SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

ALTER PROCEDURE [dbo].[CDM\_SNOMEDCT\_ANATOMY\_META\_BUILD]

AS

BEGIN

/\*

Module:

CDM\_SNOMEDCT\_ANATOMY\_META\_BUILD

Purpose:

Build ANATOMY\_METADATA table, copy to DEID, load modifier\_dimension and fact count

Input tables:

SNOMEDCT\_CURRENT\*

ref.SNOMEDCT\_TRC

ICDO3\_TOPOLOGY1

ICDO3\_MORPHOLOGY1

Output Tables:

ANATOMY\_METADATA

Modification History: Developed 20200514 JRC

Execution history:

\*/

DECLARE

@proc\_name NVARCHAR(50) = 'CDM\_SNOMEDCT\_ANATOMY\_META\_BUILD',

@table\_name NVARCHAR(128) = N'ref.ANATOMY\_METADATA'

DECLARE

@proc\_name\_braced NVARCHAR(50) = dbo.BRACE\_STRING(@proc\_name),

@proc\_build\_id BIGINT,

@proc\_row\_count BIGINT,

@row\_count BIGINT,

@sql\_string NVARCHAR(MAX),

@generation\_cntr INTEGER,

@generation\_max INTEGER,

@snomed\_date DATE,

@publication\_date DATE,

@sql\_string2 NVARCHAR(MAX);

END

/\* ------------------- \*/

/\* Initialize \*/

/\* ------------------- \*/

BEGIN

EXEC LOG\_TABLE\_BUILD\_START @proc\_build\_id OUTPUT, @proc\_name, @proc\_name\_braced, '(proc)'

EXEC CDM\_SNOMEDCT\_TRC\_BUILD

END

/\* --------------------------------------------------------------- \*/

/\* Create a temporary table of RISA (Reverse IS\_A) relationships \*/

/\* and of FSNs of all concepts \*/

/\* --------------------------------------------------------------- \*/

BEGIN

CREATE TABLE #ISAS (SUBTYPE BIGINT NOT NULL,

SUPERTYPE BIGINT NOT NULL,

CONSTRAINT PK\_AD PRIMARY KEY(SUBTYPE,SUPERTYPE));

INSERT into #ISAS with (TABLOCK)

SELECT TRY\_CONVERT(BIGINT,RL.sourceId) AS SUBTYPE, TRY\_CONVERT(BIGINT,RL.destinationId) AS SUPERTYPE

FROM SNOMEDCT.dbo.SNOMEDCT\_CURRENT\_RELATIONSHIPS RL

WHERE TRY\_CONVERT(BIGINT,RL.typeId) = 116680003

AND RL.active = 1

GROUP BY TRY\_CONVERT(BIGINT,RL.destinationId), TRY\_CONVERT(BIGINT,RL.sourceId)

;

CREATE TABLE #TERMDUPS (CONCEPTID BIGINT NOT NULL,

TERM VARCHAR(2048) NULL,

TERM\_RECORD\_ID BIGINT PRIMARY KEY);

INSERT INTO #TERMDUPS

SELECT TRY\_CONVERT(BIGINT,CNCPT.CONCEPTID) AS CONCEPTID, DS1.term, NEXT VALUE FOR COUNTBY1 AS TERM\_RECORD\_ID

FROM (SELECT DISTINCT CONCEPTID

FROM SNOMEDCT.dbo.SNOMEDCT\_CURRENT\_DESCRIPTIONS DS

WHERE DS.active = '1'

AND DS.typeId = '900000000000003001') CNCPT

LEFT OUTER JOIN SNOMEDCT.dbo.SNOMEDCT\_CURRENT\_DESCRIPTIONS DS1 ON CNCPT.conceptId = DS1.conceptId

WHERE DS1.active = '1'

AND DS1.typeId = '900000000000003001'

;

CREATE TABLE #TERMS (CONCEPTID BIGINT NOT NULL, --REMOVE DUPLICATE FSNS DUE TO SNOMED CT DIALECTS

TERM VARCHAR(2048) NULL,

TERM\_RECORD\_ID BIGINT PRIMARY KEY);

INSERT INTO #TERMS

SELECT T1.CONCEPTID, T2.TERM, T1.TERM\_RECORD\_ID

FROM (SELECT TR.CONCEPTID, MIN(TR.TERM\_RECORD\_ID) AS TERM\_RECORD\_ID

FROM #TERMDUPS TR

GROUP BY TR.CONCEPTID) T1

LEFT OUTER JOIN #TERMDUPS T2 ON T2.TERM\_RECORD\_ID = T1.TERM\_RECORD\_ID

CREATE TABLE #ROOTS (

ROOT BIGINT NULL,

BASECODE BIGINT NULL,

C\_HLEVEL NUMERIC(22,0) NOT NULL,

C\_FULLNAME VARCHAR(700) NOT NULL,

C\_NAME VARCHAR(2000) NOT NULL,

C\_SYNONYM\_CD CHAR(1) NOT NULL,

C\_VISUALATTRIBUTES CHAR(3) NOT NULL,

C\_TOTALNUM NUMERIC(22,0) NULL,

C\_BASECODE VARCHAR(50) NULL,

C\_METADATAXML VARCHAR(MAX) NULL,

C\_FACTTABLECOLUMN VARCHAR(50) NOT NULL,

C\_TABLENAME VARCHAR(50) NOT NULL,

C\_COLUMNNAME VARCHAR(50) NOT NULL,

C\_COLUMNDATATYPE VARCHAR(50) NOT NULL,

C\_OPERATOR VARCHAR(10) NOT NULL,

C\_DIMCODE VARCHAR(700) NOT NULL,

C\_COMMENT VARCHAR(MAX) NULL,

C\_TOOLTIP VARCHAR(900) NULL,

M\_APPLIED\_PATH VARCHAR(700) NOT NULL,

UPDATE\_DATE DATETIME2(0) NULL,

DOWNLOAD\_DATE DATETIME2(0) NULL,

IMPORT\_DATE DATETIME2(0) NULL,

SOURCESYSTEM\_CD VARCHAR(50) NULL,

VALUETYPE\_CD VARCHAR(50) NULL,

M\_EXCLUSION\_CD VARCHAR(25) NULL,

FACT\_COUNT NUMERIC(38,0) NULL

);

/\* Identify all SNOMED CT root hierarchies to build out \*/

INSERT INTO #ROOTS

VALUES ('','',1,'\i2b2\_SNOMEDCT\_ANATOMYTRC\','Tumor data','N','CA',0,'','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:ANATOMY','','Tumor data','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

-- ('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\ANATOMY\','Tumor anatomy','N','CA',0,'SNOMEDCT:ANATOMY','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:ANATOMY','','Tumor anatomy','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

