



RESOURCE AND PATIENT MANAGEMENT SYSTEM

IHS Standard Terminology Application Programming Interface

(BSTS)

Addendum to the Technical Manual

Version 1.0 Patch 3
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Preface

The purpose of this manual is to provide technical information about the Indian Health Service (IHS) Standard Terminology (BSTS) package, specifically changes introduced in Patch 3 of the Version 1.0 release. The BSTS package contains a number of Application Programming Interface (API) calls developed to interface with Apelon's Distributed Terminology System (DTS). These APIs provide a general interface and caching mechanism for MUMPS-based/FileMan-based systems to interact with an external terminology server, specifically DTS.

DTS 4.2, provided by Apelon is a comprehensive open source solution for the acquisition, management and practical deployment of standardized terminologies, with local enhancements, into distributed application environments. DTS establishes a single common resource for an organization's terminology assets that can be deployed across the spectrum of health information delivery systems.

1.0 Introduction

The BSTS package is a component of the IHS Resource and Patient Management System (RPMS) that provides a general interface and caching mechanism for MUMPS-based/FileMan-based systems to interact with an external terminology server, specifically DTS. The APIs are designed to be application independent, and stand-alone interfaces.

This manual provides IHS site managers with a technical description of the BSTS APIs, routines, files, menus, cross references, globals, and other necessary information required to effectively utilize the APIs from an external application to access Systematized Nomenclature of Medicine-Clinical Terms (SNOMED CT®), RxNorm, Unique Ingredient Identifier (UNII) codesets as well as IHS defined custom mapping codesets located in an external terminology service. The APIs also have the flexibility to retrieve other terminologies from DTS in the future, such as, International Classification of Diseases (ICD) Codes.

All APIs, routines, files, options, and keys are namespaced starting with the letters BSTS. The file number range for this package is 9002318–9002318.99.

2.0 Orientation

The BSTS package consists of a set of APIs to be called from an external application to search and return valid terminology concepts and associated information. The API package is distributed as a Kernel Installation and Distribution System (KIDS) package which contains the appropriate files and routines to enable data storage, auditing/logging, performance metrics and tools for monitoring and analysis, and a formal error handling and reporting mechanism.

Interaction between the external application (e.g., IHS Electronic Health Record (EHR), iCare) and the DTS is accomplished through the BSTSs via web service calls or requests. All APIs in this package begin with the namespace letters BSTS.

A high-level diagram of the terminology services architecture is shown in Figure 2-1. Each of the main components identified is detailed in the sections that follow.

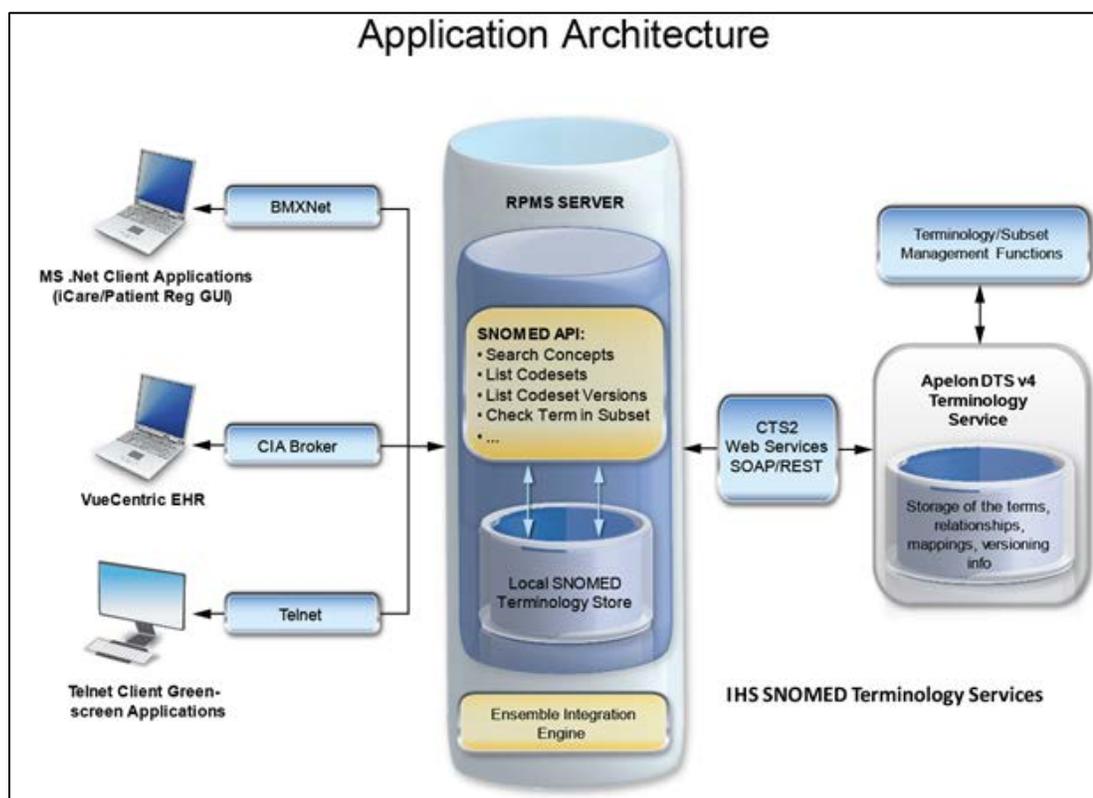


Figure 2-1: High-level Application Architecture Diagram for the IHS Terminology Services Solution

2.1 RPMS Applications

Pictured on the left-hand portion of Figure 2-1 are the various RPMS applications that interact with the terminology systems. Several development modalities exist for these RPMS applications, including those created using Microsoft® .NET Framework, components with the IHS EHR, as well as the traditional character based *green screen* applications.

Each of these types of applications connects to RPMS in different ways.

- The Microsoft .NET applications utilize an ADO.NET adapter for RPMS that is called BMXNet.
- The EHR components utilize a Remote Procedure Call (RPC) broker mechanism referred to as the “CIA Broker”.
- The character-based applications are executed directly within the RPMS InterSystems Caché® database and therefore have direct access to the RPMS database.

In the proposed solution, each of these types of applications would continue to interact with RPMS using the same mechanisms they currently utilize and would interact with the terminology services via the new RPMS Terminology Services API that is described within this document.

2.2 Terminology Service RPMS API

For the initial set of SNOMED CT related use cases, applications will interact with a new MUMPS-based API that exposes functions and classes that encapsulate the interface with the DTS terminology server. This API will return information in familiar data array format and will eliminate the need for the applications to directly interface with the web service interface and related XML messaging.

While this RPMS API is expected to be the primary means through which RPMS-based applications will interact with the terminology server functions, there may be valid use-cases that arise in the future that would be best accommodated through direct web-service interaction with the terminology service. There is nothing that would preclude this direct access by applications in the future.

The majority of this technical manual is focused on describing the current implementation of this terminology API.

2.3 Stand-alone Terminology Service Instance

The terminology service solution component selected for this proposed design is the DTS Version 4.2 created by Apelon. Specific information about the DTS 4.2 application follows:

- Solution/Product Name: Apelon DTS Version 4.2

- Company Website: <http://www.apelon.com>
- DTS Product Page: <http://apelondts.org/>
- Open Source Development Community: <http://apelon-dts.sourceforge.net/>
- Description: Apelon DTS is developed and supported by Apelon Inc. and consists of the following components:
 - A core terminology server
 - DTS Editor, a standalone application for managing the terminologies on the server
 - DTS Browser, a web-based front-end for viewing terminology trees
 - Import and Migration utilities
 - API and Web Services to support application development
- Licensing: Open Source (Apache License Version 2)
- Cost: The DTS 4.2 software is currently available at no cost. Apelon offers other paid services for standard code-set updates and mapping information from published sources. Annual fee is \$20K for content subscription for all of IHS organization.
- Support: Available as a paid service from Apelon. Annual fee of \$15K per year for full support services. Ad hoc support and training also available.
- Developer Communities: (Open source, etc.) Yes, but not a large participation at this point.
- Active Development: Current version in use is DTS Version 4.2. The 4.2 production version was released in January 2015.
- Language Support: English
- Server-side Operating System (OS)/Platform: Java™, JBoss® AS 7
- Client-side OS/Platform: Client applications are written in Java™, and as such have wide platform support. Also browser access for browsing and searching terminology included.

- Terminology Database Storage Options:

Windows®:

- Oracle® Database 10g or 11g Standard or Enterprise Edition
- Microsoft SQL Server® 2005,2008
- InterSystems Caché 2010.2 or later
- IBM DB2® 9.7 Workgroup or Enterprise Edition
- MySQL 5.5

Linux:

- Oracle Database 10g or 11g Standard or Enterprise Edition
- InterSystems Caché 2010.2 or later
- IBM DB2 9.7 Workgroup or Enterprise Edition
- MySQL 5.5

- API/Interoperability Capabilities:

Java™ and .NET Application APIs, Web services (Version 4).

CTS2 compliant web interface on development roadmap for 2013, but not included in the initial version 4 release. Option exists to develop a subset of CTS2 interface implementation.

- Adopters:
 - Amgen
 - Axolotl
 - Canada Health Infoway
 - CHCA
 - Elsevier
 - Epocrates
 - Harris
 - Hong Kong Hospital Authority and Hong Kong MoH
 - HP (Federal and S&L)
 - Humedica
 - IBM
 - JEMBI (South Africa)
 - Kaiser
 - MModal/MedQuist
 - Next Gen
 - Premier
 - NASA
 - New York State Office of Mental Health
 - SSA
 - RIQI
 - Telus (Canada)
 - University of Utah
 - VA
 - WoltersKluwer-Medispan

Additional design information for the terminology service architecture to support utilization of terminologies such as SNOMED CT is documented in the document titled “*IHS Terminology Services – High-level Technical Design Version 1.5*”.

3.0 Implementation and Maintenance

The BSTS APIs are designed to provide a MUMPS-based programming interface for RPMS development teams to work with terminology data. The API in turn utilizes a web service interface to interact with the terminology servers, with the initial implementation being an interface with the Apelon DTS 4.2 terminology service.

3.1 General Information

The following table shows the prerequisite patch requirements.

Package and Version	Associated Patch Designations	Brief Patch Description
IHS STANDARD TERMINOLOGY 1.0 (BSTS)	Version 1.0 Release, Patch 2	The Patch 2 release of the BSTS package. It contains updated content as well as changes to switch from using the Alpha 3 release of the DTS software to now use the production 4.2 version of the DTS software.

3.2 System Requirements

The following table shows the versions of other packages that should be installed for BSTS to work properly. These packages are not required for the installation of Patch 3 however because they would have already been installed as required patches for the installation of BSTS v1.0.

Module	Minimum Version	Recommended Version
Ensemble 2012	v2012.2	
VA FileMan (DI)	v22.0 Patch 1017	
IHS/VA Utilities (XB)	v3.0 through Patch 11	
IHS Kernel Toolkit (XT)	V7.3 through Patch 1017	
VA Kernel (XU)	v8.0 Patch 1017	

3.3 Package-wide Variables

There are no package-wide BSTS variables in RPMS.

3.4 Security Keys

The security keys that govern BSTS, which can be assigned to users, are:

Key Name	Description
BSTSZMENU	This security key should only be assigned to those persons who will manage the BSTS system. It should not be given to the general RPMS user population.

4.0 Menu Diagram

RPMS menus in the BSTS system:

IHS Standard Terminology Management [BSTSMENU]. This menu option requires key BSTSZMENU and contains the following five options for managing BSTS:

- **Add/Edit Terminology Web Service [BSTS WEB SERVICE]**. Updates information about web services used by the site. This option requires the BSTSZMENU security key.
- **Edit Terminology Site Parameters [BSTS EDIT SITE PARAMETERS]**. Updates site specific configuration settings. This option requires the BSTSZMENU security key.
- **Terminology Web Service Test [BSTS TEST WEB SERVICE]**. Performs a test call to a web service. This option requires the BSTSZMENU security key.
- **Refresh IHS Standard Terminology Local Cache [BSTS REFRESH LOCAL CACHE]**. This option allows users to refresh the SNOMED with US Extentions codeset subsets or lets users select a custom mapping codeset and refresh its values.
- **Check Terminology Web Service Status [BSTS CHECK WEB SERVICE]**. This option is a utility which allows site managers to monitor and control the DTS interface link.

4.1 Menu Option Descriptions

4.1.1 Add/Edit Terminology Web Service

Site Managers will use this option to enter the connection properties for the server (or servers) that their site will utilize to retrieve codeset information. With the release of BSTS v1.0 Patch 2, the values needed for the site to connect to the IHS DTS PRODUCTION server are listed below. Patch 3 does not change these settings:

Select IHS Standard Terminology Management Option: WEB Add/Edit Terminology Web Service

Select BSTS WEB SERVICE ENDPOINT NAME: PRODUCTION SERVER

URL ROOT: https://dtsservices.ihs.gov Replace

PORT NUMBER: 42102//

TYPE: DTS4//

TIMEOUT OVERRIDE: 60//

CONNECTION TIMEOUT OVERRIDE:

USERNAME: DTSUser//

PASSWORD: DTSPW!//

SERVICE PATH: /soap//

SSL/TLS CONFIGURATION: SNOMEDServer//

CHECK FOR DTS CONNECTION ON:

CHECK FOR CONNECTION AFTER:

MAXIMUM REMOTE SEARCH TIME:

Some of the properties listed above are site adjustable. They can be modified to account for network issues and site preferences. These properties are explained as follows:

TIMEOUT OVERRIDE – This is a maximum time a DTS web service call will wait for a query to finish before it quits (if null, the default is 60 seconds). If a DTS call exceeds this value, the BSTS application will switch over to local access mode. Note that this property pertains to all calls to DTS. Many of these calls happen in the background and are not apparent to the user. Care should be taken to set this property to a value less than 60 seconds. To control DTS maximum DTS search times, please adjust the **MAXIMUM REMOTE SEARCH TIME** property instead of this property.

CONNECTION TIMEOUT OVERRIDE – This is the maximum time a DTS web service call will wait for a connection to be established to the DTS server (if null, the default is 2 seconds). Sites with slower network connections may need to adjust this setting to a higher value. Every attempt should be taken however to keep this value as low as possible to avoid longer waits during SNOMED concept lookups. If the time to establish a connection with the DTS server exceeds this value, the BSTS application will switch over to local access mode.

CHECK FOR DTS CONNECTION ON – When the DTS server is operating in local access mode this property will contain a date and time in the future. This is the date and time after which the application will attempt to contact the DTS server again to see if it is online. If the value of this property is null, the connection to the DTS server is operating successfully.

MAXIMUM REMOTE SEARCH TIME - If after a search call to DTS is completed it is determined that, even though the call was successful, it still took longer to complete than the number of seconds listed in this field, it will switch the server of to local access mode. This value should be less than or equal to the **TIMEOUT OVERRIDE** value.

CHECK FOR CONNECTION AFTER – When the DTS server switches to local access mode, it will remain in local access mode until the number of minutes specified in this property are reached. When that wait period has been reached the next call made to DTS after that will attempt to restore connection to the server. If the server is back online or search calls are now returning within the allowable **MAXIMUM REMOTE SEARCH TIME**, the DTS link will be switched back on.

4.1.2 Edit Terminology Site Parameters

This option is used during the initial installation of the BSTS version 1.0 application (please refer to the BSTS version 1.0 *Installation Manual* for further details). The only property that may ever need to be adjusted after the initial installation is the **REFRESH SUBSETS EVERY # DAYS** property which is documented below. Figure 4-1 shows a typical entry in the BSTS SITE PARAMETERS file.

```
Select OPTION NAME: BSTS EDIT SITE PARAMETERS           Edit Terminology Site Parame
ters
Edit Terminology Site Parameters
Select BSTS SITE PARAMETERS NAME:      2011 DEMO HOSPITAL
REFRESH SUBSETS EVERY # DAYS: 60
Select WEB SERVICE: PRODUCTION
  Are you adding 'PRODUCTION' as a new WEB SERVICE (the 1ST for this BSTS SITE P
ARAMETERS)? No// Y (Yes)
  PRIORITY: 1
  DAYS TO KEEP RESPONSE:
Select WEB SERVICE:
```

Figure 4-1: Sample BSTS SITE PARAMETERS file entry

REFRESH SUBSETS EVERY # DAYS – This property controls how often to automatically refresh subsets at the site. Since this is a system intensive process care should be taken to not perform refreshes too often. The default value for this property is 60 days.

4.1.3 Terminology Web Service Test

This option allow users to test the DTS server to see if it is properly returning results. The option is documented in the BSTS version 1.0 *Installation Manual*.

4.1.4 Refresh IHS Standard Terminology Local Cache

With the release of BSTS v1.0 Patch 3, sites now have the ability to manually retrieve content updates made available for download. Sites can run this option to immediately get these content updates. This option kicks off a background task which will refresh the desired content. Depending on the selection, the process could take several hours to complete. Only one background process can be running at a time. Figure 4-2 shows a sample process being kicked off.

```
Select IHS Standard Terminology Management Option: REF Refresh IHS Standard Ter
```

```

minology Local Cache

This option allows sites to manually refresh IHS Standard Terminology (BSTS)
information cached locally at the site. Using this option, the subsets
associated with the 'SNOMED with US Extensions' codeset can be refreshed with
up to date information retrieved from the Apelon DTS server. This option also
allows custom codeset mappings to be refreshed with current mappings available
through DTS.

Are you sure you want to do this? NO// YES

    Select one of the following:

        36          SNOMED CT US Extension Subsets
        32771       IHS VANDF
        32772       GMRA Signs Symptoms
        32773       GMRA Allergies with Maps
        32774       IHS Med Route
        32775       CPT Meds with Maps
        32777       SNOMED CT to ICD-10-CM Auto-Codeables
        32778       SNOMED CT to ICD-9-CM Auto-Codeables

Select the subset/mapping to refresh: SNOMED CT US Extension Subsets// 32772 GM
RA Signs Symptoms
Start the process? NO// YES

Kicking off background process to refresh local cache subsets/mappings

```

Figure 4-2: Sample subset refresh call

4.1.5 Check Terminology Web Service Status

This option allows site managers to quickly determine the status of the DTS connection, to turn the link On/Off and to adjust the setup properties for the connection. Figure 4-3 shows a sample display of this option.

Select IHS Standard Terminology Management Option: STS Check Terminology Web Service Status

```

Select BSTS WEB SERVICE ENDPOINT NAME: PRODUCTION SERVER

Current Server Status:
  Web Service:      PRODUCTION SERVER
  Current Status:   ONLINE
  Offline Until:    N/A
  Last Error Message: N/A

Current Server Settings:
  CHECK FOR CONNECTION AFTER: 60 minutes (default)
  CONNECTION TIMEOUT OVERRIDE: 2 seconds (default)
  MAXIMUM REMOTE SEARCH TIME: 60 seconds (default)
  TIMEOUT OVERRIDE:          60 seconds

Choose from the following options
1. Refresh Current information
2. Check DTS and Enable if Available
3. Turn off the DTS Link
4. Edit Server Settings

```

```
Select number or return to quit: (1-4):  
Figure 4-3 Sample Check Terminology Web Service Status call
```

When running the option, the user will be prompted to enter the web service to monitor. Most sites will only have one web service (PRODUCTION or PRODUCTION SERVER) set up. After selecting the appropriate server, the user will be presented with a display similar to Figure 4-3. The user then has the following four options to choose from:

- **Refresh Current information** – Running this option will refresh the current screen. It will not attempt to check to see if the DTS server is now available. It is possible that the screen display might change by running this option if the DTS server status became enabled/disabled by another process attempting to perform a call to DTS.
- **Check DTS and Enable if Available** – This option will attempt to contact the DTS server. If the call is successful, it will place the server back online. If the call is not successful, it will update the Offline Until value to be the current date/time plus the number of minutes specified by the **CHECK FOR CONNECTION AFTER** property documented above.
- **Turn off the DTS Link** – Running this option will manually turn off the link to DTS for the specified amount of time.
- **Edit Server Settings** – This option will allow the setup properties specified earlier to be adjusted.

5.0 Routine

5.1 Routines with Description

This routine list describes each routine in this version.

Routine	Description
BSTS10P3	Pre/Post-Installation routine for patch 3
BSTSAPI	Main API front end routine
BSTSAPIA	API program routine
BSTSAPIB	API program routine
BSTSAPIC	API program routine
BSTSAPID	API program routine
BSTSAPIF	API program routine
BSTSCDET	Routine which returns detail information for selected concepts
BSTSCMCL	Routine containing Caché method calls
BSTSDTS0	Routine for DTS specific processing
BSTSDTS1	Secondary routine for DTS specific processing
BSTSDTS3	Fourth routine for DTS specific processing
BSTSRPC	RPC SNOMED search call.
BSTSSRCH	Routine containing search logic and concept detail retrieval
BSTSUTIL	BSTS utility function routine
BSTSVRSC	Custom codeset version handling routine
BSTSVRSN	Version and subset handling routine
BSTSWSV	Routine used to retrieve web service connection information
BSTSWSV1	Second routine used to retrieve web service connection information

5.2 API List

5.2.1 \$\$SEARCH^BSTSAPI

This API allows a specific code set version to be searched on for a particular input string. The result set can be filtered by subset, maximum records, and other filtering criteria.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the OUT parameter.

Parameter: IN**Data Type:** String (Optional)**Description:**

Search String^Search Type^Namespace ID^Filter Subset^Date to Check^Maximum Number Concepts^Return Info^Add/Retire Date^Batch Return^Batch Return Concept Number^Local^Debug

Values:

- **Search String.** String to search on
- **Search Type:**
 - F-Fully specified name
 - S-Synonyms
- **Namespace ID** (Optional). Default is 36 (SNOMED CT US Extension). Available namespaces are:
 - 36 (SNOMED CT US Extension)
 - 5180 (FDA UNII)
 - 1552 (RxNorm R)
 - 32773 (GMRA Allergies with Maps)
 - 32772 (GMRA Signs Symptoms)
 - 32771 (IHS VANDF)
 - 32774 (IHS Med Route)
- **Filter Subset** (Optional). Subsets to filter on – separate multiple subsets using “~”. Default to “IHS Problem List”. Passing “ALL” returns all allowable SNOMED terms (when looking up on SNOMED).
- **Date to Check** (Optional). Default to Today (FileMan format)
- **Maximum Number of Concepts to Return** (Optional). Default 25
- **Return Info** (Optional). Default is all "PSBIXCAV":
 - P. Preferred
 - S. Synonym
 - B. Subset
 - I. IsA
 - X. ICD9/ICD10
 - C. Children
 - A. Associations
 - V. Inv. Associations
- **Add or Retire Date Information** (Optional). Pass **1** to NOT return date information

- **Batch Return** (Optional). Start at record # (used in conjunction with **Return Info**)
- **Batch Return** Concept Number (Optional). Number of concepts to return per batch (used in conjunction with **Maximum Number of Concepts to Return**)
- **Local** (Optional). Pass **1** to perform local listing, otherwise leave blank for remote listing
- **Debug** (Optional). Pass **1** to display debug information

Parameter: VAR

Data Type: String List

Description: The VAR(#) list of records returns the following sections (based on the IN Parameters **Maximum Number Concepts to Return** and **Return Info**):

- **Concept ID/DTSID:**
 - VAR(,"CON")=Concept ID
 - VAR(,"DTS")=Internal DTS ID
- **Fully Specified Name:**
 - VAR(,"FSN", "DSC")= Description ID of the FSN
 - VAR(,"FSN", "TRM")=Fully Specified Name
 - VAR(,"FSN", "XADT")=Date Added
 - VAR(,"FSN", "XRDT")=Date Retired
- **ICD9 Information - Multiple Records Returned (CTR) – ICD9 or ICD10 will be returned in this section based on the date in the “Date to Check” input parameter (#5). If date is after the ICD-10 implementation date found in file 80.4, ICD10 information will get returned. Otherwise ICD9 information will get returned:**
 - VAR(,"ICD",CTR,"COD")=ICD9/ICD10 Code
 - VAR(,"ICD",CTR,"TYP")=Code Type(IC9 or 10D)
 - VAR(,"ICD",CTR,"XADT")=Date Added
 - VAR(,"ICD",CTR,"XRDT")=Date Retired
- **Legacy ICD9 information will always get returned in this node:**
 - VAR(,"IC9",CTR,"COD")=ICD9 Code
 - VAR(,"IC9",CTR,"TYP")=Code Type(IC9)
 - VAR(,"IC9",CTR,"XADT")=Date Added
 - VAR(,"IC9",CTR,"XRDT")=Date Retired
- **IsA Information - Multiple Records Returned (CTR):**
 - VAR(,"ISA",CTR,"CON")=Concept ID of IsA Term (may be blank prior to lookup)

- VAR(,"ISA",CTR,"DTS")=DTSId of the IsA Term
- VAR(,"ISA",CTR,"TRM")=IsA Term Name
- VAR(,"ISA",CTR,"XADT")=Date Added
- VAR(,"ISA",CTR,"XRDT")=Date Retired
- **Association Information (SNOMED) - Multiple Records Returned (CTR):**
 - VAR(,"ASM",CTR,"CON")=SNOMED Concept CT Association
 - VAR(,"ASM",CTR,"DTS")=DTSId of the SNOMED Concept
- **Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"ARX",CTR,"CON")=RxNorm Code Value Association
 - VAR(,"ARX",CTR,"DTS")=DTSId of the RxNorm Concept
- **Association Information (UNII) - Multiple Records Returned (CTR):**
 - VAR(,"ASN",CTR,"CON")=UNII Code Value Association
 - VAR(,"ASN",CTR,"DTS")=DTSId of the UNII Concept
- **Inverse Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"IAR",CTR,"CON")=RxNorm Code Value of Inverse Association
 - VAR(,"IAR",CTR,"DTS")=DTSId of the RxNorm Concept
 - VAR(,"IAR",CTR,"TRM")=Inverse Association Term
- **Child Information - Multiple Records Returned (CTR):**
 - VAR(,"CHD",CTR,"CON")=Concept ID of Child Term (may be blank prior to detail lookup)
 - VAR(,"CHD",CTR,"DTS")=DTSId of the Child Term
 - VAR(,"CHD",CTR,"TRM")=IsA Term Name
 - VAR(,"CHD",CTR,"XADT")=Date Added
 - VAR(,"CHD",CTR,"XRDT")=Date Retired
- **Lookup Problem Column Value** (Preferred Term Information for concept for Search Type [F] or Synonym or Preferred Term Information for Search Type [S]):
 - VAR(,"PRB",,"DSC")=Description ID of a Pref Term (Type F) or Synonym/Pref Term (S)
 - VAR(,"PRB",,"TRM")=Preferred Name of a Concept (F) or a Synonym/Preferred Name (S)
- **Preferred Term Information:**
 - VAR(,"PRE",,"DSC")=Description ID of Preferred Term
 - VAR(,"PRE",,"TRM")=Preferred Term

- VAR("#, "PRE", "XADT")=Date Added
- VAR("#, "PRE", "XRDT")=Date Retired
- **Subset Information - Multiple Records Returned (CTR):**
 - VAR("#, "SUB", CTR, "SUB")=Subset Name
 - VAR("#, "SUB", CTR, "XADT")=Date Added
 - VAR("#, "SUB", CTR, "XRDT")=Date Retired
- **Synonym Information - Multiple Records Returned (CTR):**
 - VAR("#, "SYN", CTR, "DSC")=Description ID of Synonym
 - VAR("#, "SYN", CTR, "TRM")=Synonym Term
 - VAR("#, "SYN", CTR, "XADT")=Date Added
 - VAR("#, "SYN", CTR, "XRDT")=Date Retired
- **Date Concept Added/Retired:**
 - VAR("#, "XADT")=Date Added
 - VAR("#, "XRDT")=Date Retired

Parameter: <return value>

Data Type: String

Description:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2:** Remote information returned
 - **1:** Local information returned
 - **0:** No Information Returned
- **Primary Remote Error Message**
- **Secondary Remote Error Message (if applicable)**

5.2.2 \$\$CODESETS^BSTSAPI

This API returns a list of available terminology code sets supported by the Apelon DTS Version 4 software.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN**Data Type:** String**Description (Optional):**

Local^Debug

Values:

- **Local** (Optional). Pass **1** to perform local listing, otherwise leave blank for remote listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR**Data Type:** String List**Description:** List of records in the format:

Codeset ID^Codeset Code^Codeset Name

Parameter: <return value>**Data Type:** String**Description:**

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2.** Remote information returned
 - **1.** Local information returned
 - **0.** No Information Returned
- **Primary Remote Error Message**
- **Secondary Remote Error Message** (if applicable)

5.2.3 \$\$VERSIONS^BSTSAPI

This API will return a list of available versions for the supplied code set.

Parameter: OUT**Data Type:** String**Description:** Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN**Data Type:** String**Description (Optional):**

Namespace^Local^Debug.

Values:

- **Namespace ID** (Optional). Default to SNOMED CT US Extensions (#36)
- **Local** (Optional). Pass **1** to perform local listing, otherwise leave blank for remote listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR**Data Type:** String List**Description (List of records):**

Version ID^Version Name^Version Release Date^Version Install Date

Parameter: <return value>**Data Type:** String**Description:**

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2:** Remote information returned
 - **1:** Local information returned
 - **0:** No Information Returned
- **Primary Remote Error Message**
- **Secondary Remote Error Message** (if applicable)

5.2.4 \$\$CVRSN^BSTSAPI

This API will return the current version in use for the supplied code set.

Parameter: OUT**Data Type:** String**Description:** Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN**Data Type:** String (Optional)**Description:**

Namespace ID^Local^Debug

Values:

- **Namespace ID** (Optional). Default to SNOMED CT US Extensions (#36).
- **Local** (Optional). Pass **1** to perform local listing, otherwise leave blank for remote listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR**Data Type:** String List**Description** (List of records):

Version ID^Version Name^Version Release Date^Version Install Date (if available).

Parameter: <return value>**Data Type:** String**Description:**

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2**. Remote information returned
 - **1**. Local information returned
 - **0**. No Information Returned
- **Primary Remote Error Message**
- **Secondary Remote Error Message** (if applicable).

5.2.5 \$\$MPADVICE^BSTSAPI

This API will return map advice information for a particular SNOMED[®] Term.

Parameter: OUT**Data Type:** String**Description:** Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN**Data Type:** String (Optional)**Description:**

The Concept ID^Local^Exclude Info^Debug

Values:

- **Concept ID.** The Concept ID to look up.
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Exclude Info.** Pass **1** to exclude add/retired date info from the output.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR**Data Type:** String List**Description:** The VAR(#) list of records returns the mapping information on file for the specified concept. Multiple records per concept could be returned.**Format:**

VAR(,"MPADV","VAL")=Mapping Advice

VAR(,"MPCVL","VAL")=Map Classification Information

VAR(,"MPGRP","VAL")=Map Group

VAR(,"MPPRI","VAL")=Map Priority

VAR(,"MPRUL","VAL")=Map Rule

VAR(,"MPTGN","VAL")=Map Target Name

VAR(,"MPTGT","VAL")=Map Target Code

Parameter: <return value>**Data Type:** String**Description:**

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2.** Remote information returned
 - **1.** Local information returned
 - **0.** No Information Returned
- **Primary Remote Error Message**
- **Secondary Remote Error Message** (if applicable)

5.2.6 \$\$SUBSET^BSTSAPI

This API will return all of the available subsets that are available for a given code set.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN

Data Type: String (Optional)

Description:

Namespace ID^Local^Debug

Values:

- Namespace ID (Optional). Default to SNOMED CT US Extension (#36).
- Local (Optional). Pass **1** or leave blank to perform local listing. Pass **2** for remote DTS listing.
- Debug (Optional). Pass **1** to display debug information.

Parameter: VAR

Data Type: String List

Description: The VAR(#) list of records returns the list of available subsets for the given namespace.

Format:

VAR(#)=Subset Name

Parameter: <return value>

Data Type: String

Description:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2.** Remote information returned
 - **1.** Local information returned
 - **0.** No Information Returned
- **Primary Remote Error Message**
- **Secondary Remote Error Message** (if applicable)

5.2.7 \$\$SUBLST^BSTSAPI

This API will return all of the concepts found in a specified subset. Since these results could be quite extensive, it is recommended that the results be returned in a scratch global.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN

Data Type: String (Optional)

Description:

Subset^Namespace ID^Local^Debug

Values:

- **Subset** (Required). The name of the subset to list the concepts for.
- **Namespace ID** (Optional). Default to SNOMED CT US Extension (#36).
- **Local** (Optional). Pass **1** or leave blank to perform local listing. Pass **2** for remote DTS listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR

Data Type: String List

Description:

Format:

VAR(#)=Concept ID^Description ID of Preferred Term^Preferred Term

Parameter: <return value>

Data Type: String

Description:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2**. Remote information returned
 - **1**. Local information returned
 - **0**. No Information Returned
- **Primary Remote Error Message**

- **Secondary Remote Error Message** (if applicable)

5.2.8 \$\$VALTERM^BSTSAPI

This API will determine whether a supplied term is a valid in a given code set and version.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN

Data Type: String (Optional)

Description:

Search Term^Codeset ID^Snapshot Date^Local^Debug

Values:

- **Search Term.** The exact term for lookup.
- **Codeset ID** (Optional). Default to SNOMED CT US Extension ('36'). Available namespaces are:
 - 36 (SNOMED CT US Extension)
 - 5180 (FDA UNII)
 - 1552 (RxNorm R)
 - 32773 (GMRA Allergies with Maps)
 - 32772 (GMRA Signs Symptoms)
 - 32771 (IHS VANDF)
 - 32774 (IHS Med Route)
- **Snapshot Date.** Snapshot Date to check. Default Today's Date.
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR

Data Type: String List

Description: The VAR(#) list of records returns the following sections (based on the IN Parameters **Maximum Number Concepts** and **Return Info**):

- **Concept ID/DTSID:**
 - VAR(#,"CON")=Concept ID

- VAR(,"DTS")=Internal DTS ID
- **Fully Specified Name:**
 - VAR(,"FSN", "DSC")= Description ID of the FSN
 - VAR(,"FSN", "TRM")=Fully Specified Name
 - VAR(,"FSN", "XADT")=Date Added
 - VAR(,"FSN", "XRDT")=Date Retired
- **ICD9 Information - Multiple Records Returned (CTR) – ICD9 or ICD10 will be returned in this section based on the date in the “Date to Check” input parameter (#5). If date is after the ICD-10 implementation date found in file 80.4, ICD10 information will get returned. Otherwise ICD9 information will get returned:**
 - VAR(,"ICD",CTR, "COD")=ICD9/ICD10 Code
 - VAR(,"ICD",CTR, "TYP")=Code Type(IC9 or 10D)
 - VAR(,"ICD",CTR, "XADT")=Date Added
 - VAR(,"ICD",CTR, "XRDT")=Date Retired
- **Legacy ICD9 information will always get returned in this node:**
 - VAR(,"IC9",CTR, "COD")=ICD9 Code
 - VAR(,"IC9",CTR, "TYP")=Code Type(IC9)
 - VAR(,"IC9",CTR, "XADT")=Date Added
 - VAR(,"IC9",CTR, "XRDT")=Date Retired
- **IsA Information - Multiple Records Returned (CTR):**
 - VAR(,"ISA",CTR, "CON")=Concept ID of IsA Term (may be blank prior to lookup)
 - VAR(,"ISA",CTR, "DTS")=DTSId of the IsA Term
 - VAR(,"ISA",CTR, "TRM")=IsA Term Name
 - VAR(,"ISA",CTR, "XADT")=Date Added
 - VAR(,"ISA",CTR, "XRDT")=Date Retired
- **Association Information (SNOMED) - Multiple Records Returned (CTR):**
 - VAR(,"ASM",CTR, "CON")=SNOMED Concept CT Association
 - VAR(,"ASM",CTR, "DTS")=DTSId of the SNOMED Concept
- **Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"ARX",CTR, "CON")=RxNorm Code Value Association
 - VAR(,"ARX",CTR, "DTS")=DTSId of the RxNorm Concept
- **Association Information (UNII) - Multiple Records Returned (CTR):**
 - VAR(,"ASN",CTR, "CON")=UNII Code Value Association
 - VAR(,"ASN",CTR, "DTS")=DTSId of the UNII Concept

- **Inverse Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"IAR",CTR,"CON")=RxNorm Code Value of Inverse Association
 - VAR(,"IAR",CTR,"DTS")=DTSId of the RxNorm Concept
 - VAR(,"IAR",CTR,"TRM")=Inverse Association Term
- **Child Information - Multiple Records Returned (CTR):**
 - VAR(,"CHD",CTR,"CON")=Concept ID of Child Term (may be blank prior to detail lookup)
 - VAR(,"CHD",CTR,"DTS")=DTSId of the Child Term
 - VAR(,"CHD",CTR,"TRM")=IsA Term Name
 - VAR(,"CHD",CTR,"XADT")=Date Added
 - VAR(,"CHD",CTR,"XRDT")=Date Retired
- **Lookup Problem Column Value** (Preferred Term Information for concept for Search Type [F] or Synonym or Preferred Term Information for Search Type [S]):
 - VAR(,"PRB",,"DSC")=Description ID of a Pref Term (Type F) or Synonym/Pref Term (S)
 - VAR(,"PRB",,"TRM")=Preferred Name of a Concept (F) or a Synonym/Preferred Name (S)
- **Preferred Term Information:**
 - VAR(,"PRE",,"DSC")=Description ID of Preferred Term
 - VAR(,"PRE",,"TRM")=Preferred Term
 - VAR(,"PRE",,"XADT")=Date Added
 - VAR(,"PRE",,"XRDT")=Date Retired
- **Subset Information - Multiple Records Returned (CTR):**
 - VAR(,"SUB",CTR,"SUB")=Subset Name
 - VAR(,"SUB",CTR,"XADT")=Date Added
 - VAR(,"SUB",CTR,"XRDT")=Date Retired
- **Synonym Information - Multiple Records Returned (CTR):**
 - VAR(,"SYN",CTR,"DSC")=Description ID of Synonym
 - VAR(,"SYN",CTR,"TRM")=Synonym Term
 - VAR(,"SYN",CTR,"XADT")=Date Added
 - VAR(,"SYN",CTR,"XRDT")=Date Retired
- **Date Concept Added/Retired:**
 - VAR(,"XADT")=Date Added
 - VAR(,"XRDT")=Date Retired

Result returned as:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - 2. Remote information returned
 - 1. Local information returned
 - 0. No Information Returned
- **Primary Remote Error Message**
- **Secondary Remote Error Message** (if applicable)

Parameter: <return value>

Data Type: String

Description: Result returned as:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - 2. Remote information returned
 - 1. Local information returned
 - 0. No Information Returned
- **Primary Remote Error Message.**
- **Secondary Remote Error Message** (if applicable).

5.2.9 \$\$VALSBTRM^BSTSAPI

This API will return whether a given term is a valid within the supplied subset.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN

Data Type: String (Optional)

Description: Specified as:

Description ID^Subset ^Codeset ID^Local^Debug

Values:

- **Description ID.** The Description ID for lookup.

- **Subset.** Subset to look for.
- **Codeset ID.** Default to SNOMED CT US Extension ('36').
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR

Data Type: String List

Description: Single VAR record is returned.

Values:

- **1.** Term is in the provided subset
- **0.** Term is not in the provided subset

Parameter: <return value>

Data Type: String

Description: Result returned as:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2.** Remote information returned
 - **1.** Local information returned
 - **0.** No Information Returned
- **Primary Remote Error Message.**
- **Secondary Remote Error Message** (if applicable).

