**Primary Question:**  How do I represent no known allergies?

The following example describes how to encode a machine readable entry corresponding to the narrative text “no known allergies” for the patient.

The Allergy Concern Act follows a similar pattern to the Problem Concern Act in C-CDA. The Problem Concern Act uses the act/code@code="CONC" to express a concern. The act/code@code in the Allergy Concern Act is currently set to 48765-2, which has been reported as an errata.

* Set the statusCode/@code="active" to show the concern is actively being tracked.
* Set the effectiveTime/low/@value to the time when the concern first became active.

The Allergy Intolerance observation is nested inside the Allergy Concern Act.

* Set the Observation/@negationInd="true". The negationInd negates the meaning of the code element. When an Observation/code/@code="ASSERTION" is used, the meaning of the entry shifts from the code element to the value element. For No Known Allergies, the negation applies to the value element, in this example "Allergy to Substance".
* Next, set the Observation/@statusCode="completed". This indicates the observation was completed.
* Next, set the effectiveTime/high/@value to the time the time the assertion was made.

This now states, no allergies to substances have been observed, which represents the common phrase "no known allergies".

Figure 1: No Known Allergies

<!-- No Known Allergies -->
<entry typeCode="DRIV">
 <!-- Allergy Concern Act -->
 <act classCode="ACT" moodCode="EVN">
 <templateId root="2.16.840.1.113883.10.20.22.4.30"/>
 <id root="36e3e930-7b14-11db-9fe1-0800200c9a66"/>
 <!-- Review use of 48765-2 with SDWG, consider consistency with problem
 concern act -->
 <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC"
 displayName="Allergies, adverse reactions, alerts"/>
 <!--currently tracked concerns are active concerns-->
 <statusCode code="active"/>

 <effectiveTime>
 <!--show time when the concern first began being tracked-->
 <low value="20091201"/>
 </effectiveTime>
 <entryRelationship typeCode="SUBJ">
 <!-- No Known Allergies -->
 <observation classCode="OBS" moodCode="EVN" negationInd="true">
 <!-- allergy - intolerance observation template -->
 <templateId root="2.16.840.1.113883.10.20.22.4.7"/>
 <id root="4adc1020-7b14-11db-9fe1-0800200c9a66"/>
 <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
 <statusCode code="completed"/>
 <!-- date/time the patient made the assertion -->
 <effectiveTime>
 <high value="20100103"/>
 </effectiveTime>
 <value xsi:type="CD" code="419199007"
 displayName="Allergy to substance (disorder)"
 codeSystem="2.16.840.1.113883.6.96"
 codeSystemName="SNOMED CT"/>
 </observation>
 </entryRelationship>
 </act>
</entry>

**Additional Questions**

* When encoding no known allergies, why is the negationInd on the Observation being used and not the negationInd on the Act?
	+ When encoding no known allergies, the negationInd on the Observation is used to indicate that allergy intolerances were not observed.
* When encoding no known allergies, isn’t it more valid to send a nullFlavor of NoInformation?
	+ For greater semantic interoperability, Consolidation CDA specifications recommend the use of negationInd when information is known and needs to be negated. The use of nullflavor in this situation is recommended for situations where information is not known (reference C-CDA 1.8.9).
* When encoding no known allergies, what do the effective time elements represent in the act and the observation?
	+ The effectiveTime element of the Allergy Problem Act tracks concern over time. The low element bounds the start of the concern and the high element bounds the end of the concern. The effectiveTime element of the Allergy Intolerance Observation records the time when the observation of the allergy intolerance was first observed. In the case of no known allergies, using just the effectiveTime/high value indicates that allergy intolerances have not been observed through the present date.
* Why is the statusCode element of the ProblemObservation marked completed?
	+ The statusCode of the observation is marked completed because the observation was made, and that act of making the observation is finished. The act of tracking the concern remains active for as long as that concern is being tracked.