID)
 - **(O)** `value` (see Criticality Observation Value)

Allergies Section Details

Allergy Section Template ID

component/section/templateId

Specifies which CCDA R2.1 template is being used to determine the requirements, format and structure of the information this subsection.

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```
...  
<component>  
  <section>  
    <templateID root="2.16.840.1.113883.10.20.22.2.6.1"/>  
  </section>  
</component>  
...
```

| Section | Element | Attribute | Value | Notes |
|---------|------------|-----------|---|---|
| Allergy | templateId | root | Must be
2.16.840.1.113883.10.20.22.2.6.1 | The unique identifier for the
CCDA R2.1 template that
defines the requirements,
format and structure for the
entire Allergy section in
Continuity of Care
Documents (CCDs). |

Allergy Section Code

component/section/code

Labels this section as 'Allergies and adverse reactions Document'.

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```
...  
<component>  
  <section>  
    <templateID root="2.16.840.1.113883.10.20.22.2.6.1"/>  
    <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"/>  
  </section>  
</component>  
...
```

| Section | Element | Attribute | Value | Notes |
|---------|---------|------------|--------------------------------------|---|
| Allergy | code | code | Must be <i>48765-2</i> | In the Logical Observation Identifiers Names and Codes (LOINC) coding system this alphanumeric string (or 'code') represents <i>Allergies and adverse reactions Document</i> . |
| | | codeSystem | Must be <i>2.16.840.1.113883.6.1</i> | The unique numerical identifier for the Logical Observation Identifiers Names and Codes (LOINC) coding system. This system will be used to resolve the value in the <code>code</code> attribute (<i>48765-2</i>). |

Allergies Concern Act

component/section/entry/act

[↑TOP](#)

Specifies an ongoing concern on behalf of the provider that placed the allergy on a patient's allergy list.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        ...
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|---------------------|---------|-----------|--------------------|---|
| Allergy Concern Act | act | classCode | Must be <i>ACT</i> | Specifies the general nature of the entry, which in this case is an act (<i>ACT</i>). |
| | | moodCode | Must be <i>EVN</i> | Indicates that this entry is an event (<i>EVN</i>) that actually happens, has happened or is an ongoing act, or was documented from a past act. |

Allergies Concern Act Template ID

component/section/entry/act/templateId

Specifies which CCD R2.1 template is being used to determine the requirements, format and structure of the information this subsection.

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```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <templateID root="
2.16.840.1.113883.10.20.22.4.30"/>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|---------------------|------------|-----------|--|--|
| Allergy Concern Act | templateId | root | Must be
2.16.840.1.113883.10.20.22.4.30 | The unique identifier for the
CCDA R2.1 template that
defines the requirements,
format and structure of the
Allergies Concern Act
subsection in Continuity of
Care Documents (CCDs). |

Allergy Concern Act Status Code

component/section/entry/act/statusCode

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Indicates the current status of the allergy or intolerance detailed in this entry.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <templateID root="
2.16.840.1.113883.10.20.22.4.30"/>
        <statusCode code="active"/>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|---------------------|------------|-----------|--|-------|
| Allergy Concern Act | statusCode | code | Must be one of the following
values:
<ul style="list-style-type: none"> • <i>completed</i> • <i>aborted</i> • <i>active</i> • <i>suspended</i> | |

Allergy-Intolerance Observation

component/section/entry/act/entryRelationship

Indicates whether the information being provided relates to the allergy itself (the 'Subject') or to the observed reaction (the 'Manifestation').

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```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation classCode="OBS" moodCode="
EVN" negationInd="true">
            ...
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|---------------------------------|--|-------------|---|---|
| Allergy-Intolerance Observation | entryRelationship | typeCode | Must be <i>SUBJ</i> | Indicates the information being provided relates to the allergy itself (the 'Subject'). |
| | <ul style="list-style-type: none"> • entryRelationship • observation | classCode | Must be <i>OBS</i> | Specifies the general nature of the entry, which in this case is an observation (<i>OBS</i>). |
| | | moodCode | Must be <i>EVN</i> | Indicates that this entry is an event (<i>EVN</i>) that has happened or is an ongoing activity, or was documented from a past activity. |
| | | negationInd | Must be one of the following: <ul style="list-style-type: none"> • <i>true</i> • <i>false</i> | This attribute is optional. If <i>true</i> , the patient has no known observed allergies. |

Allergy-Intolerance Observation Template ID

component/section/entry/act/entryRelationship/observation/templateId

Specifies which CCDA R2.1 template is being used to determine the requirements, format and structure of the information this subsection.