5.2.10 \$\$CNCLKP^BSTSAPI

This API will return the detail information for the specified Concept ID.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN**Data Type:** String (Optional)**Description:** Specified as:

The Concept ID^Codeset ID^Snapshot Date^Local^Debug

Values:

- **Concept ID.** The Concept ID to look up
- **Codeset ID (Optional).** Default to SNOMED CT US Extensions (36) – Available namespaces are 36 (SNOMED CT US Extension, 5180 (FDA UNII), 1552 (RxNorm R)
- **Snapshot Date.** Snapshot Date to check. Default Today's Date.
- **Local (Optional).** Pass **1** or blank to perform local listing. Pass **2** to perform a remote DTS listing.
- **Debug (Optional).** Pass **1** to display debug information

Parameter: VAR**Data Type:** String List**Description:** The VAR(#) list of records returns the following sections:

- **Concept ID/DTSID:**
 - VAR(,"CON")=Concept ID
 - VAR(,"DTS")=Internal DTS ID
- **Fully Specified Name:**
 - VAR(,"FSN", "DSC")= Description ID of the FSN
 - VAR(,"FSN", "TRM")=Fully Specified Name
 - VAR(,"FSN", "XADT")=Date Added
 - VAR(,"FSN", "XRDT")=Date Retired
- **ICD9 Information - Multiple Records Returned (CTR) – ICD9 or ICD10 will be returned in this section based on the date in the “Date to Check” input parameter (#5). If date is after the ICD-10 implementation date found in file 80.4, ICD10 information will get returned. Otherwise ICD9 information will get returned:**
 - VAR(,"ICD",CTR,"COD")=ICD9/ICD10 Code
 - VAR(,"ICD",CTR,"TYP")=Code Type(IC9 or 10D)
 - VAR(,"ICD",CTR,"XADT")=Date Added
 - VAR(,"ICD",CTR,"XRDT")=Date Retired
- **Legacy ICD9 information will always get returned in this node:**
 - VAR(,"IC9",CTR,"COD")=ICD9 Code

- VAR(,"IC9",CTR,"TYP")=Code Type(IC9)
- VAR(,"IC9",CTR,"XADT")=Date Added
- VAR(,"IC9",CTR,"XRDT")=Date Retired
- **IsA Information - Multiple Records Returned (CTR):**
 - VAR(,"ISA",CTR,"CON")=Concept ID of IsA Term (may be blank prior to lookup)
 - VAR(,"ISA",CTR,"DTS")=DTSId of the IsA Term
 - VAR(,"ISA",CTR,"TRM")=IsA Term Name
 - VAR(,"ISA",CTR,"XADT")=Date Added
 - VAR(,"ISA",CTR,"XRDT")=Date Retired
- **Association Information (SNOMED) - Multiple Records Returned (CTR):**
 - VAR(,"ASM",CTR,"CON")=SNOMED Concept CT Association
 - VAR(,"ASM",CTR,"DTS")=DTSId of the SNOMED Concept
- **Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"ARX",CTR,"CON")=RxNorm Code Value Association
 - VAR(,"ARX",CTR,"DTS")=DTSId of the RxNorm Concept
- **Association Information (UNII) - Multiple Records Returned (CTR):**
 - VAR(,"ASN",CTR,"CON")=UNII Code Value Association
 - VAR(,"ASN",CTR,"DTS")=DTSId of the UNII Concept
- **Inverse Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"IAR",CTR,"CON")=RxNorm Code Value of Inverse Association
 - VAR(,"IAR",CTR,"DTS")=DTSId of the RxNorm Concept
 - VAR(,"IAR",CTR,"TRM")=Inverse Association Term
- **Child Information - Multiple Records Returned (CTR):**
 - VAR(,"CHD",CTR,"CON")=Concept ID of Child Term (may be blank prior to detail lookup)
 - VAR(,"CHD",CTR,"DTS")=DTSId of the Child Term
 - VAR(,"CHD",CTR,"TRM")=IsA Term Name
 - VAR(,"CHD",CTR,"XADT")=Date Added
 - VAR(,"CHD",CTR,"XRDT")=Date Retired
- **Lookup Problem Column Value:**
 - VAR(,"PRB",,"DSC")=Description ID of a Pref Term (Type F) or Synonym/Pref Term (S)

- VAR(#,"PRB","TRM")=Preferred Name of a Concept (F) or a Synonym/Preferred Name (S)
- **Preferred Term Information:**
 - VAR(#,"PRE","DSC")=Description ID of Preferred Term
 - VAR(#,"PRE","TRM")=Preferred Term
 - VAR(#,"PRE","XADT")=Date Added
 - VAR(#,"PRE","XRDT")=Date Retired
- **Subset Information - Multiple Records Returned (CTR):**
 - VAR(#,"SUB",CTR,"SUB")=Subset Name
 - VAR(#,"SUB",CTR,"XADT")=Date Added
 - VAR(#,"SUB",CTR,"XRDT")=Date Retired
- **Synonym Information - Multiple Records Returned (CTR):**
 - VAR(#,"SYN",CTR,"DSC")=Description ID of Synonym
 - VAR(#,"SYN",CTR,"TRM")=Synonym Term
 - VAR(#,"SYN",CTR,"XADT")=Date Added
 - VAR(#,"SYN",CTR,"XRDT")=Date Retired
- **Date Concept Added/Retired:**
 - VAR(#,"XADT")=Date Added
 - VAR(#,"XRDT")=Date Retired

Parameter: <return value>

Data Type: String

Description: Result returned as:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2.** Remote information returned
 - **1.** Local information returned
 - **0.** No Information Returned
- **Primary Remote Error Message.**
- **Secondary Remote Error Message** (if applicable).

5.2.11 \$\$DTSLKP^BSTSAPI

This API will return the detail information for the specified DTS ID.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN

Data Type: String

Description: Specified as:

The DTS ID^Codeset ID^Snapshot Date^Local^Debug

Values:

- **DTS ID.** The DTS ID to look up.
- **Codeset ID** (Optional). Default to SNOMED CT US Extensions ('36') - Available namespaces are:
 - 36 (SNOMED CT US Extension)
 - 5180 (FDA UNII)
 - 1552 (RxNorm R)
 - 32773 (GMRA Allergies with Maps)
 - 32772 (GMRA Signs Symptoms)
 - 32771 (IHS VANDF)
 - 32774 (IHS Med Route)
- **Snapshot Date.** Snapshot Date to check. Default Today's Date..
- **Local** (Optional). Pass **1** to perform local listing, otherwise leave blank for remote listing.
- **Debug** (Optional). Pass **1** to display debug information.
- **TBYPASS** (System Use Only) - Pass **1** to bypass server timeout checks, otherwise leave blank. Do not use for regular calls.

Parameter: VAR

Data Type: String List

Description: The VAR(#) list of records returns the following sections:

- **Concept ID/DTSID:**
 - VAR(,"CON")=Concept ID
 - VAR(,"DTS")=Internal DTS ID
- **Fully Specified Name:**

- VAR(,"FSN", "DSC")= Description ID of the FSN
- VAR(,"FSN", "TRM")=Fully Specified Name
- VAR(,"FSN", "XADT")=Date Added
- VAR(,"FSN", "XRDT")=Date Retired
- **ICD9 Information - Multiple Records Returned (CTR) – ICD9 or ICD10 will be returned in this section based on the date in the “Date to Check” input parameter (#5). If date is after the ICD-10 implementation date found in file 80.4, ICD10 information will get returned. Otherwise ICD9 information will get returned:**
 - VAR(,"ICD",CTR, "COD")=ICD9/ICD10 Code
 - VAR(,"ICD",CTR, "TYP")=Code Type(IC9 or 10D)
 - VAR(,"ICD",CTR, "XADT")=Date Added
 - VAR(,"ICD",CTR, "XRDT")=Date Retired
- **Legacy ICD9 information will always get returned in this node:**
 - VAR(,"IC9",CTR, "COD")=ICD9 Code
 - VAR(,"IC9",CTR, "TYP")=Code Type(IC9)
 - VAR(,"IC9",CTR, "XADT")=Date Added
 - VAR(,"IC9",CTR, "XRDT")=Date Retired
- **IsA Information - Multiple Records Returned (CTR):**
 - VAR(,"ISA",CTR, "CON")=Concept ID of IsA Term (may be blank prior to lookup)
 - VAR(,"ISA",CTR, "DTS")=DTSId of the IsA Term
 - VAR(,"ISA",CTR, "TRM")=IsA Term Name
 - VAR(,"ISA",CTR, "XADT")=Date Added
 - VAR(,"ISA",CTR, "XRDT")=Date Retired
- **Association Information (SNOMED) - Multiple Records Returned (CTR):**
 - VAR(,"ASM",CTR, "CON")=SNOMED Concept CT Association
 - VAR(,"ASM",CTR, "DTS")=DTSId of the SNOMED Concept
- **Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"ARX",CTR, "CON")=RxNorm Code Value Association
 - VAR(,"ARX",CTR, "DTS")=DTSId of the RxNorm Concept
- **Association Information (UNII) - Multiple Records Returned (CTR):**
 - VAR(,"ASN",CTR, "CON")=UNII Code Value Association
 - VAR(,"ASN",CTR, "DTS")=DTSId of the UNII Concept
- **Inverse Association Information (RxNorm) - Multiple Records Returned (CTR):**

- VAR(,"IAR",CTR,"CON")=RxNorm Code Value of Inverse Association
- VAR(,"IAR",CTR,"DTS")=DTSId of the RxNorm Concept
- VAR(,"IAR",CTR,"TRM")=Inverse Association Term
- **Child Information - Multiple Records Returned (CTR):**
 - VAR(,"CHD",CTR,"CON")=Concept ID of Child Term (may be blank prior to detail lookup)
 - VAR(,"CHD",CTR,"DTS")=DTSId of the Child Term
 - VAR(,"CHD",CTR,"TRM")=IsA Term Name
 - VAR(,"CHD",CTR,"XADT")=Date Added
 - VAR(,"CHD",CTR,"XRDT")=Date Retired
- **Lookup Problem Column Value:**
 - VAR(,"PRB",,"DSC")=Description ID of a Pref Term (Type F) or Synonym/Pref Term (S)
 - VAR(,"PRB",,"TRM")=Preferred Name of a Concept (F) or a Synonym/Preferred Name (S)
- **Preferred Term Information:**
 - VAR(,"PRE",,"DSC")=Description ID of Preferred Term
 - VAR(,"PRE",,"TRM")=Preferred Term
 - VAR(,"PRE",,"XADT")=Date Added
 - VAR(,"PRE",,"XRDT")=Date Retired
- **Subset Information - Multiple Records Returned (CTR):**
 - VAR(,"SUB",CTR,"SUB")=Subset Name
 - VAR(,"SUB",CTR,"XADT")=Date Added
 - VAR(,"SUB",CTR,"XRDT")=Date Retired
- **Synonym Information - Multiple Records Returned (CTR):**
 - VAR(,"SYN",CTR,"DSC")=Description ID of Synonym
 - VAR(,"SYN",CTR,"TRM")=Synonym Term
 - VAR(,"SYN",CTR,"XADT")=Date Added
 - VAR(,"SYN",CTR,"XRDT")=Date Retired
- **Date Concept Added/Retired:**
 - VAR(,"XADT")=Date Added
 - VAR(,"XRDT")=Date Retired

Parameter: <return value>

Data Type: String

Description: Result returned as:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - 2. Remote information returned
 - 1. Local information returned
 - 0. No Information Returned
- **Primary Remote Error Message.**
- **Secondary Remote Error Message** (if applicable).

5.2.12 \$\$DSCLKP^BSTSAPI

This API will return the detail information for the specified Description ID.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN

Data Type: String

Description: Specified as:

Description ID^Codeset ID^Local^Debug

Values:

- **Description ID.** The Description ID to look up.
- **Codeset ID** (Optional). Default to SNOMED CT US Extensions ('36') – Available codesets are:
 - 36 (SNOMED CT US Extension)
 - 1552 (RxNorm R)
 - 5180 (FDA UNII)
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR**Data Type:** String List**Description:** The VAR(#) list of records returns the following sections (based on the IN Parameters **Maximum Number Concepts** and **Return Info**):

- **Concept ID/DTSID:**
 - VAR(,"CON")=Concept ID
 - VAR(,"DTS")=Internal DTS ID
- **Fully Specified Name:**
 - VAR(,"FSN", "DSC")= Description ID of the FSN
 - VAR(,"FSN", "TRM")=Fully Specified Name
 - VAR(,"FSN", "XADT")=Date Added
 - VAR(,"FSN", "XRDT")=Date Retired
- **ICD9 Information - Multiple Records Returned (CTR) – ICD9 or ICD10 will be returned in this section based on the date in the “Date to Check” input parameter (#5). If date is after the ICD-10 implementation date found in file 80.4, ICD10 information will get returned. Otherwise ICD9 information will get returned:**
 - VAR(,"ICD",CTR,"COD")=ICD9/ICD10 Code
 - VAR(,"ICD",CTR,"TYP")=Code Type(IC9 or 10D)
 - VAR(,"ICD",CTR,"XADT")=Date Added
 - VAR(,"ICD",CTR,"XRDT")=Date Retired
- **Legacy ICD9 information will always get returned in this node:**
 - VAR(,"IC9",CTR,"COD")=ICD9 Code
 - VAR(,"IC9",CTR,"TYP")=Code Type(IC9)
 - VAR(,"IC9",CTR,"XADT")=Date Added
 - VAR(,"IC9",CTR,"XRDT")=Date Retired
- **IsA Information - Multiple Records Returned (CTR):**
 - VAR(,"ISA",CTR,"CON")=Concept ID of IsA Term (may be blank prior to lookup)
 - VAR(,"ISA",CTR,"DTS")=DTSId of the IsA Term
 - VAR(,"ISA",CTR,"TRM")=IsA Term Name
 - VAR(,"ISA",CTR,"XADT")=Date Added
 - VAR(,"ISA",CTR,"XRDT")=Date Retired
- **Association Information (SNOMED) - Multiple Records Returned (CTR):**
 - VAR(,"ASM",CTR,"CON")=SNOMED Concept CT Association
 - VAR(,"ASM",CTR,"DTS")=DTSId of the SNOMED Concept

- **Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"ARX",CTR,"CON")=RxNorm Code Value Association
 - VAR(,"ARX",CTR,"DTS")=DTSId of the RxNorm Concept
 - Association Information (UNII) - Multiple Records Returned (CTR):
 - VAR(,"ASN",CTR,"CON")=UNII Code Value Association
 - VAR(,"ASN",CTR,"DTS")=DTSId of the UNII Concept
- **Inverse Association Information (RxNorm) - Multiple Records Returned (CTR):**
 - VAR(,"IAR",CTR,"CON")=RxNorm Code Value of Inverse Association
 - VAR(,"IAR",CTR,"DTS")=DTSId of the RxNorm Concept
 - VAR(,"IAR",CTR,"TRM")=Inverse Association Term
- **Child Information - Multiple Records Returned (CTR):**
 - VAR(,"CHD",CTR,"CON")=Concept ID of Child Term (may be blank prior to detail lookup)
 - VAR(,"CHD",CTR,"DTS")=DTSId of the Child Term
 - VAR(,"CHD",CTR,"TRM")=IsA Term Name
 - VAR(,"CHD",CTR,"XADT")=Date Added
 - VAR(,"CHD",CTR,"XRDT")=Date Retired
- **Lookup Problem Column Value** (Preferred Term Information for concept for Search Type [F] or Synonym or Preferred Term Information for Search Type [S]):
 - VAR(,"PRB",,"DSC")=Description ID of a Pref Term (Type F) or Synonym/Pref Term (S)
 - VAR(,"PRB",,"TRM")=Preferred Name of a Concept (F) or a Synonym/Preferred Name (S)
- **Preferred Term Information:**
 - VAR(,"PRE",,"DSC")=Description ID of Preferred Term
 - VAR(,"PRE",,"TRM")=Preferred Term
 - VAR(,"PRE",,"XADT")=Date Added
 - VAR(,"PRE",,"XRDT")=Date Retired
- **Subset Information - Multiple Records Returned (CTR):**
 - VAR(,"SUB",CTR,"SUB")=Subset Name
 - VAR(,"SUB",CTR,"XADT")=Date Added
 - VAR(,"SUB",CTR,"XRDT")=Date Retired
- **Synonym Information - Multiple Records Returned (CTR):**
 - VAR(,"SYN",CTR,"DSC")=Description ID of Synonym

- VAR("#, "SYN", CTR, "TRM")=Synonym Term
- VAR("#, "SYN", CTR, "XADT")=Date Added
- VAR("#, "SYN", CTR, "XRDT")=Date Retired

- **Date Concept Added/Retired:**

- VAR("#, "XADT")=Date Added
- VAR("#, "XRDT")=Date Retired

Parameter: <return value>

Data Type: String

Description: Result returned as:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - 2. Remote information returned
 - 1. Local information returned
 - 0. No Information Returned
- **Primary Remote Error Message.**
- **Secondary Remote Error Message** (if applicable).

5.2.13 \$\$CONC^BSTSAPI

This API will return the detail information for the specified Concept ID.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN

Data Type: String

Description: Specified as:

The Concept ID^Codeset ID^Snapshot Date^Local^Debug

Values:

- **Concept ID.** The Concept ID to look up.
- **Codeset ID** (Optional). Default to '36' (SNOMED CT US Extensions) – Available codesets are:
 - 36 (SNOMED CT US Extensions)
 - 1552 (RxNorm R)

– 5180 (FDA UNII)

- **Snapshot Date.** Snapshot Date to check. Default Today's Date.
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: <return value>

Data Type: String

Description: Result returned as:

FSN Desc ID^FSN^Pref Desc ID^Pref Term^ICD9 list

Values:

- **Description ID of Fully Specified Name**
- **Fully Specified Name**
- **Description ID of Preferred Term**
- **Preferred Term**
- **Delimited list of mapped ICD9 codes** (';' delimiter)

5.2.14 \$\$DESC^BSTSAPI

This API takes specific information returned by the \$\$DSCLKP^BSTSAPI API and returns it as part of a function call.

Parameter: IN

Data Type: String

Description: Specified as:

The Description ID^Codeset ID^Local^Debug

Values:

- **Description ID.** The Description ID to look up.
- **Codeset ID** (Optional). Default to '36' (SNOMED CT US Extensions) - Available namespaces are:
 - 36 (SNOMED CT US Extension)
 - 5180 (FDA UNII)
 - 1552 (RxNorm R).
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: <return value>

Data Type: String

Description: Result returned as:

Concept ID^Term Description^ICD9 list

Values:

- **Concept ID.** The Concept ID associated with the specified Description ID.
- **Term Description.** The Term associated with the specified Description ID.
- **ICD9 list.** Delimited list of mapped ICD9 codes (‘;’ delimiter).

5.2.15 \$\$VSBTRMF^BSTSAPI

This API takes specific information returned by the \$\$VALSBTRM^BSTSAPI API and returns it as part of a function call.

Parameter: IN

Data Type: String (Optional)

Description: Specified as:

Description ID^Subset Codeset ID^Local^Debug

Values:

- **Description ID.** The Description ID for lookup.
- **Subset.** Subset to look for.
- **Codeset ID.** Default to ‘36’ (SNOMED CT US Extensions).
- **Local** (Optional). Pass **1** to perform local listing, otherwise leave blank for remote listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: <return value>

Data Type: String

Description: Single VAR record is returned.

Value:

- **1.** Term is in the provided subset
- **0.** Term is not in the provided subset

5.2.16 \$\$ICD2SMD^BSTSAPI

This API Returns the SNOMED terms which map to a given ICD9 code.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter.

Parameter: IN

Data Type: String (Optional)

Description: Specified as:

ICD9 Code^Return Info^Local^Debug^Lookup Date

Values:

- **ICD9 Code.** The ICD9 code to find the SNOMED mappings for.
- **Return Info** (Optional). Default is **BCI**
 - **P.** Preferred
 - **S.** Synonyms
 - **B.** Subset
 - **I.** IsA
 - **X.** ICD9/ICD10
 - **C.** Children
- **Local** (Optional). Pass 1 to perform local listing, otherwise leave blank for remote listing
- **Debug** (Optional). Pass 1 to display debug information
- **Lookup Date (Optional).** The date to lookup on (default to T+2).

Parameter: VAR

Data Type: String List

Description: The VAR(#) list of records returns the following sections (based on the IN Parameters **Maximum Number Concepts** and **Return Info**):

- **Concept ID/DTSID:**
 - VAR(,"CON")=Concept ID
 - VAR(,"DTS")=Internal DTS ID
- **Fully Specified Name:**
 - VAR(,"FSN", "DSC")= Description ID of the FSN
 - VAR(,"FSN", "TRM")=Fully Specified Name

- VAR(,"FSN","XADT")=Date Added
- VAR(,"FSN","XRDT")=Date Retired
- **ICD9 Information - Multiple Records Returned (CTR):**
 - VAR(,"ICD",CTR,"COD")=ICD9 Code
 - VAR(,"ICD",CTR,"TYP")=Code Type(ICD)
 - VAR(,"ICD",CTR,"XADT")=Date Added
 - VAR(,"ICD",CTR,"XRDT")=Date Retired
- **IsA Information - Multiple Records Returned (CTR):**
 - VAR(,"ISA",CTR,"CON")=Concept ID of IsA Term (may be blank prior to lookup)
 - VAR(,"ISA",CTR,"DTS")=DTSId of the IsA Term
 - VAR(,"ISA",CTR,"TRM")=IsA Term Name
 - VAR(,"ISA",CTR,"XADT")=Date Added
 - VAR(,"ISA",CTR,"XRDT")=Date Retired
- **Lookup Problem Column Value (Preferred Term Information for concept):**
 - VAR(,"PRB","DSC")=Description ID of a Pref Term
 - VAR(,"PRB","TRM")=Preferred Name of a Concept
- **Preferred Term Information:**
 - VAR(,"PRE","DSC")=Description ID of Preferred Term
 - VAR(,"PRE","TRM")=Preferred Term
 - VAR(,"PRE","XADT")=Date Added
 - VAR(,"PRE","XRDT")=Date Retired
- **Subset Information - Multiple Records Returned (CTR):**
 - VAR(,"SUB",CTR,"SUB")=Subset Name
 - VAR(,"SUB",CTR,"XADT")=Date Added
 - VAR(,"SUB",CTR,"XRDT")=Date Retired
- **Synonym Information - Multiple Records Returned (CTR):**
 - VAR(,"SYN",CTR,"DSC")=Description ID of Synonym
 - VAR(,"SYN",CTR,"TRM")=Synonym Term
 - VAR(,"SYN",CTR,"XADT")=Date Added
 - VAR(,"SYN",CTR,"XRDT")=Date Retired
- **Date Concept Added/Retired:**
 - VAR(,"XADT")=Date Added
 - VAR(,"XRDT")=Date Retired

Parameter: <return value>

Data Type: String

Description: Result returned as:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - 2. Remote information returned
 - 1. Local information returned
 - 0. No Information Returned
- **Primary Remote Error Message.**
- **Secondary Remote Error Message** (if applicable).

5.2.17 \$\$DILKP^BSTSAPI

This API takes accepts a NDC or VUID code and returns the any RxNorm values mapped to that code.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN

Data Type: String

Description: Specified as:

Code^Type^Local^Debug

Values:

- **Code.** The NDC or VUID code to lookup.
- **Type.** Pass:
 - N for NDC lookup
 - V for VUID lookup
- **Local** (Optional). Pass 1 to perform local listing, otherwise leave blank for remote listing.
- **Debug** (Optional). Pass 1 to display debug information.
- **TBYPASS** (System Use Only) - Pass 1 to bypass server timeout checks, otherwise leave blank. Do not use for regular calls.

Parameter: VAR

Data Type: String List

Description: The VAR(#) list of records returns the following information:

- **RxNorm Mappings:**
 - VAR(,"RXN","CON")=RxNorm Code
 - VAR(1,"RXN","TRM")=RxNorm Code
 - VAR(1,"RXN","TDC")=Tradename Code
 - VAR(1,"RXN","TDT")= Tradename Term

Parameter: <return value>

Data Type: String

Description: Result returned as:

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - 2. Remote information returned
 - 1. Local information returned
 - 0. No Information Returned
- **Primary Remote Error Message.**
- **Secondary Remote Error Message** (if applicable).

5.2.18 \$\$ASSOC^BSTSAPI

This API calls the existing \$\$VALTERM^BSTSAPI API call (accepting the same input parameters) and returns any association entries for only the first VAR(#) entry. Since most mapping files will return only one VAR(#) entry, this API can be used so its results can be parsed (rather than having to pull the data out of the VAR(#) array pieces).

Parameter: IN

Data Type: String (Optional)

Description: Specified as:

Search Term^Codeset ID^Snapshot Date^Local^Debug

Values:

- **Search Term.** The exact term for lookup.

- **Codeset ID** (Optional). Default to SNOMED CT US Extension ('36') - Available namespaces are:
 - 36 (SNOMED CT US Extension)
 - 5180 (FDA UNII)
 - 1552 (RxNorm R)
 - 32773 (GMRA Allergies with Maps)
 - 32772 (GMRA Signs Symptoms)
 - 32771 (IHS VANDF)
 - 32774 (IHS Med Route)
- **Snapshot Date**. Snapshot Date to check. Default Today's Date.
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: <return value>

Data Type: String

Description: Result returned as:

[1]^2^3]

Values:

- [1] SNOMED Association(s) (“;” delimited)
- [2] RxNorm Association(s) (“;” delimited)
- [3] UNII Association(s) (“;” delimited)

Parameter	Data Type	Description
<return value>	String	Result returned as: [1]^2^3] Values: [1] SNOMED Association(s) (“;” delimited) [2] RxNorm Association(s) (“;” delimited) [3] UNII Association(s) (“;” delimited)

5.2.19 \$\$DI2RX^BSTSAPI

This API calls the existing \$\$DILKP^BSTSAPI API call (accepting the same input parameters) and returns only the first RxNorm value associated with the entry.

Parameter: IN

Data Type: String

Description: Specified as:

Code^Type Local^Debug

Values:

- **Code.** The NDC or VUID code to lookup.
- **Type.** Pass:
 - N for NDC lookup
 - V for VUID lookup
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: <return value>

Data Type: String

Description: Result returned as:

[1]^ [2]^ [3]^ [4]

Values:

- [1] RxNorm Code
- [2] RxNorm Term
- [3] Tradename RxNorm Code
- [4] Tradename RxNorm Term

5.2.20 \$\$I10ADV^BSTSAPI

This API will return formatted map advice information for a particular SNOMED[®] Term.

Parameter: OUT

Data Type: String

Description: Output variable/global to return information specified in the VAR parameter that follows.

Parameter: IN**Data Type:** String (Optional)**Description:**

The Concept ID^Local^Exclude Info^Debug

Values:

- **Concept ID.** The Concept ID to look up.
- **Local** (Optional). Pass **1** or blank to perform local listing. Pass **2** for remote DTS listing.
- **Exclude Info.** Pass **1** to exclude add/retired date info from the output.
- **Debug** (Optional). Pass **1** to display debug information.

Parameter: VAR**Data Type:** String List**Description:** The VAR(#) list of records returns the mapping information on file for the specified concept. Multiple records per concept could be returned.**Format:**

VAR(#)=Formatted Mapping Advice

Parameter: <return value>**Data Type:** String**Description:**

Status^PrimaryErrorMsg^SecondaryErrorMsg

Values:

- **Status:**
 - **2.** Remote information returned
 - **1.** Local information returned
 - **0.** No Information Returned
- **Primary Remote Error Message**
- **Secondary Remote Error Message** (if applicable)

6.0 Files and Tables

6.1 File List

The following table contains a list of files included with BSTS v1.0 Patch 3.

File #	Filename	Description
9002318	BSTS SITE PARAMETERS	This file contains a list of categories used in the IPC tab.
9002318.1	BSTS CODESET	This file contains layout templates uploaded for use by any BSTS user.
9002318.2	BSTS WEB SERVICE ENDPOINT	This file contains information about the connections to web service endpoints.
9002318.3	BSTS TERMINOLOGY	This file contains information that was downloaded via the web service interface.
9002318.4	BSTS CONCEPT	This file contains the concepts that were downloaded via the web service interface.
9002318.5	BSTS CACHE CLASS TRANSPORT	This file contains the classes that will need to be defined as part of the installation.

6.2 File Access

The following table contains the FileMan access to new files.

File #	Filename	GL	RD	WR	LYG	DD	DEL
9002318	BSTS SITE PARAMETERS	^BSTS(9002318,	@	@	@	@	@
9002318.1	BSTS CODESET	^BSTS(9002318.1,	@	@	@	@	@
9002318.2	BSTS WEB SERVICE ENDPOINT	^BSTS(9002318.2,	@	@	@	@	@
9002318.3	BSTS TERMINOLOGY	^BSTS(9002318.3,	@	@	@	@	@
9002318.4	BSTS CONCEPT	^BSTS(9002318.4,	@	@	@	@	@
9002318.5	BSTS CACHE CLASS TRANSPORT	^BSTSCLS(@	@	@	@	@

6.3 Cross References

9002318 (BSTS SITE PARAMETERS)

.01 Name

B Regular type cross reference

1 WEBSERVICE (multiple)

.01 Webservice

B Regular type cross reference

.02 Priority

C Regular type cross reference for entire file

9002318.1 (BSTS CODESET)

.01 Name

B Regular type cross reference

.02 Code

C Regular type cross reference

9002318.2 (BSTS WEB SERVICE ENDPOINT)

.01 Name

B Regular type cross reference

9002318.3 (BSTS TERMINOLOGY)

.01 Counter

B Regular type cross reference

1 Term

E MUMPS

New Style Cross References

C Codeset, Concept ID, IEN

D Codeset, Description ID

9002318.4 (BSTS CONCEPT)**.01 Counter**

B Regular type cross reference

4 Subsets (multiple)

.01 Subsets

B Regular type cross reference

E Regular type cross reference for entire file

New Style Cross References

C Codeset, Concept ID, IEN

D Codeset, DTS ID, IEN

3 ICD Mapping (multiple)

.02 CODE

F Codeset, CODE, IEN

7 NDC (multiple)

.01 NDC

B Regular type cross reference

G Regular type cross reference for entire file

New Style Cross References

Codeset, NDC, IEN, NDC IEN

8 VUID (multiple)

.01 VUID

B Regular type cross reference

H Regular type cross reference for entire file

New Style Cross References

Codeset, VUID, IEN, VUID IEN

.01 ICD9 TO SNOMED MAP

B Regular type cross reference

I Regular type cross reference for entire file

New Style Cross Reference

Codeset, ICD TO SNOMED MAP, IEN, ICD TO SNOMED MAP IEN

9002318.5 (BSTS CACHE CLASS TRANSPORT)**.01 Package Name**

B Regular type cross reference

11 Class (multiple)**.01 Class**

B Regular type cross reference

6.4 Table File**File: 9002318 BSTS SITE PARAMETERS****Global: ^BSTS(9002318,**

Field #	Field Name	Subscript	Piece	Type
.01	NAME	D0,0	1	P
.02	REFRESH SUBSETS EVERY # DAYS	"	2	N
1	WEB SERVICES (9002318.01)	D0,1,D1,0		
.01	WEB SERVICE	"	1	P
.02	PRIORITY	"	2	N
.03	DAYS TO KEEP RESPONSE		3	N

File: 9002318.1 BSTS CODESET**Global: ^BSTS(9002318.1,**

Field #	Field Name	Subscript	Piece	Type
.01	ID	D0,0	1	F
.02	CODE	"	2	F
.03	NAME	"	3	F
.04	CURRENT VERSION	"	4	F
.05	LAST VERSION CHECK	"	5	D
.06	LAST SUBSET CHECK	"	6	D
.07	TASK NUMBER	"	7	F

Field #	Field Name	Subscript	Piece	Type
.08	SUBSET TASK NUMBER	"	8	F
.09	ICD2SMD TASK NUMBER	"	9	F
1	VERSIONS (9002318.11)	D0,1,D1,0		
.01	ID	"	1	F
.02	NAME		2	F
.03	RELEASE DATE		3	D
.04	INSTALL DATE		4	D

File: 9002318.2 BSTS WEB SERVICE ENDPOINT**Global: ^BSTS(9002318.2,**

Field #	Field Name	Subscript	Piece	Type
.01	NAME	D0,0	1	F
.02	URL ROOT	"	2	F
.03	PORT NUMBER	"	3	F
.04	TYPE	"	4	S
.05	TIMEOUT OVERRIDE	"	5	F
.06	CURRENT VERSION	"	6	F
.07	USERNAME	"	7	F
.08	PASSWORD	"	8	F
.09	INACTIVE	"	9	S
.1	INACTIVE DATE	"	10	D
.11	SERVICE PATH	"	11	F
.12	CONNECTION TIMEOUT OVERRIDE	"	12	N
.13	CHECK FOR DTS CONNECTION ON	"	13	D
.14	CHECK FOR CONNECTION AFTER	"	14	N
.15	MAXIMUM REMOTE SEARCH TIME	"	15	N
1	VERSION (9002318.21)	D0,1,D1,0	1	
.01	VERSION	"	1	F
.02	DATE INSTALLED	"	2	D
2.01	SSL/TLS CONFIGURATION	D0,2	1	F
3	LAST ERROR MESSAGE	D0,3	1	F

File: 9002318.3 BSTS TERMINOLOGY**Global: ^BSTS(9002318.3,**

Field #	Field Name	Subscript	Piece	Type
.01	COUNTER	D0,0	1	N

Field #	Field Name	Subscript	Piece	Type
.02	DESCRIPTION ID		2	F
.03	CONCEPT ID	"	3	P
.04	PARTIAL ENTRY	"	4	S
.05	VERSION		5	F
.06	REVISION IN		6	D
.07	REVISION OUT		7	D
.08	CODESET		8	P
.09	TYPE		9	S
.1	LAST MODIFIED		10	D
.11	OUT OF DATE		11	S
1	TERM	D0,1	1	F
10	FREQUENCY	D0,10	1	N

File: 9002318.4 BSTS CONCEPT**Global: ^BSTS(9002318.4,**

Field #	Field Name	Subscript	Piece	Type
.01	COUNTER	D0,0	1	N
.02	CONCEPT ID		2	F
.03	PATIAL ENTRY	"	3	S
.04	VERSION		4	F
.05	REVISION IN		5	D
.06	REVISION OUT		6	D
.07	CODESET		7	P
.08	DTS ID		8	F
.09	MAP		9	N
.1	FSN DESCRIPTION ID		10	F
.11	OUT OF DATE		11	S
.12	LAST MODIFIED		12	D
1	FULLY SPECIFIED NAME	D0,1	1	F
2	MAP ADVICE (9002318.42)	D0,2,D1,0		
.01	NUMBER		1	N
.02	REVISION IN		2	D
.03	REVISION OUT		3	D
1	MAPADVICE	D0,2,D1,0		W
.01	NUMBER		1	N
.02	MAP GROUP		2	F

Field #	Field Name	Subscript	Piece	Type
.03	MG RIN		3	D
.04	MG ROUT		4	D
.05	MAP PRIORITY		5	F
.06	MP RIN		6	D
.07	MP ROUT		7	D
.08	MAP TARGET		8	F
.09	MT RIN		9	D
.1	MT ROUT		10	D
1	MAP ADVICE	D0,2,D1,1	1	W
2	MAP TARGET NAME	D0,2,D1,2	1	W
3	MAP RULE	D0,2,D1,3	1	W
4	MAP CATEGORY VALUE	D0,2,D1,4	1	W
5.01	MA RIN	D0,2,D1,5	1	D
5.02	MA ROUT		2	D
5.03	MR RIN		3	D
5.04	MR ROUT		4	D
5.05	MTN RIN		5	D
5.06	MTN ROUT		6	D
5.07	MCV RIN		7	D
5.08	MCV ROUT		8	D
3	ICD MAPPING (9002318.43)	D0,3,D1,0		
.01	COUNTER		1	N
.02	CODE		2	F
.03	CODE TYPE		3	S
.04	REVISION IN		4	D
.05	REVISION OUT		5	D
4	SUBSETS (9002318.44)	D0,4,D1,0		
.01	SUBSETS		1	F
.02	REVISION IN		2	D
.03	REVISION OUT		3	D
5	IS A RELATIONSHIP (9002318.45)	D0,5,D1,0		
.01	IS A RELATIONSHIP		1	P
.02	REVISION IN		2	D
.03	REVISION OUT		3	D
10	FREQUENCY	D0,10	1	N
6	SUBCONCEPTS	D0,6,D1,0		

Field #	Field Name	Subscript	Piece	Type
.01	SUBCONCEPTS (9002318.46)		1	P
.02	REVISION IN		2	D
.03	REVISION OUT		3	D
7	NDC	D0,7,D1,0		
.01	NDC		1	F
.02	REVISION IN		2	D
.03	REVISION OUT		3	D
8	VUID	D0,8,D1,0		
.01	VUID		1	F
.02	REVISION IN		2	D
.03	REVISION OUT		3	D
9	ASSOCIATIONS	D0,9,D1,0		
.01	CODE		1	F
.02	CODESET		2	F
.03	CODE DTSID		3	F
10	FREQUENCY	D0,10	1	N
11	INVERSE ASSOCIATIONS	D0,11,D1,0		
.01	CODE		1	F
.02	CODESET		2	F
.03	CODE DTSID		3	F
.03	CODE TERM		4	F
12	TTY	D0,12,D1,0		
.01	TTY		1	F
13	ICD9 TO SNOMED MAP	D0,13,D1,0		
.01	ICD9 TO SNOMED MAP		1	F

File: 9002318.5 BSTS CACHE CLASS TRANSPORT**Global: ^BSTSCLS(**

Field #	Field Name	Subscript	Piece	Type
.01	PACKAGE NAME	D0,0	1	F
.02	*INSTALL WHERE		2	S
.04	*PATH	"	4	F
1.01	*RPMS FILENAME	D0,1	1	F
1.02	RPMS STATUS	"	2	S
1.03	RPMS DATE/TIME INSTALLED	"	3	D

Field #	Field Name	Subscript	Piece	Type
2.01	*ENSEMBLE FILENAME	D0,2	1	F
2.02	*ENSEMBLE STATUS	"	2	S
2.03	*ENSEMBLE DATE/TIME INSTALLED		3	D
10	XML (9002318.51)	D0,10,D1,		W
11	CLASS (9002318.511)	D0,11,D1		
.01	CLASS		1	F

6.5 Callable Routines

There are no remote procedure calls added in this release.

Name	Tag	Routine
BSTS GET SUBSET LIST	SUBSET	BSTSRPC
BSTS ICD9 TO SNOMED	ICD2SMD	BSTSRPC
BSTS SNOMED SEARCH	SEARCH	BSTSRPC
BSTS SNOMED UNIVERSE SEARCH	USEARCH	BSTSRPC

6.6 Published Entry Points

BSTSAPI.INT

SEARCH(OUT,IN) ;PEP - Perform Codeset Search

CODESETS(OUT,IN) ;PEP - Return list of available code sets

VERSIONS(OUT,IN) ;PEP - Return a list of available versions for a code set

CVRSN(OUT,IN) ;PEP - Return the Current Version For the Code Set

SUBSET(OUT,IN) ;PEP - Return the list of subsets available for a Code Set

VALTERM() ;PEP - Returns whether a given term is valid

DSCLKP(OUT,IN) ;PEP - Returns detail information for a specified Description ID

DTSLKP(OUT,IN) ;PEP - Returns detail information for a specified DTS ID

CNCLKP(OUT,IN) ;PEP - Returns detail information for a specified Concept ID

ASSOC(IN) ;PEP - Returns the associations for each type (SMD, RxNorm, UNII)

DI2RX(IN) ;PEP - Performs a drug ingredient lookup on a specified value

MPADVICE(OUT,IN) ;PEP - Returns ICD-10 mapping advice for a specified Concept ID

SUBLST(OUT,IN) ;PEP - Returns a list of concepts in a specified subset

VALSBTRM(OUT,IN) ;PEP - Returns whether a given term is in a particular subset

VSBTRMF(IN) ;PEP – Function form of the VALSBTRM call

ICD2SMD(OUT,IN) ;PEP - Returns the SNOMED terms which map to a given ICD9 code

DILKP(OUT,IN) ;PEP - Performs a drug ingredient lookup on a specified value

DESC(IN) – Function form of the DSCLKP call

CONC(IN) – Function form of the CNCLKP call

I10ADV(OUT,IN) ; PEP - Returns Formatted ICD-10 mapping information for a specified Concept Id

7.0 Internal Relations

All functions within this application work independently.

There are no documented internal relations in BSTS.

8.0 External Relations

8.1 External Calls

8.2 Callable Routines–Published Entry Points

This application contains no calls to external published entry points other than to standard Kernel/FileMan calls.

8.3 Exported options

Option Name	Description
BSTSMENU	Menu option
BSTS EDIT SITE PARAMETERS	Edit a site's parameters which include the web service endpoints.
BSTS WEB SERVICE	Add the path and other information needed to connect to a Terminology Web Service.
BSTS TEST WEB SERVICE	Performs a test call to a web service.
BSTS REFRESH LOCAL CACHE	Refreshes a custom codeset or the SNOMED subsets.
BSTS CHECK WEB SERVICE	Checks the status of the DTS server.

9.0 Archiving and Purging

There is no archiving or purging in BSTS.

10.0 Documentation Resources

This section describes a few methods to generate BSTS technical documentation.

10.1 %INDEX Option

This option analyzes the structure of a routine to determine in part if the routine adheres to RPMS programming standards. The %INDEX output can include the following components:

- Compiled list of errors and warnings
- Routine listing
- Local variables
- Global variables
- Naked globals
- Label references
- External references

Running %INDEX for a specified set of routines allows users to discover any deviations from RPMS programming standards that exist in the selected routines and to see how routines interact with one another (i.e., which routines call or are called by other routines).

To run %INDEX for the Patient Registration package, type the BSTS namespace at the “Routine(s)?>” prompt.

10.2 List File Attributes Option

This VA FileMan option allows users to generate documentation pertaining to files and file structure. Using the standard format of this option yields the following data dictionary information for a specified file:

- File name and description
- Identifiers
- Cross-references
- Files pointed to by the file specified
- Files that point to the file specified
- Input, print, and sort templates

In addition, the following applicable data is supplied for each field in the file:

- Field name, number, title, and description

- Global location
- “Help” prompt
- Cross-references
- Input transform
- Date last edited
- Notes

Using the Global Map format of this option generates an output that lists the following information:

- All cross-references for the file selected
- Global location of each field in the file
- Input, print, and sort templates

11.0 SAC Requirements and Exemptions

No Standards and Conventions (SAC) exemptions are noted at this time, although we may need to pursue an exemption for the use of some Caché classes within the BSTSCMCL routine.