(91723000,91723000,2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\91723000\','SNOMEDCT Primary site anatomy (body structure)','N','FA',0,'SNOMEDCT:91723000','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:404684003','','\SNOMEDCT Anatomy\','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

(108369006,108369006,2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\108369006\','SNOMEDCT Neoplasm (morphologic abnormality)','N','FA',0,'SNOMEDCT:108369006','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:108369006','','\SNOMEDCT Neoplasm histology\','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\LATERALITY\','Tumor anatomy laterality','N','LA',0,'NAACCR:410','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','NAACCR:410','','NAACCR:410; Tumor laterality','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\TNM\_CLINICAL\','Tumor clinical stage','N','LA',0,'LOINC:75620-5','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','LOINC:75620-5','','LOINC:75620-5; TNM clinical stage','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\TNM\_PATHOLOGICAL\','Tumor pathological stage','N','LA',0,'LOINC:75621-3','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','LOINC:75621-3','','LOINC:75621-3; TNM pathological stage','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\','ICDO3 Topology','N','FA',0,'ICDO3:C00-C99','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','ICDO3:C00-C99','','\Tumor topology\','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\8000-9999\','ICDO3 Morphology and behavior','N','FA',0,'ICDO3:8000-9999','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','ICDO3:8000-9999','','\Tumor morphology and behavior\','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\TNM\_PATH\_T\','TNM pathological stage T','N','LA',0,'NAACCR:880','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','NAACCR:880','','NAACCR:880; TNM Pathological T','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\TNM\_PATH\_N\','TNM pathological stage N','N','LA',0,'NAACCR:890','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','NAACCR:890','','NAACCR:890; TNM Pathological N','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\TNM\_PATH\_M\','TNM pathological stage M','N','LA',0,'NAACCR:900','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','NAACCR:900','','NAACCR:900; TNM Pathological M','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\TNM\_CLINICAL\_T\','TNM clinical stage T','N','LA',0,'NAACCR:940','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','NAACCR:940','','NAACCR:940; TNM Clinical T','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\TNM\_CLINICAL\_N\','TNM clinical stage N','N','LA',0,'NAACCR:950','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','NAACCR:950','','NAACCR:950; TNM Clinical N','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\TNM\_CLINICAL\_M\','TNM clinical stage M','N','LA',0,'NAACCR:960','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','NAACCR:960','','NAACCR:960; TNM Clinical M','@','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',1,'\MODIFIER\TUMOR\','Tumors','N','DA',0,'TUMOR\','','modifier\_cd','MODIFIER\_DIMENSION','modifier\_path','T','LIKE','\MODIFIER\TUMOR\','','Modifier\Tumors','\i2b2\_SNOMEDCT\_ANATOMYTRC\ANATOMY\%','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\MODIFIER\TUMOR\PRIMARY\_SITE\','Tumor primary site anatomy','N','RA',0,'TUMOR\PRIMARY\_SITE','','modifier\_cd','MODIFIER\_DIMENSION','modifier\_path','T','LIKE','\MODIFIER\TUMOR\PRIMARY\_SITE\','','Tumor primary site','\i2b2\_SNOMEDCT\_ANATOMYTRC\ANATOMY\91723000\%','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0),

('','',2,'\MODIFIER\TUMOR\PRIMARY\_SITE\_LATERALITY\','Tumor primary site laterality','N','RA',0,'TUMOR\PRIMARY\_SITE\_LATERALITY','','modifier\_cd','MODIFIER\_DIMENSION','modifier\_path','T','LIKE','\MODIFIER\TUMOR\PRIMARY\_SITE\_LATERALITY\','','Tumor primary site laterality','\i2b2\_SNOMEDCT\_ANATOMYTRC\LATERALITY\%','','','','UNebraskaMC','',CAST(NULL AS VARCHAR(25)),0)

;

--SELECT \* FROM #ROOTS

/\* Check to see if each node in the hierarchy is a LEAF (subtype count = 0) or FOLDER (subtype count > 0) \*/

CREATE TABLE #SUBTYPE\_CT (SUPERTYPE\_SCTID BIGINT NOT NULL, SUBTYPE\_CT INTEGER NOT NULL);

INSERT INTO #SUBTYPE\_CT

SELECT SUPERTYPE\_SCTID,(COUNT (\*) -1) AS SUBTYPE\_CT

FROM ref.SNOMEDCT\_TRC

GROUP BY SUPERTYPE\_SCTID ;

END

/\* ----------------------------------------------- \*/

/\* Create ANATOMY\_METADATA table \*/

/\* Build temp table in #ROOTS and copy \*/

/\* ------------------------------------------------- \*/

BEGIN

--TRUNCATE TABLE ref.ANATOMY\_METADATA

EXEC DROP\_TABLE @table\_name

CREATE TABLE ref.ANATOMY\_METADATA

(

C\_HLEVEL NUMERIC(22,0) NOT NULL,

C\_FULLNAME VARCHAR(700) NOT NULL,

C\_NAME VARCHAR(2000) NOT NULL,

C\_SYNONYM\_CD CHAR(1) NOT NULL,

C\_VISUALATTRIBUTES CHAR(3) NOT NULL,

C\_TOTALNUM NUMERIC(22,0) NULL,

C\_BASECODE VARCHAR(50) NULL,

C\_METADATAXML VARCHAR(MAX) NULL,

C\_FACTTABLECOLUMN VARCHAR(50) NOT NULL,

C\_TABLENAME VARCHAR(50) NOT NULL,

C\_COLUMNNAME VARCHAR(50) NOT NULL,

C\_COLUMNDATATYPE VARCHAR(50) NOT NULL,

C\_OPERATOR VARCHAR(10) NOT NULL,

C\_DIMCODE VARCHAR(700) NOT NULL,

C\_COMMENT VARCHAR(MAX) NULL,

C\_TOOLTIP VARCHAR(900) NULL,

M\_APPLIED\_PATH VARCHAR(700) NOT NULL,

UPDATE\_DATE DATETIME2(0) NULL,

DOWNLOAD\_DATE DATETIME2(0) NULL,

IMPORT\_DATE DATETIME2(0) NULL,

SOURCESYSTEM\_CD VARCHAR(50) NULL,

VALUETYPE\_CD VARCHAR(50) NULL,

M\_EXCLUSION\_CD VARCHAR(25) NULL,

FACT\_COUNT NUMERIC(38,0) NULL

);

END

/\* ----------------------------------------------- \*/

/\* Build temp table in #ROOTS and copy \*/

/\* ------------------------------------------------- \*/

--DECLARE @generation\_cntr INTEGER, @generation\_max INTEGER

SET @generation\_cntr = 2;