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```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation classCode="OBS" moodCode="
EVN">
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|---------------------------------|------------|-----------|---|--|
| Allergy-Intolerance Observation | templateId | root | Must be
<i>2.16.840.1.113883.10.20.22.4.</i> | The unique identifier for the
CCDA R2.1 template that
defines the requirements,
format and structure of
Allergy-Intolerance
Observations in Continuity
of Care Documents (CCDs). |

Allergy-Intolerance Observation Effective Time

component/section/entry/act/entryRelationship/observation/effectiveTime

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Specifies the onset date, duration, and resolution date (if known) of an allergy or intolerance. Refer to [How Effective Time values are processed](#) for details on the different ways `effectiveTime` information can be processed.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation classCode="OBS" moodCode="
EVN">
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <effectiveTime xsi:type="
IVL_TS">
              <low value="199803"
/>
              <high value="
20110103"/>
            </effectiveTime>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```




Allergy-Intolerance Observation Value

component/section/entry/act/entryRelationship/observation/value

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Specifies the category of allergen or substance of intolerance.

```
...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation classCode="OBS" moodCode="
EVN">
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <value xsi:type="CD" code="
416098002" displayName="drug allergy" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT"/>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...
```


| Subsection | Element | Attribute | Value | Notes |
|---------------------------------|---------|------------|--|--|
| Allergy-Intolerance Observation | Value | xsi:type | Must be <i>CD</i> . | <p>Indicates this is a 'coded value'.</p> <div style="border: 1px solid gray; padding: 5px;"> <p> 'Coded values' provide a code (an alphanumeric string that represents a name or description) and the unique identifier for the code system that specifies that the alphanumeric string represents a specific name or description.</p> <p>For example, in the SNOMED CT code system, the code <i>419199007</i> represents <i>Allergy to substance</i>.</p> </div> |
| | | code | <p>Must be one of the following Allergy-Intolerance Observation codes specified by the SNOMED CT coding system:</p> <ul style="list-style-type: none"> • <i>235719002</i> - Food intolerance • <i>414285001</i> - Food allergy • <i>416908002</i> - Drug allergy • <i>418038007</i> - Propensity to adverse reactions to substance • <i>418471000</i> - Propensity to adverse reactions to food • <i>419199007</i> - Allergy to substance • <i>41951103</i> - Propensity to adverse reactions to a drug • <i>420134006</i> - Propensity to adverse reactions • <i>59037007</i> - Drug intolerance | <p>During message processing, the <i>Clinical:AllergyCoda</i> data space takes the alphanumeric string provided. It does not check whether the code or codeSystem values are valid.</p> <div style="border: 1px solid gray; padding: 5px;"> <p> If an invalid code is provided, an error may occur when this data is retrieved from Data Engine's Model Store. Errors can occur when the Allergy-Allergy Intolerance CDR8 FHIR Converter, which transforms data after retrieval, cannot resolve a code.</p> </div> <div style="border: 1px solid red; padding: 5px; margin-top: 5px;"> <p> If a nullFlavor attribute is present the Allergy-Intolerance Observation coded value will not be mapped.</p> </div> |
| | | codeSystem | Must be <i>2.16.840.1.113883.6.96</i> | This is the unique identifier for the SNOMED CT coding system. This system will be used to resolve the value in the code attribute. |

Allergy-Intolerance Observation Author

component/section/entry/act/entryRelationship/observation/author



Indicates information of person observing the allergy or intolerance, or the person adding notes to the document about the allergy detailed in this entry. Refer to [Assigned Author Element](#) for more details on what information can be available for the author section.

```

...
    <component>
      <section>
        <entry typeCode="DRIV">
          <act classCode="ACT" moodCode="EVN">
            <entryRelationship typeCode="SUBJ">
              <observation classCode="
OBS" moodCode="EVN">
                <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
                <author>
<assignedAuthor>
                    <
                    ...
                </author>
            </observation>
          </entryRelationship>
        </act>
      </entry>
    </section>
  </component>
...