12.0 Templates, Forms, and Protocols

12.1 Print Templates

There are no print templates in BSTS.

12.2 Sort Templates

There are no sort templates in BSTS.

12.3 Input Templates

- BSTS ADD/EDIT WEB SERVICE
- BSTS EDIT SITE PARAMETERS

12.4 List Templates

There are no list templates in BSTS.

12.5 Forms

There are no forms in BSTS.

12.6 Protocols

There are no protocols in BSTS.

13.0 SNOMED CT Search API

13.1 Description of Development Environment

The SNOMED CT Search API was developed using the programming language C# within Microsoft Visual Studio® 2012 integrated development environment. SNOMED CT Search API is written to utilize the .NET 2.0 Framework. All new classes created for the SNOMED CT Search API exist within the namespace IndianHealthService.SNOMEDCTSearch.

In addition to the standard .NET object classes, the SNOMED CT Search API also uses commercially available Windows form controls from Infragistics. All the controls used were part of a package of controls named Infragistics NetAdvantage® for Windows Forms 2010 Volume 3.

In addition, the SNOMED CT Search API also utilizes the BMX version 4.0 software to facilitate data retrieval and updates are handled through the RPCs defined in the BSTSRPC and BMXRPC namespaces.

All of the dynamic link library (dll) files upon which SNOMED CT Search API depend are delivered with the SNOMED CT Search API install package and are stored in the directory specified by the user (default install directory is: C:\GDIT\SNOMED CT Search API).

13.2 SNOMED CT Search API RPMS Server Requirements

The RPMS server portion of the iCare application does not require a specific version of Caché or OS. However, the server needs to be able to support BMX 4.0 fully, and is therefore subject to any requirements needed to run that application. Please refer to the BMX version 4.0 Technical Manual for details.

13.3 List of SNOMED CT Search API Dependencies

The following table shows the graphical user interface dependencies associated with the SNOMED CT Search API application.

Dependency	Assembly Version	Description
MS .Net 2.0 Framework	Version 2.0 with any subsequent service packs from Microsoft	The Microsoft .NET 2.0 Framework is required for the iCare allocation. The iCare installation package will check this prerequisite during install and will assist with the download of this update from Microsoft. If online download is not available, installation will not be allowed until .Net 4.0 has been installed by other means.
BMXNet40.dll	4.0.0.2	This library file contains the general BMXNet 4.0 client-side utilities and functions for connecting to the RPMS server and managing data connections.

Dependency	Assembly Version	Description
Infragistics NetAdvantage for Windows Forms 2010 Vol.3	10.3.20103.1000	These dll files are also distributed with the SNOMED CT Search API installation package.

13.4 SNOMED CT Search API–Install

The following table shows all of the files that will be installed with the SNOMED CT Search API. These files are installed in the directory specified by the user (default install directory is: C:\GDIT\SNOMED CT Search API).

Filename	Assembly Version	Description
IndianHealthService.SNOMEDCTSearch	1.0.0.7	This is the main SNOMED CT Search dll. Provides access to search methods.
BMXNET40.dll	4.0.0.2	This library file contains the general BMXNet 4.0 client-side utilities and functions for connecting to the RPMS server and managing data connections.

The following table shows all of the files that are part of a set of enhanced user interface (UI) controls from Infragistics called NetAdvantage for Windows Forms Version 2010 Volume 3.

Filename	Assembly Version	Description
Infragistics4.Shared.v10.3.dll	10.3.20103.1000	This file contains general functions and types common to all of the Infragistics controls.
Infragistics4.Win.Misc.v10.3.dll	10.3.20103.1000	This is a set of other miscellaneous functions and data types used when working with the other Infragistics classes.
Infragistics4.Win.UltraWinEditors.v10.3.dll	10.3.20103.1000	This dll file contains enhanced user interface input controls such as the calendar date picker and special combo boxes.
Infragistics4.Win.UltraWinGrid.v10.3.dll	10.3.20103.1000	The UltraGrid™ is an enhanced data-bound DataGrid used to display tabular data to the user. This also allows users to sort, filter, arrange columns, and select rows of data at run time.
Infragistics4.Win.v10.3.dll	10.3.20103.1000	This file contains classes used at a high level to control application-wide styles and appearances and interface with Windows XP themes, etc.

13.5 SNOMED CT Search API — List of Object Classes

The following table shows the new object classes used within the SNOMED CT Search API. All of the specified class names exist within the namespace IndianHealthService.SNOMEDCTSearch.

Class Name	Assembly	Description
DSNOMEDCTLookup	IndianHealthService.SNOMEDCTSearch.dll	DSNOMEDCTSearch class provides a view to allow users to search SNOMED CT.
ICD9ToSNOMEDCTLookup	IndianHealthService.SNOMEDCTSearch.dll	DSNOMEDCTSearch class provides a view to allow users to search SNOMED CT based on ICD 9 values.

13.6 SNOMED CT Search API — List of Properties by Class

The following table shows the methods by classes used within the SNOMED CT Search API. All of the specified class names exist within the namespace `IndianHealthService.SNOMEDCTSearch`.

Class Name	Property	Description
DSNOMEDCTLookup	FormSize	Overrides default form size (Width: 800, Height: 600). Data Type: System.Drawing.Size
DSNOMEDCTLookup	FormTitle	Overrides default form title (SNOMED CT Lookup). Data Type: System.String
DSNOMEDCTLookup	Namespace	Overrides default DTS namespace (36 – SNOMED CT) used to perform search. Data Type: System.String
DSNOMEDCTLookup	SearchValue	Value passed initially search on. If blank, no search will be performed until user intervention. Data Type: System.String
DSNOMEDCTLookup	DescriptionID	SNOMED CT Description ID Data Type: System.String
DSNOMEDCTLookup	Description	SNOMED CT Description Data Type: System.String
DSNOMEDCTLookup	ConceptID	SNOMED CT Concept ID Data Type: System.String
DSNOMEDCTLookup	ICD	ICD Value associated with returned SNOMED CT Data Type: System.String
DSNOMEDCTLookup	NumberOfRecords	Maximum number of records to display. Data Type: System.String
DSNOMEDCTLookup	DefaultSubset	List of subsets to use for the subset listbox. Overrides the default values provided by SNOMED CT Search API. Data Type: System.Collections.ArrayList
DSNOMEDCTLookup	SelectedSubset	List of subsets to have selected in subset listbox. Appending “:1” will cause the subset to permanent. Users will be unable to deselect it from the subset listbox. “Appending “:0” or leaving the subset as is will continue to allow users to deselect them.

Class Name	Property	Description
		Data Type: System.Collections.ArrayList
DSNOMEDCTLookup	SNOMEDCTRemoteSession	BMX RemoteSession used to perform data calls to SNOMED CT Search (Terminology Search) RPMS area. Data Type: IndianHealthService.BMXNet.RemoteSession
ICD9ToSNOMEDCTLookup	FormSize	Overrides default form size (Width: 800, Height: 600). Data Type: System.Drawing.Size
ICD9ToSNOMEDCTLookup	SearchValue	Value passed initially search on. If blank, no search will be performed until user intervention. Data Type: System.String
ICD9ToSNOMEDCTLookup	DescriptionID	SNOMED CT Description ID Data Type: System.String
ICD9ToSNOMEDCTLookup	Description	SNOMED CT Description Data Type: System.String
ICD9ToSNOMEDCTLookup	ConceptID	SNOMED CT Concept ID Data Type: System.String
ICD9ToSNOMEDCTLookup	DefaultSubset	List of subsets to use for the subset listbox. Overrides the default values provided by SNOMED CT Search API. Data Type: System.Collections.ArrayList
ICD9ToSNOMEDCTLookup	SelectedSubset	List of subsets to have selected in subset listbox. Data Type: System.Collections.ArrayList
ICD9ToSNOMEDCTLookup	SNOMEDCTRemoteSession	BMX RemoteSession used to perform data calls to SNOMED CT Search (Terminology Search) RPMS area. Data Type: IndianHealthService.BMXNet.RemoteSession

14.0 Accessibility Checklist

IHS Section 508 36 CFR Part §1194.21 Software Applications and Operating Systems Checklist

The BSTS package is not a software application that includes a user interface and therefore Section 508 compliancy checklist is not applicable.

Appendix A: Sample API Calls

A.1 \$\$SEARCH^BSTSAPI

The following example shows the only records returned of a Fully Specified Name lookup listing:

```
>S OUT="VAR",IN="CEREBRAL EDEMA^F"

>W $$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CHD",1,"CON")=230760006
VAR(1,"CHD",1,"DTS")=230760
VAR(1,"CHD",1,"TRM")="Cytotoxic cerebral edema (disorder)"
VAR(1,"CHD",1,"XADT")=""
VAR(1,"CHD",1,"XRDT")=""
VAR(1,"CHD",2,"CON")=230762003
VAR(1,"CHD",2,"DTS")=230762
VAR(1,"CHD",2,"TRM")="High altitude cerebral edema (disorder)"
VAR(1,"CHD",2,"XADT")=""
VAR(1,"CHD",2,"XRDT")=""
VAR(1,"CHD",3,"CON")=230761005
VAR(1,"CHD",3,"DTS")=230761
VAR(1,"CHD",3,"TRM")="Periventricular cerebrospinal fluid edema (disorder)"
VAR(1,"CHD",3,"XADT")=""
VAR(1,"CHD",3,"XRDT")=""
VAR(1,"CHD",4,"CON")=230763008
VAR(1,"CHD",4,"DTS")=230763
VAR(1,"CHD",4,"TRM")="Traumatic cerebral edema (disorder)"
VAR(1,"CHD",4,"XADT")=""
VAR(1,"CHD",4,"XRDT")=""
VAR(1,"CHD",5,"CON")=230759001
VAR(1,"CHD",5,"DTS")=230759
VAR(1,"CHD",5,"TRM")="Vasogenic cerebral edema (disorder)"
VAR(1,"CHD",5,"XADT")=""
VAR(1,"CHD",5,"XRDT")=""
VAR(1,"CON")=2032001
VAR(1,"DTS")=2032
VAR(1,"FSN","DSC")=749395013
VAR(1,"FSN","TRM")="Cerebral edema (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")=348.5
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="ZZZ.999"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ISA",1,"CON")=118654009
VAR(1,"ISA",1,"DTS")=118654
VAR(1,"ISA",1,"TRM")="Disorder characterized by edema (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""
VAR(1,"ISA",2,"CON")=81308009
VAR(1,"ISA",2,"DTS")=81308
VAR(1,"ISA",2,"TRM")="Disorder of brain (disorder)"
```

```

VAR(1,"ISA",2,"XADT")=""
VAR(1,"ISA",2,"XRDT")=""
VAR(1,"PRB","DSC")=4508017
VAR(1,"PRB","TRM")="Cerebral edema"
VAR(1,"PRE","DSC")=4508017
VAR(1,"PRE","TRM")="Cerebral edema"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="PICK Neurology Long"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="SRCH Emergency Department"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="SRCH Family Practice"
VAR(1,"SUB",4,"XADT")=""
VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="SRCH Medicine - Inpatient"
VAR(1,"SUB",5,"XADT")=""
VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="SRCH Medicine - Urgent Care"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="SRCH Neurology"
VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SUB",8,"SUB")="SRCH Problem List - Medical"
VAR(1,"SUB",8,"XADT")=""
VAR(1,"SUB",8,"XRDT")=""
VAR(1,"SUB",9,"SUB")="IHS Problem List"
VAR(1,"SUB",9,"XADT")=""
VAR(1,"SUB",9,"XRDT")=""
VAR(1,"SYN",1,"DSC")=480612016
VAR(1,"SYN",1,"TRM")="Cerebral oedema"
VAR(1,"SYN",1,"XADT")=3120301.07
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")=4509013
VAR(1,"SYN",2,"TRM")="Intracranial swelling"
VAR(1,"SYN",2,"XADT")=3120301.07
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=3500101
VAR(2,"CON")=230762003
VAR(2,"DTS")=230762
VAR(2,"FSN","DSC")=618614019
VAR(2,"FSN","TRM")="High altitude cerebral edema (disorder)"
VAR(2,"FSN","XADT")=3120301.07
VAR(2,"FSN","XRDT")=""
VAR(2,"IC9",1,"COD")=348.5
VAR(2,"IC9",1,"TYP")="IC9"
VAR(2,"IC9",1,"XADT")=""
VAR(2,"IC9",1,"XRDT")=""
VAR(2,"IC9",2,"COD")=993.2
VAR(2,"IC9",2,"TYP")="IC9"
VAR(2,"IC9",2,"XADT")=""
VAR(2,"IC9",2,"XRDT")=""
VAR(2,"ICD",1,"COD")="G93.6"
VAR(2,"ICD",1,"TYP")="10D"

```

```

VAR(2,"ICD",1,"XADT")=3150423
VAR(2,"ICD",1,"XRDT")=3491201.19
VAR(2,"ISA",1,"CON")=249605001
VAR(2,"ISA",1,"DTS")=249605
VAR(2,"ISA",1,"TRM")="Andes disease (disorder)"
VAR(2,"ISA",1,"XADT")=""
VAR(2,"ISA",1,"XRDT")=""
VAR(2,"ISA",2,"CON")=2032001
VAR(2,"ISA",2,"DTS")=2032
VAR(2,"ISA",2,"TRM")="Cerebral edema (disorder)"
VAR(2,"ISA",2,"XADT")=""
VAR(2,"ISA",2,"XRDT")=""
VAR(2,"PRB","DSC")=345754010
VAR(2,"PRB","TRM")="High altitude cerebral edema"
VAR(2,"PRE","DSC")=345754010
VAR(2,"PRE","TRM")="High altitude cerebral edema"
VAR(2,"PRE","XADT")=3120301.07
VAR(2,"PRE","XRDT")=""
VAR(2,"SUB",1,"SUB")="SRCH Emergency Department"
VAR(2,"SUB",1,"XADT")=""
VAR(2,"SUB",1,"XRDT")=""
VAR(2,"SUB",2,"SUB")="SRCH Family Practice"
VAR(2,"SUB",2,"XADT")=""
VAR(2,"SUB",2,"XRDT")=""
VAR(2,"SUB",3,"SUB")="SRCH Medicine - Inpatient"
VAR(2,"SUB",3,"XADT")=""
VAR(2,"SUB",3,"XRDT")=""
VAR(2,"SUB",4,"SUB")="SRCH Medicine - Urgent Care"
VAR(2,"SUB",4,"XADT")=""
VAR(2,"SUB",4,"XRDT")=""
VAR(2,"SUB",5,"SUB")="SRCH Neurology"
VAR(2,"SUB",5,"XADT")=""
VAR(2,"SUB",5,"XRDT")=""
VAR(2,"SUB",6,"SUB")="SRCH Problem List - Medical"
VAR(2,"SUB",6,"XADT")=""
VAR(2,"SUB",6,"XRDT")=""
VAR(2,"SUB",7,"SUB")="IHS Problem List"
VAR(2,"SUB",7,"XADT")=""
VAR(2,"SUB",7,"XRDT")=""
VAR(2,"SYN",1,"DSC")=345755011
VAR(2,"SYN",1,"TRM")="High altitude cerebral oedema"
VAR(2,"SYN",1,"XADT")=3120301.07
VAR(2,"SYN",1,"XRDT")=""
VAR(2,"XADT")=3120301
VAR(2,"XRDT")=3500101
VAR(3,"CHD",1,"CON")=206238001
VAR(3,"CHD",1,"DTS")=206238
VAR(3,"CHD",1,"TRM")="Cerebral edema due to birth injury (disorder)"
VAR(3,"CHD",1,"XADT")=""
VAR(3,"CHD",1,"XRDT")=""
VAR(3,"CHD",2,"CON")=311826007
VAR(3,"CHD",2,"DTS")=311826
VAR(3,"CHD",2,"TRM")="Traumatic cerebral edema with open intracranial wound (disorder)"
VAR(3,"CHD",2,"XADT")=""
VAR(3,"CHD",2,"XRDT")=""
VAR(3,"CHD",3,"CON")=311825006
VAR(3,"CHD",3,"DTS")=311825
VAR(3,"CHD",3,"TRM")="Traumatic cerebral edema without open intracranial wound (disorder)"
VAR(3,"CHD",3,"XADT")=""

```

```

VAR(3,"CHD",3,"XRDT")=""
VAR(3,"CHD",4,"CON")=262695000
VAR(3,"CHD",4,"DTS")=262695
VAR(3,"CHD",4,"TRM")="Traumatic focal cerebral edema (disorder)"
VAR(3,"CHD",4,"XADT")=""
VAR(3,"CHD",4,"XRDT")=""
VAR(3,"CHD",5,"CON")=262694001
VAR(3,"CHD",5,"DTS")=262694
VAR(3,"CHD",5,"TRM")="Traumatic generalized cerebral edema (disorder)"
VAR(3,"CHD",5,"XADT")=""
VAR(3,"CHD",5,"XRDT")=""
VAR(3,"CON")=230763008
VAR(3,"DTS")=230763
VAR(3,"FSN","DSC")=618615018
VAR(3,"FSN","TRM")="Traumatic cerebral edema (disorder)"
VAR(3,"FSN","XADT")=3120301.07
VAR(3,"FSN","XRDT")=""
VAR(3,"IC9",1,"COD")=348.5
VAR(3,"IC9",1,"TYP")="IC9"
VAR(3,"IC9",1,"XADT")=""
VAR(3,"IC9",1,"XRDT")=""
VAR(3,"ICD",1,"COD")="ZZZ.999"
VAR(3,"ICD",1,"TYP")="10D"
VAR(3,"ISA",1,"CON")=2032001
VAR(3,"ISA",1,"DTS")=2032
VAR(3,"ISA",1,"TRM")="Cerebral edema (disorder)"
VAR(3,"ISA",1,"XADT")=""
VAR(3,"ISA",1,"XRDT")=""
VAR(3,"ISA",2,"CON")=127295002
VAR(3,"ISA",2,"DTS")=127295
VAR(3,"ISA",2,"TRM")="Traumatic brain injury (disorder)"
VAR(3,"ISA",2,"XADT")=""
VAR(3,"ISA",2,"XRDT")=""
VAR(3,"PRB","DSC")=345757015
VAR(3,"PRB","TRM")="Traumatic cerebral edema"
VAR(3,"PRE","DSC")=345757015
VAR(3,"PRE","TRM")="Traumatic cerebral edema"
VAR(3,"PRE","XADT")=3120301.07
VAR(3,"PRE","XRDT")=""
VAR(3,"SUB",1,"SUB")="SRCH Emergency Department"
VAR(3,"SUB",1,"XADT")=""
VAR(3,"SUB",1,"XRDT")=""
VAR(3,"SUB",2,"SUB")="IHS Problem List"
VAR(3,"SUB",2,"XADT")=""
VAR(3,"SUB",2,"XRDT")=""
VAR(3,"SYN",1,"DSC")=345756012
VAR(3,"SYN",1,"TRM")="Traumatic cerebral oedema"
VAR(3,"SYN",1,"XADT")=3120301.07
VAR(3,"SYN",1,"XRDT")=""
VAR(3,"XADT")=3120301
VAR(3,"XRDT")=3500101
VAR(4,"CON")=311826007
VAR(4,"DTS")=311826
VAR(4,"FSN","DSC")=708428012
VAR(4,"FSN","TRM")="Traumatic cerebral edema with open intracranial wound (disorder)"
VAR(4,"FSN","XADT")=3120301.07
VAR(4,"FSN","XRDT")=""
VAR(4,"IC9",1,"COD")="854.10"
VAR(4,"IC9",1,"TYP")="IC9"
VAR(4,"IC9",1,"XADT")=""

```

```

VAR(4,"IC9",1,"XRDT")=""
VAR(4,"ICD",1,"COD")="ZZZ.999"
VAR(4,"ICD",1,"TYP")="10D"
VAR(4,"ISA",1,"CON")=28188001
VAR(4,"ISA",1,"DTS")=28188
VAR(4,"ISA",1,"TRM")="Brain injury with open intracranial wound (disorder)"
VAR(4,"ISA",1,"XADT")=""
VAR(4,"ISA",1,"XRDT")=""
VAR(4,"ISA",2,"CON")=230763008
VAR(4,"ISA",2,"DTS")=230763
VAR(4,"ISA",2,"TRM")="Traumatic cerebral edema (disorder)"
VAR(4,"ISA",2,"XADT")=""
VAR(4,"ISA",2,"XRDT")=""
VAR(4,"PRB","DSC")=455457012
VAR(4,"PRB","TRM")="Traumatic cerebral edema with open intracranial wound"
VAR(4,"PRE","DSC")=455457012
VAR(4,"PRE","TRM")="Traumatic cerebral edema with open intracranial wound"
VAR(4,"PRE","XADT")=3120301.07
VAR(4,"PRE","XRDT")=""
VAR(4,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(4,"SUB",1,"XADT")=""
VAR(4,"SUB",1,"XRDT")=""
VAR(4,"SUB",2,"SUB")="SRCH Musculoskeletal"
VAR(4,"SUB",2,"XADT")=""
VAR(4,"SUB",2,"XRDT")=""
VAR(4,"SUB",3,"SUB")="SRCH Neurology"
VAR(4,"SUB",3,"XADT")=""
VAR(4,"SUB",3,"XRDT")=""
VAR(4,"SUB",4,"SUB")="SRCH Nursing - Public Health"
VAR(4,"SUB",4,"XADT")=""
VAR(4,"SUB",4,"XRDT")=""
VAR(4,"SUB",5,"SUB")="SRCH Pain Management"
VAR(4,"SUB",5,"XADT")=""
VAR(4,"SUB",5,"XRDT")=""
VAR(4,"SUB",6,"SUB")="SRCH Pediatrics"
VAR(4,"SUB",6,"XADT")=""
VAR(4,"SUB",6,"XRDT")=""
VAR(4,"SUB",7,"SUB")="SRCH Trauma"
VAR(4,"SUB",7,"XADT")=""
VAR(4,"SUB",7,"XRDT")=""
VAR(4,"SUB",8,"SUB")="IHS Problem List"
VAR(4,"SUB",8,"XADT")=""
VAR(4,"SUB",8,"XRDT")=""
VAR(4,"SYN",1,"DSC")=455458019
VAR(4,"SYN",1,"TRM")="Traumatic cerebral oedema with open intracranial
wound"
VAR(4,"SYN",1,"XADT")=3120301.07
VAR(4,"SYN",1,"XRDT")=""
VAR(4,"XADT")=3120301
VAR(4,"XRDT")=3500101
VAR(5,"CON")=311825006
VAR(5,"DTS")=311825
VAR(5,"FSN","DSC")=708426011
VAR(5,"FSN","TRM")="Traumatic cerebral edema without open intracranial
wound (disorder)"
VAR(5,"FSN","XADT")=3120301.07
VAR(5,"FSN","XRDT")=""
VAR(5,"IC9",1,"COD")="854.00"
VAR(5,"IC9",1,"TYP")="IC9"
VAR(5,"IC9",1,"XADT")=""
VAR(5,"IC9",1,"XRDT")=""

```

```

VAR(5,"ICD",1,"COD")="ZZZ.999"
VAR(5,"ICD",1,"TYP")="10D"
VAR(5,"ISA",1,"CON")=230763008
VAR(5,"ISA",1,"DTS")=230763
VAR(5,"ISA",1,"TRM")="Traumatic cerebral edema (disorder)"
VAR(5,"ISA",1,"XADT")=""
VAR(5,"ISA",1,"XRDT")=""
VAR(5,"PRB","DSC")=455456015
VAR(5,"PRB","TRM")="Traumatic cerebral edema without open intracranial
wound"
VAR(5,"PRE","DSC")=455456015
VAR(5,"PRE","TRM")="Traumatic cerebral edema without open intracranial
wound"
VAR(5,"PRE","XADT")=3120301.07
VAR(5,"PRE","XRDT")=""
VAR(5,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(5,"SUB",1,"XADT")=""
VAR(5,"SUB",1,"XRDT")=""
VAR(5,"SUB",2,"SUB")="SRCH Musculoskeletal"
VAR(5,"SUB",2,"XADT")=""
VAR(5,"SUB",2,"XRDT")=""
VAR(5,"SUB",3,"SUB")="SRCH Neurology"
VAR(5,"SUB",3,"XADT")=""
VAR(5,"SUB",3,"XRDT")=""
VAR(5,"SUB",4,"SUB")="SRCH Nursing - Public Health"
VAR(5,"SUB",4,"XADT")=""
VAR(5,"SUB",4,"XRDT")=""
VAR(5,"SUB",5,"SUB")="SRCH Pain Management"
VAR(5,"SUB",5,"XADT")=""
VAR(5,"SUB",5,"XRDT")=""
VAR(5,"SUB",6,"SUB")="SRCH Pediatrics"
VAR(5,"SUB",6,"XADT")=""
VAR(5,"SUB",6,"XRDT")=""
VAR(5,"SUB",7,"SUB")="SRCH Trauma"
VAR(5,"SUB",7,"XADT")=""
VAR(5,"SUB",7,"XRDT")=""
VAR(5,"SUB",8,"SUB")="IHS Problem List"
VAR(5,"SUB",8,"XADT")=""
VAR(5,"SUB",8,"XRDT")=""
VAR(5,"SYN",1,"DSC")=455455016
VAR(5,"SYN",1,"TRM")="Traumatic cerebral oedema without open intracranial
wound"
VAR(5,"SYN",1,"XADT")=3120301.07
VAR(5,"SYN",1,"XRDT")=""
VAR(5,"XADT")=3120301
VAR(5,"XRDT")=3500101
>

```

The following example shows the only returned of a Fully Specified Name lookup listing, with the add/retire date information being omitted:

```

>S OUT="VAR",IN="CEREBRAL EDEMA^F^^^^^1"

>W $$SEARCH^BSTSAPI(OUT,IN)
2^

>ZW @OUT
VAR(1,"CHD",1,"CON")=230760006
VAR(1,"CHD",1,"DTS")=230760

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VAR(1,"CHD",1,"TRM")="Cytotoxic cerebral edema (disorder)"
VAR(1,"CHD",2,"CON")=230762003
VAR(1,"CHD",2,"DTS")=230762
VAR(1,"CHD",2,"TRM")="High altitude cerebral edema (disorder)"
VAR(1,"CHD",3,"CON")=230761005
VAR(1,"CHD",3,"DTS")=230761
VAR(1,"CHD",3,"TRM")="Periventricular cerebrospinal fluid edema (disorder)"
VAR(1,"CHD",4,"CON")=230763008
VAR(1,"CHD",4,"DTS")=230763
VAR(1,"CHD",4,"TRM")="Traumatic cerebral edema (disorder)"
VAR(1,"CHD",5,"CON")=230759001
VAR(1,"CHD",5,"DTS")=230759
VAR(1,"CHD",5,"TRM")="Vasogenic cerebral edema (disorder)"
VAR(1,"CON")=2032001
VAR(1,"DTS")=2032
VAR(1,"FSN","DSC")=749395013
VAR(1,"FSN","TRM")="Cerebral edema (disorder)"
VAR(1,"IC9",1,"COD")=348.5
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"ICD",1,"COD")="ZZZ.999"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ISA",1,"CON")=118654009
VAR(1,"ISA",1,"DTS")=118654
VAR(1,"ISA",1,"TRM")="Disorder characterized by edema (disorder)"
VAR(1,"ISA",2,"CON")=81308009
VAR(1,"ISA",2,"DTS")=81308
VAR(1,"ISA",2,"TRM")="Disorder of brain (disorder)"
VAR(1,"PRB","DSC")=4508017
VAR(1,"PRB","TRM")="Cerebral edema"
VAR(1,"PRE","DSC")=4508017
VAR(1,"PRE","TRM")="Cerebral edema"
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",2,"SUB")="PICK Neurology Long"
VAR(1,"SUB",3,"SUB")="SRCH Emergency Department"
VAR(1,"SUB",4,"SUB")="SRCH Family Practice"
VAR(1,"SUB",5,"SUB")="SRCH Medicine - Inpatient"
VAR(1,"SUB",6,"SUB")="SRCH Medicine - Urgent Care"
VAR(1,"SUB",7,"SUB")="SRCH Neurology"
VAR(1,"SUB",8,"SUB")="SRCH Problem List - Medical"
VAR(1,"SUB",9,"SUB")="IHS Problem List"
VAR(1,"SYN",1,"DSC")=480612016
VAR(1,"SYN",1,"TRM")="Cerebral oedema"
VAR(1,"SYN",2,"DSC")=4509013
VAR(1,"SYN",2,"TRM")="Intracranial swelling"
VAR(2,"CON")=230762003
VAR(2,"DTS")=230762
VAR(2,"FSN","DSC")=618614019
VAR(2,"FSN","TRM")="High altitude cerebral edema (disorder)"
VAR(2,"IC9",1,"COD")=348.5
VAR(2,"IC9",1,"TYP")="IC9"
VAR(2,"IC9",2,"COD")=993.2
VAR(2,"IC9",2,"TYP")="IC9"
VAR(2,"ICD",1,"COD")="G93.6"
VAR(2,"ICD",1,"TYP")="10D"
VAR(2,"ISA",1,"CON")=249605001
VAR(2,"ISA",1,"DTS")=249605
VAR(2,"ISA",1,"TRM")="Andes disease (disorder)"
VAR(2,"ISA",2,"CON")=2032001
VAR(2,"ISA",2,"DTS")=2032
VAR(2,"ISA",2,"TRM")="Cerebral edema (disorder)"
VAR(2,"PRB","DSC")=345754010

```

```

VAR(2,"PRB","TRM")="High altitude cerebral edema"
VAR(2,"PRE","DSC")=345754010
VAR(2,"PRE","TRM")="High altitude cerebral edema"
VAR(2,"SUB",1,"SUB")="SRCH Emergency Department"
VAR(2,"SUB",2,"SUB")="SRCH Family Practice"
VAR(2,"SUB",3,"SUB")="SRCH Medicine - Inpatient"
VAR(2,"SUB",4,"SUB")="SRCH Medicine - Urgent Care"
VAR(2,"SUB",5,"SUB")="SRCH Neurology"
VAR(2,"SUB",6,"SUB")="SRCH Problem List - Medical"
VAR(2,"SUB",7,"SUB")="IHS Problem List"
VAR(2,"SYN",1,"DSC")=345755011
VAR(2,"SYN",1,"TRM")="High altitude cerebral oedema"
VAR(3,"CHD",1,"CON")=206238001
VAR(3,"CHD",1,"DTS")=206238
VAR(3,"CHD",1,"TRM")="Cerebral edema due to birth injury (disorder)"
VAR(3,"CHD",2,"CON")=311826007
VAR(3,"CHD",2,"DTS")=311826
VAR(3,"CHD",2,"TRM")="Traumatic cerebral edema with open intracranial wound
(disorder)"
VAR(3,"CHD",3,"CON")=311825006
VAR(3,"CHD",3,"DTS")=311825
VAR(3,"CHD",3,"TRM")="Traumatic cerebral edema without open intracranial
wound (disorder)"
VAR(3,"CHD",4,"CON")=262695000
VAR(3,"CHD",4,"DTS")=262695
VAR(3,"CHD",4,"TRM")="Traumatic focal cerebral edema (disorder)"
VAR(3,"CHD",5,"CON")=262694001
VAR(3,"CHD",5,"DTS")=262694
VAR(3,"CHD",5,"TRM")="Traumatic generalized cerebral edema (disorder)"
VAR(3,"CON")=230763008
VAR(3,"DTS")=230763
VAR(3,"FSN","DSC")=618615018
VAR(3,"FSN","TRM")="Traumatic cerebral edema (disorder)"
VAR(3,"IC9",1,"COD")=348.5
VAR(3,"IC9",1,"TYP")="IC9"
VAR(3,"ICD",1,"COD")="ZZZ.999"
VAR(3,"ICD",1,"TYP")="10D"
VAR(3,"ISA",1,"CON")=2032001
VAR(3,"ISA",1,"DTS")=2032
VAR(3,"ISA",1,"TRM")="Cerebral edema (disorder)"
VAR(3,"ISA",2,"CON")=127295002
VAR(3,"ISA",2,"DTS")=127295
VAR(3,"ISA",2,"TRM")="Traumatic brain injury (disorder)"
VAR(3,"PRB","DSC")=345757015
VAR(3,"PRB","TRM")="Traumatic cerebral edema"
VAR(3,"PRE","DSC")=345757015
VAR(3,"PRE","TRM")="Traumatic cerebral edema"
VAR(3,"SUB",1,"SUB")="SRCH Emergency Department"
VAR(3,"SUB",2,"SUB")="IHS Problem List"
VAR(3,"SYN",1,"DSC")=345756012
VAR(3,"SYN",1,"TRM")="Traumatic cerebral oedema"
VAR(4,"CON")=311826007
VAR(4,"DTS")=311826
VAR(4,"FSN","DSC")=708428012
VAR(4,"FSN","TRM")="Traumatic cerebral edema with open intracranial wound
(disorder)"
VAR(4,"IC9",1,"COD")="854.10"
VAR(4,"IC9",1,"TYP")="IC9"
VAR(4,"ICD",1,"COD")="ZZZ.999"
VAR(4,"ICD",1,"TYP")="10D"
VAR(4,"ISA",1,"CON")=28188001

```

```

VAR(4,"ISA",1,"DTS")=28188
VAR(4,"ISA",1,"TRM")="Brain injury with open intracranial wound (disorder)"
VAR(4,"ISA",2,"CON")=230763008
VAR(4,"ISA",2,"DTS")=230763
VAR(4,"ISA",2,"TRM")="Traumatic cerebral edema (disorder)"
VAR(4,"PRB","DSC")=455457012
VAR(4,"PRB","TRM")="Traumatic cerebral edema with open intracranial wound"
VAR(4,"PRE","DSC")=455457012
VAR(4,"PRE","TRM")="Traumatic cerebral edema with open intracranial wound"
VAR(4,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(4,"SUB",2,"SUB")="SRCH Musculoskeletal"
VAR(4,"SUB",3,"SUB")="SRCH Neurology"
VAR(4,"SUB",4,"SUB")="SRCH Nursing - Public Health"
VAR(4,"SUB",5,"SUB")="SRCH Pain Management"
VAR(4,"SUB",6,"SUB")="SRCH Pediatrics"
VAR(4,"SUB",7,"SUB")="SRCH Trauma"
VAR(4,"SUB",8,"SUB")="IHS Problem List"
VAR(4,"SYN",1,"DSC")=455458019
VAR(4,"SYN",1,"TRM")="Traumatic cerebral oedema with open intracranial
wound"
VAR(5,"CON")=311825006
VAR(5,"DTS")=311825
VAR(5,"FSN","DSC")=708426011
VAR(5,"FSN","TRM")="Traumatic cerebral edema without open intracranial
wound (disorder)"
VAR(5,"IC9",1,"COD")="854.00"
VAR(5,"IC9",1,"TYP")="IC9"
VAR(5,"ICD",1,"COD")="ZZZ.999"
VAR(5,"ICD",1,"TYP")="10D"
VAR(5,"ISA",1,"CON")=230763008
VAR(5,"ISA",1,"DTS")=230763
VAR(5,"ISA",1,"TRM")="Traumatic cerebral edema (disorder)"
VAR(5,"PRB","DSC")=455456015
VAR(5,"PRB","TRM")="Traumatic cerebral edema without open intracranial
wound"
VAR(5,"PRE","DSC")=455456015
VAR(5,"PRE","TRM")="Traumatic cerebral edema without open intracranial
wound"
VAR(5,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(5,"SUB",2,"SUB")="SRCH Musculoskeletal"
VAR(5,"SUB",3,"SUB")="SRCH Neurology"
VAR(5,"SUB",4,"SUB")="SRCH Nursing - Public Health"
VAR(5,"SUB",5,"SUB")="SRCH Pain Management"
VAR(5,"SUB",6,"SUB")="SRCH Pediatrics"
VAR(5,"SUB",7,"SUB")="SRCH Trauma"
VAR(5,"SUB",8,"SUB")="IHS Problem List"
VAR(5,"SYN",1,"DSC")=455455016
VAR(5,"SYN",1,"TRM")="Traumatic cerebral oedema without open intracranial
wound"
>

```

The following example shows the records returned of a Fully Specified Name lookup listing, with the add/retire date information being omitted and only the Synonyms requested:

```

>S OUT="VAR",IN="CHRONIC OTITIS EXTERNA^F^A^A^A^S^1"

>W $$SEARCH^BSTSAPI(OUT,IN)
2^

```

```
>ZW @OUT
VAR(1,"CON")=53295002
VAR(1,"DTS")=53295
VAR(1,"FSN","DSC")=791398013
VAR(1,"FSN","TRM")="Chronic otitis externa (disorder)"
VAR(1,"PRB","DSC")=88624014
VAR(1,"PRB","TRM")="Chronic otitis externa"
VAR(1,"SYN",1,"DSC")=88625010
VAR(1,"SYN",1,"TRM")="Chronic otitis externa, NOS"
VAR(2,"CON")=194207002
VAR(2,"DTS")=194207
VAR(2,"FSN","DSC")=578170015
VAR(2,"FSN","TRM")="Chronic otitis externa due to aspergillosis (disorder)"
VAR(2,"PRB","DSC")=298966014
VAR(2,"PRB","TRM")="Chronic otitis externa due to aspergillosis"
VAR(3,"CON")=194208007
VAR(3,"DTS")=194208
VAR(3,"FSN","DSC")=578171016
VAR(3,"FSN","TRM")="Chronic otitis externa due to moniliasis (disorder)"
VAR(3,"PRB","DSC")=298967017
VAR(3,"PRB","TRM")="Chronic otitis externa due to moniliasis"
VAR(4,"CON")=232240007
VAR(4,"DTS")=232240
VAR(4,"FSN","DSC")=620279010
VAR(4,"FSN","TRM")="Chronic allergic otitis externa (disorder)"
VAR(4,"PRB","DSC")=347960018
VAR(4,"PRB","TRM")="Chronic allergic otitis externa"
VAR(5,"CON")=232225005
VAR(5,"DTS")=232225
VAR(5,"FSN","DSC")=620262016
VAR(5,"FSN","TRM")="Chronic bacterial otitis externa (disorder)"
VAR(5,"PRB","DSC")=347943011
VAR(5,"PRB","TRM")="Chronic bacterial otitis externa"
VAR(6,"CON")=232224009
VAR(6,"DTS")=232224
VAR(6,"FSN","DSC")=620261011
VAR(6,"FSN","TRM")="Chronic infective otitis externa (disorder)"
VAR(6,"PRB","DSC")=347942018
VAR(6,"PRB","TRM")="Chronic infective otitis externa"
VAR(6,"SYN",1,"DSC")="T1999003447"
VAR(6,"SYN",1,"TRM")="Chronic infectious otitis externa"
VAR(7,"CON")=232239005
VAR(7,"DTS")=232239
VAR(7,"FSN","DSC")=620278019
VAR(7,"FSN","TRM")="Chronic irritant otitis externa (disorder)"
VAR(7,"PRB","DSC")=347959011
VAR(7,"PRB","TRM")="Chronic irritant otitis externa"
VAR(8,"CON")=111898002
VAR(8,"DTS")=111898
VAR(8,"FSN","DSC")=634690013
VAR(8,"FSN","TRM")="Chronic mycotic otitis externa (disorder)"
VAR(8,"PRB","DSC")=179051014
VAR(8,"PRB","TRM")="Chronic mycotic otitis externa"
VAR(8,"SYN",1,"DSC")="T1999006250"
VAR(8,"SYN",1,"TRM")="Otitis externa (ear canal infection), chronic mycotic"
VAR(8,"SYN",2,"DSC")=1219702011
VAR(8,"SYN",2,"TRM")="Chronic fungal otitis externa"
VAR(9,"CON")=232236003
VAR(9,"DTS")=232236
VAR(9,"FSN","DSC")=620275016
```

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VAR(9,"FSN","TRM")="Chronic non-infective otitis externa (disorder)"
VAR(9,"PRB","DSC")=347956016
VAR(9,"PRB","TRM")="Chronic non-infective otitis externa"
VAR(9,"SYN",1,"DSC")="T1999006249"
VAR(9,"SYN",1,"TRM")="Otitis externa (ear canal infection), chronic"
VAR(9,"SYN",2,"DSC")="T1999003458"
VAR(9,"SYN",2,"TRM")="Chronic noninfectious otitis externa"
VAR(10,"CON")=232237007
VAR(10,"DTS")=232237
VAR(10,"FSN","DSC")=620276015
VAR(10,"FSN","TRM")="Chronic radiation otitis externa (disorder)"
VAR(10,"PRB","DSC")=347957013
VAR(10,"PRB","TRM")="Chronic radiation otitis externa"
VAR(11,"CON")=402208007
VAR(11,"DTS")=402208
VAR(11,"FSN","DSC")=1770132013
VAR(11,"FSN","TRM")="Chronic seborrheic otitis externa (disorder)"
VAR(11,"PRB","DSC")=1774879018
VAR(11,"PRB","TRM")="Chronic seborrheic otitis externa"
VAR(11,"SYN",1,"DSC")=1773593014
VAR(11,"SYN",1,"TRM")="Chronic seborrheic otitis externa"
VAR(12,"CON")=232241006
VAR(12,"DTS")=232241
VAR(12,"FSN","DSC")=620280013
VAR(12,"FSN","TRM")="Chronic traumatic otitis externa (disorder)"
VAR(12,"PRB","DSC")=347961019
VAR(12,"PRB","TRM")="Chronic traumatic otitis externa"
VAR(13,"CON")=232226006
VAR(13,"DTS")=232226
VAR(13,"FSN","DSC")=620264015
VAR(13,"FSN","TRM")="Chronic viral otitis externa (disorder)"
VAR(13,"PRB","DSC")=347944017
VAR(13,"PRB","TRM")="Chronic viral otitis externa"
VAR(14,"CON")=427348001
VAR(14,"DTS")=427348
VAR(14,"FSN","DSC")=2662309013
VAR(14,"FSN","TRM")="Chronic eczema of external auditory canal (disorder)"
VAR(14,"PRB","DSC")=2674115017
VAR(14,"PRB","TRM")="Chronic eczema of external auditory canal"
VAR(14,"SYN",1,"DSC")="T1999003433"
VAR(14,"SYN",1,"TRM")="Chronic eczematoid otitis externa"
>

```

The following example shows only the first and last record (of the up to 25 records) returned of a Synonym lookup listing, with the add/retire date information being omitted:

```

>S OUT="VAR",IN="CHRONIC OTITIS EXTERNA^S^^^^^1"
>W $$$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CHD",1,"CON")=111898002
VAR(1,"CHD",1,"DTS")=111898
VAR(1,"CHD",1,"TRM")="Chronic mycotic otitis externa (disorder)"
VAR(1,"CHD",2,"CON")=232236003
VAR(1,"CHD",2,"DTS")=232236
VAR(1,"CHD",2,"TRM")="Chronic non-infective otitis externa (disorder)"
VAR(1,"CHD",3,"CON")=402208007

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```

VAR(1,"CHD",3,"DTS")=402208
VAR(1,"CHD",3,"TRM")="Chronic seborrheic otitis externa (disorder)"
VAR(1,"CHD",4,"CON")=232241006
VAR(1,"CHD",4,"DTS")=232241
VAR(1,"CHD",4,"TRM")="Chronic traumatic otitis externa (disorder)"
VAR(1,"CON")=53295002
VAR(1,"DTS")=53295
VAR(1,"FSN","DSC")=791398013
VAR(1,"FSN","TRM")="Chronic otitis externa (disorder)"
VAR(1,"IC9",1,"COD")=380.23
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"ICD",1,"COD")="ZZZ.999"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ISA",1,"CON")=34936007
VAR(1,"ISA",1,"DTS")=34936
VAR(1,"ISA",1,"TRM")="Chronic dermatitis (disorder)"
VAR(1,"ISA",2,"CON")=128297008
VAR(1,"ISA",2,"DTS")=128297
VAR(1,"ISA",2,"TRM")="Chronic disease of ear (disorder)"
VAR(1,"ISA",3,"CON")=3135009
VAR(1,"ISA",3,"DTS")=3135
VAR(1,"ISA",3,"TRM")="Otitis externa (disorder)"
VAR(1,"PRB","DSC")=88624014
VAR(1,"PRB","TRM")="Chronic otitis externa"
VAR(1,"PRE","DSC")=88624014
VAR(1,"PRE","TRM")="Chronic otitis externa"
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",2,"SUB")="Infectious Disease"
VAR(1,"SUB",3,"SUB")="PICK ENT"
VAR(1,"SUB",4,"SUB")="PICK ENT - Ear"
VAR(1,"SUB",5,"SUB")="SRCH ENT"
VAR(1,"SUB",6,"SUB")="SRCH Gastrointestinal"
VAR(1,"SUB",7,"SUB")="IHS Problem List"
VAR(1,"SYN",1,"DSC")=88625010
VAR(1,"SYN",1,"TRM")="Chronic otitis externa, NOS"

...