SET @generation\_max = (SELECT MAX(TR.GENERATION) --13 for Clinical findings today

FROM #ROOTS RT

JOIN ref.SNOMEDCT\_TRC TR ON TR.SUPERTYPE\_SCTID = RT.ROOT AND RT.C\_HLEVEL = 2)+2 ;

WHILE

(@generation\_max - @generation\_cntr) > 0

BEGIN

INSERT INTO #ROOTS

SELECT RTS.ROOT,

TRC.SUBTYPE\_SCTID AS BASECODE,

RTS.C\_HLEVEL+1 AS C\_HLEVEL,

CONCAT(RTS.C\_FULLNAME,LTRIM(RTRIM(CONVERT(CHAR,TRC.SUBTYPE\_SCTID))),'\') AS C\_FULLNAME,

TRM.TERM AS C\_NAME,

'N' AS C\_SYNONYM\_CD,

CASE WHEN SCT.SUBTYPE\_CT = 0 THEN 'LA'

ELSE 'FA' END AS C\_VISUALATTRIBUTES,

0 AS C\_TOTALNUM,

CONCAT('SNOMEDCT:',TRC.SUBTYPE\_SCTID) AS C\_BASECODE,

RTS.C\_METADATAXML,

RTS.C\_FACTTABLECOLUMN,

RTS.C\_TABLENAME,

RTS.C\_COLUMNNAME,

RTS.C\_COLUMNDATATYPE,

RTS.C\_OPERATOR,

CASE WHEN RTS.C\_FULLNAME LIKE '\i2b2\_SNOMEDCT\_ANATOMYPATH\%' THEN CONCAT(RTS.C\_FULLNAME,LTRIM(RTRIM(CONVERT(CHAR,TRC.SUBTYPE\_SCTID))),'\')

ELSE CONCAT('SNOMEDCT:',LTRIM(RTRIM(CAST(TRC.SUBTYPE\_SCTID AS CHAR(30))))) END AS C\_DIMCODE,

RTS.C\_COMMENT,

CONCAT(RTS.C\_TOOLTIP,SUBSTRING(LTRIM(RTRIM(CONVERT(CHAR,TRM.TERM))),1,20),'\') AS C\_TOOLTIP,

RTS.M\_APPLIED\_PATH,

RTS.UPDATE\_DATE,

RTS.DOWNLOAD\_DATE,

RTS.IMPORT\_DATE,

RTS.SOURCESYSTEM\_CD,

RTS.VALUETYPE\_CD,

RTS.M\_EXCLUSION\_CD,

0 AS FACT\_COUNT

FROM #ROOTS RTS

LEFT OUTER JOIN #ISAS ISA ON ISA.SUPERTYPE = RTS.BASECODE

LEFT OUTER JOIN ref.SNOMEDCT\_TRC TRC ON TRC.SUPERTYPE\_SCTID = RTS.ROOT AND TRC.GENERATION = (@generation\_cntr - 1) AND ISA.SUBTYPE = TRC.SUBTYPE\_SCTID

LEFT OUTER JOIN #TERMS TRM ON TRM.CONCEPTID = TRC.SUBTYPE\_SCTID

LEFT OUTER JOIN #SUBTYPE\_CT SCT ON SCT.SUPERTYPE\_SCTID = TRC.SUBTYPE\_SCTID

WHERE RTS.C\_HLEVEL = @generation\_cntr

AND TRY\_CONVERT(BIGINT,TRC.SUPERTYPE\_SCTID) IS NOT NULL

AND ISA.SUBTYPE IS NOT NULL

AND TRC.SUBTYPE\_SCTID IS NOT NULL;

--SELECT \* FROM #ROOTS

--SELECT \* FROM ref.SNOMEDCT\_TRC WHERE SUPERTYPE\_SCTID = '91723000' ORDER BY GENERATION

SET @generation\_cntr = @generation\_cntr+1;

END

/\* ----------------------------------------------- \*/

/\* Add ICD-O-3 metadata \*/

/\* ----------------------------------------------- \*/

INSERT INTO #ROOTS

SELECT

'' "ROOT", ''"BASECODE",3 "C\_HLEVEL", CONCAT('\i2b2\_SNOMEDCT\_ANATOMYTRC\8000-9999\',SUBSTRING(M.CODE,1,4),'\_',SUBSTRING(M.CODE,6,1),'\') "C\_FULLNAME"

,M.TERM "C\_NAME", R.C\_SYNONYM\_CD,'LA' "C\_VISUALATTRIBUTES", R.C\_TOTALNUM

,CONCAT('ICDO3:',M.CODE) "C\_BASECODE", R.C\_METADATAXML, R.C\_FACTTABLECOLUMN, R.C\_TABLENAME,R.C\_COLUMNNAME, R.C\_COLUMNDATATYPE, R.C\_OPERATOR

,CONCAT('ICDO3:',M.CODE) "C\_DIMCODE", R.C\_COMMENT

,CONCAT('ICDO3:',M.CODE,' \i2b2\_SNOMEDCT\_ANATOMYTRC\8000-9999\',SUBSTRING(M.CODE,1,4),'\_',SUBSTRING(M.CODE,6,1)) "C\_TOOLTIP", R.M\_APPLIED\_PATH,GETDATE() "UPDATE\_DATE",GETDATE() "DOWNLOAD\_DATE",GETDATE() "IMPORT\_DATE"

,R.SOURCESYSTEM\_CD,R.VALUETYPE\_CD,R.M\_EXCLUSION\_CD,R.FACT\_COUNT

FROM #ROOTS R

LEFT OUTER JOIN (SELECT CODE, CASE WHEN ICDO3\_TERM1 <> '' THEN ICDO3\_TERM1 ELSE FSN END "TERM"

FROM [ICD\_O\_3].[dbo].[ICDO3\_MORPHOLOGY1]

GROUP BY CODE,CASE WHEN ICDO3\_TERM1 <> '' THEN ICDO3\_TERM1 ELSE FSN END) M ON M.CODE IS NOT NULL

WHERE R.C\_FULLNAME = '\i2b2\_SNOMEDCT\_ANATOMYTRC\8000-9999\'

----

INSERT INTO #ROOTS

SELECT

'' "ROOT", '' "BASECODE",3 "C\_HLEVEL", CONCAT('\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\',M.CODE,'\') "C\_FULLNAME"

,M.TERM "C\_NAME", R.C\_SYNONYM\_CD,'FA' "C\_VISUALATTRIBUTES", R.C\_TOTALNUM

,CONCAT('ICDO3:',M.CODE) "C\_BASECODE", R.C\_METADATAXML, R.C\_FACTTABLECOLUMN, R.C\_TABLENAME,R.C\_COLUMNNAME, R.C\_COLUMNDATATYPE, R.C\_OPERATOR