```

Playing Entity



component/section/entry/act/entryRelationship/observation/participant/participantRole/playingEntity

Specifies the agent or substance which caused the allergic or adverse reaction.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation classCode="OBS"
moodCode="EVN">
                                <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
                                <participant typeCode="CSM"
>
                                <participantRole
classCode="MANU">
<playingEntity classCode="MMAT">
<code code="314422" displayName="ALLERGENIC EXTRACT, PENICILLIN"
codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm"/>
                                <
/playingEntity>
                                </participantRole>
                                </participant>
                                </observation>
          </entryRelationship>
        </act>
      </entry>
    </section>
  </component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|---------------------------------|---|------------|--|---|
| Allergy-Intolerance Observation | <ul style="list-style-type: none"> • participant <ul style="list-style-type: none"> • participantRole • playingEntity <ul style="list-style-type: none"> • code | code | <p>Alphanumeric string that represents the name or description of the agent or substance the caused the allergic or adverse reaction.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> Each Coding System assigns a unique alphanumeric string (or 'code') to represent each agent or substance. For example, the RxNorm Coding System uses <i>314422</i> as the unique alphanumeric string (or 'code') to represent <i>Penicillin</i>.</p> </div> | <p>During message processing, the <i>Clinical:AllergyCoda</i> data space takes the alphanumeric string provided. It does not check whether the <code>code</code> or <code>codeSystem</code> values are valid.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> If an invalid code is provided, an error may occur when this data is retrieved from Data Engine's Model Store. Errors can occur when the Allergy-Allergy Intolerance CDR8 FHIR Converter, which transforms data after retrieval, cannot resolve a code.</p> </div> |
| | | codeSystem | <p>The unique identifier for the Coding System that should be used to resolve the value specified in Code attribute.</p> <p>Typically, agents or substances are determined by one of the following code systems:</p> <ul style="list-style-type: none"> • RxNorm - <i>2.16.840.1.11388.3.6.88</i> • National Drug File - Reference Terminology (NDF-RT) - <i>2.16.840.1.113883.3.26.1.5</i> • Unique ingredient identifiers (UNII) - <i>2.16.840.1.113883.4.9</i> | <p>This system will be used to resolve the value in the <code>code</code> attribute.</p> |

Reaction Observation

component/section/entry/act/entryRelationship/observation/entryRelationship

Indicates whether the information being provided relates to the allergy itself (the 'Subject') or to the observed reaction (the 'Manifestation').

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <entryRelationship
typeCode="MFST">
              ...
            </entryRelationship>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|----------------------|-------------------|-----------|---------------------|---|
| Reaction Observation | entryRelationship | typeCode | Must be <i>MFST</i> | Indicates that the information in this subsection relates to the observed reaction (the 'Manifestation'). |

Reaction Observation Template ID

component/section/entry/act/entryRelationship/observation/templateId

Specifies which CCDA R2.1 template is being used to determine the requirements, format and structure of the information this subsection.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <entryRelationship
typeCode="MFST">
              <observation>
                <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
              </observation>
            </entryRelationship>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|-------------|------------|-----------|---|---|
| Observation | templateId | root | Must be
2.16.840.1.113883.10.20.22.4.9 | The unique identifier for the
CCDA R2.1 template that
defines the requirements,
format and structure of
Reaction Observations in
Continuity of Care
Documents (CCDs). |

Reaction Observation Value




component/section/entry/act/entryRelationship/observation/entryRelationship/observation/value

Specifies the type of allergic or adverse reaction for the allergy detailed in this entry.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <entryRelationship
typeCode="MFST">
              <observation>
                <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
                <value xsi:
type="CD" code="247472004" codeSystem="2.16.840.1.113883.6.96"
displayName="Hives"/>
              </observation>
            </entryRelationship>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|----------------------|---------|------------|---|---|
| Reaction Observation | value | xsi:type | Must be <i>CD</i> . | <p>Indicates this is a 'Coded Value'.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p> 'Coded values' provide a code (an alphanumeric string that represents a name or description) and the unique identifier for the code system that specifies that the alphanumeric string represents a specific name or description.</p> <p>For example, in the SNOMED CT code system, the code <i>247472004</i> represents <i>Hives</i>.</p> </div> |
| | | code | <p>Must be one of the Reaction Observation codes specified by the SNOMED CT coding system. For example:</p> <ul style="list-style-type: none"> • <i>247472004</i> - Hives • <i>39579001</i> - Anaphylaxis • <i>129851009</i> - Alteration in comfort: pain | <p>During message processing, the <i>Clinical:AllergyCdda</i> data space takes the alphanumeric string provided. It does not check whether the code or codeSystem values are valid.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p> If an invalid code is provided, an error may occur when this data is retrieved from Data Engine's Model Store. Errors can occur when the Allergy-Allergy Intolerance CDR8 FHIR Converter, which transforms data after retrieval, cannot resolve a code.</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> <p> If a nullFlavor attribute is set with a value of <i>OTH</i> or <i>UNK</i> then the coded values from the translation sub-element of the Reaction Observation Value element will be used instead.</p> </div> |
| | | codeSystem | Must be <i>2.16.840.1.113883.6.96</i> | This is the unique identifier for the SNOMED CT Coding System. This system will be used to resolve the value in the code attribute. |