VAR(25,"CHD",1,"CON")=194207002
VAR(25,"CHD",1,"DTS")=194207
VAR(25,"CHD",1,"TRM")="Chronic otitis externa due to aspergillosis
(disorder)"
VAR(25,"CON")=111898002
VAR(25,"DTS")=111898
VAR(25,"FSN","DSC")=634690013
VAR(25,"FSN","TRM")="Chronic mycotic otitis externa (disorder)"
VAR(25,"IC9",1,"COD")=380.15
VAR(25,"IC9",1,"TYP")="IC9"
VAR(25,"ICD",1,"COD")="ZZZ.999"
VAR(25,"ICD",1,"TYP")="10D"
VAR(25,"ISA",1,"CON")=177010002
VAR(25,"ISA",1,"DTS")=177010
VAR(25,"ISA",1,"TRM")="Chronic infectious disease (disorder)"
VAR(25,"ISA",2,"CON")=232224009
VAR(25,"ISA",2,"DTS")=232224
VAR(25,"ISA",2,"TRM")="Chronic infective otitis externa (disorder)"
VAR(25,"ISA",3,"CON")=53295002
VAR(25,"ISA",3,"DTS")=53295
VAR(25,"ISA",3,"TRM")="Chronic otitis externa (disorder)"
VAR(25,"ISA",4,"CON")=53316003
VAR(25,"ISA",4,"DTS")=53316

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```

VAR(25,"ISA",4,"TRM")="Otomycosis (disorder)"
VAR(25,"PRB","DSC")="T1999006250"
VAR(25,"PRB","TRM")="Otitis externa (ear canal infection), chronic mycotic"
VAR(25,"PRE","DSC")=179051014
VAR(25,"PRE","TRM")="Chronic mycotic otitis externa"
VAR(25,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(25,"SUB",2,"SUB")="Infectious Disease"
VAR(25,"SUB",3,"SUB")="PICK ENT - Ear"
VAR(25,"SUB",4,"SUB")="SRCH ENT"
VAR(25,"SUB",5,"SUB")="SRCH Gastrointestinal"
VAR(25,"SUB",6,"SUB")="IHS Problem List"
VAR(25,"SYN",1,"DSC")="T1999006250"
VAR(25,"SYN",1,"TRM")="Otitis externa (ear canal infection), chronic mycotic"
VAR(25,"SYN",2,"DSC")=1219702011
VAR(25,"SYN",2,"TRM")="Chronic fungal otitis externa"

>

```

The following example shows the first and last records returned of a Synonym lookup listing, with the add/retire date information being omitted and the Synonym, Preferred, and ICD information getting returned:

```

TEST7>S OUT="VAR",IN="CHRONIC OTITIS EXTERNA^S^^^^^SPX^1"
TEST7>W $$SEARCH^BSTSAPI(OUT,IN)
2^
TEST7>ZW @OUT
VAR(1,"CON")=53295002
VAR(1,"DTS")=53295
VAR(1,"FSN","DSC")=791398013
VAR(1,"FSN","TRM")="Chronic otitis externa (disorder)"
VAR(1,"IC9",1,"COD")=380.23
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"ICD",1,"COD")="ZZZ.999"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"PRB","DSC")=88624014
VAR(1,"PRB","TRM")="Chronic otitis externa"
VAR(1,"PRE","DSC")=88624014
VAR(1,"PRE","TRM")="Chronic otitis externa"
VAR(1,"SYN",1,"DSC")=88625010
VAR(1,"SYN",1,"TRM")="Chronic otitis externa, NOS"

...

VAR(25,"CON")=111898002
VAR(25,"DTS")=111898
VAR(25,"FSN","DSC")=634690013
VAR(25,"FSN","TRM")="Chronic mycotic otitis externa (disorder)"
VAR(25,"IC9",1,"COD")=380.15
VAR(25,"IC9",1,"TYP")="IC9"
VAR(25,"ICD",1,"COD")="ZZZ.999"
VAR(25,"ICD",1,"TYP")="10D"
VAR(25,"PRB","DSC")="T1999006250"
VAR(25,"PRB","TRM")="Otitis externa (ear canal infection), chronic mycotic"
VAR(25,"PRE","DSC")=179051014
VAR(25,"PRE","TRM")="Chronic mycotic otitis externa"
VAR(25,"SYN",1,"DSC")="T1999006250"
VAR(25,"SYN",1,"TRM")="Otitis externa (ear canal infection), chronic mycotic"

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VAR(25,"SYN",2,"DSC")=1219702011
VAR(25,"SYN",2,"TRM")="Chronic fungal otitis externa"
>

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The following example shows the first and last records returned by a Synonym lookup listing where a local search was performed:

```

>S OUT="VAR",IN="CHRONIC OTITIS EXTERNA^S^^^^^^^^^1"

>W $$$SEARCH^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"CHD",1,"CON")=111898002
VAR(1,"CHD",1,"DTS")=111898
VAR(1,"CHD",1,"TRM")="Chronic mycotic otitis externa (disorder)"
VAR(1,"CHD",1,"XADT")=""
VAR(1,"CHD",1,"XRDT")=""
VAR(1,"CHD",2,"CON")=232236003
VAR(1,"CHD",2,"DTS")=232236
VAR(1,"CHD",2,"TRM")="Chronic non-infective otitis externa (disorder)"
VAR(1,"CHD",2,"XADT")=""
VAR(1,"CHD",2,"XRDT")=""
VAR(1,"CHD",3,"CON")=402208007
VAR(1,"CHD",3,"DTS")=402208
VAR(1,"CHD",3,"TRM")="Chronic seborrheic otitis externa (disorder)"
VAR(1,"CHD",3,"XADT")=""
VAR(1,"CHD",3,"XRDT")=""
VAR(1,"CHD",4,"CON")=232241006
VAR(1,"CHD",4,"DTS")=232241
VAR(1,"CHD",4,"TRM")="Chronic traumatic otitis externa (disorder)"
VAR(1,"CHD",4,"XADT")=""
VAR(1,"CHD",4,"XRDT")=""
VAR(1,"CON")=53295002
VAR(1,"DTS")=53295
VAR(1,"FSN","DSC")=791398013
VAR(1,"FSN","TRM")="Chronic otitis externa (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")=380.23
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="ZZZ.999"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ISA",1,"CON")=34936007
VAR(1,"ISA",1,"DTS")=34936
VAR(1,"ISA",1,"TRM")="Chronic dermatitis (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""
VAR(1,"ISA",2,"CON")=128297008
VAR(1,"ISA",2,"DTS")=128297
VAR(1,"ISA",2,"TRM")="Chronic disease of ear (disorder)"
VAR(1,"ISA",2,"XADT")=""
VAR(1,"ISA",2,"XRDT")=""
VAR(1,"ISA",3,"CON")=3135009
VAR(1,"ISA",3,"DTS")=3135
VAR(1,"ISA",3,"TRM")="Otitis externa (disorder)"
VAR(1,"ISA",3,"XADT")=""
VAR(1,"ISA",3,"XRDT")=""

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VAR(1,"PRB","DSC")=88624014
VAR(1,"PRB","TRM")="Chronic otitis externa"
VAR(1,"PRE","DSC")=88624014
VAR(1,"PRE","TRM")="Chronic otitis externa"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="Infectious Disease"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="PICK ENT"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="PICK ENT - Ear"
VAR(1,"SUB",4,"XADT")=""
VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="SRCH ENT"
VAR(1,"SUB",5,"XADT")=""
VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="SRCH Gastrointestinal"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="IHS Problem List"
VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SYN",1,"DSC")=88625010
VAR(1,"SYN",1,"TRM")="Chronic otitis externa, NOS"
VAR(1,"SYN",1,"XADT")=3120301.07
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=3500101

...

VAR(21,"CHD",1,"CON")=194207002
VAR(21,"CHD",1,"DTS")=194207
VAR(21,"CHD",1,"TRM")="Chronic otitis externa due to aspergillosis
(disorder)"
VAR(21,"CHD",1,"XADT")=""
VAR(21,"CHD",1,"XRDT")=""
VAR(21,"CON")=111898002
VAR(21,"DTS")=111898
VAR(21,"FSN","DSC")=634690013
VAR(21,"FSN","TRM")="Chronic mycotic otitis externa (disorder)"
VAR(21,"FSN","XADT")=3120301.07
VAR(21,"FSN","XRDT")=""
VAR(21,"IC9",1,"COD")=380.15
VAR(21,"IC9",1,"TYP")="IC9"
VAR(21,"IC9",1,"XADT")=""
VAR(21,"IC9",1,"XRDT")=""
VAR(21,"ICD",1,"COD")="ZZZ.999"
VAR(21,"ICD",1,"TYP")="10D"
VAR(21,"ISA",1,"CON")=177010002
VAR(21,"ISA",1,"DTS")=177010
VAR(21,"ISA",1,"TRM")="Chronic infectious disease (disorder)"
VAR(21,"ISA",1,"XADT")=""
VAR(21,"ISA",1,"XRDT")=""
VAR(21,"ISA",2,"CON")=232224009
VAR(21,"ISA",2,"DTS")=232224

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VAR(21,"ISA",2,"TRM")="Chronic infective otitis externa (disorder)"
VAR(21,"ISA",2,"XADT")=""
VAR(21,"ISA",2,"XRDT")=""
VAR(21,"ISA",3,"CON")=53295002
VAR(21,"ISA",3,"DTS")=53295
VAR(21,"ISA",3,"TRM")="Chronic otitis externa (disorder)"
VAR(21,"ISA",3,"XADT")=""
VAR(21,"ISA",3,"XRDT")=""
VAR(21,"ISA",4,"CON")=53316003
VAR(21,"ISA",4,"DTS")=53316
VAR(21,"ISA",4,"TRM")="Otomycosis (disorder)"
VAR(21,"ISA",4,"XADT")=""
VAR(21,"ISA",4,"XRDT")=""
VAR(21,"PRB","DSC")=1219702011
VAR(21,"PRB","TRM")="Chronic fungal otitis externa"
VAR(21,"PRE","DSC")=179051014
VAR(21,"PRE","TRM")="Chronic mycotic otitis externa"
VAR(21,"PRE","XADT")=3120301.07
VAR(21,"PRE","XRDT")=""
VAR(21,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(21,"SUB",1,"XADT")=""
VAR(21,"SUB",1,"XRDT")=""
VAR(21,"SUB",2,"SUB")="Infectious Disease"
VAR(21,"SUB",2,"XADT")=""
VAR(21,"SUB",2,"XRDT")=""
VAR(21,"SUB",3,"SUB")="PICK ENT - Ear"
VAR(21,"SUB",3,"XADT")=""
VAR(21,"SUB",3,"XRDT")=""
VAR(21,"SUB",4,"SUB")="SRCH ENT"
VAR(21,"SUB",4,"XADT")=""
VAR(21,"SUB",4,"XRDT")=""
VAR(21,"SUB",5,"SUB")="SRCH Gastrointestinal"
VAR(21,"SUB",5,"XADT")=""
VAR(21,"SUB",5,"XRDT")=""
VAR(21,"SUB",6,"SUB")="IHS Problem List"
VAR(21,"SUB",6,"XADT")=""
VAR(21,"SUB",6,"XRDT")=""
VAR(21,"SYN",1,"DSC")="T1999006250"
VAR(21,"SYN",1,"TRM")="Otitis externa (ear canal infection), chronic mycotic"
VAR(21,"SYN",1,"XADT")=3140301.07
VAR(21,"SYN",1,"XRDT")=""
VAR(21,"SYN",2,"DSC")=1219702011
VAR(21,"SYN",2,"TRM")="Chronic fungal otitis externa"
VAR(21,"SYN",2,"XADT")=3120301.07
VAR(21,"SYN",2,"XRDT")=""
VAR(21,"XADT")=3120301
VAR(21,"XRDT")=3500101
>

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The following example shows the records returned of a search to look in a specified subset:

```

>S OUT="VAR",IN="HEART^F^36^SRCH Family History^^^^1"

>W $$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CON")=429958001

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VAR(1,"DTS")=429958
VAR(1,"FSN","DSC")=2708295011
VAR(1,"FSN","TRM")="Family history of conduction disorder of the heart
(situation)"
VAR(1,"IC9",1,"COD")="V17.49"
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"ICD",1,"COD")="Z82.49"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ISA",1,"CON")=698248002
VAR(1,"ISA",1,"DTS")=1124046853
VAR(1,"ISA",1,"TRM")="Family history of cardiac arrhythmia (situation)"
VAR(1,"PRB","DSC")=2764080015
VAR(1,"PRB","TRM")="Family history of conduction disorder of the heart"
VAR(1,"PRE","DSC")=2764080015
VAR(1,"PRE","TRM")="Family history of conduction disorder of the heart"
VAR(1,"SUB",1,"SUB")="SRCH Family History"
VAR(1,"SUB",2,"SUB")="IHS Problem List"
VAR(1,"SYN",1,"DSC")=2764079018
VAR(1,"SYN",1,"TRM")="Family history of cardiac arrhythmia"
VAR(2,"CON")=433305001
VAR(2,"DTS")=433305
VAR(2,"FSN","DSC")=2708363012
VAR(2,"FSN","TRM")="Family history of congestive heart failure (situation)"
VAR(2,"IC9",1,"COD")="V19.8"
VAR(2,"IC9",1,"TYP")="IC9"
VAR(2,"ICD",1,"COD")="ZZZ.999"
VAR(2,"ICD",1,"TYP")="10D"
VAR(2,"ISA",1,"CON")=429959009
VAR(2,"ISA",1,"DTS")=429959
VAR(2,"ISA",1,"TRM")="Family history of heart failure (situation)"
VAR(2,"PRB","DSC")=2764062012
VAR(2,"PRB","TRM")="Family history of congestive heart failure"
VAR(2,"PRE","DSC")=2764062012
VAR(2,"PRE","TRM")="Family history of congestive heart failure"
VAR(2,"SUB",1,"SUB")="SRCH Cardiology"
VAR(2,"SUB",2,"SUB")="SRCH Complimentary Medicine"
VAR(2,"SUB",3,"SUB")="SRCH Family History"
VAR(2,"SUB",4,"SUB")="IHS Problem List"
VAR(3,"CHD",1,"CON")=433305001
VAR(3,"CHD",1,"DTS")=433305
VAR(3,"CHD",1,"TRM")="Family history of congestive heart failure
(situation)"
VAR(3,"CON")=429959009
VAR(3,"DTS")=429959
VAR(3,"FSN","DSC")=2708296012
VAR(3,"FSN","TRM")="Family history of heart failure (situation)"
VAR(3,"ICD",1,"COD")="ZZZ.999"
VAR(3,"ICD",1,"TYP")="10D"
VAR(3,"ISA",1,"CON")=275120007
VAR(3,"ISA",1,"DTS")=275120
VAR(3,"ISA",1,"TRM")="Family history: Cardiac disorder (situation)"
VAR(3,"PRB","DSC")=2764081016
VAR(3,"PRB","TRM")="Family history of heart failure"
VAR(3,"PRE","DSC")=2764081016
VAR(3,"PRE","TRM")="Family history of heart failure"
VAR(3,"SUB",1,"SUB")="SRCH Complimentary Medicine"
VAR(3,"SUB",2,"SUB")="SRCH Family History"
VAR(3,"SUB",3,"SUB")="IHS Problem List"
VAR(4,"CHD",1,"CON")=275121006
VAR(4,"CHD",1,"DTS")=275121
VAR(4,"CHD",1,"TRM")="Family history: Angina (situation)"

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VAR(4,"CHD",2,"CON")=266896003
VAR(4,"CHD",2,"DTS")=266896
VAR(4,"CHD",2,"TRM")="Family history: Ischemic heart disease at greater
than 60 years (situation)"
VAR(4,"CHD",3,"CON")=266895004
VAR(4,"CHD",3,"DTS")=266895
VAR(4,"CHD",3,"TRM")="Family history: Ischemic heart disease at less than
60 years (situation)"
VAR(4,"CHD",4,"CON")=266897007
VAR(4,"CHD",4,"DTS")=266897
VAR(4,"CHD",4,"TRM")="Family history: Myocardial infarction (situation)"
VAR(4,"CON")=297242006
VAR(4,"DTS")=297242
VAR(4,"FSN","DSC")=2610786013
VAR(4,"FSN","TRM")="Family history of ischemic heart disease (situation)"
VAR(4,"IC9",1,"COD")="V17.3"
VAR(4,"IC9",1,"TYP")="IC9"
VAR(4,"ICD",1,"COD")="Z82.49"
VAR(4,"ICD",1,"TYP")="10D"
VAR(4,"ISA",1,"CON")=275120007
VAR(4,"ISA",1,"DTS")=275120
VAR(4,"ISA",1,"TRM")="Family history: Cardiac disorder (situation)"
VAR(4,"PRB","DSC")=437727012
VAR(4,"PRB","TRM")="Family history of ischemic heart disease"
VAR(4,"PRE","DSC")=437727012
VAR(4,"PRE","TRM")="Family history of ischemic heart disease"
VAR(4,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(4,"SUB",2,"SUB")="SRCH Family History"
VAR(4,"SUB",3,"SUB")="SRCH Cardiology"
VAR(4,"SUB",4,"SUB")="SRCH Family Practice"
VAR(4,"SUB",5,"SUB")="SRCH Pediatrics"
VAR(4,"SUB",6,"SUB")="IHS Problem List"
VAR(4,"SYN",1,"DSC")="T1999000469"
VAR(4,"SYN",1,"TRM")="FHX of ischemic heart disease"
VAR(4,"SYN",2,"DSC")=692552012
VAR(4,"SYN",2,"TRM")="Family history of ischemic heart disease (context-
dependent category)"
VAR(4,"SYN",3,"DSC")=437730017
VAR(4,"SYN",3,"TRM")="FH: Ischemic heart disease"
VAR(4,"SYN",4,"DSC")=437729010
VAR(4,"SYN",4,"TRM")="FH: Ischaemic heart disease"
VAR(4,"SYN",5,"DSC")=437728019
VAR(4,"SYN",5,"TRM")="Family history of ischaemic heart disease"
VAR(5,"CHD",1,"CON")=417648007
VAR(5,"CHD",1,"DTS")=417648
VAR(5,"CHD",1,"TRM")="Family history of pulmonary infundibular stenosis
(situation)"
VAR(5,"CON")=160364005
VAR(5,"DTS")=160364
VAR(5,"FSN","DSC")=2607149013
VAR(5,"FSN","TRM")="Family history: Congenital heart disease (situation)"
VAR(5,"IC9",1,"COD")="V17.49"
VAR(5,"IC9",1,"TYP")="IC9"
VAR(5,"ICD",1,"COD")="ZZZ.999"
VAR(5,"ICD",1,"TYP")="10D"
VAR(5,"ISA",1,"CON")=266908007
VAR(5,"ISA",1,"DTS")=266908
VAR(5,"ISA",1,"TRM")="Family history of congenital anomaly of
cardiovascular system (situation)"
VAR(5,"ISA",2,"CON")=275120007
VAR(5,"ISA",2,"DTS")=275120
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VAR(5,"ISA",2,"TRM")="Family history: Cardiac disorder (situation)"
VAR(5,"PRB","DSC")=249974019
VAR(5,"PRB","TRM")="FH: Congenital heart disease"
VAR(5,"PRE","DSC")=249974019
VAR(5,"PRE","TRM")="FH: Congenital heart disease"
VAR(5,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(5,"SUB",2,"SUB")="SRCH Family History"
VAR(5,"SUB",3,"SUB")="IHS Problem List"
VAR(5,"SYN",1,"DSC")=2666595013
VAR(5,"SYN",1,"TRM")="Family history: Congenital heart disease"
VAR(5,"SYN",2,"DSC")=541268018
VAR(5,"SYN",2,"TRM")="Family history: Congenital heart disease (context-
dependent category)"
VAR(5,"SYN",3,"DSC")=249973013
VAR(5,"SYN",3,"TRM")="FH: Congen heart disease"
VAR(6,"CON")=266896003
VAR(6,"DTS")=266896
VAR(6,"FSN","DSC")=2610064016
VAR(6,"FSN","TRM")="Family history: Ischemic heart disease at greater than
60 years (situation)"
VAR(6,"IC9",1,"COD")="V17.3"
VAR(6,"IC9",1,"TYP")="IC9"
VAR(6,"ICD",1,"COD")="Z82.49"
VAR(6,"ICD",1,"TYP")="10D"
VAR(6,"ISA",1,"CON")=297242006
VAR(6,"ISA",1,"DTS")=297242
VAR(6,"ISA",1,"TRM")="Family history of ischemic heart disease (situation)"
VAR(6,"PRB","DSC")=397698019
VAR(6,"PRB","TRM")="FH: Ischemic heart disease at greater than 60 years"
VAR(6,"PRE","DSC")=397698019
VAR(6,"PRE","TRM")="FH: Ischemic heart disease at greater than 60 years"
VAR(6,"SUB",1,"SUB")="SRCH Family History"
VAR(6,"SUB",2,"SUB")="IHS Problem List"
VAR(6,"SYN",1,"DSC")=2838827016
VAR(6,"SYN",1,"TRM")="Family history: Ischaemic heart disease at greater
than 60 years"
VAR(6,"SYN",2,"DSC")=2669638016
VAR(6,"SYN",2,"TRM")="Family history: Ischemic heart disease at greater
than 60 years"
VAR(6,"SYN",3,"DSC")=659445017
VAR(6,"SYN",3,"TRM")="Family history: Ischemic heart disease at greater
than 60 years (context-dependent category)"
VAR(6,"SYN",4,"DSC")=397699010
VAR(6,"SYN",4,"TRM")="FH: Ischaemic heart disease at greater than 60 years"
VAR(7,"CON")=266895004
VAR(7,"DTS")=266895
VAR(7,"FSN","DSC")=2610063010
VAR(7,"FSN","TRM")="Family history: Ischemic heart disease at less than 60
years (situation)"
VAR(7,"IC9",1,"COD")="V17.3"
VAR(7,"IC9",1,"TYP")="IC9"
VAR(7,"ICD",1,"COD")="Z82.49"
VAR(7,"ICD",1,"TYP")="10D"
VAR(7,"ISA",1,"CON")=297242006
VAR(7,"ISA",1,"DTS")=297242
VAR(7,"ISA",1,"TRM")="Family history of ischemic heart disease (situation)"
VAR(7,"PRB","DSC")=397696015
VAR(7,"PRB","TRM")="FH: Ischemic heart disease at less than 60 years"
VAR(7,"PRE","DSC")=397696015
VAR(7,"PRE","TRM")="FH: Ischemic heart disease at less than 60 years"
VAR(7,"SUB",1,"SUB")="SRCH Family History"

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VAR(7,"SUB",2,"SUB")="IHS Problem List"
VAR(7,"SYN",1,"DSC")=2838291017
VAR(7,"SYN",1,"TRM")="Family history: Ischaemic heart disease at less than
60 years"
VAR(7,"SYN",2,"DSC")=2669637014
VAR(7,"SYN",2,"TRM")="Family history: Ischemic heart disease at less than
60 years"
VAR(7,"SYN",3,"DSC")=659444018
VAR(7,"SYN",3,"TRM")="Family history: Ischemic heart disease at less than
60 years (context-dependent category)"
VAR(7,"SYN",4,"DSC")=397697012
VAR(7,"SYN",4,"TRM")="FH: Ischemic heart dis. <60"
VAR(7,"SYN",5,"DSC")=397695016
VAR(7,"SYN",5,"TRM")="FH: Ischaemic heart disease at less than 60 years"
VAR(7,"SYN",6,"DSC")=397694017
VAR(7,"SYN",6,"TRM")="FH: Ischaemic heart dis. <60"
VAR(8,"CON")=134439009
VAR(8,"DTS")=134439
VAR(8,"FSN","DSC")=2606613016
VAR(8,"FSN","TRM")="Family history: premature coronary heart disease
(situation)"
VAR(8,"ICD",1,"COD")="Z82.49"
VAR(8,"ICD",1,"TYP")="10D"
VAR(8,"ISA",1,"CON")=266894000
VAR(8,"ISA",1,"DTS")=266894
VAR(8,"ISA",1,"TRM")="Family history: Cardiovascular disease (situation)"
VAR(8,"PRB","DSC")=216245011
VAR(8,"PRB","TRM")="FH: premature coronary heart disease"
VAR(8,"PRE","DSC")=216245011
VAR(8,"PRE","TRM")="FH: premature coronary heart disease"
VAR(8,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(8,"SUB",2,"SUB")="SRCH Family History"
VAR(8,"SUB",3,"SUB")="IHS Problem List"
VAR(8,"SYN",1,"DSC")=2664552011
VAR(8,"SYN",1,"TRM")="Family history: premature coronary heart disease"
VAR(8,"SYN",2,"DSC")=514018012
VAR(8,"SYN",2,"TRM")="Family history: premature coronary heart disease
(context-dependent category)"
VAR(9,"CHD",1,"CON")=698248002
VAR(9,"CHD",1,"DTS")=1124046853
VAR(9,"CHD",1,"TRM")="Family history of cardiac arrhythmia (situation)"
VAR(9,"CHD",2,"CON")=430091005
VAR(9,"CHD",2,"DTS")=430091
VAR(9,"CHD",2,"TRM")="Family history of coronary arteriosclerosis
(situation)"
VAR(9,"CHD",3,"CON")=429978009
VAR(9,"CHD",3,"DTS")=429978
VAR(9,"CHD",3,"TRM")="Family history of endocarditis (situation)"
VAR(9,"CHD",4,"CON")=429959009
VAR(9,"CHD",4,"DTS")=429959
VAR(9,"CHD",4,"TRM")="Family history of heart failure (situation)"
VAR(9,"CHD",5,"CON")=297242006
VAR(9,"CHD",5,"DTS")=297242
VAR(9,"CHD",5,"TRM")="Family history of ischemic heart disease (situation)"
VAR(9,"CHD",6,"CON")=430730004
VAR(9,"CHD",6,"DTS")=430730
VAR(9,"CHD",6,"TRM")="Family history of mitral valve regurgitation
(situation)"
VAR(9,"CHD",7,"CON")=439154009
VAR(9,"CHD",7,"DTS")=439154
VAR(9,"CHD",7,"TRM")="Family history of myocarditis (situation)"

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VAR(9,"CHD",8,"CON")=429952000
VAR(9,"CHD",8,"DTS")=429952
VAR(9,"CHD",8,"TRM")="Family history of stenosis of aortic valve
(situation)"
VAR(9,"CHD",9,"CON")=390915000
VAR(9,"CHD",9,"DTS")=390915
VAR(9,"CHD",9,"TRM")="Family history: Cardiomyopathy (situation)"
VAR(9,"CHD",10,"CON")=160364005
VAR(9,"CHD",10,"DTS")=160364
VAR(9,"CHD",10,"TRM")="Family history: Congenital heart disease
(situation)"
VAR(9,"CHD",11,"CON")=275124003
VAR(9,"CHD",11,"DTS")=275124
VAR(9,"CHD",11,"TRM")="Family history: Coronary thrombosis (situation)"
VAR(9,"CON")=275120007
VAR(9,"DTS")=275120
VAR(9,"FSN","DSC")=2610340013
VAR(9,"FSN","TRM")="Family history: Cardiac disorder (situation)"
VAR(9,"IC9",1,"COD")="V17.49"
VAR(9,"IC9",1,"TYP")="IC9"
VAR(9,"ICD",1,"COD")="Z82.49"
VAR(9,"ICD",1,"TYP")="10D"
VAR(9,"ISA",1,"CON")=266894000
VAR(9,"ISA",1,"DTS")=266894
VAR(9,"ISA",1,"TRM")="Family history: Cardiovascular disease (situation)"
VAR(9,"PRB","DSC")=411052015
VAR(9,"PRB","TRM")="FH: Cardiac disorder"
VAR(9,"PRE","DSC")=411052015
VAR(9,"PRE","TRM")="FH: Cardiac disorder"
VAR(9,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(9,"SUB",2,"SUB")="SRCH Family History"
VAR(9,"SUB",3,"SUB")="IHS Problem List"
VAR(9,"SYN",1,"DSC")=2669864012
VAR(9,"SYN",1,"TRM")="Family history: Cardiac disorder"
VAR(9,"SYN",2,"DSC")=1495321016
VAR(9,"SYN",2,"TRM")="FH: heart disorder"
VAR(9,"SYN",3,"DSC")=1495320015
VAR(9,"SYN",3,"TRM")="FH: cardiac disorder"
VAR(9,"SYN",4,"DSC")=1495319014
VAR(9,"SYN",4,"TRM")="FH: Heart disorder"
VAR(9,"SYN",5,"DSC")=667954016
VAR(9,"SYN",5,"TRM")="Family history: Cardiac disorder (context-dependent
category)"
VAR(10,"CHD",1,"CON")=161513002
VAR(10,"CHD",1,"DTS")=161513
VAR(10,"CHD",1,"TRM")="History of ventricular fibrillation (situation)"
VAR(10,"CON")=429007001
VAR(10,"DTS")=429007
VAR(10,"FSN","DSC")=2689980014
VAR(10,"FSN","TRM")="History of cardiac arrest (situation)"
VAR(10,"IC9",1,"COD")="V12.53"
VAR(10,"IC9",1,"TYP")="IC9"
VAR(10,"ICD",1,"COD")="Z86.74"
VAR(10,"ICD",1,"TYP")="10D"
VAR(10,"ISA",1,"CON")=131471000119104
VAR(10,"ISA",1,"DTS")=1119013147
VAR(10,"ISA",1,"TRM")="History of cardiac arrhythmia (situation)"
VAR(10,"ISA",2,"CON")=275544003
VAR(10,"ISA",2,"DTS")=275544
VAR(10,"ISA",2,"TRM")="History of heart disorder (situation)"
VAR(10,"PRB","DSC")=2695484016

```

```

VAR(10,"PRB","TRM")="History of cardiac arrest"
VAR(10,"PRE","DSC")=2695484016
VAR(10,"PRE","TRM")="History of cardiac arrest"
VAR(10,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(10,"SUB",2,"SUB")="SRCH Family History"
VAR(10,"SUB",3,"SUB")="SRCH Family Practice"
VAR(10,"SUB",4,"SUB")="IHS Problem List"
VAR(10,"SYN",1,"DSC")="T1999004877"
VAR(10,"SYN",1,"TRM")="History of cardiac arrest (heart stoppage)"
VAR(10,"SYN",2,"DSC")="T1999005086"
VAR(10,"SYN",2,"TRM")="Hx of cardiac arrest"

>

```

The follow example shows how to utilize the parameter to control the maximum results to return. In this case '4' results were asked for. Just Synonym/Preferred information is getting returned:

```

>S OUT="VAR",IN="EDEMA^S^^^^4^SP^1"

>W $$$SEARCH^BSTSAPI(OUT,IN)
2^
TEST7>ZW @OUT
VAR(1,"CON")=79654002
VAR(1,"DTS")=79654
VAR(1,"FSN","DSC")=820728017
VAR(1,"FSN","TRM")="Edema (morphologic abnormality)"
VAR(1,"PRB","DSC")=132147018
VAR(1,"PRB","TRM")="Edema"
VAR(1,"PRE","DSC")=132147018
VAR(1,"PRE","TRM")="Edema"
VAR(1,"SYN",1,"DSC")=1218450019
VAR(1,"SYN",1,"TRM")="Edema - lesion"
VAR(1,"SYN",2,"DSC")=1218449019
VAR(1,"SYN",2,"TRM")="Edematous"
VAR(1,"SYN",3,"DSC")=1216963010
VAR(1,"SYN",3,"TRM")="Oedematous"
VAR(1,"SYN",4,"DSC")=1216962017
VAR(1,"SYN",4,"TRM")="Oedema - lesion"
VAR(1,"SYN",5,"DSC")=504173016
VAR(1,"SYN",5,"TRM")="Oedema"
VAR(1,"SYN",6,"DSC")=132149015
VAR(1,"SYN",6,"TRM")="Oedema, NOS"
VAR(1,"SYN",7,"DSC")=132148011
VAR(1,"SYN",7,"TRM")="Edema, NOS"
VAR(2,"CON")=267038008
VAR(2,"DTS")=267038
VAR(2,"FSN","DSC")=659606016
VAR(2,"FSN","TRM")="Edema (finding)"
VAR(2,"PRB","DSC")=397895018
VAR(2,"PRB","TRM")="Edema"
VAR(2,"PRE","DSC")=397895018
VAR(2,"PRE","TRM")="Edema"
VAR(2,"SYN",1,"DSC")="T1999004064"
VAR(2,"SYN",1,"TRM")="Edema (swelling)"
VAR(2,"SYN",2,"DSC")=397896017
VAR(2,"SYN",2,"TRM")="Interstitial oedema"
VAR(2,"SYN",3,"DSC")=397894019
VAR(2,"SYN",3,"TRM")="Oedema"
VAR(2,"SYN",4,"DSC")=397893013

```

```

VAR(2,"SYN",4,"TRM")="Interstitial edema"
VAR(3,"CON")=79654002
VAR(3,"DTS")=79654
VAR(3,"FSN","DSC")=820728017
VAR(3,"FSN","TRM")="Edema (morphologic abnormality)"
VAR(3,"PRB","DSC")=1218449019
VAR(3,"PRB","TRM")="Edematous"
VAR(3,"PRE","DSC")=132147018
VAR(3,"PRE","TRM")="Edema"
VAR(3,"SYN",1,"DSC")=1218450019
VAR(3,"SYN",1,"TRM")="Edema - lesion"
VAR(3,"SYN",2,"DSC")=1218449019
VAR(3,"SYN",2,"TRM")="Edematous"
VAR(3,"SYN",3,"DSC")=1216963010
VAR(3,"SYN",3,"TRM")="Oedematous"
VAR(3,"SYN",4,"DSC")=1216962017
VAR(3,"SYN",4,"TRM")="Oedema - lesion"
VAR(3,"SYN",5,"DSC")=504173016
VAR(3,"SYN",5,"TRM")="Oedema"
VAR(3,"SYN",6,"DSC")=132149015
VAR(3,"SYN",6,"TRM")="Oedema, NOS"
VAR(3,"SYN",7,"DSC")=132148011
VAR(3,"SYN",7,"TRM")="Edema, NOS"
VAR(4,"CON")=102572006
VAR(4,"DTS")=102572
VAR(4,"FSN","DSC")=542505016
VAR(4,"FSN","TRM")="Edema of lower extremity (finding)"
VAR(4,"PRB","DSC")=1217322016
VAR(4,"PRB","TRM")="Leg edema"
VAR(4,"PRE","DSC")=165878016
VAR(4,"PRE","TRM")="Edema of lower extremity"
VAR(4,"SYN",1,"DSC")="T1999004065"
VAR(4,"SYN",1,"TRM")="Edema (swelling) leg"
VAR(4,"SYN",2,"DSC")=1217322016
VAR(4,"SYN",2,"TRM")="Leg edema"
VAR(4,"SYN",3,"DSC")=1217321011
VAR(4,"SYN",3,"TRM")="Edema of lower limb"
VAR(4,"SYN",4,"DSC")=1215820015
VAR(4,"SYN",4,"TRM")="Oedema of lower limb"
VAR(4,"SYN",5,"DSC")=251633014
VAR(4,"SYN",5,"TRM")="Oedema of lower extremity"
>

```

The following examples show how the Batch parameters can be utilized to return partial search listings.

The first call performs a search which will return up to four records. In this case two terms will be returned, starting with the first term:

```

> TEST7>S OUT="VAR",IN="EDEMA^S^^^^4^SP^1^1^2"

TEST7>W $$SEARCH^BSTSAPI(OUT,IN)
2^
TEST7>ZW @OUT
VAR(1,"CON")=79654002
VAR(1,"DTS")=79654
VAR(1,"FSN","DSC")=820728017
VAR(1,"FSN","TRM")="Edema (morphologic abnormality)"
VAR(1,"PRB","DSC")=132147018

```

```

VAR(1,"PRB","TRM")="Edema"
VAR(1,"PRE","DSC")=132147018
VAR(1,"PRE","TRM")="Edema"
VAR(1,"SYN",1,"DSC")=1218450019
VAR(1,"SYN",1,"TRM")="Edema - lesion"
VAR(1,"SYN",2,"DSC")=1218449019
VAR(1,"SYN",2,"TRM")="Edematous"
VAR(1,"SYN",3,"DSC")=1216963010
VAR(1,"SYN",3,"TRM")="Oedematous"
VAR(1,"SYN",4,"DSC")=1216962017
VAR(1,"SYN",4,"TRM")="Oedema - lesion"
VAR(1,"SYN",5,"DSC")=504173016
VAR(1,"SYN",5,"TRM")="Oedema"
VAR(1,"SYN",6,"DSC")=132149015
VAR(1,"SYN",6,"TRM")="Oedema, NOS"
VAR(1,"SYN",7,"DSC")=132148011
VAR(1,"SYN",7,"TRM")="Edema, NOS"
VAR(2,"CON")=267038008
VAR(2,"DTS")=267038
VAR(2,"FSN","DSC")=659606016
VAR(2,"FSN","TRM")="Edema (finding)"
VAR(2,"PRB","DSC")=397895018
VAR(2,"PRB","TRM")="Edema"
VAR(2,"PRE","DSC")=397895018
VAR(2,"PRE","TRM")="Edema"
VAR(2,"SYN",1,"DSC")="T1999004064"
VAR(2,"SYN",1,"TRM")="Edema (swelling)"
VAR(2,"SYN",2,"DSC")=397896017
VAR(2,"SYN",2,"TRM")="Interstitial oedema"
VAR(2,"SYN",3,"DSC")=397894019
VAR(2,"SYN",3,"TRM")="Oedema"
VAR(2,"SYN",4,"DSC")=397893013
VAR(2,"SYN",4,"TRM")="Interstitial edema"

TEST7>>

```

The next call performs a search which will return up to four records. In this case two terms will be returned, starting with the third term:

```

>S OUT="VAR",IN="EDEMA^S^^^^4^SP^1^1^2"

>W $$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CON")=79654002
VAR(1,"DTS")=79654
VAR(1,"FSN","DSC")=820728017
VAR(1,"FSN","TRM")="Edema (morphologic abnormality)"
VAR(1,"PRB","DSC")=132147018
VAR(1,"PRB","TRM")="Edema"
VAR(1,"PRE","DSC")=132147018
VAR(1,"PRE","TRM")="Edema"
VAR(1,"SYN",1,"DSC")=1218450019
VAR(1,"SYN",1,"TRM")="Edema - lesion"
VAR(1,"SYN",2,"DSC")=1218449019
VAR(1,"SYN",2,"TRM")="Edematous"
VAR(1,"SYN",3,"DSC")=1216963010
VAR(1,"SYN",3,"TRM")="Oedematous"
VAR(1,"SYN",4,"DSC")=1216962017
VAR(1,"SYN",4,"TRM")="Oedema - lesion"

```

```

VAR(1,"SYN",5,"DSC")=504173016
VAR(1,"SYN",5,"TRM")="Oedema"
VAR(1,"SYN",6,"DSC")=132149015
VAR(1,"SYN",6,"TRM")="Oedema, NOS"
VAR(1,"SYN",7,"DSC")=132148011
VAR(1,"SYN",7,"TRM")="Edema, NOS"
VAR(2,"CON")=267038008
VAR(2,"DTS")=267038
VAR(2,"FSN","DSC")=659606016
VAR(2,"FSN","TRM")="Edema (finding)"
VAR(2,"PRB","DSC")=397895018
VAR(2,"PRB","TRM")="Edema"
VAR(2,"PRE","DSC")=397895018
VAR(2,"PRE","TRM")="Edema"
VAR(2,"SYN",1,"DSC")="T1999004064"
VAR(2,"SYN",1,"TRM")="Edema (swelling)"
VAR(2,"SYN",2,"DSC")=397896017
VAR(2,"SYN",2,"TRM")="Interstitial oedema"
VAR(2,"SYN",3,"DSC")=397894019
VAR(2,"SYN",3,"TRM")="Oedema"
VAR(2,"SYN",4,"DSC")=397893013
VAR(2,"SYN",4,"TRM")="Interstitial edema"

>

```

The following example shows the only the first and last record (of the up to 25 records) returned of a RxNorm codeset lookup:

```

>S OUT="VAR",IN="ACACIA^S^1552"

>S OUT="VAR",IN="ACACIA^S^1552"

>W $$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CON")=851732
VAR(1,"DTS")=11328554
VAR(1,"FSN","DSC")=2973307
VAR(1,"FSN","TRM")="Acacia pollen extract"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")=2973307
VAR(1,"PRB","TRM")="Acacia pollen extract"
VAR(1,"PRE","DSC")=2973307
VAR(1,"PRE","TRM")="Acacia pollen extract"
VAR(1,"PRE","XADT")=""
VAR(1,"PRE","XRDT")=""
VAR(1,"TTY",1,"TTY")="IN"
VAR(1,"TTY",1,"XADT")=3091101.06
VAR(1,"TTY",1,"XRDT")=3500101.19
VAR(1,"XADT")=""
VAR(1,"XRDT")=""

...