,CONCAT('ICDO3:',M.CODE) "C\_DIMCODE", R.C\_COMMENT

,CONCAT('ICDO3:',M.CODE,' \i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\',M.CODE,'\') "C\_TOOLTIP", R.M\_APPLIED\_PATH,GETDATE() "UPDATE\_DATE",GETDATE() "DOWNLOAD\_DATE",GETDATE() "IMPORT\_DATE"

,R.SOURCESYSTEM\_CD,R.VALUETYPE\_CD,R.M\_EXCLUSION\_CD,R.FACT\_COUNT

FROM #ROOTS R

LEFT OUTER JOIN (SELECT CODE, MAX(ICDO3\_TERM) "TERM"

FROM [ICD\_O\_3].[dbo].[ICDO3\_TOPOLOGY1]

WHERE DATATYPE = '3'

GROUP BY CODE) M ON M.CODE IS NOT NULL

WHERE R.C\_FULLNAME = '\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\'

INSERT INTO #ROOTS

SELECT

'' "ROOT", '' "BASECODE",4 "C\_HLEVEL", CONCAT('\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\',SUBSTRING(M.CODE,1,3),'\',M.CODE,'\') "C\_FULLNAME"

,M.TERM "C\_NAME", R.C\_SYNONYM\_CD,'LA' "C\_VISUALATTRIBUTES", R.C\_TOTALNUM

,CONCAT('ICDO3:',M.CODE) "C\_BASECODE", R.C\_METADATAXML, R.C\_FACTTABLECOLUMN, R.C\_TABLENAME,R.C\_COLUMNNAME, R.C\_COLUMNDATATYPE, R.C\_OPERATOR

,CONCAT('ICDO3:',M.CODE) "C\_DIMCODE", R.C\_COMMENT

,CONCAT('ICDO3:',M.CODE,'\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\',SUBSTRING(M.CODE,1,3),'\',M.CODE,'\') "C\_TOOLTIP"

, R.M\_APPLIED\_PATH,GETDATE() "UPDATE\_DATE",GETDATE() "DOWNLOAD\_DATE",GETDATE() "IMPORT\_DATE"

,R.SOURCESYSTEM\_CD,R.VALUETYPE\_CD,R.M\_EXCLUSION\_CD,R.FACT\_COUNT

FROM #ROOTS R

LEFT OUTER JOIN (SELECT CODE, MAX(ICDO3\_TERM) "TERM"

FROM [ICD\_O\_3].[dbo].[ICDO3\_TOPOLOGY1]

WHERE DATATYPE <> '3'

GROUP BY CODE) M ON M.CODE IS NOT NULL

WHERE R.C\_FULLNAME = '\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\'

--SELECT top 200 \* FROM #ROOTS WHERE C\_FULLNAME LIKE '\i2b2\_SNOMEDCT\_ANATOMYTRC\c00-c99\%' ORDER BY C\_FULLNAME

/\* Insert the developed metadata from #ROOTS into ANATOMY\_METADATA table \*/

BEGIN

INSERT INTO ref.ANATOMY\_METADATA WITH (TABLOCK)

(

C\_HLEVEL,

C\_FULLNAME,

C\_NAME,

C\_SYNONYM\_CD,

C\_VISUALATTRIBUTES,

C\_TOTALNUM,

C\_BASECODE,

C\_METADATAXML,

C\_FACTTABLECOLUMN,

C\_TABLENAME,

C\_COLUMNNAME,

C\_COLUMNDATATYPE,

C\_OPERATOR,

C\_DIMCODE,

C\_COMMENT,

C\_TOOLTIP,

M\_APPLIED\_PATH,

UPDATE\_DATE,

DOWNLOAD\_DATE,

IMPORT\_DATE,

SOURCESYSTEM\_CD,

VALUETYPE\_CD,

M\_EXCLUSION\_CD,

FACT\_COUNT

)

SELECT C\_HLEVEL,

C\_FULLNAME,

C\_NAME,

C\_SYNONYM\_CD,

C\_VISUALATTRIBUTES,

C\_TOTALNUM,

C\_BASECODE,

C\_METADATAXML,

C\_FACTTABLECOLUMN,

C\_TABLENAME,

C\_COLUMNNAME,

C\_COLUMNDATATYPE,

C\_OPERATOR,

C\_DIMCODE,

C\_COMMENT,

C\_TOOLTIP,

M\_APPLIED\_PATH,

UPDATE\_DATE,

DOWNLOAD\_DATE,

IMPORT\_DATE,

SOURCESYSTEM\_CD,

VALUETYPE\_CD,

M\_EXCLUSION\_CD,

FACT\_COUNT

FROM #ROOTS

END

-- Add CONCEPT\_CD to the tooltip to display the SNOMED CT code

UPDATE ref.ANATOMY\_METADATA SET C\_TOOLTIP = CONCAT(C\_BASECODE,C\_TOOLTIP)

WHERE C\_BASECODE LIKE 'SNOMEDCT:[1-9]%';

BEGIN

SET @publication\_date = (SELECT MAX(NEBLEX\_PUBLICATION\_DATE)

FROM SNOMEDCT.dbo.SNOMEDCT\_CURRENT\_PROVENANCE);

SET @SNOMED\_date = (SELECT MAX(SNOMED\_RELEASE\_DATE)

FROM SNOMEDCT.dbo.SNOMEDCT\_CURRENT\_PROVENANCE);

INSERT INTO ref.ANATOMY\_METADATA

VALUES (2,'\i2b2\_SNOMEDCT\_ANATOMYTRC\PROVENANCE\','PROVENANCE','N','FH',0,'','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:ANATOMY','','Provenance','@','','','','UNebraskaMC','','',0),

(3,'\i2b2\_SNOMEDCT\_ANATOMYTRC\PROVENANCE\BUILD\_DATE\',CONCAT('BUILD\_DATE: ',CAST(GETDATE() AS CHAR(12))),'N','FH',0,'','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:ANATOMY','',CAST(GETDATE() AS CHAR(12)),'@','','','','UNebraskaMC','','',0),

(3,'\i2b2\_SNOMEDCT\_ANATOMYTRC\PROVENANCE\NEBRASKA LEXICON PUBLICATION\_DATE\',CONCAT('PUBLICATION\_DATE: ',CAST(@publication\_date AS CHAR(12))),'N','FH',0,'','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:ANATOMY','',CAST(@publication\_date AS CHAR(12)),'@','','','','UNebraskaMC','','',0),