Reaction Observation Effective Time

component/section/entry/act/entryRelationship/observation/entryRelationship/observation/effectiveTime

Indicates the date and time that the reaction was observed. Refer to [How Effective Time values are processed](#) for details on the different ways *effectiveTime* information can be processed.


```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <entryRelationship
typeCode="MFST">
              <observation>
                <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
                <effectiveTime value="199803"/>
              </observation>
            </entryRelationship>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

Reaction Severity Observation

component/ section/entry/act/entryRelationship/observation/entryRelationship/observation/entryRelationship

Indicates whether the information being provided relates to the allergy itself (the 'Subject') or to the observed reaction (the 'Manifestation').

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```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
          <entryRelationship
typeCode="MFST">
            <observation>
              <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
            <entryRelationship typeCode="SUBJ">
              <observation classCode="OBS" moodCode="EVN">

```

| Subsection | Element | Attribute | Value | Notes |
|-------------------------------|--|-----------|---------------------|---|
| Reaction Severity Observation | entryRelationship | typeCode | Must be <i>SUBJ</i> | Indicates that the information in this subsection relates to the allergy itself (the 'Subject'). |
| | <ul style="list-style-type: none"> • entryRelationship • observation | classCode | Must be <i>OBS</i> | Specifies the general nature of the entry, which in this case is an observation (<i>OBS</i>). |
| | | moodCode | Must be <i>EVN</i> | Indicates that this entry is an event (<i>EVN</i>) that has happened or is an ongoing activity, or was documented from a past activity. |

Reaction Severity Observation Template ID

component/section/entry/act/entryRelationship/observation/entryRelationship/observation/entryRelationship/observation/templateId

Specifies which CCDA R2.1 template is being used to determine the requirements, format and structure of the information this subsection.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
          <entryRelationship
typeCode="MFST">
            <observation>
              <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
            <entryRelationship typeCode="SUBJ"
              <observation>

```

Reaction Severity Observation Value

component/section/entry/act/entryRelationship/observation/entryRelationship/observation/entryRelationship/observation/value




Specifies the level of severity of the observed allergy reaction.

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```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
          <entryRelationship
typeCode="MFST">
            <observation>
              <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
            <entryRelationship typeCode="SUBJ">
              <observation>

```

| Subsection | Element | Attribute | Value | Notes |
|-------------------------------|---------|-------------|--|--|
| Reaction Severity Observation | value | xsi:type | Must be <i>CD</i> . | <p>Indicates this is a 'Coded Value'.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p> 'Coded values' provide a code (an alphanumeric string that represents a name or description) and the unique identifier for the code system that specifies that the alphanumeric string represents a specific name or description.</p> <p>For example, in the SNOMED CT code system, the code <i>247472004</i> represents <i>Hives</i>.</p> </div> |
| | | code | <p>Must be one of the Problem Severity codes specified by the SNOMED CT coding system. For example:</p> <ul style="list-style-type: none"> • <i>255604002</i> - Mild • <i>371923003</i> - Mild to Moderate • <i>6736007</i> - Moderate • <i>371924009</i> - Moderate to Severe • <i>24484000</i> - Severe • <i>399166001</i> - Fatal | <p>During message processing, the <i>Clinical:AllergyCoda</i> data space takes the alphanumeric string provided. It does not check whether the code or codeSystem values are valid.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p> If an invalid code is provided, an error may occur when this data is retrieved from Data Engine's Model Store. Errors can occur when the Allergy-Allergy Intolerance CDR8 FHIR Converter, which transforms data after retrieval, cannot resolve a code.</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> If a nullFlavor attribute is present the Reaction Severity Observation coded value will not be mapped.</p> </div> |
| | | codeSystem | Must be <i>2.16.840.1.113883.6.96</i> | This is the unique identifier for the SNOMED CT Coding System. This system will be used to resolve the value in the code attribute. |
| | | displayName | Can be an alphanumeric string of any length | This attribute is optional. A human readable display name for the template section. |

