**Axiom template for surgical extractions**

instances in *italics*, relations in **bold**, class names are capitalized

\*\* means to adjust for appropriate subtype (e.g., tooth, surface, restoration material)

**- Declare material entities:**

*:tooth* **rdf:type** :Tooth \*\*

*:patient* **rdf:type** :Human Dental Patient

*:provider* **rdf:type** :Dental Health Care Provider

*:dentition* **rdf:type** :Secondary Dentition

## this example of turtle to specifies that the instance *dentition* is a type of

## Secondary Dentition that does not have a tooth.

## The class ‘Secondary Dentition that does not have a tooth ‘ is defined as an

## anonymous class that is both (i.e., the intersection of):

## 1. Secondary Dentition

## 2. the class of things

*:dentition* **rdf:type**

[**rdf:typ**e owl:Class;

**owl:intersectionOf** (

:Secondary Dentition

[**rdf:type** owl:Class;

**owl:complementOf**

[**rdf:type** owl:Restriction;

**owl:onProperty** **has part**;

**owl:someValuesFrom** :Tooth]])]

**- Specify dentition has missing tooth and relate to patient**

*:dentition* **part of** *:patient*

*:dentition* **missing tooth number** <xsd:string> ## takes values 1 - 32

***-* Declare procedure, when it occurred, and the visit it is part of**

*:visit* **rdf:type** :Dental Visit

*:procedure* **rdf:type** :Tooth Extraction Procedure

*:procedure* **part of** *:visit*

*:procedure* **occurrence date** <xsd:dateTime> ## this is optional

**- Specify the inputs and outputs of procedure**

*:procedure* **has\_specified\_input** *:provider*

*:procedure* **has\_specified\_input** *:tooth*

*:procedure* **has\_specified\_output** *:tooth*

*:procedure* **has\_specified\_output** *:dentition*

**- Declare CDT code and what it is about**

*:cdt code* **rdf:type** :Billing Code \*\*

*:cdt code* **is about** *:procedure*

**- CDT codes for surgical extractions**

'7110'

'7120'

'7140'

'7210'