(3,'\i2b2\_SNOMEDCT\_ANATOMYTRC\PROVENANCE\SNOMED\_PUBLICATION\_DATE\',CONCAT('SNOMED\_PUBLICATION\_DATE: ',CAST(@snomed\_date AS CHAR(12))),'N','FH',0,'','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:ANATOMY','',CAST(@snomed\_date AS CHAR(12)),'@','','','','UNebraskaMC','','',0),

(3,'\i2b2\_SNOMEDCT\_ANATOMYTRC\PROVENANCE\AUTHOR\','AUTHOR: Jim Campbell','N','FH',0,'','','CONCEPT\_CD','SNOMEDCT\_TRC','SUPERTYPE\_CNCPT','T','=','SNOMEDCT:ANATOMY','','Jim Campbell','@','','','','UNebraskaMC','','',0);

MERGE INTO ref.ANATOMY\_METADATA AS TARGET

USING

(SELECT CONCEPT\_CD, MAX(C\_METADATAXML) "C\_METADATAXML" FROM DEID.BLUEHERONMETADATA.dbo.METADATA\_XML\_REPOSITORY GROUP BY CONCEPT\_CD )

AS SOURCE

ON (SOURCE.CONCEPT\_CD = TARGET.C\_BASECODE)

WHEN MATCHED THEN UPDATE SET TARGET.C\_METADATAXML = SOURCE.C\_METADATAXML;

END

-- Copy finished tables to DEID

--TRC tablewill be updated with ICDO3 concepts

insert into DEID.BLUEHERONDATA.dbo.SNOMEDCT\_TRC

SELECT SUBSTRING(C\_BASECODE,7,99) "SUPERTYPE\_SCTID",C\_BASECODE "SUPERTYPE\_CNCPT",C\_NAME "SUPERTYPE\_TERM",

SUBSTRING(C\_BASECODE,7,99) "SUBTYPE\_SCTID",C\_BASECODE "CONCEPT\_CD",C\_NAME "SUBTYPE\_TERM",0 "GENERATION"

FROM [CDMV6].[ref].[ANATOMY\_METADATA]

WHERE C\_BASECODE LIKE 'ICDO3%'

GROUP BY C\_BASECODE,C\_NAME

insert into DEID.BLUEHERONDATA.dbo.SNOMEDCT\_TRC

select SUBSTRING(A1.C\_FULLNAME,PATINDEX('%C99\%',A1.C\_FULLNAME)+4,3) "SUPERTYPE\_SCTID" ,CONCAT('ICDO3:',SUBSTRING(A1.C\_FULLNAME,PATINDEX('%C99\%',A1.C\_FULLNAME)+4,3)) "SUPERTYPE\_CNCPT"

,A2.C\_NAME "SUPERTYPE\_TERM"

,SUBSTRING(A1.C\_BASECODE,7,6) "SUBTYPE\_SCTID",A1.C\_BASECODE "CONCEPT\_CD",A1.C\_NAME "SUBTYPE\_TERM"

,1 "GENERATION"

FROM ref.ANATOMY\_METADATA A1

LEFT OUTER JOIN ref.ANATOMY\_METADATA A2 ON A2.C\_BASECODE = CONCAT('ICDO3:',SUBSTRING(A1.C\_FULLNAME,PATINDEX('%C99\%',A1.C\_FULLNAME)+4,3))

WHERE A1.C\_FULLNAME LIKE '\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\%'

AND A1.C\_HLEVEL = 4

INSERT INTO DEID.BLUEHERONDATA.dbo.SNOMEDCT\_TRC

select 'C00-C99' "SUPERTYPE\_SCTID" ,'ICDO3:C00-C99' "SUPERTYPE\_CNCPT", 'ICDO3 Topology' "SUPERTYPE\_TERM"

,SUBSTRING(A1.C\_BASECODE,7,6) "SUBTYPE\_SCTID",A1.C\_BASECODE "CONCEPT\_CD",A1.C\_NAME "SUBTYPE\_TERM"

,1 "GENERATION"

FROM ref.ANATOMY\_METADATA A1

--LEFT OUTER JOIN ref.ANATOMY\_METADATA A2 ON A2.C\_BASECODE = CONCAT('ICDO3:',SUBSTRING(A1.C\_FULLNAME,PATINDEX('%C99\%',A1.C\_FULLNAME)+4,3))

WHERE A1.C\_FULLNAME LIKE '\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\%'

AND A1.C\_HLEVEL = 3

INSERT INTO DEID.BLUEHERONDATA.dbo.SNOMEDCT\_TRC

select 'C00-C99' "SUPERTYPE\_SCTID" ,'ICDO3:C00-C99' "SUPERTYPE\_CNCPT", 'ICDO3 Topology' "SUPERTYPE\_TERM"

,SUBSTRING(A1.C\_BASECODE,7,6) "SUBTYPE\_SCTID",A1.C\_BASECODE "CONCEPT\_CD",A1.C\_NAME "SUBTYPE\_TERM"

,2 "GENERATION"

FROM ref.ANATOMY\_METADATA A1

--LEFT OUTER JOIN ref.ANATOMY\_METADATA A2 ON A2.C\_BASECODE = CONCAT('ICDO3:',SUBSTRING(A1.C\_FULLNAME,PATINDEX('%C99\%',A1.C\_FULLNAME)+4,3))

WHERE A1.C\_FULLNAME LIKE '\i2b2\_SNOMEDCT\_ANATOMYTRC\C00-C99\%'

AND A1.C\_HLEVEL = 4

INSERT INTO DEID.BLUEHERONDATA.dbo.SNOMEDCT\_TRC

select '8000-9999' "SUPERTYPE\_SCTID" ,'ICDO3:8000-9999' "SUPERTYPE\_CNCPT", 'ICDO3 Morphology and Behavior' "SUPERTYPE\_TERM"

,SUBSTRING(A1.C\_BASECODE,7,6) "SUBTYPE\_SCTID",A1.C\_BASECODE "CONCEPT\_CD",A1.C\_NAME "SUBTYPE\_TERM"

,1 "GENERATION"

FROM ref.ANATOMY\_METADATA A1

--LEFT OUTER JOIN ref.ANATOMY\_METADATA A2 ON A2.C\_BASECODE = CONCAT('ICDO3:',SUBSTRING(A1.C\_FULLNAME,PATINDEX('%C99\%',A1.C\_FULLNAME)+4,3))

WHERE A1.C\_FULLNAME LIKE '\i2b2\_SNOMEDCT\_ANATOMYTRC\8000-9999\%'

AND A1.C\_HLEVEL = 3

insert into DEID.BLUEHERONDATA.dbo.SNOMEDCT\_TRC VALUES

('75620-5','LOINC:75620-5','Tumor clinical stage','75620-5','LOINC:75620-5','Tumor clinical stage',0),