Severity Observation

component/section/entry/act/entryRelationship/observation/entryRelationship/observation/entryRelationship

Indicates whether the information being provided relates to the allergy itself (the 'Subject') or to the observed reaction (the 'Manifestation').

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
          <entryRelationship
typeCode="SUBJ">
            <observation
classCode="OBS" moodCode="EVN">
              ...
            </observation>
          </entryRelationship>
        </observation>
      </entryRelationship>
    </act>
  </entry>
</section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|----------------------|--|-----------|---------------------|---|
| Severity Observation | entryRelationship | typeCode | Must be <i>SUBJ</i> | Indicates that the information in this subsection relates to the allergy itself (the 'Subject'). |
| | <ul style="list-style-type: none"> • entryRelationship • observation | classCode | Must be <i>OBS</i> | Specifies the general nature of the entry, which in this case is an observation (<i>OBS</i>). |
| | | moodCode | Must be <i>EVN</i> | Indicates that this entry is an event (<i>EVN</i>) that has happened or is an ongoing activity, or was documented from a past activity. |

Severity Observation Template ID

component/section/entry/act/entryRelationship/observation/entryRelationship/observation/templateId

Specifies which CCDA R2.1 template is being used to determine the requirements, format and structure of the information this subsection.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <entryRelationship
typeCode="SUBJ">
              <observation
classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
              </observation>
            </entryRelationship>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|----------------------|------------|-----------|---|---|
| Severity Observation | templateId | root | Must be
2.16.840.1.113883.10.20.22.4.8 | The unique identifier for the
CCDA R2.1 template that
defines the requirements,
format and structure of
Severity Observations in
Continuity of Care
Documents (CCDs). |

Severity Observation Value




component/section/entry/act/entryRelationship/observation/entryRelationship/observation/value

Specifies the level of severity of the allergic or adverse reaction.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <entryRelationship
typeCode="SUBJ">
              <observation
classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
                <value xsi:
type="CD" code="255604002" codeSystem="2.16.840.1.113883.6.96"
displayName="Mild"/>
              </observation>
            </entryRelationship>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|----------------------|---------|------------|---|--|
| Severity Observation | value | xsi:type | Must be <i>CD</i> | <p>Indicates this is a "Coded Value".</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p> 'Coded values' provide a code (an alphanumeric string that represents a name or description) and the unique identifier for the code system that specifies that the alphanumeric string represents a specific name or description.</p> <p>For example, in the SNOMED CT code system, the code <i>371924009</i> represents <i>Moderate to severe</i>.</p> </div> |
| | | code | <p>Must be a Severity code specified in the SNOMED CT coding system:</p> <ul style="list-style-type: none"> • <i>255604002</i> - Mild • <i>371923003</i> - Mild to Moderate • <i>6736007</i> - Moderate • <i>371924009</i> - Moderate to Severe • <i>24484000</i> - Severe • <i>399166001</i> - Fatal | <p>During message processing, the <i>Clinical:AllergyCoda</i> data space takes the alphanumeric string provided. It does not check whether the code or codeSystem values are valid.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p> If an invalid code is provided, an error may occur when this data is retrieved from Data Engine's Model Store. Errors can occur when the Allergy-Allergy Intolerance CDR8 FHIR Converter, which transforms data after retrieval, cannot resolve a code.</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> <p> If a nullFlavor attribute is present the Severity Observation coded value will not be mapped.</p> </div> |
| | | codeSystem | Must be <i>2.16.840.1.113883.6.96</i> | This is the unique identifier for the SNOMED CT coding system. This system will be used to resolve the value in the code attribute. |

Criticality Observation

component/section/entry/act/entryRelationship/observation/entryRelationship/observation/entryRelationship