VAR(25,"CON")=899502
VAR(25,"DTS")=11360581
VAR(25,"FSN","DSC")=3057065
VAR(25,"FSN","TRM")="Sydney golden wattle pollen extract 500 UNT/ML
Injectable Solution"

```

```

VAR(25,"FSN","XADT")=""
VAR(25,"FSN","XRDT")=""
VAR(25,"PRB","DSC")=3057066
VAR(25,"PRB","TRM")="acacia longifolia pollen extract 500 UNT/ML Injectable
Solution"
VAR(25,"PRE","DSC")=3057065
VAR(25,"PRE","TRM")="Sydney golden wattle pollen extract 500 UNT/ML
Injectable Solution"
VAR(25,"PRE","XADT")=""
VAR(25,"PRE","XRDT")=""
VAR(25,"SYN",1,"DSC")=3057066
VAR(25,"SYN",1,"TRM")="acacia longifolia pollen extract 500 UNT/ML
Injectable Solution"
VAR(25,"SYN",1,"XADT")=""
VAR(25,"SYN",1,"XRDT")=""
VAR(25,"TTY",1,"TTY")="SCD"
VAR(25,"TTY",1,"XADT")=3100401.06
VAR(25,"TTY",1,"XRDT")=3500101.19
VAR(25,"XADT")=""
VAR(25,"XRDT")=""

>

```

The following example shows the only the first and last record (of the up to 10 records) returned of a UNII codeset lookup:

```

>S OUT="VAR",IN="ACACIA^S^5180^^^10"

>W $$$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CON")="24SO2J2960"
VAR(1,"DTS")=8773
VAR(1,"FSN","DSC")="24SO2J2960.8773"
VAR(1,"FSN","TRM")="ACACIA LONGIFOLIA POLLEN"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")="24SO2J2960.71552"
VAR(1,"PRB","TRM")="POLLENS - TREES, ACACIA ACACIA LONGIFOLIA"
VAR(1,"SYN",1,"DSC")="24SO2J2960.295787"
VAR(1,"SYN",1,"TRM")="ACACIA LONGIFOLIA POLLEN [WHO-DD]"
VAR(1,"SYN",1,"XADT")=""
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")="24SO2J2960.295786"
VAR(1,"SYN",2,"TRM")="ALLERGENIC EXTRACT- ACACIA ACACIA TONGIFOLIA"
VAR(1,"SYN",2,"XADT")=""
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"SYN",3,"DSC")="24SO2J2960.165113"
VAR(1,"SYN",3,"TRM")="SYDNEY GOLDEN WATTLE POLLEN EXTRACT"
VAR(1,"SYN",3,"XADT")=""
VAR(1,"SYN",3,"XRDT")=""
VAR(1,"SYN",4,"DSC")="24SO2J2960.87209"
VAR(1,"SYN",4,"TRM")="ACACIA LONGIFOLIA POLLEN EXTRACT"
VAR(1,"SYN",4,"XADT")=""
VAR(1,"SYN",4,"XRDT")=""
VAR(1,"SYN",5,"DSC")="24SO2J2960.71552"
VAR(1,"SYN",5,"TRM")="POLLENS - TREES, ACACIA ACACIA LONGIFOLIA"
VAR(1,"SYN",5,"XADT")=""
VAR(1,"SYN",5,"XRDT")=""
VAR(1,"SYN",6,"DSC")="24SO2J2960.8775"

```

```

VAR(1,"SYN",6,"TRM")="WESTERN YARROW POLLEN"
VAR(1,"SYN",6,"XADT")=""
VAR(1,"SYN",6,"XRDT")=""
VAR(1,"SYN",7,"DSC")="24SO2J296O.8774"
VAR(1,"SYN",7,"TRM")="SYDNEY GOLDEN WATTLE POLLEN"
VAR(1,"SYN",7,"XADT")=""
VAR(1,"SYN",7,"XRDT")=""
VAR(1,"SYN",8,"DSC")="24SO2J296O.8772"
VAR(1,"SYN",8,"TRM")="ACACIA LATIFOLIA POLLEN"
VAR(1,"SYN",8,"XADT")=""
VAR(1,"SYN",8,"XRDT")=""
VAR(1,"XADT")=""
VAR(1,"XRDT")=""

...

VAR(10,"CON")="5C5403N26O"
VAR(10,"DTS")=57
VAR(10,"FSN","DSC")="5C5403N26O.57"
VAR(10,"FSN","TRM")="ACACIA"
VAR(10,"FSN","XADT")=""
VAR(10,"FSN","XRDT")=""
VAR(10,"PRB","DSC")="5C5403N26O.8755"
VAR(10,"PRB","TRM")="ACACIA GUM"
VAR(10,"SYN",1,"DSC")="5C5403N26O.316825"
VAR(10,"SYN",1,"TRM")="ACACIA POWDER [VANDF]"
VAR(10,"SYN",1,"XADT")=""
VAR(10,"SYN",1,"XRDT")=""
VAR(10,"SYN",2,"DSC")="5C5403N26O.316824"
VAR(10,"SYN",2,"TRM")="ACACIA [VANDF]"
VAR(10,"SYN",2,"XADT")=""
VAR(10,"SYN",2,"XRDT")=""
VAR(10,"SYN",3,"DSC")="5C5403N26O.316823"
VAR(10,"SYN",3,"TRM")="GUM ARABIC [VANDF]"
VAR(10,"SYN",3,"XADT")=""
VAR(10,"SYN",3,"XRDT")=""
VAR(10,"SYN",4,"DSC")="5C5403N26O.316822"
VAR(10,"SYN",4,"TRM")="PLANTS AND PLANT PARTS, GUM, ACACIA OR ARABIC ACACIA
SENEGAL"
VAR(10,"SYN",4,"XADT")=""
VAR(10,"SYN",4,"XRDT")=""
VAR(10,"SYN",5,"DSC")="5C5403N26O.316821"
VAR(10,"SYN",5,"TRM")="ACACIA SENEGAL GUM [WHO-DD]"
VAR(10,"SYN",5,"XADT")=""
VAR(10,"SYN",5,"XRDT")=""
VAR(10,"SYN",6,"DSC")="5C5403N26O.316820"
VAR(10,"SYN",6,"TRM")="ACACIA SENEGAL RESIN [WHO-DD]"
VAR(10,"SYN",6,"XADT")=""
VAR(10,"SYN",6,"XRDT")=""
VAR(10,"SYN",7,"DSC")="5C5403N26O.316819"
VAR(10,"SYN",7,"TRM")="ACACIA [HSDB]"
VAR(10,"SYN",7,"XADT")=""
VAR(10,"SYN",7,"XRDT")=""
VAR(10,"SYN",8,"DSC")="5C5403N26O.316818"
VAR(10,"SYN",8,"TRM")="ARABIC GUM ALLERGENIC EXTRACT"
VAR(10,"SYN",8,"XADT")=""
VAR(10,"SYN",8,"XRDT")=""
VAR(10,"SYN",9,"DSC")="5C5403N26O.316817"
VAR(10,"SYN",9,"TRM")="ALLERGENIC EXTRACT- GUM, ACACIA OR ARABIC ACACIA
SENEGAL"
VAR(10,"SYN",9,"XADT")=""

```

```

VAR(10,"SYN",9,"XRDT")=""
VAR(10,"SYN",10,"DSC")="5C5403N260.316816"
VAR(10,"SYN",10,"TRM")="AE-GUM, ACACIA"
VAR(10,"SYN",10,"XADT")=""
VAR(10,"SYN",10,"XRDT")=""
VAR(10,"SYN",11,"DSC")="5C5403N260.316815"
VAR(10,"SYN",11,"TRM")="AE-GUM, ARABIC"
VAR(10,"SYN",11,"XADT")=""
VAR(10,"SYN",11,"XRDT")=""
VAR(10,"SYN",12,"DSC")="5C5403N260.165026"
VAR(10,"SYN",12,"TRM")="ACACIA [II]"
VAR(10,"SYN",12,"XADT")=""
VAR(10,"SYN",12,"XRDT")=""
VAR(10,"SYN",13,"DSC")="5C5403N260.165025"
VAR(10,"SYN",13,"TRM")="ACACIA MUCILAGE [II]"
VAR(10,"SYN",13,"XADT")=""
VAR(10,"SYN",13,"XRDT")=""
VAR(10,"SYN",14,"DSC")="5C5403N260.165024"
VAR(10,"SYN",14,"TRM")="GUM ARABIC [FCC]"
VAR(10,"SYN",14,"XADT")=""
VAR(10,"SYN",14,"XRDT")=""
VAR(10,"SYN",15,"DSC")="5C5403N260.165023"
VAR(10,"SYN",15,"TRM")="ACACIA [MI]"
VAR(10,"SYN",15,"XADT")=""
VAR(10,"SYN",15,"XRDT")=""
VAR(10,"SYN",16,"DSC")="5C5403N260.165022"
VAR(10,"SYN",16,"TRM")="ACACIA [MART.]"
VAR(10,"SYN",16,"XADT")=""
VAR(10,"SYN",16,"XRDT")=""
VAR(10,"SYN",17,"DSC")="5C5403N260.165021"
VAR(10,"SYN",17,"TRM")="ACACIA SENEGAL GUM [INCI]"
VAR(10,"SYN",17,"XADT")=""
VAR(10,"SYN",17,"XRDT")=""
VAR(10,"SYN",18,"DSC")="5C5403N260.165020"
VAR(10,"SYN",18,"TRM")="ACACIA SENEGAL GUM EXTRACT [INCI]"
VAR(10,"SYN",18,"XADT")=""
VAR(10,"SYN",18,"XRDT")=""
VAR(10,"SYN",19,"DSC")="5C5403N260.165019"
VAR(10,"SYN",19,"TRM")="ACACIA SENEGAL GUM"
VAR(10,"SYN",19,"XADT")=""
VAR(10,"SYN",19,"XRDT")=""
VAR(10,"SYN",20,"DSC")="5C5403N260.87154"
VAR(10,"SYN",20,"TRM")="ARABIC GUM"
VAR(10,"SYN",20,"XADT")=""
VAR(10,"SYN",20,"XRDT")=""
VAR(10,"SYN",21,"DSC")="5C5403N260.87153"
VAR(10,"SYN",21,"TRM")="ACACIA, SPRAY-DRIED [EP]"
VAR(10,"SYN",21,"XADT")=""
VAR(10,"SYN",21,"XRDT")=""
VAR(10,"SYN",22,"DSC")="5C5403N260.87152"
VAR(10,"SYN",22,"TRM")="ACACIA, SPRAY-DRIED"
VAR(10,"SYN",22,"XADT")=""
VAR(10,"SYN",22,"XRDT")=""
VAR(10,"SYN",23,"DSC")="5C5403N260.87151"
VAR(10,"SYN",23,"TRM")="ACACIA GUM [FHFI]"
VAR(10,"SYN",23,"XADT")=""
VAR(10,"SYN",23,"XRDT")=""
VAR(10,"SYN",24,"DSC")="5C5403N260.87150"
VAR(10,"SYN",24,"TRM")="ACACIA ARABICA [HPUS]"
VAR(10,"SYN",24,"XADT")=""
VAR(10,"SYN",24,"XRDT")=""

```

```
VAR(10,"SYN",25,"DSC")="5C5403N260.87149"  
VAR(10,"SYN",25,"TRM")="ACACIA SENEGAL GUM EXTRACT"  
VAR(10,"SYN",25,"XADT")=""  
VAR(10,"SYN",25,"XRDT")=""  
VAR(10,"SYN",26,"DSC")="5C5403N260.87148"  
VAR(10,"SYN",26,"TRM")="ACACIA POWDER"  
VAR(10,"SYN",26,"XADT")=""  
VAR(10,"SYN",26,"XRDT")=""  
VAR(10,"SYN",27,"DSC")="5C5403N260.21204"  
VAR(10,"SYN",27,"TRM")="THORNY ACACIA RESIN"  
VAR(10,"SYN",27,"XADT")=""  
VAR(10,"SYN",27,"XRDT")=""  
VAR(10,"SYN",28,"DSC")="5C5403N260.21203"  
VAR(10,"SYN",28,"TRM")="SENEGALIA SENEGAL RESIN"  
VAR(10,"SYN",28,"XADT")=""  
VAR(10,"SYN",28,"XRDT")=""  
VAR(10,"SYN",29,"DSC")="5C5403N260.21202"  
VAR(10,"SYN",29,"TRM")="SENEGAL GUM"  
VAR(10,"SYN",29,"XADT")=""  
VAR(10,"SYN",29,"XRDT")=""  
VAR(10,"SYN",30,"DSC")="5C5403N260.21201"  
VAR(10,"SYN",30,"TRM")="RFAUDRAKSHA RESIN"  
VAR(10,"SYN",30,"XADT")=""  
VAR(10,"SYN",30,"XRDT")=""  
VAR(10,"SYN",31,"DSC")="5C5403N260.21200"  
VAR(10,"SYN",31,"TRM")="MIMOSA SENEGAL RESIN"  
VAR(10,"SYN",31,"XADT")=""  
VAR(10,"SYN",31,"XRDT")=""  
VAR(10,"SYN",32,"DSC")="5C5403N260.21199"  
VAR(10,"SYN",32,"TRM")="KHER RESIN"  
VAR(10,"SYN",32,"XADT")=""  
VAR(10,"SYN",32,"XRDT")=""  
VAR(10,"SYN",33,"DSC")="5C5403N260.21198"  
VAR(10,"SYN",33,"TRM")="GUMMI ARABICUM"  
VAR(10,"SYN",33,"XADT")=""  
VAR(10,"SYN",33,"XRDT")=""  
VAR(10,"SYN",34,"DSC")="5C5403N260.21197"  
VAR(10,"SYN",34,"TRM")="GUM SENEGAL"  
VAR(10,"SYN",34,"XADT")=""  
VAR(10,"SYN",34,"XRDT")=""  
VAR(10,"SYN",35,"DSC")="5C5403N260.21196"  
VAR(10,"SYN",35,"TRM")="ACACIAE GUMMI"  
VAR(10,"SYN",35,"XADT")=""  
VAR(10,"SYN",35,"XRDT")=""  
VAR(10,"SYN",36,"DSC")="5C5403N260.21195"  
VAR(10,"SYN",36,"TRM")="ACACIA VOLKII RESIN"  
VAR(10,"SYN",36,"XADT")=""  
VAR(10,"SYN",36,"XRDT")=""  
VAR(10,"SYN",37,"DSC")="5C5403N260.21194"  
VAR(10,"SYN",37,"TRM")="ACACIA SPINOSA RESIN"  
VAR(10,"SYN",37,"XADT")=""  
VAR(10,"SYN",37,"XRDT")=""  
VAR(10,"SYN",38,"DSC")="5C5403N260.21193"  
VAR(10,"SYN",38,"TRM")="ACACIA RUPESTRIS RESIN"  
VAR(10,"SYN",38,"XADT")=""  
VAR(10,"SYN",38,"XRDT")=""  
VAR(10,"SYN",39,"DSC")="5C5403N260.21192"  
VAR(10,"SYN",39,"TRM")="ACACIA OXYOSPRION RESIN"  
VAR(10,"SYN",39,"XADT")=""  
VAR(10,"SYN",39,"XRDT")=""  
VAR(10,"SYN",40,"DSC")="5C5403N260.21191"
```

```

VAR(10,"SYN",40,"TRM")="ACACIA MUCILAGE"
VAR(10,"SYN",40,"XADT")=""
VAR(10,"SYN",40,"XRDT")=""
VAR(10,"SYN",41,"DSC")="5C5403N260.21190"
VAR(10,"SYN",41,"TRM")="ACACIA CUFODONTII RESIN"
VAR(10,"SYN",41,"XADT")=""
VAR(10,"SYN",41,"XRDT")=""
VAR(10,"SYN",42,"DSC")="5C5403N260.21189"
VAR(10,"SYN",42,"TRM")="ACACIA CIRCUMMARGINATA RESIN"
VAR(10,"SYN",42,"XADT")=""
VAR(10,"SYN",42,"XRDT")=""
VAR(10,"SYN",43,"DSC")="5C5403N260.21188"
VAR(10,"SYN",43,"TRM")="ACACIA ARABICA"
VAR(10,"SYN",43,"XADT")=""
VAR(10,"SYN",43,"XRDT")=""
VAR(10,"SYN",44,"DSC")="5C5403N260.8759"
VAR(10,"SYN",44,"TRM")="GUM ARABIC"
VAR(10,"SYN",44,"XADT")=""
VAR(10,"SYN",44,"XRDT")=""
VAR(10,"SYN",45,"DSC")="5C5403N260.8758"
VAR(10,"SYN",45,"TRM")="GUM ACACIA"
VAR(10,"SYN",45,"XADT")=""
VAR(10,"SYN",45,"XRDT")=""
VAR(10,"SYN",46,"DSC")="5C5403N260.8757"
VAR(10,"SYN",46,"TRM")="ACACIA VEREK RESIN"
VAR(10,"SYN",46,"XADT")=""
VAR(10,"SYN",46,"XRDT")=""
VAR(10,"SYN",47,"DSC")="5C5403N260.8756"
VAR(10,"SYN",47,"TRM")="ACACIA SENEGAL RESIN"
VAR(10,"SYN",47,"XADT")=""
VAR(10,"SYN",47,"XRDT")=""
VAR(10,"SYN",48,"DSC")="5C5403N260.8755"
VAR(10,"SYN",48,"TRM")="ACACIA GUM"
VAR(10,"SYN",48,"XADT")=""
VAR(10,"SYN",48,"XRDT")=""
VAR(10,"XADT")=""
VAR(10,"XRDT")=""
>

```

The following example shows the records returned on a search on the GMRA Signs Symptoms (32772) namespace lookup:

```

>S OUT="VAR",IN="ABDOMINAL^S^32772"

>W $$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"ASM",1,"CON")=21522001
VAR(1,"ASM",1,"DTS")=21522
VAR(1,"CON")="ABDOMINAL PAIN"
VAR(1,"DTS")=692
VAR(1,"FSN","DSC")="T122"
VAR(1,"FSN","TRM")="ABDOMINAL PAIN"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")="T122"
VAR(1,"PRB","TRM")="ABDOMINAL PAIN"
VAR(1,"PRE","DSC")="T578"
VAR(1,"PRE","TRM")="GI PAIN"

```

```

VAR(1,"PRE","XADT")=""
VAR(1,"PRE","XRDT")=""
VAR(1,"SYN",1,"DSC")="T577"
VAR(1,"SYN",1,"TRM")="GASTROINTESTINAL PAIN"
VAR(1,"SYN",1,"XADT")=""
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"XADT")=""
VAR(1,"XRDT")=""
VAR(2,"ASM",1,"CON")=51197009
VAR(2,"ASM",1,"DTS")=51197
VAR(2,"CON")="ABDOMINAL CRAMPS"
VAR(2,"DTS")=572
VAR(2,"FSN","DSC")="T2"
VAR(2,"FSN","TRM")="ABDOMINAL CRAMPS"
VAR(2,"FSN","XADT")=""
VAR(2,"FSN","XRDT")=""
VAR(2,"PRB","DSC")="T2"
VAR(2,"PRB","TRM")="ABDOMINAL CRAMPS"
VAR(2,"XADT")=""
VAR(2,"XRDT")=""
VAR(3,"ASM",1,"CON")=116289008
VAR(3,"ASM",1,"DTS")=116289
VAR(3,"CON")="ABDOMINAL BLOATING"
VAR(3,"DTS")=603
VAR(3,"FSN","DSC")="T33"
VAR(3,"FSN","TRM")="ABDOMINAL BLOATING"
VAR(3,"FSN","XADT")=""
VAR(3,"FSN","XRDT")=""
VAR(3,"PRB","DSC")="T33"
VAR(3,"PRB","TRM")="ABDOMINAL BLOATING"
VAR(3,"XADT")=""
VAR(3,"XRDT")=""
VAR(4,"ASM",1,"CON")=43364001
VAR(4,"ASM",1,"DTS")=43364
VAR(4,"CON")="ABDOMINAL DISCOMFORT"
VAR(4,"DTS")=960
VAR(4,"FSN","DSC")="T390"
VAR(4,"FSN","TRM")="ABDOMINAL DISCOMFORT"
VAR(4,"FSN","XADT")=""
VAR(4,"FSN","XRDT")=""
VAR(4,"PRB","DSC")="T390"
VAR(4,"PRB","TRM")="ABDOMINAL DISCOMFORT"
VAR(4,"XADT")=""
VAR(4,"XRDT")=""
>

```

The following example shows the only the records returned of a GMRA Allergies with Maps namespace search:

```

>S OUT="VAR",IN="ABALONE^S^32773"

>W $$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"AUN",1,"CON")="9V4Z7PZ92D"
VAR(1,"AUN",1,"DTS")=43
VAR(1,"CON")="ABALONE"
VAR(1,"DTS")=1
VAR(1,"FSN","DSC")="T1"

```

```

VAR(1,"FSN","TRM")="ABALONE"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")="T1"
VAR(1,"PRB","TRM")="ABALONE"
VAR(1,"XADT")=""
VAR(1,"XRDT")=""
>

```

The following example shows the only the records returned of a IHS VANDF namespace search:

```

>S OUT="VAR",IN="1,1,1 TRICHLOROETHANE^S^32771"

>W $$$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CON")="1,1,1 TRICHLOROETHANE"
VAR(1,"DTS")=4779
VAR(1,"FSN","DSC")="T4775"
VAR(1,"FSN","TRM")="1,1,1 TRICHLOROETHANE"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")="T4775"
VAR(1,"PRB","TRM")="1,1,1 TRICHLOROETHANE"
VAR(1,"XADT")=""
VAR(1,"XRDT")=""
>

```

The following example shows the only the records returned of a IHS Med Route namespace search:

```

>S OUT="VAR",IN="ORAL^S^32774"

>W $$$SEARCH^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"ASM",1,"CON")=26643006
VAR(1,"ASM",1,"DTS")=26643
VAR(1,"CON")="ORAL"
VAR(1,"DTS")=23
VAR(1,"FSN","DSC")="T23"
VAR(1,"FSN","TRM")="ORAL"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")="T23"
VAR(1,"PRB","TRM")="ORAL"
VAR(1,"XADT")=""
VAR(1,"XRDT")=""
>

```

A.2 \$\$CODESETS^BSTSAPI

The following example displays the results of a standard call to this function as well as shows how information can be stored in a scratch global:

```
>S OUT=$NA(^TMP("BSTSAPI",$J),IN="")
>W $$CODESETS^BSTSAPI(OUT)
2^
>ZW @OUT
^TMP("BSTSAPI",4496,1)="32768^32768^IHS"
^TMP("BSTSAPI",4496,2)="32771^32771^IHS VANDF"
^TMP("BSTSAPI",4496,3)="32772^32772^GMRA Signs Symptoms"
^TMP("BSTSAPI",4496,4)="32773^32773^GMRA Allergies with Maps"
^TMP("BSTSAPI",4496,5)="32774^32774^IHS Med Route"
^TMP("BSTSAPI",4496,6)="32775^32775^CPT Meds with Maps"
^TMP("BSTSAPI",4496,7)="32777^32777^SNOMED CT to ICD-10-CM Auto-Codeables"
^TMP("BSTSAPI",4496,8)="32778^32778^SNOMED CT to ICD-9-CM Auto-Codeables"
^TMP("BSTSAPI",4496,9)="10^ICD-9-CM-C1^ICD-9-CM"
^TMP("BSTSAPI",4496,10)="5140^ICD10CM^ICD-10-CM"
^TMP("BSTSAPI",4496,11)="5102^LOINC-3^LOINC"
^TMP("BSTSAPI",4496,12)="1552^RXNORMR^RxNorm R"
^TMP("BSTSAPI",4496,13)="35290^SCT-US-MAP_ICD10CM^SNOMED CT US Ext to ICD-10-CM"
^TMP("BSTSAPI",4496,14)="35291^SCT-US-MAP_ICD9CM^SNOMED CT US Ext to ICD-9 CM"
^TMP("BSTSAPI",4496,15)="36^SCTUSEXT^SNOMED CT US Edition"
^TMP("BSTSAPI",4496,16)="5180^UNII^FDA UNII"
>
```

A.3 \$\$VERSIONS^BSTSAPI

The following example displays a list of versions available for the SNOMED codeset:

```
>S OUT=$NA(^TMP("BSTSAPI",$J),IN="36")
>W $$VERSIONS^BSTSAPI(OUT,IN)
2^
>ZW @OUT
^TMP("BSTSAPI",4496,1)="20120301^2012.03.11AB^2012-03-01 07:00:00^"
^TMP("BSTSAPI",4496,2)="20120901^2012.09.12AA^2012-09-01 06:00:00^"
^TMP("BSTSAPI",4496,3)="20130301^2013.03.12AB^2013-03-01 07:00:00^"
^TMP("BSTSAPI",4496,4)="20130901^2013.09.13AA^2013-09-01 06:00:00^"
^TMP("BSTSAPI",4496,5)="20140301^2014.03.13AB^2014-03-01 07:00:00^"
^TMP("BSTSAPI",4496,6)="20140901^2014.09.14AA^2014-09-01 06:00:00^"
>
```

A.4 \$\$MPADVICE^BSTSAPI

The following example displays ICD-10 mapping information available for a particular concept ID

> The following example displays ICD-10 mapping information available for a particular concept ID (utilizing a local cache lookup):

```
>S OUT="VAR",IN=2032001

>W $$MPADVICE^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"MPADV","VAL")="ALWAYS G93.6"
VAR(1,"MPCVL","VAL")="Map source concept is properly classified"
VAR(1,"MPGRP","VAL")=1
VAR(1,"MPPRI","VAL")=5
VAR(1,"MPRUL","VAL")="OTHERWISE TRUE"
VAR(1,"MPTGN","VAL")="Cerebral edema"
VAR(1,"MPTGT","VAL")="G93.6"
VAR(2,"MPADV","VAL")="IF CEREBRAL EDEMA DUE TO BIRTH INJURY CHOOSE P11.0 |
MAP OF SOURCE CONCEPT IS CONTEXT DEPENDENT"
VAR(2,"MPCVL","VAL")="Map of source concept is context dependent"
VAR(2,"MPGRP","VAL")=1
VAR(2,"MPPRI","VAL")=1
VAR(2,"MPRUL","VAL")="IFA 206238001 | Cerebral edema due to birth injury
(disorder) |"
VAR(2,"MPTGN","VAL")="Cerebral edema due to birth injury"
VAR(2,"MPTGT","VAL")="P11.0"
VAR(3,"MPADV","VAL")="IF TRAUMATIC CEREBRAL EDEMA WITH OPEN INTRACRANIAL
WOUND CHOOSE S01.80X? | EPISODE OF CARE INFORMATION NEEDED | POSSIBLE
REQUIREMENT FOR AN EXTERNAL CAUSE CODE | MAP OF SOURCE CONCEPT IS CONTEXT
DEPENDENT"
VAR(3,"MPCVL","VAL")="Map of source concept is context dependent"
VAR(3,"MPGRP","VAL")=2
VAR(3,"MPPRI","VAL")=1
VAR(3,"MPRUL","VAL")="IFA 311826007 | Traumatic cerebral edema with open
intracranial wound (disorder) |"
VAR(3,"MPTGN","VAL")="Unspecified open wound of other part of head, episode
of care unspecified"
VAR(3,"MPTGT","VAL")="S01.80X?"
VAR(4,"MPADV","VAL")="IF TRAUMATIC CEREBRAL EDEMA CHOOSE S06.1X0? |
CONSIDER ADDITIONAL CODE TO IDENTIFY SPECIFIC CONDITION OR DISEASE |
EPISODE OF CARE INFORMATION NEEDED | POSSIBLE REQUIREMENT FOR AN EXTERNAL
CAUSE CODE | MAP OF SOURCE CONCEPT IS CONTEXT DEPENDENT"
VAR(4,"MPCVL","VAL")="Map of source concept is context dependent"
VAR(4,"MPGRP","VAL")=1
VAR(4,"MPPRI","VAL")=4
VAR(4,"MPRUL","VAL")="IFA 230763008 | Traumatic cerebral edema (disorder)
|"
VAR(4,"MPTGN","VAL")="Traumatic cerebral edema without loss of
consciousness, episode of care unspecified"
VAR(4,"MPTGT","VAL")="S06.1X0?"
VAR(5,"MPADV","VAL")="IF TRAUMATIC CEREBRAL EDEMA WITH OPEN INTRACRANIAL
WOUND CHOOSE S06.1X0? | EPISODE OF CARE INFORMATION NEEDED | POSSIBLE
REQUIREMENT FOR AN EXTERNAL CAUSE CODE | MAP OF SOURCE CONCEPT IS CONTEXT
DEPENDENT"
VAR(5,"MPCVL","VAL")="Map of source concept is context dependent"
VAR(5,"MPGRP","VAL")=1
VAR(5,"MPPRI","VAL")=3
```

```

VAR(5,"MPRUL","VAL")="IFA 311826007 | Traumatic cerebral edema with open
intracranial wound (disorder) | "
VAR(5,"MPTGN","VAL")="Traumatic cerebral edema without loss of
consciousness, episode of care unspecified"
VAR(5,"MPTGT","VAL")="S06.1X0?"
VAR(6,"MPADV","VAL")="IF TRAUMATIC CEREBRAL EDEMA WITHOUT OPEN INTRACRANIAL
WOUND CHOOSE S06.1X0? | EPISODE OF CARE INFORMATION NEEDED | POSSIBLE
REQUIREMENT FOR AN EXTERNAL CAUSE CODE | MAP OF SOURCE CONCEPT IS CONTEXT
DEPENDENT"
VAR(6,"MPCVL","VAL")="Map of source concept is context dependent"
VAR(6,"MPGRP","VAL")=1
VAR(6,"MPPRI","VAL")=2
VAR(6,"MPRUL","VAL")="IFA 311825006 | Traumatic cerebral edema without open
intracranial wound (disorder) | "
VAR(6,"MPTGN","VAL")="Traumatic cerebral edema without loss of
consciousness, episode of care unspecified"
VAR(6,"MPTGT","VAL")="S06.1X0?"
VAR(7,"MPADV","VAL")="MAP SOURCE CONCEPT CANNOT BE CLASSIFIED WITH
AVAILABLE DATA"
VAR(7,"MPCVL","VAL")="Map source concept cannot be classified with
available data"
VAR(7,"MPGRP","VAL")=2
VAR(7,"MPPRI","VAL")=2
VAR(7,"MPRUL","VAL")="OTHERWISE TRUE"
VAR(7,"MPTGN","VAL")=""
VAR(7,"MPTGT","VAL")=""
>

```

A.5 \$\$CVRSN^BSTSAPI

The following example returns the current version for the for the SNOMED codeset:

```

>S OUT="VAR",IN="36"

>W $$CVRSN^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR="20140901^2014.09.14AA^2014-09-01 06:00:00^"
>

```

A.6 \$\$SUBSET^BSTSAPI

The following example displays a list of subsets available for the SNOMED CT US Extensions codeset, using a local cache lookup:

```

>S OUT=$NA(^TMP("BSTSAPI",$J)),IN="36"

>W $$SUBSET^BSTSAPI(OUT,IN)
1
>ZW @OUT
^TMP("BSTSAPI",4496,1)="EHR IPL ASTHMA DXS"
^TMP("BSTSAPI",4496,2)="EHR IPL ASTHMA TX REGIMEN"
^TMP("BSTSAPI",4496,3)="EHR IPL CLINICAL COURSE"
^TMP("BSTSAPI",4496,4)="EHR IPL PICK ASTHMA"
^TMP("BSTSAPI",4496,5)="EHR IPL POV EPISODICITIES"

```

```

^TMP("BSTSAPI",4496,6)="EHR IPL PROBLEM QUALIFIERS"
^TMP("BSTSAPI",4496,7)="EHR IPL SEVERITY"
^TMP("BSTSAPI",4496,8)="EHR REASONS NOT DONE"
^TMP("BSTSAPI",4496,9)="EHR REASONS NOT DONE MEDS"
^TMP("BSTSAPI",4496,10)="EHR REASONS NOT DONE OTHERS"
^TMP("BSTSAPI",4496,11)="EHR REFERRAL TYPE"
^TMP("BSTSAPI",4496,12)="EHR SUICIDE RELATED"
^TMP("BSTSAPI",4496,13)="EHR V AMI CHEST PAIN"
^TMP("BSTSAPI",4496,14)="EHR V AMI EKG FINDINGS"
^TMP("BSTSAPI",4496,15)="EHR V STROKE NEURO SYMPTOMS"
^TMP("BSTSAPI",4496,16)="IHS PROBLEM ALL SNOMED"
^TMP("BSTSAPI",4496,17)="IHS PROBLEM SUPERSET"
^TMP("BSTSAPI",4496,18)="IHS Problem List"
^TMP("BSTSAPI",4496,19)="Infectious Disease"
^TMP("BSTSAPI",4496,20)="Nonhuman RefSet 20130901"
^TMP("BSTSAPI",4496,21)="PICK Abnormal Findings"
^TMP("BSTSAPI",4496,22)="PICK Administrative"
^TMP("BSTSAPI",4496,23)="PICK Audiology"
^TMP("BSTSAPI",4496,24)="PICK BH-SUD"
^TMP("BSTSAPI",4496,25)="PICK BH-Social Family Issues"
^TMP("BSTSAPI",4496,26)="PICK Behavioral Health"
^TMP("BSTSAPI",4496,27)="PICK Behavioral Health Long"
^TMP("BSTSAPI",4496,28)="PICK Cardiology"
^TMP("BSTSAPI",4496,29)="PICK Case Management"
^TMP("BSTSAPI",4496,30)="PICK Complimentary Medicine"
^TMP("BSTSAPI",4496,31)="PICK Dental"
^TMP("BSTSAPI",4496,32)="PICK Dermatology"
^TMP("BSTSAPI",4496,33)="PICK Diabetes"
^TMP("BSTSAPI",4496,34)="PICK Diabetes Education"
^TMP("BSTSAPI",4496,35)="PICK ENT"
^TMP("BSTSAPI",4496,36)="PICK ENT - Ear"
^TMP("BSTSAPI",4496,37)="PICK ENT - Face and Neck"
^TMP("BSTSAPI",4496,38)="PICK ENT - Fractures"
^TMP("BSTSAPI",4496,39)="PICK ENT - Mouth and Throat"
^TMP("BSTSAPI",4496,40)="PICK ENT - Neoplasm"
^TMP("BSTSAPI",4496,41)="PICK ENT - Nose and Sinus"
^TMP("BSTSAPI",4496,42)="PICK ENT - Sleep"
^TMP("BSTSAPI",4496,43)="PICK Emergency Department"
^TMP("BSTSAPI",4496,44)="PICK Eye General"
^TMP("BSTSAPI",4496,45)="PICK Eye General Long"
^TMP("BSTSAPI",4496,46)="PICK Eye Surgery"
^TMP("BSTSAPI",4496,47)="PICK Family Practice"
^TMP("BSTSAPI",4496,48)="PICK Family Practice Long"
^TMP("BSTSAPI",4496,49)="PICK Gastrointestinal"
^TMP("BSTSAPI",4496,50)="PICK Health Maint/Screenings"
^TMP("BSTSAPI",4496,51)="PICK Heme/Onc"
^TMP("BSTSAPI",4496,52)="PICK Heme/Onc Long"
^TMP("BSTSAPI",4496,53)="PICK Immunizations"
^TMP("BSTSAPI",4496,54)="PICK Laboratory"
^TMP("BSTSAPI",4496,55)="PICK MH-Anxiety Disorders"
^TMP("BSTSAPI",4496,56)="PICK MH-Bipolar Disorders"
^TMP("BSTSAPI",4496,57)="PICK MH-Depressive Disorders"
^TMP("BSTSAPI",4496,58)="PICK MH-Disrupt Imp Conduct"
^TMP("BSTSAPI",4496,59)="PICK MH-Neurocog Disorders"
^TMP("BSTSAPI",4496,60)="PICK MH-Neurodevelopmental"
^TMP("BSTSAPI",4496,61)="PICK MH-Other Disorders"
^TMP("BSTSAPI",4496,62)="PICK MH-Schiz and Psychotic"
^TMP("BSTSAPI",4496,63)="PICK MH-Trauma And Stress"
^TMP("BSTSAPI",4496,64)="PICK Medicine"
^TMP("BSTSAPI",4496,65)="PICK Medicine - Inpatient"
^TMP("BSTSAPI",4496,66)="PICK Medicine - Inpatient Long"

```