('75621-3','LOINC:75621-3','Tumor pathological stage','75621-3','LOINC:75621-3','Tumor pathological stage',0),

('410','NAACCR:410','Tumor anatomy laterality','410','NAACCR:410','Tumor anatomy laterality',0),

('880','NAACCR:880','TNM pathological T','880','NAACCR:880','TNM pathological T',0),

('890','NAACCR:890','TNM pathological N','890','NAACCR:890','TNM pathological N',0),

('900','NAACCR:900','TNM pathological M','900','NAACCR:900','TNM pathological M',0),

('940','NAACCR:940','TNM clinical T','940','NAACCR:940','TNM clinical T',0),

('950','NAACCR:950','TNM clinical N','950','NAACCR:950','TNM clinical N',0),

('960','NAACCR:960','TNM clinical M','960','NAACCR:960','TNM clinical M',0) ;

--Delete the table ICD10CM\_METADATA from DEID.BLUEHERONMETADATA AND COPY THE NEW TABLE FROM CDMV6 to BLUEHERONMETADATA

--DEID server maintains i2b2; BLUEHERONDATA is CRC database; BLUEHERONMETADATA is ONT database

--DECLARE @sqlstring NVARCHAR(MAX)

PRINT 'Copying SNOMEDCT\_METADATA to DEID';

-- DELETE OLD TABLE

SET @sql\_string = 'IF OBJECT\_ID(''BLUEHERONMETADATA.dbo.ANATOMY\_METADATA'', ''U'') IS NOT NULL DROP TABLE BLUEHERONMETADATA.dbo.ANATOMY\_METADATA';

exec (@sql\_string) AT DEID;

-- COPY NEW TABLE AS EMPTY

SET @sql\_string = 'select top 0 \* into BLUEHERONMETADATA.dbo.ANATOMY\_METADATA from GPRITSQL01.CDMV6.ref.ANATOMY\_METADATA;';

exec (@sql\_string) AT DEID;

-- COPY DATA INTO NEW TABLE

SET @sql\_string = 'insert into BLUEHERONMETADATA.dbo.ANATOMY\_METADATA WITH (TABLOCK) select \* from GPRITSQL01.CDMV6.ref.ANATOMY\_METADATA with (nolock);';

exec (@sql\_string) AT DEID;

--load modifier\_dimension

PRINT 'LOAD\_MODIFIER\_DIM';

SET @sql\_string = 'blueherondata.dbo.load\_modifier\_dim ''BLUEHERONMETADATA'',''BLUEHERONDATA'''

exec (@sql\_string) AT DEID;

--Delete old C\_FULLNAMEs from concept\_dimension and then load new concept\_dimension

--DECLARE @sql\_string NVARCHAR(MAX)

SET @sql\_string = 'DELETE FROM [BlueheronData].[dbo].[CONCEPT\_DIMENSION] WHERE CONCEPT\_PATH LIKE ''\i2b2\_SNOMEDCT\_ANATOMYTRC\%'''

exec (@sql\_string) AT DEID;

SET @sql\_string = 'DELETE FROM [BlueheronData].[dbo].[CONCEPT\_DIMENSION] WHERE CONCEPT\_PATH LIKE ''\i2b2\_SNOMEDCT\_ANATOMYPATH\%'''

exec (@sql\_string) AT DEID;

SET @sql\_string = 'DELETE FROM [BlueheronData].[dbo].[CONCEPT\_DIMENSION] WHERE CONCEPT\_PATH LIKE ''\i2b2\_SNOMEDCT\_ANATOMYTRCPATH\%'''

exec (@sql\_string) AT DEID;

SET @sql\_string = 'DELETE FROM [BlueheronData].[dbo].[CONCEPT\_DIMENSION] WHERE CONCEPT\_PATH LIKE ''\i2b2\_SNOMEDCT\_ANATOMY\PROVENANCE\%'''

exec (@sql\_string) AT DEID;

--load concept-dimension

PRINT 'LOAD\_CONCEPT\_DIM';

SET @sql\_string = 'BLUEHERONDATA.dbo.load\_concept\_dim ''BLUEHERONMETADATA.dbo.ANATOMY\_METADATA'',''BLUEHERONDATA'''

exec (@sql\_string) AT DEID;

--run fact counting on the new metadata table

--DECLARE @sql\_string NVARCHAR(MAX)

PRINT 'Run FACT\_COUNT';

SET @sql\_string = 'BLUEHERONDATA.dbo.fact\_count ''BLUEHERONMETADATA.dbo.ANATOMY\_METADATA'',''SNOMEDCT\_TRC'',''1'''

exec (@sql\_string) AT DEID;

--Run validation stats on DEID

UPDATE DEID.BLUEHERONMETADATA.dbo.TABLE\_ACCESS SET C\_NAME = (

SELECT CONCAT('Tumor data [ ',COUNT (\*)/1000,'K facts,', COUNT (DISTINCT PATIENT\_NUM)/1000,'K patients ]') --Insert into DEID.BULEUERONMETADATA.dbo.ANATOMY\_METADATA

FROM DEID.BLUEHERONDATA.dbo.OBSERVATION\_FACT F

WHERE ((CONCEPT\_CD in ('NAACCR:410','LOINC:75620-5','LOINC:75621-3'))

OR (CONCEPT\_CD LIKE 'ICDO3:%') OR (CONCEPT\_CD LIKE 'SNOMEDCT:%' AND MODIFIER\_CD LIKE 'TUMOR\%'))) WHERE C\_TABLE\_NAME = 'ANATOMY\_METADATA';

/\*

UPDATE DEID.CRANEUSERSMETA.dbo.TABLE\_ACCESS SET C\_NAME = ( SELECT C\_NAME FROM DEID.BLUEHERONMETADATA.dbo.TABLE\_ACCESS WHERE C\_FULLNAME = '\i2b2\_SNOMEDCT\_ANATOMYTRC\' )

WHERE C\_FULLNAME = '\i2b2\_SNOMEDCT\_ANATOMYTRC\';

PRINT 'Running validation counts forBreast cancers (ICDO3:C50%) of the left breast'

SELECT COUNT (DISTINCT F1.PATIENT\_NUM)

FROM DEID.BLUEHERONDATA.dbo.OBSERVATION\_FACT F1

JOIN DEID.BLUEHERONDATA.dbo.OBSERVATION\_FACT F2 ON F1.ENCOUNTER\_NUM = F2.ENCOUNTER\_NUM

WHERE F1.CONCEPT\_CD LIKE 'ICDO3:C50%'

AND F2.TVAL\_CHAR= 'LEFT'

AND F2.CONCEPT\_CD = 'NAACCR:410'

;