Indicates whether the information being provided relates to the allergy itself (the 'Subject') or to the observed reaction (the 'Manifestation').


```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
          <entryRelationship
typeCode="SUBJ">
            <observation
classCode="OBS" moodCode="EVN">
              ...
            </observation>
          </entryRelationship>
        </observation>
      </entryRelationship>
    </act>
  </entry>
</section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|-------------------------|--|-----------|---------------------|---|
| Criticality Observation | entryRelationship | typeCode | Must be <i>SUBJ</i> | Indicates that the information in this subsection relates to the allergy itself (the 'Subject'). |
| | <ul style="list-style-type: none"> • entryRelationship • observation | classCode | Must be <i>OBS</i> | Specifies the general nature of the entry, which in this case is an observation (<i>OBS</i>). |
| | | moodCode | Must be <i>EVN</i> | Indicates that this entry is an event (<i>EVN</i>) that has happened or is an ongoing activity, or was documented from a past activity. |

Criticality Observation Template ID

component/section/entry/act/entryRelationship/observation/entryRelationship/observation/templateId

[↑TOP](#)

Specifies which CCDA R2.1 template is being used to determine the requirements, format and structure of the information this subsection.

```

...
<component>
  <section>
    <entry typeCode="DRIV">
      <act classCode="ACT" moodCode="EVN">
        <entryRelationship typeCode="SUBJ">
          <observation>
            <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
            <entryRelationship
typeCode="SUBJ">
              <observation
classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.145"/>
              </observation>
            </entryRelationship>
          </observation>
        </entryRelationship>
      </act>
    </entry>
  </section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|-------------------------|------------|-----------|---|--|
| Criticality Observation | templateId | root | Must be
2.16.840.1.113883.10.20.22.4.145 | The unique identifier for the
CCDA R2.1 template that
defines the requirements,
format and structure of
Criticality Observations in
Continuity of Care
Documents (CCDs). |

Criticality Observation Value




component/section/entry/act/entryRelationship/observation/entryRelationship/observation/value

Specifies the level of criticality of the allergy or intolerance.

```

...
    <component>
      <section>
        <entry typeCode="DRIV">
          <act classCode="ACT" moodCode="EVN">
            <entryRelationship typeCode="SUBJ">
              <observation>
                <templateId root="
2.16.840.1.113883.10.20.22.4.7"/>
                <entryRelationship
typeCode="SUBJ">
<observation classCode="OBS" moodCode="EVN">
<templateId root="2.16.840.1.113883.10.20.22.4.145"/>
<value xsi:type="CD" code="CRITH" displayName="High Criticality"
codeSystem="2.16.840.1.11388 3.5.1063" codeSystemName="LOINC"/>
<
/observation>
<
</observation>
</entryRelationship>
</act>
</entry>
</section>
</component>
...

```

| Subsection | Element | Attribute | Value | Notes |
|-------------------------|---------|----------------|--|---|
| Criticality Observation | value | xsi:type | Must be <i>CD</i> . | <p>Indicates this is a 'Coded Value'</p> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <p> 'Coded values' provide a code (an alphanumeric string that represents a name or description) and the unique identifier for the code system that specifies that the alphanumeric string represents a specific name or description.</p> <p>For example, in the Observation Value code system, the code <i>CRITL</i> represents <i>Low Criticality</i>.</p> </div> |
| | | code | <p>Must be one of the Criticality Observation codes specified by the Observation Value coding system:</p> <ul style="list-style-type: none"> • <i>CRITL</i> - Low criticality • <i>CRITH</i> - High criticality • <i>CRITU</i> - Unable to assess criticality | <p>During message processing, the <i>Clinical:AllergyCoda</i> data space takes the alphanumeric string provided. It does not check whether the code or codeSystem values are valid.</p> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <p> If an invalid code is provided, an error may occur when this data is retrieved from Data Engine's Model Store. Errors can occur when the Allergy-Allergy Intolerance CDR8 FHIR Converter, which transforms data after retrieval, cannot resolve a code.</p> </div> <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p> If a nullFlavor attribute is present the Criticality Observation coded value will not be mapped.</p> </div> |
| | | displayName | Can be an alphanumeric string of any length | This attribute is optional. A human readable display name for the template section. |
| | | codeSystem | Must be <i>2.16.840.1.113883.5.1063</i> | This is the unique identifier for the Observation Value coding system. This system will be used to resolve the value in the code attribute. |
| | | codeSystemName | Can be an alphanumeric string of any length | This attribute is optional. A human readable display name for the code system. |