```

^TMP("BSTSAPI",4496,67)="PICK Medicine - Urgent Care"
^TMP("BSTSAPI",4496,68)="PICK Musculoskeletal-Fx"
^TMP("BSTSAPI",4496,69)="PICK Musculoskeletal-Non Fx"
^TMP("BSTSAPI",4496,70)="PICK Neurology"
^TMP("BSTSAPI",4496,71)="PICK Neurology Long"
^TMP("BSTSAPI",4496,72)="PICK Nursing"
^TMP("BSTSAPI",4496,73)="PICK Nursing - Ambulatory"
^TMP("BSTSAPI",4496,74)="PICK Nursing - ED/UC"
^TMP("BSTSAPI",4496,75)="PICK Nursing - Inpatient"
^TMP("BSTSAPI",4496,76)="PICK Nursing - Public Health"
^TMP("BSTSAPI",4496,77)="PICK Nutrition"
^TMP("BSTSAPI",4496,78)="PICK Pain Management"
^TMP("BSTSAPI",4496,79)="PICK Pediatrics"
^TMP("BSTSAPI",4496,80)="PICK Pharmacy"
^TMP("BSTSAPI",4496,81)="PICK Physical Medicine"
^TMP("BSTSAPI",4496,82)="PICK Podiatry"
^TMP("BSTSAPI",4496,83)="PICK Podiatry-Fx"
^TMP("BSTSAPI",4496,84)="PICK Podiatry-Non Fx"
^TMP("BSTSAPI",4496,85)="PICK Postpartum"
^TMP("BSTSAPI",4496,86)="PICK Prenatal"
^TMP("BSTSAPI",4496,87)="PICK Prenatal - Care"
^TMP("BSTSAPI",4496,88)="PICK Prenatal - Problem Fetus"
^TMP("BSTSAPI",4496,89)="PICK Prenatal - Problem Preg"
^TMP("BSTSAPI",4496,90)="PICK Prenatal - Risk"
^TMP("BSTSAPI",4496,91)="PICK Preventive Care"
^TMP("BSTSAPI",4496,92)="PICK Problem List - Social Env"
^TMP("BSTSAPI",4496,93)="PICK Respiratory"
^TMP("BSTSAPI",4496,94)="PICK Rheumatology"
^TMP("BSTSAPI",4496,95)="PICK Social Services"
^TMP("BSTSAPI",4496,96)="PICK Social Services Long"
^TMP("BSTSAPI",4496,97)="PICK Urology/Nephrology"
^TMP("BSTSAPI",4496,98)="PICK Urology/Nephrology Long"
^TMP("BSTSAPI",4496,99)="PICK WH - Family Planning"
^TMP("BSTSAPI",4496,100)="PICK WH - General"
^TMP("BSTSAPI",4496,101)="PICK WH - Pap Results"
^TMP("BSTSAPI",4496,102)="PICK WH - Pelvic Pain"
^TMP("BSTSAPI",4496,103)="PXRMASTHMA"
^TMP("BSTSAPI",4496,104)="PXRMCOLORECTAL CANCER"
^TMP("BSTSAPI",4496,105)="PXRMDIABETES"
^TMP("BSTSAPI",4496,106)="PXRMDIABETIC NEPHROPATHY"
^TMP("BSTSAPI",4496,107)="PXRMDIALYSIS"
^TMP("BSTSAPI",4496,108)="PXRMENT STAGE RENAL DISEASE"
^TMP("BSTSAPI",4496,109)="PXRMESSENTIAL HYPERTENSION"
^TMP("BSTSAPI",4496,110)="PXRMHEPATITIS C"
^TMP("BSTSAPI",4496,111)="PXRMHIV"
^TMP("BSTSAPI",4496,112)="PXRMHYPERTENSION"
^TMP("BSTSAPI",4496,113)="PXRMISSCHEMIC HEART DISEASE"
^TMP("BSTSAPI",4496,114)="PXRMOSTEOPOROSIS-OSTEOPENIA"
^TMP("BSTSAPI",4496,115)="SRCH Abnormal Findings"
^TMP("BSTSAPI",4496,116)="SRCH Administrative"
^TMP("BSTSAPI",4496,117)="SRCH Asthma"
^TMP("BSTSAPI",4496,118)="SRCH Audiology"
^TMP("BSTSAPI",4496,119)="SRCH Behavioral Health"
^TMP("BSTSAPI",4496,120)="SRCH COG FUNCT STATUS"
^TMP("BSTSAPI",4496,121)="SRCH Cardiology"
^TMP("BSTSAPI",4496,122)="SRCH Case Management"
^TMP("BSTSAPI",4496,123)="SRCH Complimentary Medicine"
^TMP("BSTSAPI",4496,124)="SRCH Congenital Anomalies"
^TMP("BSTSAPI",4496,125)="SRCH DM Education"
^TMP("BSTSAPI",4496,126)="SRCH Dental"
^TMP("BSTSAPI",4496,127)="SRCH Dermatology"

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^TMP("BSTSAPI",4496,128)="SRCH Diabetes"
^TMP("BSTSAPI",4496,129)="SRCH Diabetes Education"
^TMP("BSTSAPI",4496,130)="SRCH ENT"
^TMP("BSTSAPI",4496,131)="SRCH Emergency Department"
^TMP("BSTSAPI",4496,132)="SRCH Eye General"
^TMP("BSTSAPI",4496,133)="SRCH Eye Surgery"
^TMP("BSTSAPI",4496,134)="SRCH Family History"
^TMP("BSTSAPI",4496,135)="SRCH Family Planning"
^TMP("BSTSAPI",4496,136)="SRCH Family Practice"
^TMP("BSTSAPI",4496,137)="SRCH Gastrointestinal"
^TMP("BSTSAPI",4496,138)="SRCH Health Maint/Screenings"
^TMP("BSTSAPI",4496,139)="SRCH Hematology/Oncology"
^TMP("BSTSAPI",4496,140)="SRCH Immunizations"
^TMP("BSTSAPI",4496,141)="SRCH Laboratory"
^TMP("BSTSAPI",4496,142)="SRCH Medicine - Inpatient"
^TMP("BSTSAPI",4496,143)="SRCH Medicine - Urgent Care"
^TMP("BSTSAPI",4496,144)="SRCH Musculoskeletal"
^TMP("BSTSAPI",4496,145)="SRCH Neurology"
^TMP("BSTSAPI",4496,146)="SRCH Nursing"
^TMP("BSTSAPI",4496,147)="SRCH Nursing - Ambulatory"
^TMP("BSTSAPI",4496,148)="SRCH Nursing - ED/UC"
^TMP("BSTSAPI",4496,149)="SRCH Nursing - Inpatient"
^TMP("BSTSAPI",4496,150)="SRCH Nursing - Public Health"
^TMP("BSTSAPI",4496,151)="SRCH Nutrition"
^TMP("BSTSAPI",4496,152)="SRCH Pain Management"
^TMP("BSTSAPI",4496,153)="SRCH Pediatrics"
^TMP("BSTSAPI",4496,154)="SRCH Pharmacy"
^TMP("BSTSAPI",4496,155)="SRCH Physical Medicine"
^TMP("BSTSAPI",4496,156)="SRCH Physical Rehabilitation"
^TMP("BSTSAPI",4496,157)="SRCH Podiatry"
^TMP("BSTSAPI",4496,158)="SRCH Prenatal"
^TMP("BSTSAPI",4496,159)="SRCH Preventive Care"
^TMP("BSTSAPI",4496,160)="SRCH Problem List - Medical"
^TMP("BSTSAPI",4496,161)="SRCH Problem List - Nursing"
^TMP("BSTSAPI",4496,162)="SRCH Problem List - Social Env"
^TMP("BSTSAPI",4496,163)="SRCH Respiratory"
^TMP("BSTSAPI",4496,164)="SRCH Rheumatology"
^TMP("BSTSAPI",4496,165)="SRCH Social Services"
^TMP("BSTSAPI",4496,166)="SRCH Suicide"
^TMP("BSTSAPI",4496,167)="SRCH Trauma"
^TMP("BSTSAPI",4496,168)="SRCH Urology/Nephrology"
^TMP("BSTSAPI",4496,169)="SRCH WH - Family Planning"
^TMP("BSTSAPI",4496,170)="SRCH WH - General"
^TMP("BSTSAPI",4496,171)="SRCH WH - Pap Results"
^TMP("BSTSAPI",4496,172)="SRCH WH - Pelvic Pain"
^TMP("BSTSAPI",4496,173)="SRCH Womens Health"
^TMP("BSTSAPI",4496,174)="TREG Anticoag DVT Prevention"
^TMP("BSTSAPI",4496,175)="TREG Asthma"
^TMP("BSTSAPI",4496,176)="TREG Behavioral Health"
^TMP("BSTSAPI",4496,177)="TREG Case Management"
^TMP("BSTSAPI",4496,178)="TREG Dialysis"
^TMP("BSTSAPI",4496,179)="TREG Follow Up"
^TMP("BSTSAPI",4496,180)="TREG Nursing"
^TMP("BSTSAPI",4496,181)="TREG Substance Abuse"
^TMP("BSTSAPI",4496,182)="TREG Wound Care"
```

>

The following example displays a list of subsets available for the SNOMED CT US Extensions codeset, using a remote DTS lookup:

```

>S OUT=$NA(^TMP("BSTSAPI", $J), IN="36^2"

>W $$SUBSET^BSTSAPI(OUT, IN)
2^
>ZW @OUT
^TMP("BSTSAPI", 4496, 1)="EHR IPL ASTHMA DXS"
^TMP("BSTSAPI", 4496, 2)="EHR IPL ASTHMA TX REGIMEN"
^TMP("BSTSAPI", 4496, 3)="EHR IPL CLINICAL COURSE"
^TMP("BSTSAPI", 4496, 4)="EHR IPL PICK ASTHMA"
^TMP("BSTSAPI", 4496, 5)="EHR IPL POV EPISODICITIES"
^TMP("BSTSAPI", 4496, 6)="EHR IPL PROBLEM QUALIFIERS"
^TMP("BSTSAPI", 4496, 7)="EHR IPL SEVERITY"
^TMP("BSTSAPI", 4496, 8)="EHR REASONS NOT DONE"
^TMP("BSTSAPI", 4496, 9)="EHR REASONS NOT DONE MEDS"
^TMP("BSTSAPI", 4496, 10)="EHR REASONS NOT DONE OTHERS"
^TMP("BSTSAPI", 4496, 11)="EHR REFERRAL TYPE"
^TMP("BSTSAPI", 4496, 12)="EHR SUICIDE RELATED"
^TMP("BSTSAPI", 4496, 13)="EHR V AMI CHEST PAIN"
^TMP("BSTSAPI", 4496, 14)="EHR V AMI EKG FINDINGS"
^TMP("BSTSAPI", 4496, 15)="EHR V STROKE NEURO SYMPTOMS"
^TMP("BSTSAPI", 4496, 16)="IHS PROBLEM ALL SNOMED"
^TMP("BSTSAPI", 4496, 17)="IHS Problem List"
^TMP("BSTSAPI", 4496, 18)="IHS PROBLEM SUPERSET"
^TMP("BSTSAPI", 4496, 19)="Infectious Disease"
^TMP("BSTSAPI", 4496, 20)="Nonhuman RefSet 20130901"
^TMP("BSTSAPI", 4496, 21)="PICK Abnormal Findings"
^TMP("BSTSAPI", 4496, 22)="PICK Administrative"
^TMP("BSTSAPI", 4496, 23)="PICK Audiology"
^TMP("BSTSAPI", 4496, 24)="PICK Behavioral Health"
^TMP("BSTSAPI", 4496, 25)="PICK Behavioral Health Long"
^TMP("BSTSAPI", 4496, 26)="PICK BH-Social Family Issues"
^TMP("BSTSAPI", 4496, 27)="PICK BH-SUD"
^TMP("BSTSAPI", 4496, 28)="PICK Cardiology"
^TMP("BSTSAPI", 4496, 29)="PICK Case Management"
^TMP("BSTSAPI", 4496, 30)="PICK Complimentary Medicine"
^TMP("BSTSAPI", 4496, 31)="PICK Dental"
^TMP("BSTSAPI", 4496, 32)="PICK Dermatology"
^TMP("BSTSAPI", 4496, 33)="PICK Diabetes"
^TMP("BSTSAPI", 4496, 34)="PICK Diabetes Education"
^TMP("BSTSAPI", 4496, 35)="PICK Emergency Department"
^TMP("BSTSAPI", 4496, 36)="PICK ENT"
^TMP("BSTSAPI", 4496, 37)="PICK ENT - Ear"
^TMP("BSTSAPI", 4496, 38)="PICK ENT - Face and Neck"
^TMP("BSTSAPI", 4496, 39)="PICK ENT - Fractures"
^TMP("BSTSAPI", 4496, 40)="PICK ENT - Mouth and Throat"
^TMP("BSTSAPI", 4496, 41)="PICK ENT - Neoplasm"
^TMP("BSTSAPI", 4496, 42)="PICK ENT - Nose and Sinus"
^TMP("BSTSAPI", 4496, 43)="PICK ENT - Sleep"
^TMP("BSTSAPI", 4496, 44)="PICK Eye General"
^TMP("BSTSAPI", 4496, 45)="PICK Eye General Long"
^TMP("BSTSAPI", 4496, 46)="PICK Eye Surgery"
^TMP("BSTSAPI", 4496, 47)="PICK Family Practice"
^TMP("BSTSAPI", 4496, 48)="PICK Family Practice Long"
^TMP("BSTSAPI", 4496, 49)="PICK Gastrointestinal"
^TMP("BSTSAPI", 4496, 50)="PICK Health Maint/Screenings"
^TMP("BSTSAPI", 4496, 51)="PICK Heme/Onc"
^TMP("BSTSAPI", 4496, 52)="PICK Heme/Onc Long"
^TMP("BSTSAPI", 4496, 53)="PICK Immunizations"

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^TMP("BSTSAPI",4496,54)="PICK Laboratory"
^TMP("BSTSAPI",4496,55)="PICK Medicine"
^TMP("BSTSAPI",4496,56)="PICK Medicine - Inpatient"
^TMP("BSTSAPI",4496,57)="PICK Medicine - Inpatient Long"
^TMP("BSTSAPI",4496,58)="PICK Medicine - Urgent Care"
^TMP("BSTSAPI",4496,59)="PICK MH-Anxiety Disorders"
^TMP("BSTSAPI",4496,60)="PICK MH-Bipolar Disorders"
^TMP("BSTSAPI",4496,61)="PICK MH-Depressive Disorders"
^TMP("BSTSAPI",4496,62)="PICK MH-Disrupt Imp Conduct"
^TMP("BSTSAPI",4496,63)="PICK MH-Neurocog Disorders"
^TMP("BSTSAPI",4496,64)="PICK MH-Neurodevelopmental"
^TMP("BSTSAPI",4496,65)="PICK MH-Other Disorders"
^TMP("BSTSAPI",4496,66)="PICK MH-Schiz and Psychotic"
^TMP("BSTSAPI",4496,67)="PICK MH-Trauma And Stress"
^TMP("BSTSAPI",4496,68)="PICK Musculoskeletal-Fx"
^TMP("BSTSAPI",4496,69)="PICK Musculoskeletal-Non Fx"
^TMP("BSTSAPI",4496,70)="PICK Neurology"
^TMP("BSTSAPI",4496,71)="PICK Neurology Long"
^TMP("BSTSAPI",4496,72)="PICK Nursing"
^TMP("BSTSAPI",4496,73)="PICK Nursing - Ambulatory"
^TMP("BSTSAPI",4496,74)="PICK Nursing - ED/UC"
^TMP("BSTSAPI",4496,75)="PICK Nursing - Inpatient"
^TMP("BSTSAPI",4496,76)="PICK Nursing - Public Health"
^TMP("BSTSAPI",4496,77)="PICK Nutrition"
^TMP("BSTSAPI",4496,78)="PICK Pain Management"
^TMP("BSTSAPI",4496,79)="PICK Pediatrics"
^TMP("BSTSAPI",4496,80)="PICK Pharmacy"
^TMP("BSTSAPI",4496,81)="PICK Physical Medicine"
^TMP("BSTSAPI",4496,82)="PICK Podiatry"
^TMP("BSTSAPI",4496,83)="PICK Podiatry-Fx"
^TMP("BSTSAPI",4496,84)="PICK Podiatry-Non Fx"
^TMP("BSTSAPI",4496,85)="PICK Postpartum"
^TMP("BSTSAPI",4496,86)="PICK Prenatal"
^TMP("BSTSAPI",4496,87)="PICK Prenatal - Care"
^TMP("BSTSAPI",4496,88)="PICK Prenatal - Problem Fetus"
^TMP("BSTSAPI",4496,89)="PICK Prenatal - Problem Preg"
^TMP("BSTSAPI",4496,90)="PICK Prenatal - Risk"
^TMP("BSTSAPI",4496,91)="PICK Preventive Care"
^TMP("BSTSAPI",4496,92)="PICK Problem List - Social Env"
^TMP("BSTSAPI",4496,93)="PICK Respiratory"
^TMP("BSTSAPI",4496,94)="PICK Rheumatology"
^TMP("BSTSAPI",4496,95)="PICK Social Services"
^TMP("BSTSAPI",4496,96)="PICK Social Services Long"
^TMP("BSTSAPI",4496,97)="PICK Urology/Nephrology"
^TMP("BSTSAPI",4496,98)="PICK Urology/Nephrology Long"
^TMP("BSTSAPI",4496,99)="PICK WH - Family Planning"
^TMP("BSTSAPI",4496,100)="PICK WH - General"
^TMP("BSTSAPI",4496,101)="PICK WH - Pap Results"
^TMP("BSTSAPI",4496,102)="PICK WH - Pelvic Pain"
^TMP("BSTSAPI",4496,103)="PXRMASTHMA"
^TMP("BSTSAPI",4496,104)="PXRMCOLORECTAL CANCER"
^TMP("BSTSAPI",4496,105)="PXRMDIABETES"
^TMP("BSTSAPI",4496,106)="PXRMDIABETIC NEPHROPATHY"
^TMP("BSTSAPI",4496,107)="PXRMDIALYSIS"
^TMP("BSTSAPI",4496,108)="PXRMENTD STAGE RENAL DISEASE"
^TMP("BSTSAPI",4496,109)="PXRMESSENTIAL HYPERTENSION"
^TMP("BSTSAPI",4496,110)="PXRMEHEPATITIS C"
^TMP("BSTSAPI",4496,111)="PXRMHIV"
^TMP("BSTSAPI",4496,112)="PXRMHYPERTENSION"
^TMP("BSTSAPI",4496,113)="PXRMISSCHEMIC HEART DISEASE"
^TMP("BSTSAPI",4496,114)="PXRMOSTEOPOROSIS-OSTEOPENIA"

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^TMP("BSTSAPI",4496,115)="SRCH Abnormal Findings"
^TMP("BSTSAPI",4496,116)="SRCH Administrative"
^TMP("BSTSAPI",4496,117)="SRCH Asthma"
^TMP("BSTSAPI",4496,118)="SRCH Audiology"
^TMP("BSTSAPI",4496,119)="SRCH Behavioral Health"
^TMP("BSTSAPI",4496,120)="SRCH Cardiology"
^TMP("BSTSAPI",4496,121)="SRCH Case Management"
^TMP("BSTSAPI",4496,122)="SRCH COG FUNCT STATUS"
^TMP("BSTSAPI",4496,123)="SRCH Complimentary Medicine"
^TMP("BSTSAPI",4496,124)="SRCH Congenital Anomalies"
^TMP("BSTSAPI",4496,125)="SRCH Dental"
^TMP("BSTSAPI",4496,126)="SRCH Dermatology"
^TMP("BSTSAPI",4496,127)="SRCH Diabetes"
^TMP("BSTSAPI",4496,128)="SRCH Diabetes Education"
^TMP("BSTSAPI",4496,129)="SRCH DM Education"
^TMP("BSTSAPI",4496,130)="SRCH Emergency Department"
^TMP("BSTSAPI",4496,131)="SRCH ENT"
^TMP("BSTSAPI",4496,132)="SRCH Eye General"
^TMP("BSTSAPI",4496,133)="SRCH Eye Surgery"
^TMP("BSTSAPI",4496,134)="SRCH Family History"
^TMP("BSTSAPI",4496,135)="SRCH Family Planning"
^TMP("BSTSAPI",4496,136)="SRCH Family Practice"
^TMP("BSTSAPI",4496,137)="SRCH Gastrointestinal"
^TMP("BSTSAPI",4496,138)="SRCH Health Maint/Screenings"
^TMP("BSTSAPI",4496,139)="SRCH Hematology/Oncology"
^TMP("BSTSAPI",4496,140)="SRCH Immunizations"
^TMP("BSTSAPI",4496,141)="SRCH Laboratory"
^TMP("BSTSAPI",4496,142)="SRCH Medicine - Inpatient"
^TMP("BSTSAPI",4496,143)="SRCH Medicine - Urgent Care"
^TMP("BSTSAPI",4496,144)="SRCH Musculoskeletal"
^TMP("BSTSAPI",4496,145)="SRCH Neurology"
^TMP("BSTSAPI",4496,146)="SRCH Nursing"
^TMP("BSTSAPI",4496,147)="SRCH Nursing - Ambulatory"
^TMP("BSTSAPI",4496,148)="SRCH Nursing - ED/UC"
^TMP("BSTSAPI",4496,149)="SRCH Nursing - Inpatient"
^TMP("BSTSAPI",4496,150)="SRCH Nursing - Public Health"
^TMP("BSTSAPI",4496,151)="SRCH Nutrition"
^TMP("BSTSAPI",4496,152)="SRCH Pain Management"
^TMP("BSTSAPI",4496,153)="SRCH Pediatrics"
^TMP("BSTSAPI",4496,154)="SRCH Pharmacy"
^TMP("BSTSAPI",4496,155)="SRCH Physical Medicine"
^TMP("BSTSAPI",4496,156)="SRCH Physical Rehabilitation"
^TMP("BSTSAPI",4496,157)="SRCH Podiatry"
^TMP("BSTSAPI",4496,158)="SRCH Prenatal"
^TMP("BSTSAPI",4496,159)="SRCH Preventive Care"
^TMP("BSTSAPI",4496,160)="SRCH Problem List - Medical"
^TMP("BSTSAPI",4496,161)="SRCH Problem List - Nursing"
^TMP("BSTSAPI",4496,162)="SRCH Problem List - Social Env"
^TMP("BSTSAPI",4496,163)="SRCH Respiratory"
^TMP("BSTSAPI",4496,164)="SRCH Rheumatology"
^TMP("BSTSAPI",4496,165)="SRCH Social Services"
^TMP("BSTSAPI",4496,166)="SRCH Suicide"
^TMP("BSTSAPI",4496,167)="SRCH Trauma"
^TMP("BSTSAPI",4496,168)="SRCH Urology/Nephrology"
^TMP("BSTSAPI",4496,169)="SRCH WH - Family Planning"
^TMP("BSTSAPI",4496,170)="SRCH WH - General"
^TMP("BSTSAPI",4496,171)="SRCH WH - Pap Results"
^TMP("BSTSAPI",4496,172)="SRCH WH - Pelvic Pain"
^TMP("BSTSAPI",4496,173)="SRCH Womens Health"
^TMP("BSTSAPI",4496,174)="TREG Anticoag DVT Prevention"
^TMP("BSTSAPI",4496,175)="TREG Asthma"

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^TMP("BSTSAPI",4496,176)="TREG Behavioral Health"
^TMP("BSTSAPI",4496,177)="TREG Case Management"
^TMP("BSTSAPI",4496,178)="TREG Dialysis"
^TMP("BSTSAPI",4496,179)="TREG Follow Up"
^TMP("BSTSAPI",4496,180)="TREG Nursing"
^TMP("BSTSAPI",4496,181)="TREG Substance Abuse"
^TMP("BSTSAPI",4496,182)="TREG Wound Care"
>

```

A.7 \$\$VALTERM^BSTSAPI

The following example will return whether a supplied term is a valid in a given code set and version (utilizing a lookup to the local cache):

```

>S OUT="VAR",IN="COMMON COLD"

>W $$VALTERM^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"CON")=82272006
VAR(1,"DTS")=82272
VAR(1,"FSN","DSC")=823660015
VAR(1,"FSN","TRM")="Common cold (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")="460."
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="J00."
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ICD",1,"XADT")=3150424
VAR(1,"ICD",1,"XRDT")=3491201.19
VAR(1,"ISA",1,"CON")=281794004
VAR(1,"ISA",1,"DTS")=281794
VAR(1,"ISA",1,"TRM")="Viral upper respiratory tract infection (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""
VAR(1,"PRB","DSC")=136463019
VAR(1,"PRB","TRM")="Common cold"
VAR(1,"PRE","DSC")=136463019
VAR(1,"PRE","TRM")="Common cold"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="PICK Complimentary Medicine"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="PICK ENT - Fractures"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="PICK ENT - Nose and Sinus"
VAR(1,"SUB",4,"XADT")=""
VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="PICK Family Practice"
VAR(1,"SUB",5,"XADT")=""

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VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="PICK Family Practice Long"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="PICK Medicine - Inpatient"
VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SUB",8,"SUB")="SRCH Asthma"
VAR(1,"SUB",8,"XADT")=""
VAR(1,"SUB",8,"XRDT")=""
VAR(1,"SUB",9,"SUB")="SRCH Audiology"
VAR(1,"SUB",9,"XADT")=""
VAR(1,"SUB",9,"XRDT")=""
VAR(1,"SUB",10,"SUB")="SRCH Complimentary Medicine"
VAR(1,"SUB",10,"XADT")=""
VAR(1,"SUB",10,"XRDT")=""
VAR(1,"SUB",11,"SUB")="SRCH Emergency Department"
VAR(1,"SUB",11,"XADT")=""
VAR(1,"SUB",11,"XRDT")=""
VAR(1,"SUB",12,"SUB")="SRCH ENT"
VAR(1,"SUB",12,"XADT")=""
VAR(1,"SUB",12,"XRDT")=""
VAR(1,"SUB",13,"SUB")="SRCH Family Practice"
VAR(1,"SUB",13,"XADT")=""
VAR(1,"SUB",13,"XRDT")=""
VAR(1,"SUB",14,"SUB")="SRCH Medicine - Inpatient"
VAR(1,"SUB",14,"XADT")=""
VAR(1,"SUB",14,"XRDT")=""
VAR(1,"SUB",15,"SUB")="SRCH Medicine - Urgent Care"
VAR(1,"SUB",15,"XADT")=""
VAR(1,"SUB",15,"XRDT")=""
VAR(1,"SUB",16,"SUB")="SRCH Problem List - Medical"
VAR(1,"SUB",16,"XADT")=""
VAR(1,"SUB",16,"XRDT")=""
VAR(1,"SUB",17,"SUB")="SRCH Respiratory"
VAR(1,"SUB",17,"XADT")=""
VAR(1,"SUB",17,"XRDT")=""
VAR(1,"SUB",18,"SUB")="SRCH Pediatrics"
VAR(1,"SUB",18,"XADT")=""
VAR(1,"SUB",18,"XRDT")=""
VAR(1,"SUB",19,"SUB")="IHS Problem List"
VAR(1,"SUB",19,"XADT")=""
VAR(1,"SUB",19,"XRDT")=""
VAR(1,"SYN",1,"DSC")=504996015
VAR(1,"SYN",1,"TRM")="Cold"
VAR(1,"SYN",1,"XADT")=3120301.07
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")=504995016
VAR(1,"SYN",2,"TRM")="Acute infective rhinitis"
VAR(1,"SYN",2,"XADT")=3120301.07
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"SYN",3,"DSC")=200997013
VAR(1,"SYN",3,"TRM")="Head cold"
VAR(1,"SYN",3,"XADT")=3120301.07
VAR(1,"SYN",3,"XRDT")=""
VAR(1,"SYN",4,"DSC")=136471015
VAR(1,"SYN",4,"TRM")="Infective nasopharyngitis"
VAR(1,"SYN",4,"XADT")=3120301.07
VAR(1,"SYN",4,"XRDT")=""
VAR(1,"SYN",5,"DSC")=136470019
VAR(1,"SYN",5,"TRM")="Acute nasopharyngitis"

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VAR(1,"SYN",5,"XADT")=3120301.07
VAR(1,"SYN",5,"XRDT")=""
VAR(1,"SYN",6,"DSC")=136469015
VAR(1,"SYN",6,"TRM")="Infective rhinitis"
VAR(1,"SYN",6,"XADT")=3120301.07
VAR(1,"SYN",6,"XRDT")=""
VAR(1,"SYN",7,"DSC")=136468011
VAR(1,"SYN",7,"TRM")="Acute rhinitis"
VAR(1,"SYN",7,"XADT")=3120301.07
VAR(1,"SYN",7,"XRDT")=""
VAR(1,"SYN",8,"DSC")=136467018
VAR(1,"SYN",8,"TRM")="Infective nasopharyngitis, NOS"
VAR(1,"SYN",8,"XADT")=3120301.07
VAR(1,"SYN",8,"XRDT")=""
VAR(1,"SYN",9,"DSC")=136466010
VAR(1,"SYN",9,"TRM")="Acute nasal catarrh"
VAR(1,"SYN",9,"XADT")=3120301.07
VAR(1,"SYN",9,"XRDT")=""
VAR(1,"SYN",10,"DSC")=136465014
VAR(1,"SYN",10,"TRM")="Acute coryza"
VAR(1,"SYN",10,"XADT")=3120301.07
VAR(1,"SYN",10,"XRDT")=""
VAR(1,"SYN",11,"DSC")=136464013
VAR(1,"SYN",11,"TRM")="Acute nasopharyngitis, NOS"
VAR(1,"SYN",11,"XADT")=3120301.07
VAR(1,"SYN",11,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=3500101
>

```

The following example will return whether a supplied term is a valid in a given code set and version (utilizing a lookup to the remote DTS server):

```

>S OUT="VAR",IN="COMMON COLD^^^2"

>W $$VALTERM^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CON")=82272006
VAR(1,"DTS")=82272
VAR(1,"FSN","DSC")=823660015
VAR(1,"FSN","TRM")="Common cold (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")="460."
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="J00."
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ICD",1,"XADT")=3150424
VAR(1,"ICD",1,"XRDT")=3491201.19
VAR(1,"ISA",1,"CON")=281794004
VAR(1,"ISA",1,"DTS")=281794
VAR(1,"ISA",1,"TRM")="Viral upper respiratory tract infection (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""

```

```
VAR(1,"PRB","DSC")=136463019
VAR(1,"PRB","TRM")="Common cold"
VAR(1,"PRE","DSC")=136463019
VAR(1,"PRE","TRM")="Common cold"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="PICK Complimentary Medicine"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="PICK ENT - Fractures"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="PICK ENT - Nose and Sinus"
VAR(1,"SUB",4,"XADT")=""
VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="PICK Family Practice"
VAR(1,"SUB",5,"XADT")=""
VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="PICK Family Practice Long"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="PICK Medicine - Inpatient"
VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SUB",8,"SUB")="SRCH Asthma"
VAR(1,"SUB",8,"XADT")=""
VAR(1,"SUB",8,"XRDT")=""
VAR(1,"SUB",9,"SUB")="SRCH Audiology"
VAR(1,"SUB",9,"XADT")=""
VAR(1,"SUB",9,"XRDT")=""
VAR(1,"SUB",10,"SUB")="SRCH Complimentary Medicine"
VAR(1,"SUB",10,"XADT")=""
VAR(1,"SUB",10,"XRDT")=""
VAR(1,"SUB",11,"SUB")="SRCH Emergency Department"
VAR(1,"SUB",11,"XADT")=""
VAR(1,"SUB",11,"XRDT")=""
VAR(1,"SUB",12,"SUB")="SRCH ENT"
VAR(1,"SUB",12,"XADT")=""
VAR(1,"SUB",12,"XRDT")=""
VAR(1,"SUB",13,"SUB")="SRCH Family Practice"
VAR(1,"SUB",13,"XADT")=""
VAR(1,"SUB",13,"XRDT")=""
VAR(1,"SUB",14,"SUB")="SRCH Medicine - Inpatient"
VAR(1,"SUB",14,"XADT")=""
VAR(1,"SUB",14,"XRDT")=""
VAR(1,"SUB",15,"SUB")="SRCH Medicine - Urgent Care"
VAR(1,"SUB",15,"XADT")=""
VAR(1,"SUB",15,"XRDT")=""
VAR(1,"SUB",16,"SUB")="SRCH Problem List - Medical"
VAR(1,"SUB",16,"XADT")=""
VAR(1,"SUB",16,"XRDT")=""
VAR(1,"SUB",17,"SUB")="SRCH Respiratory"
VAR(1,"SUB",17,"XADT")=""
VAR(1,"SUB",17,"XRDT")=""
VAR(1,"SUB",18,"SUB")="SRCH Pediatrics"
VAR(1,"SUB",18,"XADT")=""
VAR(1,"SUB",18,"XRDT")=""
VAR(1,"SUB",19,"SUB")="IHS Problem List"
```

```

VAR(1,"SUB",19,"XADT")=""
VAR(1,"SUB",19,"XRDT")=""
VAR(1,"SYN",1,"DSC")=504996015
VAR(1,"SYN",1,"TRM")="Cold"
VAR(1,"SYN",1,"XADT")=3120301.07
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")=504995016
VAR(1,"SYN",2,"TRM")="Acute infective rhinitis"
VAR(1,"SYN",2,"XADT")=3120301.07
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"SYN",3,"DSC")=200997013
VAR(1,"SYN",3,"TRM")="Head cold"
VAR(1,"SYN",3,"XADT")=3120301.07
VAR(1,"SYN",3,"XRDT")=""
VAR(1,"SYN",4,"DSC")=136471015
VAR(1,"SYN",4,"TRM")="Infective nasopharyngitis"
VAR(1,"SYN",4,"XADT")=3120301.07
VAR(1,"SYN",4,"XRDT")=""
VAR(1,"SYN",5,"DSC")=136470019
VAR(1,"SYN",5,"TRM")="Acute nasopharyngitis"
VAR(1,"SYN",5,"XADT")=3120301.07
VAR(1,"SYN",5,"XRDT")=""
VAR(1,"SYN",6,"DSC")=136469015
VAR(1,"SYN",6,"TRM")="Infective rhinitis"
VAR(1,"SYN",6,"XADT")=3120301.07
VAR(1,"SYN",6,"XRDT")=""
VAR(1,"SYN",7,"DSC")=136468011
VAR(1,"SYN",7,"TRM")="Acute rhinitis"
VAR(1,"SYN",7,"XADT")=3120301.07
VAR(1,"SYN",7,"XRDT")=""
VAR(1,"SYN",8,"DSC")=136467018
VAR(1,"SYN",8,"TRM")="Infective nasopharyngitis, NOS"
VAR(1,"SYN",8,"XADT")=3120301.07
VAR(1,"SYN",8,"XRDT")=""
VAR(1,"SYN",9,"DSC")=136466010
VAR(1,"SYN",9,"TRM")="Acute nasal catarrh"
VAR(1,"SYN",9,"XADT")=3120301.07
VAR(1,"SYN",9,"XRDT")=""
VAR(1,"SYN",10,"DSC")=136465014
VAR(1,"SYN",10,"TRM")="Acute coryza"
VAR(1,"SYN",10,"XADT")=3120301.07
VAR(1,"SYN",10,"XRDT")=""
VAR(1,"SYN",11,"DSC")=136464013
VAR(1,"SYN",11,"TRM")="Acute nasopharyngitis, NOS"
VAR(1,"SYN",11,"XADT")=3120301.07
VAR(1,"SYN",11,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=3500101

```

>

The following example will return whether the given term is a valid entry in the “GMRA Signs Symptoms” namespace (utilizing a lookup to the local cache):

```

>S OUT="VAR",IN="ABDOMINAL BLOATING^32772"

>W $$VALTERM^BSTSAPI(OUT,IN)
1

```

```

>ZW @OUT
VAR(1,"ASM",1,"CON")=116289008
VAR(1,"ASM",1,"DTS")=116289
VAR(1,"CON")="ABDOMINAL BLOATING"
VAR(1,"DTS")=603
VAR(1,"FSN","DSC")="T33"
VAR(1,"FSN","TRM")="ABDOMINAL BLOATING"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")="T33"
VAR(1,"PRB","TRM")="ABDOMINAL BLOATING"
VAR(1,"XADT")=""
VAR(1,"XRDT")=""
>

```

A.8 \$\$VALSBTRM^BSTSAPI

The following example will return whether a supplied term is in a particular subset (utilizing a local cache lookup):

```

>S OUT="VAR",IN="93565019^IHS Problem List"

>W $$VALSBTRM^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR=1
>

```

A.9 \$\$VALSBTRMF^BSTSAPI

The following example will return whether a supplied term is in a particular subset (utilizing a local cache lookup):

```

>S OUT="VAR",IN="93565019^IHS Problem List"

>W $$VSBTRMF^BSTSAPI(IN)
1
>

```

A.10 \$\$CNCLKP^BSTSAPI

The following example retrieves the detail for a concept when the Concept ID is provided, utilizing a local cache listing:

```

>S OUT="VAR",IN="2032001"

>W $$CNCLKP^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"CHD",1,"CON")=230760006
VAR(1,"CHD",1,"DTS")=230760
VAR(1,"CHD",1,"TRM")="Cytotoxic cerebral edema (disorder)"

```

```

VAR(1,"CHD",1,"XADT")=""
VAR(1,"CHD",1,"XRDT")=""
VAR(1,"CHD",2,"CON")=230762003
VAR(1,"CHD",2,"DTS")=230762
VAR(1,"CHD",2,"TRM")="High altitude cerebral edema (disorder)"
VAR(1,"CHD",2,"XADT")=""
VAR(1,"CHD",2,"XRDT")=""
VAR(1,"CHD",3,"CON")=230761005
VAR(1,"CHD",3,"DTS")=230761
VAR(1,"CHD",3,"TRM")="Periventricular cerebrospinal fluid edema (disorder)"
VAR(1,"CHD",3,"XADT")=""
VAR(1,"CHD",3,"XRDT")=""
VAR(1,"CHD",4,"CON")=230763008
VAR(1,"CHD",4,"DTS")=230763
VAR(1,"CHD",4,"TRM")="Traumatic cerebral edema (disorder)"
VAR(1,"CHD",4,"XADT")=""
VAR(1,"CHD",4,"XRDT")=""
VAR(1,"CHD",5,"CON")=230759001
VAR(1,"CHD",5,"DTS")=230759
VAR(1,"CHD",5,"TRM")="Vasogenic cerebral edema (disorder)"
VAR(1,"CHD",5,"XADT")=""
VAR(1,"CHD",5,"XRDT")=""
VAR(1,"CON")=2032001
VAR(1,"DTS")=2032
VAR(1,"FSN","DSC")=749395013
VAR(1,"FSN","TRM")="Cerebral edema (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")=348.5
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="ZZZ.999"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ISA",1,"CON")=118654009
VAR(1,"ISA",1,"DTS")=118654
VAR(1,"ISA",1,"TRM")="Disorder characterized by edema (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""
VAR(1,"ISA",2,"CON")=81308009
VAR(1,"ISA",2,"DTS")=81308
VAR(1,"ISA",2,"TRM")="Disorder of brain (disorder)"
VAR(1,"ISA",2,"XADT")=""
VAR(1,"ISA",2,"XRDT")=""
VAR(1,"PRB","DSC")=4508017
VAR(1,"PRB","TRM")="Cerebral edema"
VAR(1,"PRE","DSC")=4508017
VAR(1,"PRE","TRM")="Cerebral edema"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="PICK Neurology Long"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="SRCH Emergency Department"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="SRCH Family Practice"
VAR(1,"SUB",4,"XADT")=""

```

```

VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="SRCH Medicine - Inpatient"
VAR(1,"SUB",5,"XADT")=""
VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="SRCH Medicine - Urgent Care"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="SRCH Neurology"
VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SUB",8,"SUB")="SRCH Problem List - Medical"
VAR(1,"SUB",8,"XADT")=""
VAR(1,"SUB",8,"XRDT")=""
VAR(1,"SUB",9,"SUB")="IHS Problem List"
VAR(1,"SUB",9,"XADT")=""
VAR(1,"SUB",9,"XRDT")=""
VAR(1,"SYN",1,"DSC")=480612016
VAR(1,"SYN",1,"TRM")="Cerebral oedema"
VAR(1,"SYN",1,"XADT")=3120301.07
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")=4509013
VAR(1,"SYN",2,"TRM")="Intracranial swelling"
VAR(1,"SYN",2,"XADT")=3120301.07
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=3500101
>

```

The following example retrieves the detail for a concept when the Concept ID is provided, utilizing a remote DTS listing:

```

>S OUT="VAR",IN="2032001^^^2"

>W $$CNCLKP^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CHD",1,"CON")=230760006
VAR(1,"CHD",1,"DTS")=230760
VAR(1,"CHD",1,"TRM")="Cytotoxic cerebral edema (disorder)"
VAR(1,"CHD",1,"XADT")=""
VAR(1,"CHD",1,"XRDT")=""
VAR(1,"CHD",2,"CON")=230762003
VAR(1,"CHD",2,"DTS")=230762
VAR(1,"CHD",2,"TRM")="High altitude cerebral edema (disorder)"
VAR(1,"CHD",2,"XADT")=""
VAR(1,"CHD",2,"XRDT")=""
VAR(1,"CHD",3,"CON")=230761005
VAR(1,"CHD",3,"DTS")=230761
VAR(1,"CHD",3,"TRM")="Periventricular cerebrospinal fluid edema (disorder)"
VAR(1,"CHD",3,"XADT")=""
VAR(1,"CHD",3,"XRDT")=""
VAR(1,"CHD",4,"CON")=230763008
VAR(1,"CHD",4,"DTS")=230763
VAR(1,"CHD",4,"TRM")="Traumatic cerebral edema (disorder)"
VAR(1,"CHD",4,"XADT")=""
VAR(1,"CHD",4,"XRDT")=""
VAR(1,"CHD",5,"CON")=230759001
VAR(1,"CHD",5,"DTS")=230759
VAR(1,"CHD",5,"TRM")="Vasogenic cerebral edema (disorder)"

```

