**Axiom template for root extraction procedures**

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 \*\*

*:root* **rdf:type** :Root of Tooth

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

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

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

**- Specify the root is not part of the dentition and relate to patient**

## These examples of Turtle use an anonymous individual to make a negative

## property assertion specifying that the instance of :*root* is not part of the

## instance :*dentition*.

|  |  |
| --- | --- |
| [a owl:NegativePropertyAssertion ;  owl:sourceIndividual *:root* ;  owl:assertionProperty **part of** ;  owl:targetIndividual *:dentition*] . | [] a owl:NegativePropertyAssertion ;  owl:sourceIndividual *:root* ;  owl:assertionProperty **part of** ;  owl:targetIndividual *:dentition* . |

**- Relate material entities**

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

*:dentition* **missing tooth root 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** : Root Removal 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** *:patient*

*:procedure* **has\_specified\_input** *:root*

*:procedure* **has\_specified\_output** *:root*

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

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

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

**- Add organization identifier annotation**

*:tooth* **organization identifier** “*NDPBRN practice #*”

*:patient* **organization identifier** “*NDPBRN practice #*”

*:provider* **organization identifier** “*NDPBRN practice #*”

*:visit* **organization identifier** “*NDPBRN practice #*”

*:procedure* **organization identifier** “*NDPBRN practice #*”

*:cdt* **organization identifier** “*NDPBRN practice #*”

**- CDT codes for root removal**

'D7130’

‘D7250’