\*/

/\* ------------------- \*/

/\* Terminate \*/

/\* ------------------- \*/

BEGIN

EXEC LOG\_TABLE\_BUILD\_END @proc\_build\_id, @proc\_row\_count

RETURN 0

END

USE [Heronloader]

GO

/\*\*\*\*\*\* Object: StoredProcedure [dbo].[OBS\_FACT\_TUMOR\_BUILD] Script Date: 6/17/2021 11:03:08 AM \*\*\*\*\*\*/

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

ALTER PROCEDURE [dbo].[OBS\_FACT\_TUMOR\_BUILD]

AS

BEGIN

/\*

Development history: 20210520 JRC:Initial extract crated for TUMOR table facts to i2b2

Execution history:

\*/

DECLARE

@proc\_name NVARCHAR(32) = N'OBS\_FACT\_TUMOR\_BUILD',

@staging\_table\_name NVARCHAR(128) = N'OBS\_FACT\_TUMOR'

DECLARE

@proc\_name\_braced NVARCHAR(32) = dbo.BRACE\_STRING(@proc\_name),

@proc\_build\_id BIGINT,

@proc\_row\_count BIGINT,

@row\_count BIGINT,

@sql\_string NVARCHAR(4000)

/\* ----------------------------------------------------------- \*/

/\* Initialize and create #FACTS table with tumor data \*/

/\* ----------------------------------------------------------- \*/

IF OBJECT\_DEFINITION(OBJECT\_ID( N'HERONLOADER.dbo.OBS\_FACT\_TUMOR', 'U')) IS NOT NULL DROP TABLE HERONLOADER.dbo.OBS\_FACT\_TUMOR;

--DROP TABLE #FACTS

SELECT

PATID\_IDE "PATIENT\_IDE",

TUMOR\_CASEID "TUMOR\_CASEID",

TRY\_CONVERT(DATETIME,DATE\_OF\_DIAGNOSIS\_N390,112) "DATE\_OF\_DIAGNOSIS", -- =>START\_DATE

PRIMARY\_SITE\_N400,-- (ICD-O-3 TOPOLOGY)

O3M.TERM "PRIMARY\_SITE",

M.SCTId "SNOMED\_TOPO",

LATERALITY\_N410,

CASE WHEN LATERALITY\_N410 = '1' THEN 'RIGHT'

WHEN LATERALITY\_N410 = '2' THEN 'LEFT'

WHEN LATERALITY\_N410 = '3' THEN 'UNILATERAL'

WHEN LATERALITY\_N410 = '4' THEN 'BILATERAL'

WHEN LATERALITY\_N410 = '5' THEN 'MIDLINE'

WHEN LATERALITY\_N410 = '0' THEN 'NOT APPLICABLE' ELSE NULL END "LATERALITY",

HISTOLOGIC\_TYPE\_ICD\_O3\_N522,

BEHAVIOR\_CODE\_ICD\_O3\_N523,

M2.SCTID "SNOMED\_MORPH",

GRADE\_N440,

CASE WHEN TNM\_PATH\_T\_N880 IS NULL THEN 'NI'

WHEN TNM\_PATH\_T\_N880 = '88' THEN 'NI'

ELSE CONCAT('T',TNM\_PATH\_T\_N880,'N',TNM\_PATH\_N\_N890,'M',TNM\_PATH\_M\_N900) END "TNM\_PATHOLOGICAL",

CASE WHEN TNM\_CLIN\_T\_N940 = '88' THEN 'NI'

WHEN TNM\_CLIN\_T\_N940 IS NULL THEN 'NI'

ELSE CONCAT('T',TNM\_CLIN\_T\_N940,'N',TNM\_CLIN\_N\_N950,'M',TNM\_CLIN\_M\_N960) END "TNM\_CLINICAL",

TNM\_PATH\_T\_N880, TNM\_PATH\_N\_N890,TNM\_PATH\_M\_N900, -- TNM\_PATH\_T,N,M (N880-900),

TNM\_PATH\_STAGE\_GROUP\_N910,

TNM\_CLIN\_T\_N940,TNM\_CLIN\_N\_N950,TNM\_CLIN\_M\_N960, --TNM\_CLIN\_T,N,M (N940-960),

TNM\_CLIN\_STAGE\_GROUP\_N970

INTO #FACTS

FROM [TUMOR].[dbo].[TUMOR] T

LEFT OUTER JOIN (SELECT MAX(M0.REFERENCEDCOMPONENTID) "SCTID", M0.MAPTARGET

FROM SNOMEDCT.dbo.SNOMEDCT\_CURRENT\_SIMPLE\_MAP M0

WHERE M0.moduleId = '900000000000207008'

AND M0.MAPTARGET LIKE '[A-Z][0-9][0-9].%'

AND M0.ACTIVE = 1

GROUP BY M0.MAPTARGET) M ON CONCAT(SUBSTRING(M.mapTarget,1,3),SUBSTRING(M.mapTarget,5,1)) = T.PRIMARY\_SITE\_N400

LEFT OUTER JOIN (SELECT MAX(M1.referencedComponentId) "SCTID", M1.mapTarget

FROM SNOMEDCT.dbo.SNOMEDCT\_CURRENT\_SIMPLE\_MAP M1

WHERE M1.moduleId = '900000000000207008'

AND M1.MAPTARGET LIKE '[0-9][0-9][0-9][0-9]/[0-9]'

AND M1.ACTIVE = 1

GROUP BY M1.mapTarget ) M2 ON CAST(SUBSTRING(M2.MAPTARGET,1,4) AS VARCHAR(4)) = T.HISTOLOGIC\_TYPE\_ICD\_O3\_N522 AND CAST(SUBSTRING(M2.MAPTARGET,6,1) AS VARCHAR(1))= T.BEHAVIOR\_CODE\_ICD\_O3\_N523

LEFT OUTER JOIN (SELECT NCODE, ICDO3\_TERM "TERM",SCTID

FROM ICD\_O\_3.dbo.ICDO3\_TOPOLOGY1 T1

) O3M ON O3M.NCODE = T.PRIMARY\_SITE\_N400

--select TOP 100 \* from #facts group by date\_of\_diagnosis ORDER BY DATE\_OF\_DIAGNOSIS ASC

SELECT V.PATIENT\_IDE, MIN(V.ENCOUNTER\_IDE) "ENCOUNTER\_IDE"