```

VAR(1,"CHD",5,"XADT")=""
VAR(1,"CHD",5,"XRDT")=""
VAR(1,"CON")=2032001
VAR(1,"DTS")=2032
VAR(1,"FSN","DSC")=749395013
VAR(1,"FSN","TRM")="Cerebral edema (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")=348.5
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="ZZZ.999"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ISA",1,"CON")=118654009
VAR(1,"ISA",1,"DTS")=118654
VAR(1,"ISA",1,"TRM")="Disorder characterized by edema (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""
VAR(1,"ISA",2,"CON")=81308009
VAR(1,"ISA",2,"DTS")=81308
VAR(1,"ISA",2,"TRM")="Disorder of brain (disorder)"
VAR(1,"ISA",2,"XADT")=""
VAR(1,"ISA",2,"XRDT")=""
VAR(1,"PRB","DSC")=4508017
VAR(1,"PRB","TRM")="Cerebral edema"
VAR(1,"PRE","DSC")=4508017
VAR(1,"PRE","TRM")="Cerebral edema"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="PICK Neurology Long"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="SRCH Emergency Department"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="SRCH Family Practice"
VAR(1,"SUB",4,"XADT")=""
VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="SRCH Medicine - Inpatient"
VAR(1,"SUB",5,"XADT")=""
VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="SRCH Medicine - Urgent Care"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="SRCH Neurology"
VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SUB",8,"SUB")="SRCH Problem List - Medical"
VAR(1,"SUB",8,"XADT")=""
VAR(1,"SUB",8,"XRDT")=""
VAR(1,"SUB",9,"SUB")="IHS Problem List"
VAR(1,"SUB",9,"XADT")=""
VAR(1,"SUB",9,"XRDT")=""
VAR(1,"SYN",1,"DSC")=480612016
VAR(1,"SYN",1,"TRM")="Cerebral oedema"
VAR(1,"SYN",1,"XADT")=3120301.07
VAR(1,"SYN",1,"XRDT")=""

```

```

VAR(1,"SYN",2,"DSC")=4509013
VAR(1,"SYN",2,"TRM")="Intracranial swelling"
VAR(1,"SYN",2,"XADT")=3120301.07
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=3500101
>

```

The following example retrieves the detail for a concept when the Concept ID is provided (RxNorm Codeset), utilizing a local cache listing:

```

>S OUT="VAR",IN="851732^1552"

>W $$CNCLKP^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"CON")=851732
VAR(1,"DTS")=11328554
VAR(1,"FSN","DSC")=2973307
VAR(1,"FSN","TRM")="Acacia pollen extract"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")=2973307
VAR(1,"PRB","TRM")="Acacia pollen extract"
VAR(1,"PRE","DSC")=2973307
VAR(1,"PRE","TRM")="Acacia pollen extract"
VAR(1,"PRE","XADT")=""
VAR(1,"PRE","XRDT")=""
VAR(1,"TTY",1,"TTY")="IN"
VAR(1,"TTY",1,"XADT")=3091101.06
VAR(1,"TTY",1,"XRDT")=3500101.19
VAR(1,"XADT")=""
VAR(1,"XRDT")=""
>

```

A.11 \$\$DTSLKP^BSTSAPI

The following example retrieves the detail for a concept when the DTS ID is provided:

```

>S OUT="VAR",IN="8801"

>W $$DTSLKP^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CHD",1,"CON")=426705001
VAR(1,"CHD",1,"DTS")=426705
VAR(1,"CHD",1,"TRM")="Diabetes mellitus associated with cystic fibrosis
(disorder)"
VAR(1,"CHD",1,"XADT")=""
VAR(1,"CHD",1,"XRDT")=""
VAR(1,"CHD",2,"CON")=5969009
VAR(1,"CHD",2,"DTS")=5969

```

```
VAR(1,"CHD",2,"TRM")="Diabetes mellitus associated with genetic syndrome (disorder)"
VAR(1,"CHD",2,"XADT")=""
VAR(1,"CHD",2,"XRDT")=""
VAR(1,"CHD",3,"CON")=59079001
VAR(1,"CHD",3,"DTS")=59079
VAR(1,"CHD",3,"TRM")="Diabetes mellitus associated with hormonal etiology (disorder)"
VAR(1,"CHD",3,"XADT")=""
VAR(1,"CHD",3,"XRDT")=""
VAR(1,"CHD",4,"CON")=51002006
VAR(1,"CHD",4,"DTS")=51002
VAR(1,"CHD",4,"TRM")="Diabetes mellitus associated with pancreatic disease (disorder)"
VAR(1,"CHD",4,"XADT")=""
VAR(1,"CHD",4,"XRDT")=""
VAR(1,"CHD",5,"CON")=42954008
VAR(1,"CHD",5,"DTS")=42954
VAR(1,"CHD",5,"TRM")="Diabetes mellitus associated with receptor abnormality (disorder)"
VAR(1,"CHD",5,"XADT")=""
VAR(1,"CHD",5,"XRDT")=""
VAR(1,"CHD",6,"CON")=75682002
VAR(1,"CHD",6,"DTS")=75682
VAR(1,"CHD",6,"TRM")="Diabetes mellitus due to insulin receptor antibodies (disorder)"
VAR(1,"CHD",6,"XADT")=""
VAR(1,"CHD",6,"XRDT")=""
VAR(1,"CHD",7,"CON")=276560009
VAR(1,"CHD",7,"DTS")=276560
VAR(1,"CHD",7,"TRM")="Diabetes mellitus in neonate small for gestational age (disorder)"
VAR(1,"CHD",7,"XADT")=""
VAR(1,"CHD",7,"XRDT")=""
VAR(1,"CHD",8,"CON")=5368009
VAR(1,"CHD",8,"DTS")=5368
VAR(1,"CHD",8,"TRM")="Drug-induced diabetes mellitus (disorder)"
VAR(1,"CHD",8,"XADT")=""
VAR(1,"CHD",8,"XRDT")=""
VAR(1,"CHD",9,"CON")=408539000
VAR(1,"CHD",9,"DTS")=408539
VAR(1,"CHD",9,"TRM")="Insulin autoimmune syndrome (disorder)"
VAR(1,"CHD",9,"XADT")=""
VAR(1,"CHD",9,"XRDT")=""
VAR(1,"CHD",10,"CON")=75524006
VAR(1,"CHD",10,"DTS")=75524
VAR(1,"CHD",10,"TRM")="Malnutrition related diabetes mellitus (disorder)"
VAR(1,"CHD",10,"XADT")=""
VAR(1,"CHD",10,"XRDT")=""
VAR(1,"CHD",11,"CON")=445260006
VAR(1,"CHD",11,"DTS")=445260
VAR(1,"CHD",11,"TRM")="Posttransplant diabetes mellitus (disorder)"
VAR(1,"CHD",11,"XADT")=""
VAR(1,"CHD",11,"XRDT")=""
VAR(1,"CHD",12,"CON")=237601000
VAR(1,"CHD",12,"DTS")=237601
VAR(1,"CHD",12,"TRM")="Secondary endocrine diabetes mellitus (disorder)"
VAR(1,"CHD",12,"XADT")=""
VAR(1,"CHD",12,"XRDT")=""
VAR(1,"CON")=8801005
VAR(1,"DTS")=8801
```

```

VAR(1,"FSN","DSC")=830605015
VAR(1,"FSN","TRM")="Secondary diabetes mellitus (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")="250.80"
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="E13.9"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ICD",1,"XADT")=3150510
VAR(1,"ICD",1,"XRDT")=3491201.19
VAR(1,"ISA",1,"CON")=73211009
VAR(1,"ISA",1,"DTS")=73211
VAR(1,"ISA",1,"TRM")="Diabetes mellitus (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""
VAR(1,"PRB","DSC")=15518018
VAR(1,"PRB","TRM")="Secondary diabetes mellitus"
VAR(1,"PRE","DSC")=15518018
VAR(1,"PRE","TRM")="Secondary diabetes mellitus"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="PICK Urology/Nephrology Long"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="SRCH Diabetes"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="SRCH Neurology"
VAR(1,"SUB",4,"XADT")=""
VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="SRCH Pediatrics"
VAR(1,"SUB",5,"XADT")=""
VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="IHS Problem List"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="PXRM DIABETES"
VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SYN",1,"DSC")=1109081000119118
VAR(1,"SYN",1,"TRM")="Secondary diabetes"
VAR(1,"SYN",1,"XADT")=3140301.07
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")=1109071000119116
VAR(1,"SYN",2,"TRM")="Secondary dm"
VAR(1,"SYN",2,"XADT")=3140301.07
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"SYN",3,"DSC")=15519014
VAR(1,"SYN",3,"TRM")="Secondary diabetes mellitus, NOS"
VAR(1,"SYN",3,"XADT")=3120301.07
VAR(1,"SYN",3,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=3500101

```

>

A.12 \$\$DSCLKP^BSTSAPI

The following example retrieves the detail for the associated concept when the Description ID for a term is provided (utilizing a lookup to the local cache):

```
>S OUT="VAR",IN="830605015"

>W $$DSCLKP^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"CHD",1,"CON")=426705001
VAR(1,"CHD",1,"DTS")=426705
VAR(1,"CHD",1,"TRM")="Diabetes mellitus associated with cystic fibrosis
(disorder)"
VAR(1,"CHD",1,"XADT")=""
VAR(1,"CHD",1,"XRDT")=""
VAR(1,"CHD",2,"CON")=5969009
VAR(1,"CHD",2,"DTS")=5969
VAR(1,"CHD",2,"TRM")="Diabetes mellitus associated with genetic syndrome
(disorder)"
VAR(1,"CHD",2,"XADT")=""
VAR(1,"CHD",2,"XRDT")=""
VAR(1,"CHD",3,"CON")=59079001
VAR(1,"CHD",3,"DTS")=59079
VAR(1,"CHD",3,"TRM")="Diabetes mellitus associated with hormonal etiology
(disorder)"
VAR(1,"CHD",3,"XADT")=""
VAR(1,"CHD",3,"XRDT")=""
VAR(1,"CHD",4,"CON")=51002006
VAR(1,"CHD",4,"DTS")=51002
VAR(1,"CHD",4,"TRM")="Diabetes mellitus associated with pancreatic disease
(disorder)"
VAR(1,"CHD",4,"XADT")=""
VAR(1,"CHD",4,"XRDT")=""
VAR(1,"CHD",5,"CON")=42954008
VAR(1,"CHD",5,"DTS")=42954
VAR(1,"CHD",5,"TRM")="Diabetes mellitus associated with receptor
abnormality (disorder)"
VAR(1,"CHD",5,"XADT")=""
VAR(1,"CHD",5,"XRDT")=""
VAR(1,"CHD",6,"CON")=75682002
VAR(1,"CHD",6,"DTS")=75682
VAR(1,"CHD",6,"TRM")="Diabetes mellitus due to insulin receptor antibodies
(disorder)"
VAR(1,"CHD",6,"XADT")=""
VAR(1,"CHD",6,"XRDT")=""
VAR(1,"CHD",7,"CON")=276560009
VAR(1,"CHD",7,"DTS")=276560
VAR(1,"CHD",7,"TRM")="Diabetes mellitus in neonate small for gestational
age (disorder)"
VAR(1,"CHD",7,"XADT")=""
VAR(1,"CHD",7,"XRDT")=""
VAR(1,"CHD",8,"CON")=5368009
VAR(1,"CHD",8,"DTS")=5368
VAR(1,"CHD",8,"TRM")="Drug-induced diabetes mellitus (disorder)"
VAR(1,"CHD",8,"XADT")=""
VAR(1,"CHD",8,"XRDT")=""
VAR(1,"CHD",9,"CON")=408539000
VAR(1,"CHD",9,"DTS")=408539
VAR(1,"CHD",9,"TRM")="Insulin autoimmune syndrome (disorder)"
```

```

VAR(1,"CHD",9,"XADT")=""
VAR(1,"CHD",9,"XRDT")=""
VAR(1,"CHD",10,"CON")=75524006
VAR(1,"CHD",10,"DTS")=75524
VAR(1,"CHD",10,"TRM")="Malnutrition related diabetes mellitus (disorder)"
VAR(1,"CHD",10,"XADT")=""
VAR(1,"CHD",10,"XRDT")=""
VAR(1,"CHD",11,"CON")=445260006
VAR(1,"CHD",11,"DTS")=445260
VAR(1,"CHD",11,"TRM")="Posttransplant diabetes mellitus (disorder)"
VAR(1,"CHD",11,"XADT")=""
VAR(1,"CHD",11,"XRDT")=""
VAR(1,"CHD",12,"CON")=237601000
VAR(1,"CHD",12,"DTS")=237601
VAR(1,"CHD",12,"TRM")="Secondary endocrine diabetes mellitus (disorder)"
VAR(1,"CHD",12,"XADT")=""
VAR(1,"CHD",12,"XRDT")=""
VAR(1,"CON")=8801005
VAR(1,"DTS")=8801
VAR(1,"FSN","DSC")=830605015
VAR(1,"FSN","TRM")="Secondary diabetes mellitus (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")="250.80"
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="E13.9"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ICD",1,"XADT")=3150510
VAR(1,"ICD",1,"XRDT")=3491201.19
VAR(1,"ISA",1,"CON")=73211009
VAR(1,"ISA",1,"DTS")=73211
VAR(1,"ISA",1,"TRM")="Diabetes mellitus (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""
VAR(1,"PRB","DSC")=830605015
VAR(1,"PRB","TRM")="Secondary diabetes mellitus (disorder)"
VAR(1,"PRE","DSC")=15518018
VAR(1,"PRE","TRM")="Secondary diabetes mellitus"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""
VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="PICK Urology/Nephrology Long"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="SRCH Diabetes"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="SRCH Neurology"
VAR(1,"SUB",4,"XADT")=""
VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="SRCH Pediatrics"
VAR(1,"SUB",5,"XADT")=""
VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="IHS Problem List"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="PXRM DIABETES"

```

```

VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SYN",1,"DSC")=1109081000119118
VAR(1,"SYN",1,"TRM")="Secondary diabetes"
VAR(1,"SYN",1,"XADT")=3140301.07
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")=1109071000119116
VAR(1,"SYN",2,"TRM")="Secondary dm"
VAR(1,"SYN",2,"XADT")=3140301.07
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"SYN",3,"DSC")=15519014
VAR(1,"SYN",3,"TRM")="Secondary diabetes mellitus, NOS"
VAR(1,"SYN",3,"XADT")=3120301.07
VAR(1,"SYN",3,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=3500101

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The following example retrieves the detail for the associated concept when the Description ID for a term is provided (utilizing a remote DTS server lookup):

```

>S OUT="VAR",IN="830605015^^2"

>W $$DSCLKP^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"CHD",1,"CON")=426705001
VAR(1,"CHD",1,"DTS")=426705
VAR(1,"CHD",1,"TRM")="Diabetes mellitus associated with cystic fibrosis
(disorder)"
VAR(1,"CHD",1,"XADT")=""
VAR(1,"CHD",1,"XRDT")=""
VAR(1,"CHD",2,"CON")=5969009
VAR(1,"CHD",2,"DTS")=5969
VAR(1,"CHD",2,"TRM")="Diabetes mellitus associated with genetic syndrome
(disorder)"
VAR(1,"CHD",2,"XADT")=""
VAR(1,"CHD",2,"XRDT")=""
VAR(1,"CHD",3,"CON")=59079001
VAR(1,"CHD",3,"DTS")=59079
VAR(1,"CHD",3,"TRM")="Diabetes mellitus associated with hormonal etiology
(disorder)"
VAR(1,"CHD",3,"XADT")=""
VAR(1,"CHD",3,"XRDT")=""
VAR(1,"CHD",4,"CON")=51002006
VAR(1,"CHD",4,"DTS")=51002
VAR(1,"CHD",4,"TRM")="Diabetes mellitus associated with pancreatic disease
(disorder)"
VAR(1,"CHD",4,"XADT")=""
VAR(1,"CHD",4,"XRDT")=""
VAR(1,"CHD",5,"CON")=42954008
VAR(1,"CHD",5,"DTS")=42954
VAR(1,"CHD",5,"TRM")="Diabetes mellitus associated with receptor
abnormality (disorder)"
VAR(1,"CHD",5,"XADT")=""
VAR(1,"CHD",5,"XRDT")=""
VAR(1,"CHD",6,"CON")=75682002

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VAR(1,"CHD",6,"DTS")=75682
VAR(1,"CHD",6,"TRM")="Diabetes mellitus due to insulin receptor antibodies
(disorder)"
VAR(1,"CHD",6,"XADT")=""
VAR(1,"CHD",6,"XRDT")=""
VAR(1,"CHD",7,"CON")=276560009
VAR(1,"CHD",7,"DTS")=276560
VAR(1,"CHD",7,"TRM")="Diabetes mellitus in neonate small for gestational
age (disorder)"
VAR(1,"CHD",7,"XADT")=""
VAR(1,"CHD",7,"XRDT")=""
VAR(1,"CHD",8,"CON")=5368009
VAR(1,"CHD",8,"DTS")=5368
VAR(1,"CHD",8,"TRM")="Drug-induced diabetes mellitus (disorder)"
VAR(1,"CHD",8,"XADT")=""
VAR(1,"CHD",8,"XRDT")=""
VAR(1,"CHD",9,"CON")=408539000
VAR(1,"CHD",9,"DTS")=408539
VAR(1,"CHD",9,"TRM")="Insulin autoimmune syndrome (disorder)"
VAR(1,"CHD",9,"XADT")=""
VAR(1,"CHD",9,"XRDT")=""
VAR(1,"CHD",10,"CON")=75524006
VAR(1,"CHD",10,"DTS")=75524
VAR(1,"CHD",10,"TRM")="Malnutrition related diabetes mellitus (disorder)"
VAR(1,"CHD",10,"XADT")=""
VAR(1,"CHD",10,"XRDT")=""
VAR(1,"CHD",11,"CON")=445260006
VAR(1,"CHD",11,"DTS")=445260
VAR(1,"CHD",11,"TRM")="Posttransplant diabetes mellitus (disorder)"
VAR(1,"CHD",11,"XADT")=""
VAR(1,"CHD",11,"XRDT")=""
VAR(1,"CHD",12,"CON")=237601000
VAR(1,"CHD",12,"DTS")=237601
VAR(1,"CHD",12,"TRM")="Secondary endocrine diabetes mellitus (disorder)"
VAR(1,"CHD",12,"XADT")=""
VAR(1,"CHD",12,"XRDT")=""
VAR(1,"CON")=8801005
VAR(1,"DTS")=8801
VAR(1,"FSN","DSC")=830605015
VAR(1,"FSN","TRM")="Secondary diabetes mellitus (disorder)"
VAR(1,"FSN","XADT")=3120301.07
VAR(1,"FSN","XRDT")=""
VAR(1,"IC9",1,"COD")="250.80"
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"IC9",1,"XADT")=""
VAR(1,"IC9",1,"XRDT")=""
VAR(1,"ICD",1,"COD")="E13.9"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ICD",1,"XADT")=3150510
VAR(1,"ICD",1,"XRDT")=""
VAR(1,"ISA",1,"CON")=73211009
VAR(1,"ISA",1,"DTS")=73211
VAR(1,"ISA",1,"TRM")="Diabetes mellitus (disorder)"
VAR(1,"ISA",1,"XADT")=""
VAR(1,"ISA",1,"XRDT")=""
VAR(1,"PRB","DSC")=830605015
VAR(1,"PRB","TRM")="Secondary diabetes mellitus (disorder)"
VAR(1,"PRE","DSC")=15518018
VAR(1,"PRE","TRM")="Secondary diabetes mellitus"
VAR(1,"PRE","XADT")=3120301.07
VAR(1,"PRE","XRDT")=""

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VAR(1,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(1,"SUB",1,"XADT")=""
VAR(1,"SUB",1,"XRDT")=""
VAR(1,"SUB",2,"SUB")="PICK Urology/Nephrology Long"
VAR(1,"SUB",2,"XADT")=""
VAR(1,"SUB",2,"XRDT")=""
VAR(1,"SUB",3,"SUB")="SRCH Diabetes"
VAR(1,"SUB",3,"XADT")=""
VAR(1,"SUB",3,"XRDT")=""
VAR(1,"SUB",4,"SUB")="SRCH Neurology"
VAR(1,"SUB",4,"XADT")=""
VAR(1,"SUB",4,"XRDT")=""
VAR(1,"SUB",5,"SUB")="SRCH Pediatrics"
VAR(1,"SUB",5,"XADT")=""
VAR(1,"SUB",5,"XRDT")=""
VAR(1,"SUB",6,"SUB")="IHS Problem List"
VAR(1,"SUB",6,"XADT")=""
VAR(1,"SUB",6,"XRDT")=""
VAR(1,"SUB",7,"SUB")="PXRM DIABETES"
VAR(1,"SUB",7,"XADT")=""
VAR(1,"SUB",7,"XRDT")=""
VAR(1,"SYN",1,"DSC")=1109081000119118
VAR(1,"SYN",1,"TRM")="Secondary diabetes"
VAR(1,"SYN",1,"XADT")=3140301.07
VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")=1109071000119116
VAR(1,"SYN",2,"TRM")="Secondary dm"
VAR(1,"SYN",2,"XADT")=3140301.07
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"SYN",3,"DSC")=15519014
VAR(1,"SYN",3,"TRM")="Secondary diabetes mellitus, NOS"
VAR(1,"SYN",3,"XADT")=3120301.07
VAR(1,"SYN",3,"XRDT")=""
VAR(1,"XADT")=3120301
VAR(1,"XRDT")=""
>

```

The following example retrieves the detail for the associated concept when the Description ID for a term is provided (UNII Codeset). A lookup to the local cache is getting utilized:

```

>S OUT="VAR",IN="5C5403N260.316825^5180"

>W $$DSCLKP^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"CON")="5C5403N260"
VAR(1,"DTS")=57
VAR(1,"FSN","DSC")="5C5403N260.57"
VAR(1,"FSN","TRM")="ACACIA"
VAR(1,"FSN","XADT")=""
VAR(1,"FSN","XRDT")=""
VAR(1,"PRB","DSC")="5C5403N260.316825"
VAR(1,"PRB","TRM")="ACACIA POWDER [VANDF]"
VAR(1,"SYN",1,"DSC")="5C5403N260.316825"
VAR(1,"SYN",1,"TRM")="ACACIA POWDER [VANDF]"
VAR(1,"SYN",1,"XADT")=""

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VAR(1,"SYN",1,"XRDT")=""
VAR(1,"SYN",2,"DSC")="5C5403N26O.316824"
VAR(1,"SYN",2,"TRM")="ACACIA [VANDF]"
VAR(1,"SYN",2,"XADT")=""
VAR(1,"SYN",2,"XRDT")=""
VAR(1,"SYN",3,"DSC")="5C5403N26O.316823"
VAR(1,"SYN",3,"TRM")="GUM ARABIC [VANDF]"
VAR(1,"SYN",3,"XADT")=""
VAR(1,"SYN",3,"XRDT")=""
VAR(1,"SYN",4,"DSC")="5C5403N26O.316822"
VAR(1,"SYN",4,"TRM")="PLANTS AND PLANT PARTS, GUM, ACACIA OR ARABIC ACACIA
SENEGAL"
VAR(1,"SYN",4,"XADT")=""
VAR(1,"SYN",4,"XRDT")=""
VAR(1,"SYN",5,"DSC")="5C5403N26O.316821"
VAR(1,"SYN",5,"TRM")="ACACIA SENEGAL GUM [WHO-DD]"
VAR(1,"SYN",5,"XADT")=""
VAR(1,"SYN",5,"XRDT")=""
VAR(1,"SYN",6,"DSC")="5C5403N26O.316820"
VAR(1,"SYN",6,"TRM")="ACACIA SENEGAL RESIN [WHO-DD]"
VAR(1,"SYN",6,"XADT")=""
VAR(1,"SYN",6,"XRDT")=""
VAR(1,"SYN",7,"DSC")="5C5403N26O.316819"
VAR(1,"SYN",7,"TRM")="ACACIA [HSDB]"
VAR(1,"SYN",7,"XADT")=""
VAR(1,"SYN",7,"XRDT")=""
VAR(1,"SYN",8,"DSC")="5C5403N26O.316818"
VAR(1,"SYN",8,"TRM")="ARABIC GUM ALLERGENIC EXTRACT"
VAR(1,"SYN",8,"XADT")=""
VAR(1,"SYN",8,"XRDT")=""
VAR(1,"SYN",9,"DSC")="5C5403N26O.316817"
VAR(1,"SYN",9,"TRM")="ALLERGENIC EXTRACT- GUM, ACACIA OR ARABIC ACACIA
SENEGAL"
VAR(1,"SYN",9,"XADT")=""
VAR(1,"SYN",9,"XRDT")=""
VAR(1,"SYN",10,"DSC")="5C5403N26O.316816"
VAR(1,"SYN",10,"TRM")="AE-GUM, ACACIA"
VAR(1,"SYN",10,"XADT")=""
VAR(1,"SYN",10,"XRDT")=""
VAR(1,"SYN",11,"DSC")="5C5403N26O.316815"
VAR(1,"SYN",11,"TRM")="AE-GUM, ARABIC"
VAR(1,"SYN",11,"XADT")=""
VAR(1,"SYN",11,"XRDT")=""
VAR(1,"SYN",12,"DSC")="5C5403N26O.165026"
VAR(1,"SYN",12,"TRM")="ACACIA [II]"
VAR(1,"SYN",12,"XADT")=""
VAR(1,"SYN",12,"XRDT")=""
VAR(1,"SYN",13,"DSC")="5C5403N26O.165025"
VAR(1,"SYN",13,"TRM")="ACACIA MUCILAGE [II]"
VAR(1,"SYN",13,"XADT")=""
VAR(1,"SYN",13,"XRDT")=""
VAR(1,"SYN",14,"DSC")="5C5403N26O.165024"
VAR(1,"SYN",14,"TRM")="GUM ARABIC [FCC]"
VAR(1,"SYN",14,"XADT")=""
VAR(1,"SYN",14,"XRDT")=""
VAR(1,"SYN",15,"DSC")="5C5403N26O.165023"
VAR(1,"SYN",15,"TRM")="ACACIA [MI]"
VAR(1,"SYN",15,"XADT")=""
VAR(1,"SYN",15,"XRDT")=""
VAR(1,"SYN",16,"DSC")="5C5403N26O.165022"
VAR(1,"SYN",16,"TRM")="ACACIA [MART.]"

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```
VAR(1,"SYN",16,"XADT")=""
VAR(1,"SYN",16,"XRDT")=""
VAR(1,"SYN",17,"DSC")="5C5403N260.165021"
VAR(1,"SYN",17,"TRM")="ACACIA SENEGAL GUM [INCI]"
VAR(1,"SYN",17,"XADT")=""
VAR(1,"SYN",17,"XRDT")=""
VAR(1,"SYN",18,"DSC")="5C5403N260.165020"
VAR(1,"SYN",18,"TRM")="ACACIA SENEGAL GUM EXTRACT [INCI]"
VAR(1,"SYN",18,"XADT")=""
VAR(1,"SYN",18,"XRDT")=""
VAR(1,"SYN",19,"DSC")="5C5403N260.165019"
VAR(1,"SYN",19,"TRM")="ACACIA SENEGAL GUM"
VAR(1,"SYN",19,"XADT")=""
VAR(1,"SYN",19,"XRDT")=""
VAR(1,"SYN",20,"DSC")="5C5403N260.87154"
VAR(1,"SYN",20,"TRM")="ARABIC GUM"
VAR(1,"SYN",20,"XADT")=""
VAR(1,"SYN",20,"XRDT")=""
VAR(1,"SYN",21,"DSC")="5C5403N260.87153"
VAR(1,"SYN",21,"TRM")="ACACIA, SPRAY-DRIED [EP]"
VAR(1,"SYN",21,"XADT")=""
VAR(1,"SYN",21,"XRDT")=""
VAR(1,"SYN",22,"DSC")="5C5403N260.87152"
VAR(1,"SYN",22,"TRM")="ACACIA, SPRAY-DRIED"
VAR(1,"SYN",22,"XADT")=""
VAR(1,"SYN",22,"XRDT")=""
VAR(1,"SYN",23,"DSC")="5C5403N260.87151"
VAR(1,"SYN",23,"TRM")="ACACIA GUM [FHFI]"
VAR(1,"SYN",23,"XADT")=""
VAR(1,"SYN",23,"XRDT")=""
VAR(1,"SYN",24,"DSC")="5C5403N260.87150"
VAR(1,"SYN",24,"TRM")="ACACIA ARABICA [HPUS]"
VAR(1,"SYN",24,"XADT")=""
VAR(1,"SYN",24,"XRDT")=""
VAR(1,"SYN",25,"DSC")="5C5403N260.87149"
VAR(1,"SYN",25,"TRM")="ACACIA SENEGAL GUM EXTRACT"
VAR(1,"SYN",25,"XADT")=""
VAR(1,"SYN",25,"XRDT")=""
VAR(1,"SYN",26,"DSC")="5C5403N260.87148"
VAR(1,"SYN",26,"TRM")="ACACIA POWDER"
VAR(1,"SYN",26,"XADT")=""
VAR(1,"SYN",26,"XRDT")=""
VAR(1,"SYN",27,"DSC")="5C5403N260.21204"
VAR(1,"SYN",27,"TRM")="THORNY ACACIA RESIN"
VAR(1,"SYN",27,"XADT")=""
VAR(1,"SYN",27,"XRDT")=""
VAR(1,"SYN",28,"DSC")="5C5403N260.21203"
VAR(1,"SYN",28,"TRM")="SENEGALIA SENEGAL RESIN"
VAR(1,"SYN",28,"XADT")=""
VAR(1,"SYN",28,"XRDT")=""
VAR(1,"SYN",29,"DSC")="5C5403N260.21202"
VAR(1,"SYN",29,"TRM")="SENEGAL GUM"
VAR(1,"SYN",29,"XADT")=""
VAR(1,"SYN",29,"XRDT")=""
VAR(1,"SYN",30,"DSC")="5C5403N260.21201"
VAR(1,"SYN",30,"TRM")="RFAUDRAKSHA RESIN"
VAR(1,"SYN",30,"XADT")=""
VAR(1,"SYN",30,"XRDT")=""
VAR(1,"SYN",31,"DSC")="5C5403N260.21200"
VAR(1,"SYN",31,"TRM")="MIMOSA SENEGAL RESIN"
VAR(1,"SYN",31,"XADT")=""
```

```
VAR(1,"SYN",31,"XRDT")=""
VAR(1,"SYN",32,"DSC")="5C5403N260.21199"
VAR(1,"SYN",32,"TRM")="KHER RESIN"
VAR(1,"SYN",32,"XADT")=""
VAR(1,"SYN",32,"XRDT")=""
VAR(1,"SYN",33,"DSC")="5C5403N260.21198"
VAR(1,"SYN",33,"TRM")="GUMMI ARABICUM"
VAR(1,"SYN",33,"XADT")=""
VAR(1,"SYN",33,"XRDT")=""
VAR(1,"SYN",34,"DSC")="5C5403N260.21197"
VAR(1,"SYN",34,"TRM")="GUM SENEGAL"
VAR(1,"SYN",34,"XADT")=""
VAR(1,"SYN",34,"XRDT")=""
VAR(1,"SYN",35,"DSC")="5C5403N260.21196"
VAR(1,"SYN",35,"TRM")="ACACIAE GUMMI"
VAR(1,"SYN",35,"XADT")=""
VAR(1,"SYN",35,"XRDT")=""
VAR(1,"SYN",36,"DSC")="5C5403N260.21195"
VAR(1,"SYN",36,"TRM")="ACACIA VOLKII RESIN"
VAR(1,"SYN",36,"XADT")=""
VAR(1,"SYN",36,"XRDT")=""
VAR(1,"SYN",37,"DSC")="5C5403N260.21194"
VAR(1,"SYN",37,"TRM")="ACACIA SPINOSA RESIN"
VAR(1,"SYN",37,"XADT")=""
VAR(1,"SYN",37,"XRDT")=""
VAR(1,"SYN",38,"DSC")="5C5403N260.21193"
VAR(1,"SYN",38,"TRM")="ACACIA RUPESTRIS RESIN"
VAR(1,"SYN",38,"XADT")=""
VAR(1,"SYN",38,"XRDT")=""
VAR(1,"SYN",39,"DSC")="5C5403N260.21192"
VAR(1,"SYN",39,"TRM")="ACACIA OXYOSPRION RESIN"
VAR(1,"SYN",39,"XADT")=""
VAR(1,"SYN",39,"XRDT")=""
VAR(1,"SYN",40,"DSC")="5C5403N260.21191"
VAR(1,"SYN",40,"TRM")="ACACIA MUCILAGE"
VAR(1,"SYN",40,"XADT")=""
VAR(1,"SYN",40,"XRDT")=""
VAR(1,"SYN",41,"DSC")="5C5403N260.21190"
VAR(1,"SYN",41,"TRM")="ACACIA CUFODONTII RESIN"
VAR(1,"SYN",41,"XADT")=""
VAR(1,"SYN",41,"XRDT")=""
VAR(1,"SYN",42,"DSC")="5C5403N260.21189"
VAR(1,"SYN",42,"TRM")="ACACIA CIRCUMMARGINATA RESIN"
VAR(1,"SYN",42,"XADT")=""
VAR(1,"SYN",42,"XRDT")=""
VAR(1,"SYN",43,"DSC")="5C5403N260.21188"
VAR(1,"SYN",43,"TRM")="ACACIA ARABICA"
VAR(1,"SYN",43,"XADT")=""
VAR(1,"SYN",43,"XRDT")=""
VAR(1,"SYN",44,"DSC")="5C5403N260.8759"
VAR(1,"SYN",44,"TRM")="GUM ARABIC"
VAR(1,"SYN",44,"XADT")=""
VAR(1,"SYN",44,"XRDT")=""
VAR(1,"SYN",45,"DSC")="5C5403N260.8758"
VAR(1,"SYN",45,"TRM")="GUM ACACIA"
VAR(1,"SYN",45,"XADT")=""
VAR(1,"SYN",45,"XRDT")=""
VAR(1,"SYN",46,"DSC")="5C5403N260.8757"
VAR(1,"SYN",46,"TRM")="ACACIA VEREK RESIN"
VAR(1,"SYN",46,"XADT")=""
VAR(1,"SYN",46,"XRDT")=""
```

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VAR(1,"SYN",47,"DSC")="5C5403N260.8756"
VAR(1,"SYN",47,"TRM")="ACACIA SENEGAL RESIN"
VAR(1,"SYN",47,"XADT")=""
VAR(1,"SYN",47,"XRDT")=""
VAR(1,"SYN",48,"DSC")="5C5403N260.8755"
VAR(1,"SYN",48,"TRM")="ACACIA GUM"
VAR(1,"SYN",48,"XADT")=""
VAR(1,"SYN",48,"XRDT")=""
VAR(1,"XADT")=""
VAR(1,"XRDT")=""
>

```

A.13 \$\$DESC^BSTSAPI

The following example returns the Concept ID, the Description Term, and the mapped ICD9 codes of the concept when a Description ID is provided (utilizing a local cache lookup):

```

>W $$DESC^BSTSAPI(459311019)
314903002^Type II diabetes mellitus with arthropathy^ZZZ.999^250.00;716.90
>

```

A.14 \$\$CONC^BSTSAPI

The following example returns the Fully Specified Name, its associated Description ID, the Preferred Term and its associated Description ID, and the mapped ICD9 codes when a Concept ID is provided (utilizing a local cache lookup):

```

>W $$CONC^BSTSAPI(314903002)
711739010^Type II diabetes mellitus with arthropathy
(disorder)^459310018^Type 2 diabetes mellitus with
arthropathy^ZZZ.999^250.00;716.90
>

```

A.15 \$\$SUBLST^BSTSAPI

The following example shows the concepts found in the "SRCH Preventive Care" subset, using a local cache lookup:

```

>S OUT="VAR",IN="SRCH Preventive Care"

>W $$SUBLST^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1)="130969003^210604017^Health seeking behavior"
VAR(2)="266758009^397223010^Immunization contraindicated"
VAR(3)="418043000^2578952010^Advice given"
VAR(4)="171226003^265323017^Aortic aneurysm screening"
VAR(5)="397940009^1777529016^Victim of child abuse"
VAR(6)="185665008^285656016^BP screening - first call"
VAR(7)="392089008^1486075012^Breast procedure"
VAR(8)="46662001^77772014^Examination of breast"

```

```

VAR(9)="171216005^265312016^Cataract screening"
VAR(10)="274412005^410210013^Eye disorder screening"
VAR(11)="171164006^265213011^Cervical smear due"
VAR(12)="95922009^158895013^Child sex abuse"
VAR(13)="268563000^401589018^Child health medical examination"
VAR(14)="408761008^2470622012^Children's vision screening"
VAR(15)="408760009^2470621017^Vision screening"
VAR(16)="428171000124102^635271000124117^Depression screening negative"
VAR(17)="428181000124104^635251000124110^Depression screening positive"
VAR(18)="401081006^1780286017^Diabetic peripheral neuropathy screening"
VAR(19)="394642008^1488367018^Drug screening test"
VAR(20)="460617003^2922918015^Education of caregiver"
VAR(21)="171253004^265358015^Exercise status screening"
VAR(22)="410385005^2472046011^Family planning surveillance"
VAR(23)="401212003^1774852017^Fecal screening tests"
VAR(24)="171313004^265475013^Geriatric screening"
VAR(25)="170985004^2469401019^Person counseled"
VAR(26)="81302005^134872016^Worried well"
VAR(27)="252404004^375955013^Hepatitis A antigen screening"
VAR(28)="171122006^265164019^Hepatitis B screening"
VAR(29)="315631004^460150015^H/O: influenza vaccine allergy"
VAR(30)="310373003^453951018^Immunization advised"
VAR(31)="225060009^338241019^Lifestyle screening"
VAR(32)="170988002^2469404010^Relative counseled"
VAR(33)="171209009^265302011^Tobacco usage screening"
VAR(34)="410642005^2472296015^Well child visit, 10 years"
VAR(35)="410620009^2472274014^Well child visit"
VAR(36)="391147004^1485169011^HPV - Human papillomavirus test positive"
VAR(37)="4854004^9091010^Acquired hemolytic anemia"
VAR(38)="387705004^1477163017^Hemolytic disease of fetus OR newborn due to isoimmunization"
VAR(39)="62479008^103840012^AIDS"
VAR(40)="359791000^475161014^AIDS with dermatomycosis"
VAR(41)="77070006^127948012^AIDS with Salmonella infection"
VAR(42)="86406008^143288017^Human immunodeficiency virus infection"
VAR(43)="62246005^103445014^AIDS-like syndrome"
VAR(44)="389098007^1483154012^Anoxic encephalopathy"
VAR(45)="105629000^169750018^Chlamydial infection"
VAR(46)="196298000^301925015^Acute dentine dental caries"
VAR(47)="442551007^2820469019^Dental caries extending into dentine"
VAR(48)="196301001^301928018^Acute enamel dental caries"
VAR(49)="80353004^133324017^Enamel caries"
VAR(50)="18917003^31892013^Acute fulminating type A viral hepatitis"
VAR(51)="25102003^42082019^Acute type A viral hepatitis"
VAR(52)="13265006^22692019^Acute fulminating type B viral hepatitis"
VAR(53)="76795007^127504014^Acute type B viral hepatitis"
VAR(54)="426165006^2675239013^Acute genitourinary chlamydia infection"
VAR(55)="312099009^455763019^Genitourinary chlamydia infection"
VAR(56)="426247003^2676041011^Acute genitourinary Chlamydia trachomatis infection"
VAR(57)="240589008^360379017^Chlamydia trachomatis infection"
VAR(58)="186624004^286863012^Acute hepatitis B with delta agent (coinfection) with hepatic coma"
VAR(59)="235864009^353573018^Acute hepatitis B with hepatitis D"
VAR(60)="424099008^3008432017^Hepatic coma due to acute hepatitis B"
VAR(61)="186626002^286866016^Acute hepatitis B with delta-agent (coinfection) without hepatic coma"
VAR(62)="111880001^179043011^Acute HIV infection"
VAR(63)="87117006^144456015^HIV infection with acute lymphadenitis"
VAR(64)="40468003^67480019^Viral hepatitis, type A"
VAR(65)="66071002^109732019^Type B viral hepatitis"

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VAR(66)="268565007^401591014^Adult health examination"
VAR(67)="78318003^129970016^History and physical examination, annual for
health maintenance"
VAR(68)="281029006^418926017^Well man health examination"
VAR(69)="281031002^418928016^Well woman health examination"
VAR(70)="171208001^265301016^Alcohol consumption screening"
VAR(71)="84758004^140514014^Amphetamine abuse"
VAR(72)="427205009^2674599017^Amphetamine abuse, continuous"
VAR(73)="429692000^2696065019^Amphetamine abuse, episodic"
VAR(74)="21647008^36324011^Amphetamine dependence"
VAR(75)="426873000^2676031013^Methamphetamine dependence"
VAR(76)="191845006^295200014^Amphetamine or psychostimulant dependence in
remission"
VAR(77)="191843004^295198015^Amphetamine or psychostimulant dependence,
continuous"
VAR(78)="191844005^295199011^Amphetamine or psychostimulant dependence,
episodic"
VAR(79)="234349007^351085011^Microcytic anemia"
VAR(80)="171201007^265284011^Anemia screening"
VAR(81)="79031007^131139015^Anicteric type A viral hepatitis"
VAR(82)="53425008^88836017^Anicteric type B viral hepatitis"
VAR(83)="30828007^51603016^Anoxia, in liveborn infant"
VAR(84)="281579001^419620017^Perinatal hypoxia"
VAR(85)="169595006^263136014^A/N care: H/O child abuse"
VAR(86)="243787009^364616017^Antenatal screening"
VAR(87)="231470001^346938014^Anxiolytic dependence"
VAR(88)="268640002^401791011^Hypnotic or anxiolytic dependence"
VAR(89)="80753001^133949013^Arrested dental caries"
VAR(90)="80967001^134311013^Dental caries"
VAR(91)="315019000^459481013^HIV infection with aseptic meningitis"
VAR(92)="91947003^152322017^Asymptomatic human immunodeficiency virus
infection"
VAR(93)="276580005^412791015^Atypical isoimmunization of newborn"
VAR(94)="428015005^2694861013^Chlamydia trachomatis infection of genital
structure"
VAR(95)="188463006^289547011^Chlamydial pelvic inflammatory disease"
VAR(96)="367504009^492483019^PID with female sterility due to Chlamydia
trachomatis"
VAR(97)="186731007^287038016^Chlamydial infection of anus and rectum"
VAR(98)="446752000^2884076018^Infection of peritoneum due to Chlamydia
trachomatis"
VAR(99)="179101003^277121011^Urethritis due to Chlamydia trachomatis"
VAR(100)="231462006^346928016^Barbiturate abuse"
VAR(101)="64386003^107023015^Sedative abuse"
VAR(102)="231472009^346941017^Barbiturate dependence"
VAR(103)="427327003^2673574010^Sedative dependence"
VAR(104)="231473004^346942012^Benzodiazepine dependence"
VAR(105)="231474005^346943019^Diazepam dependence"
VAR(106)="231475006^346945014^Librium dependence"
VAR(107)="206187005^316128013^Birth trauma, asphyxia and hypoxia"
VAR(108)="171176006^265234016^Breast neoplasm screening abnormal"
VAR(109)="171175005^265233010^Breast neoplasm screening normal"
VAR(110)="414025005^2532908019^Disorder of fetus or newborn"
VAR(111)="186723002^287029018^HIV disease resulting in Burkitt's lymphoma"
VAR(112)="171161003^265210014^Ca cervix screening abnormal"
VAR(113)="171160002^265209016^Ca cervix screening normal"
VAR(114)="186719005^287025012^HIV disease resulting in candidiasis"
VAR(115)="442231009^2819937013^Caries involving multiple surfaces of tooth"
VAR(116)="109577004^174181019^Primary dental caries, multisurface origin"
VAR(117)="109578009^174182014^Caries of infancy"

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VAR(118)="109581004^174187015^Caries of infancy associated with bottle
feeding"
VAR(119)="109580003^174185011^Caries of infancy associated with breast
feeding"
VAR(120)="109579001^174184010^Caries of infancy, indeterminate origin"
VAR(121)="386230005^1480408011^Case management"
VAR(122)="30512007^51063015^Cementum caries"
VAR(123)="371779005^1210375015^Physical child abuse"
VAR(124)="161062006^251124011^Child abuse in family"
VAR(125)="310240007^453842010^Hearing screening status"
VAR(126)="412718006^2474276012^Chlamydia screening declined"
VAR(127)="420910002^2693755012^Chlamydia trachomatis infection of anus and
rectum"
VAR(128)="446642005^2884242016^Infection of anus due to Chlamydia
trachomatis"
VAR(129)="447372001^2883731019^Infection of rectum due to Chlamydia
trachomatis"
VAR(130)="447353001^2883503013^Infection of cervix due to Chlamydia
trachomatis"
VAR(131)="447402003^2882845010^Infection of vagina due to Chlamydia
trachomatis"
VAR(132)="447386002^2883136015^Infection of vulva due to Chlamydia
trachomatis"
VAR(133)="189312004^290842015^Pelvic inflammation with female sterility due
to Chlamydia trachomatis"
VAR(134)="186729003^287036017^Chlamydial infection of lower genitourinary
tract"
VAR(135)="237084006^355365012^Chlamydial cervicitis"
VAR(136)="238372002^357290012^Chlamydial dermatological disorders"
VAR(137)="237097008^355388013^Chlamydial vulvovaginitis"
VAR(138)="237039009^355296017^Chlamydial salpingitis"
VAR(139)="198176005^304699015^Female chlamydial pelvic inflammatory
disease"
VAR(140)="275972003^411949013^Cholesterol screening"
VAR(141)="50167007^83566015^Chronic active type B viral hepatitis"
VAR(142)="61977001^103019010^Chronic type B viral hepatitis"
VAR(143)="1116000^2956015^Chronic aggressive type B viral hepatitis"
VAR(144)="196299008^301926019^Chronic dentine dental caries"
VAR(145)="196302008^301929014^Chronic enamel dental caries"
VAR(146)="402894005^1781979011^Recurrent genital herpes simplex"
VAR(147)="38662009^64336013^Chronic persistent type B viral hepatitis"
VAR(148)="235869004^353579019^Chronic viral hepatitis B with hepatitis D"
VAR(149)="186639003^286879013^Chronic viral hepatitis B without delta-
agent"
VAR(150)="78267003^129874012^Cocaine abuse"
VAR(151)="191916008^295299015^Nondependent cocaine abuse"
VAR(152)="31956009^53398019^Cocaine dependence"
VAR(153)="191833002^295178013^Cocaine dependence in remission"
VAR(154)="191831000^295176012^Cocaine dependence, continuous"
VAR(155)="191832007^295177015^Cocaine dependence, episodic"
VAR(156)="444783004^2870627012^Screening colonoscopy"
VAR(157)="83607001^138662012^Gynecologic examination"
VAR(158)="75544000^125472011^Opioid dependence"
VAR(159)="11687002^20191016^Gestational diabetes mellitus"
VAR(160)="52079000^86691015^Congenital human immunodeficiency virus
infection"
VAR(161)="206373002^316475015^Congenital hepatitis A infection"
VAR(162)="276666007^412920019^Congenital human immunodeficiency virus
positive status syndrome"
VAR(163)="60498001^100520013^Congenital viral hepatitis B infection"
VAR(164)="191819002^295154015^Continuous opioid dependence"

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VAR(165)="409063005^2469564010^Counseling"
VAR(166)="445142003^2871733018^Counseling about disease"
VAR(167)="186718002^287024011^HIV disease resulting in cytomegaloviral
disease"
VAR(168)="196305005^301932012^Odontoclasia"
VAR(169)="163152009^254264018^O/E - dental caries"
VAR(170)="234976000^352147013^Rampant dental caries"
VAR(171)="95254009^157779017^Secondary dental caries"
VAR(172)="109564008^174168014^Dental caries associated with enamel
hypomineralization"
VAR(173)="95253003^157778013^Secondary dental caries associated with local
or systemic factors"
VAR(174)="109566005^174170017^Dental caries associated with enamel
hypoplasia"
VAR(175)="109569003^174173015^Dental caries secondary to acquired defects
of tooth structure"
VAR(176)="109568006^174172013^Dental caries secondary to developmental
defects of tooth structure"
VAR(177)="171207006^265300015^Depression screening"
VAR(178)="171183004^265249012^Diabetes mellitus screening"
VAR(179)="134395001^216201011^Diabetic retinopathy screening"
VAR(180)="235726002^353370019^Human immunodeficiency virus enteropathy"
VAR(181)="231461004^346927014^Hypnotic or anxiolytic abuse"
VAR(182)="191924003^295311015^Nondependent amphetamine or psychostimulant
abuse, continuous"
VAR(183)="191918009^295301010^Nondependent cocaine abuse, continuous"
VAR(184)="191905001^295286018^Nondependent hypnotic or anxiolytic abuse,
continuous"
VAR(185)="191912005^295295014^Nondependent opioid abuse, continuous"
VAR(186)="95247003^157768010^Salivary dysfunction caries secondary to
medication"
VAR(187)="307337003^450578010^Duffy isoimmunization of the newborn"
VAR(188)="171219003^265315019^Ear disorder screening"
VAR(189)="15733007^26656015^Incipient enamel caries"
VAR(190)="109572005^174176011^Primary dental caries, cervical origin"
VAR(191)="109571003^174175010^Primary dental caries, indeterminate origin"
VAR(192)="109574006^174178012^Primary dental caries, nonproximal smooth
surface origin"
VAR(193)="109575007^174179016^Primary dental caries, pit and fissure
origin"
VAR(194)="109573000^174177019^Primary dental caries, proximal smooth
surface origin"
VAR(195)="109576008^174180018^Primary dental caries, root surface origin"
VAR(196)="191820008^295155019^Episodic opioid dependence"
VAR(197)="427578006^2673528011^Herpes simplex of female genitalia"
VAR(198)="59819007^99366010^Herpetic ulceration of vulva"
VAR(199)="129670002^208507013^Herpetic cervicitis"
VAR(200)="426001001^2676030014^Fentanyl dependence"
VAR(201)="275367000^411339016^Intrauterine hypoxia"
VAR(202)="33839006^56485016^Genital herpes simplex"
VAR(203)="440714005^2791676019^Genital Herpes simplex type 1 infection"
VAR(204)="423391007^2645763011^Genital herpes simplex type 2"
VAR(205)="439912007^2791465011^Recurrent genital Herpes simplex type 1
infection"
VAR(206)="439913002^2791466012^Recurrent genital Herpes simplex type 2
infection"
VAR(207)="402888002^1781973012^Primary herpes simplex infection of
genitalia"
VAR(208)="75022004^124602011^Gestational diabetes mellitus, class A>1<"
VAR(209)="46894009^78158011^Gestational diabetes mellitus, class A>2<"
VAR(210)="171221008^265317010^Heart disease screening"

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VAR(211)="32858009^54835019^Hemolytic disease of fetus OR newborn due to
ABO immunization"
VAR(212)="86986002^2155367014^Hemolytic disease of fetus OR newborn due to
RhD isoimmunization"
VAR(213)="111469006^178710011^Hemolytic disease of the newborn due to non-
ABO, non-Rh isoimmunization"
VAR(214)="15539009^26354014^Hydrops fetalis due to isoimmunization"
VAR(215)="234380002^351141012^Kell isoimmunization of the newborn"
VAR(216)="359007^1689015^Kernicterus due to isoimmunization"
VAR(217)="307338008^450579019^Kidd isoimmunization of the newborn"
VAR(218)="68361004^113549012^Late anemia due to isoimmunization"
VAR(219)="26206000^3008554017^Hepatic coma due to viral hepatitis B"
VAR(220)="424340000^3008471019^Hepatic coma due to chronic hepatitis B"
VAR(221)="16060001^3008400017^Hepatic coma due to viral hepatitis A"
VAR(222)="442374005^2818954010^Hepatitis B and hepatitis C"
VAR(223)="442134007^2819115019^Hepatitis B associated with Human
immunodeficiency virus infection"
VAR(224)="235871004^353582012^Hepatitis B carrier"
VAR(225)="424460009^2643530016^Hepatitis B with hepatitis D superinfection"
VAR(226)="413107006^2474656012^Hepatitis C screening"
VAR(227)="231477003^346947018^Heroin dependence"
VAR(228)="27420004^45851012^Herpetic vulvovaginitis"
VAR(229)="278068003^414853010^Herpetic vesicle in vagina"
VAR(230)="402890001^1781975017^Primary herpetic vulvovaginitis"
VAR(231)="402896007^1781981013^Recurrent herpetic vulvovaginitis"
VAR(232)="186726005^287032015^HIV disease resulting in lymphoid
interstitial pneumonitis"
VAR(233)="186721000^287027016^HIV disease resulting in multiple infections"
VAR(234)="186725009^287031010^HIV disease resulting in multiple malignant
neoplasms"
VAR(235)="186717007^287023017^HIV disease resulting in mycobacterial
infection"
VAR(236)="40780007^68021013^Human immunodeficiency virus I infection"
VAR(237)="79019005^131125015^Human immunodeficiency virus II infection"
VAR(238)="402916007^1781999017^HIV seropositivity"
VAR(239)="186706006^287010012^Human immunodeficiency virus infection
constitutional disease"
VAR(240)="5810003^10682018^HIV infection with infection by another virus"
VAR(241)="48794007^81304010^HIV infection with infectious mononucleosis-
like syndrome"
VAR(242)="186707002^2817187010^Human immunodeficiency virus infection with
neurological disease"
VAR(243)="186708007^287013014^Human immunodeficiency virus infection with
secondary clinical infectious disease"
VAR(244)="230201009^344999019^Human immunodeficiency virus myelitis"
VAR(245)="240103002^359715014^Human immunodeficiency virus myopathy"
VAR(246)="171121004^265162015^HIV screening"
VAR(247)="402915006^1781998013^HIV seroconversion exanthem"
VAR(248)="186709004^287014015^Human immunodeficiency virus with secondary
cancers"
VAR(249)="235009000^352196015^Human immunodeficiency virus-associated
periodontitis"
VAR(250)="398329009^1777865017^Human immunodeficiency virus encephalitis"
VAR(251)="397763006^1777373016^Human immunodeficiency virus encephalopathy"
VAR(252)="230180003^344966016^Human immunodeficiency virus
leukoencephalopathy"
VAR(253)="391148009^1485170012^HPV - Human papillomavirus test negative"
VAR(254)="268552003^401571019^Hyperlipidemia screening"
VAR(255)="171222001^265318017^Hypertension screening"
VAR(256)="191827006^295170018^Hypnotic or anxiolytic dependence in
remission"

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VAR(257)="191825003^295168010^Hypnotic or anxiolytic dependence,
continuous"
VAR(258)="191826002^295169019^Hypnotic or anxiolytic dependence, episodic"
VAR(259)="276570006^412764017^Perinatal hypoxia and asphyxia"
VAR(260)="294648008^434939017^Influenza split virion vaccine allergy"
VAR(261)="294647003^434938013^Influenza vaccine allergy"
VAR(262)="294649000^434940015^Influenza surface antigen vaccine allergy"
VAR(263)="191909007^295290016^Nondependent opioid abuse"
VAR(264)="171198002^265281015^Iron deficiency screening"
VAR(265)="445272000^2870751012^Late effect of child abuse"
VAR(266)="87199005^144596015^Lead screening"
VAR(267)="206266009^316280014^Liveborn with labor fetal distress"
VAR(268)="231478008^346949015^Methadone dependence"
VAR(269)="231479000^346950015^Morphine dependence"
VAR(270)="230598008^345522015^Neuropathy due to human immunodeficiency
virus"
VAR(271)="268648009^401800012^Nondependent amphetamine or other
psychostimulant abuse"
VAR(272)="414874007^2534808016^Nondependent amphetamine or psychostimulant
abuse in remission"
VAR(273)="191925002^295312010^Nondependent amphetamine or psychostimulant
abuse, episodic"
VAR(274)="191920007^295303013^Nondependent cocaine abuse in remission"
VAR(275)="191919001^295302015^Nondependent cocaine abuse, episodic"
VAR(276)="268647004^401799013^Nondependent hypnotic or anxiolytic abuse"
VAR(277)="191907009^295288017^Nondependent hypnotic or anxiolytic abuse in
remission"
VAR(278)="191906000^295287010^Nondependent hypnotic or anxiolytic abuse,
episodic"
VAR(279)="5602001^10350013^Opioid abuse"
VAR(280)="191914006^295297018^Nondependent opioid abuse in remission"
VAR(281)="191913000^295296010^Nondependent opioid abuse, episodic"
VAR(282)="268551005^401568010^Obesity screening"
VAR(283)="191821007^295156018^Opioid dependence in remission"
VAR(284)="231480002^346951016^Opium dependence"
VAR(285)="133899007^213636011^Postoperative care"
VAR(286)="95929000^158908017^Psychologically abused elder"
VAR(287)="95248008^157769019^Salivary dysfunction caries secondary to
radiation therapy"
VAR(288)="446698005^2883285015^Reactivation of hepatitis B viral hepatitis"
VAR(289)="43634002^72756013^Relapsing type A viral hepatitis"
VAR(290)="29062009^48647014^Relapsing type B viral hepatitis"
VAR(291)="160873007^250814011^Removed - child abuse register"
VAR(292)="95246007^157767017^Salivary dysfunction caries secondary to
aging"
VAR(293)="95249000^157770018^Salivary dysfunction dental caries"
VAR(294)="15886004^26911013^Screening for cancer"
VAR(295)="268547008^2821305019^Screening for malignant neoplasm of breast"
VAR(296)="444822002^2872725016^Screening for malignant neoplasm of
prostate"
VAR(297)="444638005^2872563014^Screening for malignant neoplasm of skin"
VAR(298)="442487003^2820682018^Screening for Chlamydia trachomatis"
VAR(299)="300004007^440991014^Screening for osteoporosis"
VAR(300)="171182009^265248016^Thyroid disorder screening"
VAR(301)="275978004^2821318010^Screening for malignant neoplasm of colon"
VAR(302)="95252008^157777015^Secondary dental caries associated with failed
or defective dental restoration"
VAR(303)="185186007^285166011^Seen in well child clinic"
VAR(304)="162596006^3006600017^Suspected victim of child abuse"
VAR(305)="171126009^265169012^Tuberculosis screening"
VAR(306)="171128005^265171012^Venereal disease screening"

```

```

VAR(307)="111879004^179042018^Viral hepatitis A without hepatic coma"
VAR(308)="424758008^2643521012^Viral hepatitis A without hepatic coma,
without hepatitis delta"
VAR(309)="111891008^179047012^Viral hepatitis B without hepatic coma"

>

```

A.16 \$\$ICD2SMD^BSTSAPI

The following example shows the first five records and the last five records returned on an ICD2SMD API call (returning SNOMED concepts mapped to ICD9 code 250.00"):

```

>S OUT="VAR",IN="250.00"

>W $$ICD2SMD^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"CON")=170746002
VAR(1,"DTS")=170746
VAR(1,"FSN","DSC")=552732015
VAR(1,"FSN","TRM")="Diabetic on oral treatment (finding)"
VAR(1,"IC9",1,"COD")="250.00"
VAR(1,"IC9",1,"TYP")="IC9"
VAR(1,"ICD",1,"COD")="ZZZ.999"
VAR(1,"ICD",1,"TYP")="10D"
VAR(1,"ISA",1,"CON")=""
VAR(1,"ISA",1,"DTS")=243860
VAR(1,"ISA",1,"TRM")="Diabetic monitoring status (finding)"
VAR(1,"PRB","DSC")=264681018
VAR(1,"PRB","TRM")="Diabetic on oral treatment"
VAR(1,"SUB",1,"SUB")="IHS PROBLEM ALL SNOMED"
VAR(2,"CHD",1,"CON")=394674001
VAR(2,"CHD",1,"DTS")=394674
VAR(2,"CHD",1,"TRM")="On examination - Left diabetic foot - ulcerated
(finding)"
VAR(2,"CHD",2,"CON")=394676004
VAR(2,"CHD",2,"DTS")=394676
VAR(2,"CHD",2,"TRM")="On examination - Left diabetic foot at high risk
(finding)"
VAR(2,"CHD",3,"CON")=394675000
VAR(2,"CHD",3,"DTS")=394675
VAR(2,"CHD",3,"TRM")="On examination - Left diabetic foot at low risk
(finding)"
VAR(2,"CHD",4,"CON")=394681008
VAR(2,"CHD",4,"DTS")=394681
VAR(2,"CHD",4,"TRM")="On examination - Left diabetic foot at moderate risk
(finding)"
VAR(2,"CHD",5,"CON")=394673007
VAR(2,"CHD",5,"DTS")=394673
VAR(2,"CHD",5,"TRM")="On examination - Right diabetic foot - ulcerated
(finding)"
VAR(2,"CHD",6,"CON")=394672002
VAR(2,"CHD",6,"DTS")=394672
VAR(2,"CHD",6,"TRM")="On examination - Right diabetic foot at high risk
(finding)"
VAR(2,"CHD",7,"CON")=394671009
VAR(2,"CHD",7,"DTS")=394671

```

```

VAR(2,"CHD",7,"TRM")="On examination - Right diabetic foot at low risk
(finding)"
VAR(2,"CHD",8,"CON")=394682001
VAR(2,"CHD",8,"DTS")=394682
VAR(2,"CHD",8,"TRM")="On examination - Right diabetic foot at moderate risk
(finding)"
VAR(2,"CON")=309597007
VAR(2,"DTS")=309597
VAR(2,"FSN","DSC")=706126010
VAR(2,"FSN","TRM")="Foot abnormality - diabetes-related (finding)"
VAR(2,"IC9",1,"COD")="250.00"
VAR(2,"IC9",1,"TYP")="IC9"
VAR(2,"IC9",2,"COD")=719.97
VAR(2,"IC9",2,"TYP")="IC9"
VAR(2,"ICD",1,"COD")="ZZZ.999"
VAR(2,"ICD",1,"TYP")="10D"
VAR(2,"ISA",1,"CON")=116316008
VAR(2,"ISA",1,"DTS")=116316
VAR(2,"ISA",1,"TRM")="Finding of foot region (finding)"
VAR(2,"PRB","DSC")=453054011
VAR(2,"PRB","TRM")="Foot abnormality - diabetes-related"
VAR(2,"SUB",1,"SUB")="PICK Family Practice"
VAR(2,"SUB",2,"SUB")="PICK Medicine - Inpatient"
VAR(2,"SUB",3,"SUB")="SRCH Family Practice"
VAR(2,"SUB",4,"SUB")="SRCH Medicine - Inpatient"
VAR(2,"SUB",5,"SUB")="SRCH Abnormal Findings"
VAR(2,"SUB",6,"SUB")="IHS Problem List"
VAR(3,"CON")=405749004
VAR(3,"DTS")=405749
VAR(3,"FSN","DSC")=2149579013
VAR(3,"FSN","TRM")="Newly diagnosed diabetes (finding)"
VAR(3,"IC9",1,"COD")="250.00"
VAR(3,"IC9",1,"TYP")="IC9"
VAR(3,"ICD",1,"COD")="ZZZ.999"
VAR(3,"ICD",1,"TYP")="10D"
VAR(3,"ISA",1,"CON")=""
VAR(3,"ISA",1,"DTS")=243860
VAR(3,"ISA",1,"TRM")="Diabetic monitoring status (finding)"
VAR(3,"PRB","DSC")=2157525015
VAR(3,"PRB","TRM")="Newly diagnosed diabetes"
VAR(3,"SUB",1,"SUB")="IHS PROBLEM ALL SNOMED"
VAR(3,"SUB",2,"SUB")="PICK Family Practice"
VAR(3,"SUB",3,"SUB")="PICK Medicine - Inpatient"
VAR(3,"SUB",4,"SUB")="PICK Nutrition"
VAR(3,"SUB",5,"SUB")="SRCH Family Practice"
VAR(3,"SUB",6,"SUB")="SRCH Medicine - Inpatient"
VAR(3,"SUB",7,"SUB")="SRCH Nutrition"
VAR(3,"SUB",8,"SUB")="IHS Problem List"
VAR(4,"CHD",1,"CON")=237621004
VAR(4,"CHD",1,"DTS")=237621
VAR(4,"CHD",1,"TRM")="Diabetic severe hyperglycemia (disorder)"
VAR(4,"CHD",2,"CON")=761000119102
VAR(4,"CHD",2,"DTS")=1119000076
VAR(4,"CHD",2,"TRM")="Dyslipidemia associated with type II diabetes
mellitus (disorder)"
VAR(4,"CHD",3,"CON")=441656006
VAR(4,"CHD",3,"DTS")=441656
VAR(4,"CHD",3,"TRM")="Hyperglycemic crisis in diabetes mellitus (disorder)"
VAR(4,"CHD",4,"CON")=428896009
VAR(4,"CHD",4,"DTS")=428896

```

```

VAR(4,"CHD",4,"TRM")="Hyperosmolality due to uncontrolled type 1 diabetes mellitus (disorder)"
VAR(4,"CHD",5,"CON")=421725003
VAR(4,"CHD",5,"DTS")=421725
VAR(4,"CHD",5,"TRM")="Hypoglycemic coma in diabetes mellitus (disorder)"
VAR(4,"CHD",6,"CON")=190411003
VAR(4,"CHD",6,"DTS")=190411
VAR(4,"CHD",6,"TRM")="Malnutrition-related diabetes mellitus with multiple complications (disorder)"
VAR(4,"CHD",7,"CON")=1571000119104
VAR(4,"CHD",7,"DTS")=1119000157
VAR(4,"CHD",7,"TRM")="Mixed hyperlipidemia associated with type 1 diabetes mellitus (disorder)"
VAR(4,"CHD",8,"CON")=701000119103
VAR(4,"CHD",8,"DTS")=1119000070
VAR(4,"CHD",8,"TRM")="Mixed hyperlipidemia associated with type II diabetes mellitus (disorder)"
VAR(4,"CHD",9,"CON")=190330002
VAR(4,"CHD",9,"DTS")=190330
VAR(4,"CHD",9,"TRM")="Type 1 diabetes mellitus with hyperosmolar coma (disorder)"
VAR(4,"CHD",10,"CON")=190331003
VAR(4,"CHD",10,"DTS")=190331
VAR(4,"CHD",10,"TRM")="Type 2 diabetes mellitus with hyperosmolar coma (disorder)"
VAR(4,"CON")=237620003
VAR(4,"DTS")=237620
VAR(4,"FSN","DSC")=626375013
VAR(4,"FSN","TRM")="Abnormal metabolic state in diabetes mellitus (disorder)"
VAR(4,"IC9",1,"COD")="250.00"
VAR(4,"IC9",1,"TYP")="IC9"
VAR(4,"IC9",2,"COD")=783.9
VAR(4,"IC9",2,"TYP")="IC9"
VAR(4,"ICD",1,"COD")="ZZZ.999"
VAR(4,"ICD",1,"TYP")="10D"
VAR(4,"ISA",1,"CON")=74627003
VAR(4,"ISA",1,"DTS")=74627
VAR(4,"ISA",1,"TRM")="Diabetic complication (disorder)"
VAR(4,"ISA",2,"CON")=75934005
VAR(4,"ISA",2,"DTS")=75934
VAR(4,"ISA",2,"TRM")="Metabolic disease (disorder)"
VAR(4,"PRB","DSC")=356119011
VAR(4,"PRB","TRM")="Abnormal metabolic state in diabetes mellitus"
VAR(4,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(4,"SUB",2,"SUB")="SRCH Abnormal Findings"
VAR(4,"SUB",3,"SUB")="IHS Problem List"
VAR(5,"CHD",1,"CON")=290002008
VAR(5,"CHD",1,"DTS")=290002
VAR(5,"CHD",1,"TRM")="Brittle type I diabetes mellitus (finding)"
VAR(5,"CHD",2,"CON")=445353002
VAR(5,"CHD",2,"DTS")=445353
VAR(5,"CHD",2,"TRM")="Brittle type II diabetes mellitus (finding)"
VAR(5,"CON")=11530004
VAR(5,"DTS")=11530
VAR(5,"FSN","DSC")=2870119016
VAR(5,"FSN","TRM")="Brittle diabetes mellitus (finding)"
VAR(5,"IC9",1,"COD")="250.00"
VAR(5,"IC9",1,"TYP")="IC9"
VAR(5,"ICD",1,"COD")="ZZZ.999"
VAR(5,"ICD",1,"TYP")="10D"

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```

VAR(5,"ISA",1,"CON")=""
VAR(5,"ISA",1,"DTS")=441742
VAR(5,"ISA",1,"TRM")="Evaluation finding (finding)"
VAR(5,"PRB","DSC")=2658852011
VAR(5,"PRB","TRM")="Brittle diabetes mellitus"
VAR(5,"SUB",1,"SUB")="IHS PROBLEM SUPERSET"
VAR(5,"SUB",2,"SUB")="IHS Problem List"

...

VAR(42,"CON")=609575003
VAR(42,"DTS")=609575
VAR(42,"FSN","DSC")=2967835014
VAR(42,"FSN","TRM")="Maturity-onset diabetes of the young, type 8
(disorder)"
VAR(42,"IC9",1,"COD")="250.00"
VAR(42,"IC9",1,"TYP")="IC9"
VAR(42,"ICD",1,"COD")="E13.9"
VAR(42,"ICD",1,"TYP")="10D"
VAR(42,"ICD",2,"COD")="E11.9"
VAR(42,"ICD",2,"TYP")="10D"
VAR(42,"ISA",1,"CON")=609561005
VAR(42,"ISA",1,"DTS")=609561
VAR(42,"ISA",1,"TRM")="Maturity-onset diabetes of the young (disorder)"
VAR(42,"PRB","DSC")=2967877014
VAR(42,"PRB","TRM")="Maturity-onset diabetes of the young, type 8"
VAR(42,"SUB",1,"SUB")="PXRM DIABETES"
VAR(43,"CON")=609576002
VAR(43,"DTS")=609576
VAR(43,"FSN","DSC")=2967825015
VAR(43,"FSN","TRM")="Maturity-onset diabetes of the young, type 9
(disorder)"
VAR(43,"IC9",1,"COD")="250.00"
VAR(43,"IC9",1,"TYP")="IC9"
VAR(43,"ICD",1,"COD")="E13.9"
VAR(43,"ICD",1,"TYP")="10D"
VAR(43,"ICD",2,"COD")="E11.9"
VAR(43,"ICD",2,"TYP")="10D"
VAR(43,"ISA",1,"CON")=609561005
VAR(43,"ISA",1,"DTS")=609561
VAR(43,"ISA",1,"TRM")="Maturity-onset diabetes of the young (disorder)"
VAR(43,"PRB","DSC")=2967816014
VAR(43,"PRB","TRM")="Maturity-onset diabetes of the young, type 9"
VAR(43,"SUB",1,"SUB")="PXRM DIABETES"
VAR(44,"CON")=237611007
VAR(44,"DTS")=237611
VAR(44,"FSN","DSC")=626365010
VAR(44,"FSN","TRM")="Muscular atrophy, ataxia, retinitis pigmentosa, and
diabetes mellitus (disorder)"
VAR(44,"IC9",1,"COD")=728.2
VAR(44,"IC9",1,"TYP")="IC9"
VAR(44,"IC9",2,"COD")="250.00"
VAR(44,"IC9",2,"TYP")="IC9"
VAR(44,"IC9",3,"COD")=781.3
VAR(44,"IC9",3,"TYP")="IC9"
VAR(44,"IC9",4,"COD")=362.74
VAR(44,"IC9",4,"TYP")="IC9"
VAR(44,"ICD",1,"COD")="H35.52"
VAR(44,"ICD",1,"TYP")="10D"
VAR(44,"ISA",1,"CON")=281867008
VAR(44,"ISA",1,"DTS")=281867

```

```

VAR(44,"ISA",1,"TRM")="Multisystem disorder (disorder)"
VAR(44,"ISA",2,"CON")=88092000
VAR(44,"ISA",2,"DTS")=88092
VAR(44,"ISA",2,"TRM")="Muscle atrophy (disorder)"
VAR(44,"PRB","DSC")=356098018
VAR(44,"PRB","TRM")="Muscular atrophy, ataxia, retinitis pigmentosa, and
diabetes mellitus"
VAR(44,"SUB",1,"SUB")="SRCH Emergency Department"
VAR(44,"SUB",2,"SUB")="SRCH Family Practice"
VAR(44,"SUB",3,"SUB")="SRCH Medicine - Inpatient"
VAR(44,"SUB",4,"SUB")="SRCH Medicine - Urgent Care"
VAR(44,"SUB",5,"SUB")="SRCH Problem List - Medical"
VAR(44,"SUB",6,"SUB")="IHS Problem List"
VAR(45,"CON")=609567009
VAR(45,"DTS")=609567
VAR(45,"FSN","DSC")=2967856011
VAR(45,"FSN","TRM")="Pre-existing type 2 diabetes mellitus in pregnancy
(disorder)"
VAR(45,"IC9",1,"COD")="648.00"
VAR(45,"IC9",1,"TYP")="IC9"
VAR(45,"IC9",2,"COD")="250.00"
VAR(45,"IC9",2,"TYP")="IC9"
VAR(45,"ICD",1,"COD")="O24.119"
VAR(45,"ICD",1,"TYP")="10D"
VAR(45,"ISA",1,"CON")=609563008
VAR(45,"ISA",1,"DTS")=609563
VAR(45,"ISA",1,"TRM")="Pre-existing diabetes mellitus in pregnancy
(disorder)"
VAR(45,"ISA",2,"CON")=199230006
VAR(45,"ISA",2,"DTS")=199230
VAR(45,"ISA",2,"TRM")="Pre-existing type 2 diabetes mellitus (disorder)"
VAR(45,"ISA",3,"CON")=237627000
VAR(45,"ISA",3,"DTS")=237627
VAR(45,"ISA",3,"TRM")="Pregnancy and type 2 diabetes mellitus (disorder)"
VAR(45,"PRB","DSC")=2967850017
VAR(45,"PRB","TRM")="Pre-existing type 2 diabetes mellitus in pregnancy"
VAR(45,"SUB",1,"SUB")="PXRM DIABETES"
VAR(46,"CON")=473189005
VAR(46,"DTS")=473189
VAR(46,"FSN","DSC")=2956089017
VAR(46,"FSN","TRM")="On subcutaneous insulin for diabetes mellitus
(finding)"
VAR(46,"IC9",1,"COD")="250.00"
VAR(46,"IC9",1,"TYP")="IC9"
VAR(46,"IC9",2,"COD")="V58.67"
VAR(46,"IC9",2,"TYP")="IC9"
VAR(46,"ICD",1,"COD")="Z79.4"
VAR(46,"ICD",1,"TYP")="10D"
VAR(46,"ISA",1,"CON")=""
VAR(46,"ISA",1,"DTS")=243860
VAR(46,"ISA",1,"TRM")="Diabetic monitoring status (finding)"
VAR(46,"ISA",2,"CON")=""
VAR(46,"ISA",2,"DTS")=309298
VAR(46,"ISA",2,"TRM")="Drug therapy finding (finding)"
VAR(46,"PRB","DSC")=2955928018
VAR(46,"PRB","TRM")="On subcutaneous insulin for diabetes mellitus"
>

```

A.17 \$\$DILKP^BSTSAPI

The following example shows how to look up the RxNorm for a given NDC number (utilizing a local cache lookup):

```
>S OUT="VAR",IN="00713011850^N"

>W $$DILKP^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"RXN","CON")=209352
VAR(1,"RXN","TDC")=198434
VAR(1,"RXN","TDT")="Acetaminophen 120 MG Rectal Suppository [198434]"
VAR(1,"RXN","TRM")="Acetaminophen 120 MG Rectal Suppository [Acephen]"
VAR(1,"RXN","TTY")="SBD"

>
```

The following example shows how to look up the RxNorm for a given NDC number (utilizing a remote DTS lookup):

```
>S OUT="VAR",IN="00713011850^N^2"

>W $$DILKP^BSTSAPI(OUT,IN)
2^
>ZW @OUT
VAR(1,"RXN","CON")=209352
VAR(1,"RXN","TDC")=198434
VAR(1,"RXN","TDT")="Acetaminophen 120 MG Rectal Suppository [198434]"
VAR(1,"RXN","TRM")="Acetaminophen 120 MG Rectal Suppository [Acephen]"
VAR(1,"RXN","TTY")="SBD"

>
```

The following example shows how to look up the RxNorm for a given VUID number (utilizing a local cache lookup):

```
>S OUT="VAR",IN="4000734^V"

>W $$DILKP^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1,"RXN","CON")=702519
VAR(1,"RXN","TDC")=""
VAR(1,"RXN","TDT")=""
VAR(1,"RXN","TRM")="Phenobarbital 4 MG/ML Oral Solution"
VAR(1,"RXN","TTY")="SCD"

>
```

A.18 \$\$ASSOC^BSTSAPI

The following example shows how to display any associations for a given term. In this case, it is looking up the SNOMED CT information for a given GMRA Signs Symptoms entry (utilizing a local cache lookup):

```
> W $$ASSOC^BSTSAPI("ABDOMINAL BLOATING^32772")
116289008^^
>
```

The following example shows the same call but instead of looking in local cache, it is doing a remote DTS lookup:

```
> W $$ASSOC^BSTSAPI("ABDOMINAL BLOATING^32772^^2")
116289008^^
>
```

In this case, it is looking up the SNOMED CT information for a given IHS Med Route entry (utilizing a local cache lookup):

```
> W $$ASSOC^BSTSAPI("ORAL^32774")
26643006^^
>
```

A.19 \$\$DI2RX^BSTSAPI

The following example shows how to display the first RxNorm mapping for a particular NDC value (utilizing a local cache lookup):

```
>S IN="00713011850^N"

>W $$DI2RX^BSTSAPI(IN)
209352^Acetaminophen 120 MG Rectal Suppository
[Acephen]^198434^Acetaminophen 120 MG Rectal Suppository [198434]^SBD
>
```

A.20 \$\$I10ADV^BSTSAPI

The following example shows how formatted ICD10 mapping advice can be returned for a sample Concept Id (utilizing a lookup to local cache):

```
>S OUT="VAR",IN=2032001

>w $$I10ADV^BSTSAPI(OUT,IN)
1
>ZW @OUT
VAR(1)="Rule #1 Target Code: G93.6"
VAR(2)="ALWAYS G93.6"
VAR(3)=" "
VAR(4)="Rule #2 Target Code: P11.0"
```

```
VAR(5)="IF CEREBRAL EDEMA DUE TO BIRTH INJURY CHOOSE P11.0"
VAR(6)=" "
VAR(7)="Rule #3 Target Code: S01.80X?"
VAR(8)="IF TRAUMATIC CEREBRAL EDEMA WITH OPEN INTRACRANIAL WOUND CHOOSE
S01.80X?"
VAR(9)="EPISODE OF CARE INFORMATION NEEDED"
VAR(10)="POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE"
VAR(11)=" "
VAR(12)="Rule #4 Target Code: S06.1X0?"
VAR(13)="IF TRAUMATIC CEREBRAL EDEMA CHOOSE S06.1X0?"
VAR(14)="CONSIDER ADDITIONAL CODE TO IDENTIFY SPECIFIC CONDITION OR
DISEASE"
VAR(15)="EPISODE OF CARE INFORMATION NEEDED"
VAR(16)="POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE"
VAR(17)=" "
VAR(18)="Rule #5 Target Code: S06.1X0?"
VAR(19)="IF TRAUMATIC CEREBRAL EDEMA WITH OPEN INTRACRANIAL WOUND CHOOSE
S06.1X0?"
VAR(20)="EPISODE OF CARE INFORMATION NEEDED"
VAR(21)="POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE"
VAR(22)=" "
VAR(23)="Rule #6 Target Code: S06.1X0?"
VAR(24)="IF TRAUMATIC CEREBRAL EDEMA WITHOUT OPEN INTRACRANIAL WOUND CHOOSE
S06.1X0?"
VAR(25)="EPISODE OF CARE INFORMATION NEEDED"
VAR(26)="POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE"
VAR(27)=" "
VAR(28)="Rule #7 Target Code: N/A"
VAR(29)="MAP SOURCE CONCEPT CANNOT BE CLASSIFIED WITH AVAILABLE DATA"

>
```

Glossary

Electronic Health Record

An application used by medical organizations to track patient medical records and care.

ICD Codes

One of several code sets used by the healthcare industry to standardize data. The International Classification of Disease (ICD) codes are an international diagnostic coding scheme. In addition to diseases, ICD also includes several families of terms for medical-specialty diagnoses, health status, disablements, procedures, and reasons for contact with HCPs. IHS currently uses ICD-9 for coding.

Office of Information Technology

The organization within IHS that is responsible for developing and maintaining RPMS and related IT functions.

Resource and Patient Management System

A series of integrated software components that includes clinical, administrative, and financial functions.

Acronym List

Acronym	Term Meaning
API	Application Programming Interface
dll	Dynamic Linked Library
DTS	Distributed Terminology System
EHR	Electronic Health Record
ICD	International Classification of Diseases
IHS	Indian Health Service
OS	Operating System
RPC	Remote Procedure Call
RPMS	Resource and Patient Management System
SAC	Standards and Conventions
SNOMED CT	Systematized Nomenclature of Medicine-Clinical Terms

Contact Information

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