INTO #ENCOUNTER\_MAPS

FROM HERONLOADER.dbo.VISIT\_DIMENSION V

JOIN (SELECT DISTINCT PATIENT\_IDE FROM #FACTS) PATS ON PATS.PATIENT\_IDE = V.PATIENT\_IDE

GROUP BY V.PATIENT\_IDE

--Facts for primary site

--SELECT \* FROM #ENCOUNTER\_MAPS WHERE ENCOUNTER\_IDE IS NULL

/\*

CREATE TABLE HERONLOADER.dbo.OBS\_FACT\_TUMOR

(

PATIENT\_IDE VARCHAR(38) NOT NULL,

ENCOUNTER\_IDE VARCHAR(38) NOT NULL,

PROVIDER\_ID VARCHAR(50) NOT NULL,

LOCATION\_CD VARCHAR(50) NULL,

CONCEPT\_CD VARCHAR(50) NOT NULL,

START\_DATE DATETIME NOT NULL,

MODIFIER\_CD VARCHAR(50) NULL,

INSTANCE\_NUM INTEGER NULL,

VALTYPE\_CD VARCHAR(50) NULL,

TVAL\_CHAR VARCHAR(255) NULL,

NVAL\_NUM NUMERIC(18,5) NULL,

UNITS\_CD VARCHAR(50) NULL,

END\_DATE DATETIME NULL

);

\*/

CREATE TABLE #OBS\_FACTS

(

PATIENT\_IDE VARCHAR(38) NOT NULL,

ENCOUNTER\_IDE VARCHAR(38) NOT NULL,

PROVIDER\_ID VARCHAR(50) NOT NULL,

LOCATION\_CD VARCHAR(50) NULL,

CONCEPT\_CD VARCHAR(50) NOT NULL,

START\_DATE DATETIME NOT NULL,

MODIFIER\_CD VARCHAR(50) NULL,

INSTANCE\_NUM INTEGER NULL,

VALTYPE\_CD VARCHAR(50) NULL,

TVAL\_CHAR VARCHAR(255) NULL,

NVAL\_NUM NUMERIC(18,5) NULL,

UNITS\_CD VARCHAR(50) NULL

);

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

cast(E.ENCOUNTER\_IDE as VARCHAR(38)) "ENCOUNTER\_IDE"

,CONCAT('SNOMEDCT:',F.SNOMED\_TOPO) "CONCEPT\_CD"

,CAST('@' AS NVARCHAR(50)) "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'TUMOR\PRIMARY\_SITE' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,CAST(F.PRIMARY\_SITE AS VARCHAR(255)) "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.SNOMED\_TOPO IS NOT NULL

and f.date\_of\_diagnosis is not null

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,CONCAT('ICDO3:',T.CODE) "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'TUMOR\PRIMARY\_SITE' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.PRIMARY\_SITE "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

JOIN ICD\_O\_3.dbo.ICDO3\_TOPOLOGY1 T ON T.NCODE = F.PRIMARY\_SITE\_N400

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'NAACCR:410' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.LATERALITY "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

--SELECT TOP 100 \* FROM #OBS\_FACTS

--select CONCEPT\_CD, MODIFIER\_CD, COUNT (\*) from #obs\_facts GROUP BY CONCEPT\_CD,MODIFIER\_CD ORDER BY COUNT (\*) DESC

--record histology and ICDO3 morphology

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,CONCAT('SNOMEDCT:',F.SNOMED\_MORPH) "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'TUMOR\HISTOLOGY' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.PRIMARY\_SITE "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE SNOMED\_MORPH IS NOT NULL

AND F.DATE\_OF\_DIAGNOSIS IS NOT NULL

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,CONCAT('ICDO3:',F.HISTOLOGIC\_TYPE\_ICD\_O3\_N522,'/',F.BEHAVIOR\_CODE\_ICD\_O3\_N523) "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,CONCAT('ICDO3:',F.HISTOLOGIC\_TYPE\_ICD\_O3\_N522,'/',F.BEHAVIOR\_CODE\_ICD\_O3\_N523) "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE --SNOMED\_MORPH IS NOT NULL

F.DATE\_OF\_DIAGNOSIS IS NOT NULL

--Record TNM staging data

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'LOINC:75621-3' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.TNM\_PATHOLOGICAL "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

AND F.TNM\_PATHOLOGICAL <> 'NI'

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'LOINC:75620-5' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.TNM\_CLINICAL "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

AND F.TNM\_CLINICAL <> 'NI'

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'NAACCR:880' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.TNM\_PATH\_T\_N880 "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

AND F.TNM\_PATH\_T\_N880 <> ''

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'NAACCR:890' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.TNM\_PATH\_N\_N890 "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

AND F.TNM\_PATH\_N\_N890 <> ''

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'NAACCR:900' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.TNM\_PATH\_M\_N900 "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

AND F.TNM\_PATH\_M\_N900 <> ''

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'NAACCR:940' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.TNM\_CLIN\_T\_N940 "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

AND F.TNM\_CLIN\_T\_N940 <> ''

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'NAACCR:950' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.TNM\_CLIN\_N\_N950 "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

AND F.TNM\_CLIN\_N\_N950 <> ''

INSERT INTO #OBS\_FACTS

(ENCOUNTER\_IDE, CONCEPT\_CD, PROVIDER\_ID, START\_DATE, PATIENT\_IDE, MODIFIER\_CD, INSTANCE\_NUM, VALTYPE\_CD, TVAL\_CHAR, NVAL\_NUM, UNITS\_CD, LOCATION\_CD)

SELECT

E.ENCOUNTER\_IDE "ENCOUNTER\_IDE"

,'NAACCR:960' "CONCEPT\_CD"

,'@' "PROVIDER\_ID"

,F.DATE\_OF\_DIAGNOSIS "START\_DATE"

,F.PATIENT\_IDE "PATIENT\_IDE"

,'@' "MODIFIER\_CD"

,F.TUMOR\_CASEID "INSTANCE\_NUM"

,'T' "VALTYPE\_CD"

,F.TNM\_CLIN\_M\_N960 "TVAL\_CHAR"

,CAST(NULL AS NUMERIC(18,5)) "NVAL\_NUM"

,CAST(NULL AS VARCHAR(50)) "UNITS\_CD"

,CAST(NULL AS VARCHAR(50)) "LOCATION\_CD"

FROM #FACTS F

JOIN #ENCOUNTER\_MAPS E ON E.PATIENT\_IDE = F.PATIENT\_IDE

WHERE F.DATE\_OF\_DIAGNOSIS IS NOT NULL

AND F.TNM\_CLIN\_M\_N960 <> ''

IF OBJECT\_ID('dbo.OBS\_FACT\_TUMOR','U') IS NOT NULL DROP TABLE OBS\_FACT\_TUMOR;

SELECT \*

INTO OBS\_FACT\_TUMOR

FROM #OBS\_FACTS;

/\* ------------------- \*/

/\* Terminate \*/

/\* ------------------- \*/

BEGIN

EXEC LOG\_TABLE\_BUILD\_END @proc\_build\_id, @proc\_row\_count

END

RETURN 0

END