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Assigning Specific ATC Codes In TMS –

A New Approach Using A

Split WHO Drug Dictionary

ingenix

Presented by

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&

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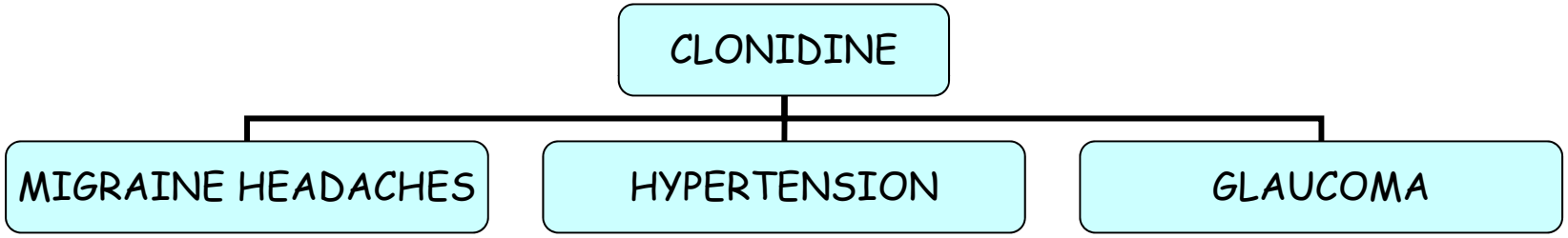
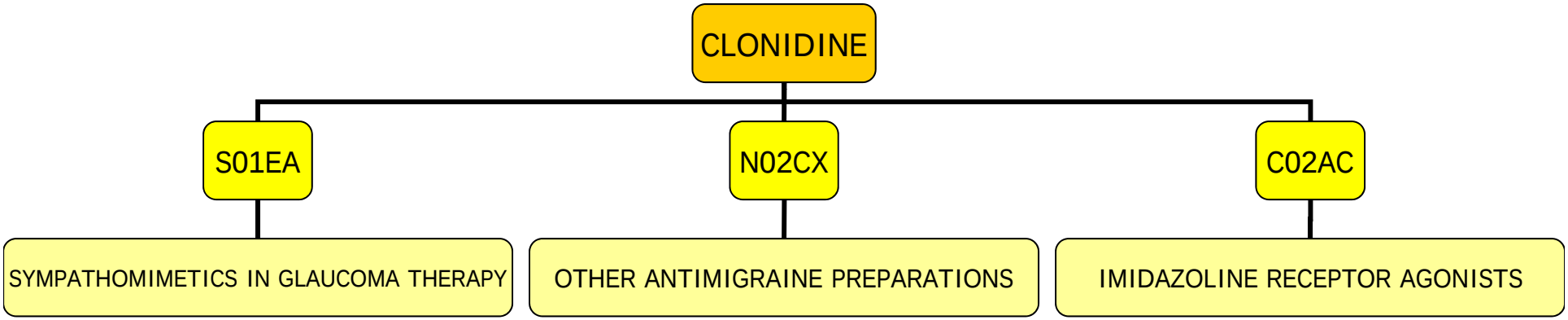
Drugs Have Multiple Uses



WHO Drug Dictionary Provides Multiple Classification Choices



Assigning ATC Codes Choices Have Been

- Choose ONE Classification That Is Primarily Used

Verbatim	*Indication*	*ATC Code*
Catapres-tts	Hypertensive	C02AC
Clonidine gtts	Glaucoma	C02AC
Catapressan	Migraines	C02AC

OR

Manually re-classify Each Occurrence of Each Term Individually

Verbatim	*Indication*	*ATC Code*
Catapres-tts	Hypertensive	C02AC
Clonidine gtts	Glaucoma	S01EA
Catapressan	Migraines	N02CX

OR

- Allow ALL Choices To Be Included In Final SAS Data Sets Requiring Special SAS Code

Verbatim	Indication	ATC Code
Catapres-tts	Hypertensive	C02AC
Catapres-tts	Hypertensive	N02CX
Catapres-tts	Hypertensive	S01EA
Clonidine gtts	Glaucoma	C02AC
Clonidine gtts	Glaucoma	N02CX
Clonidine gtts	Glaucoma	S01EA
Catapressan	Migraines	C02AC
Catapressan	Migraines	N02CX
Catapressan	Migraines	S01EA

What If…….

You Could Choose The Most Appropriate ATC Based On The Indication

Verbatim	*Indication*	*ATC Code*
Catapres-tts	Hypertensive	C02AC
Clonidine gtts	Glaucoma	S01EA
Catapressan	Migraines	N02CX

Today's Discussion

- Splitting Who Drug Into 2 Separate Dictionaries
- Study Set Up
- Processes For Using The Dictionaries
- Dictionary Structures And Loading Techniques

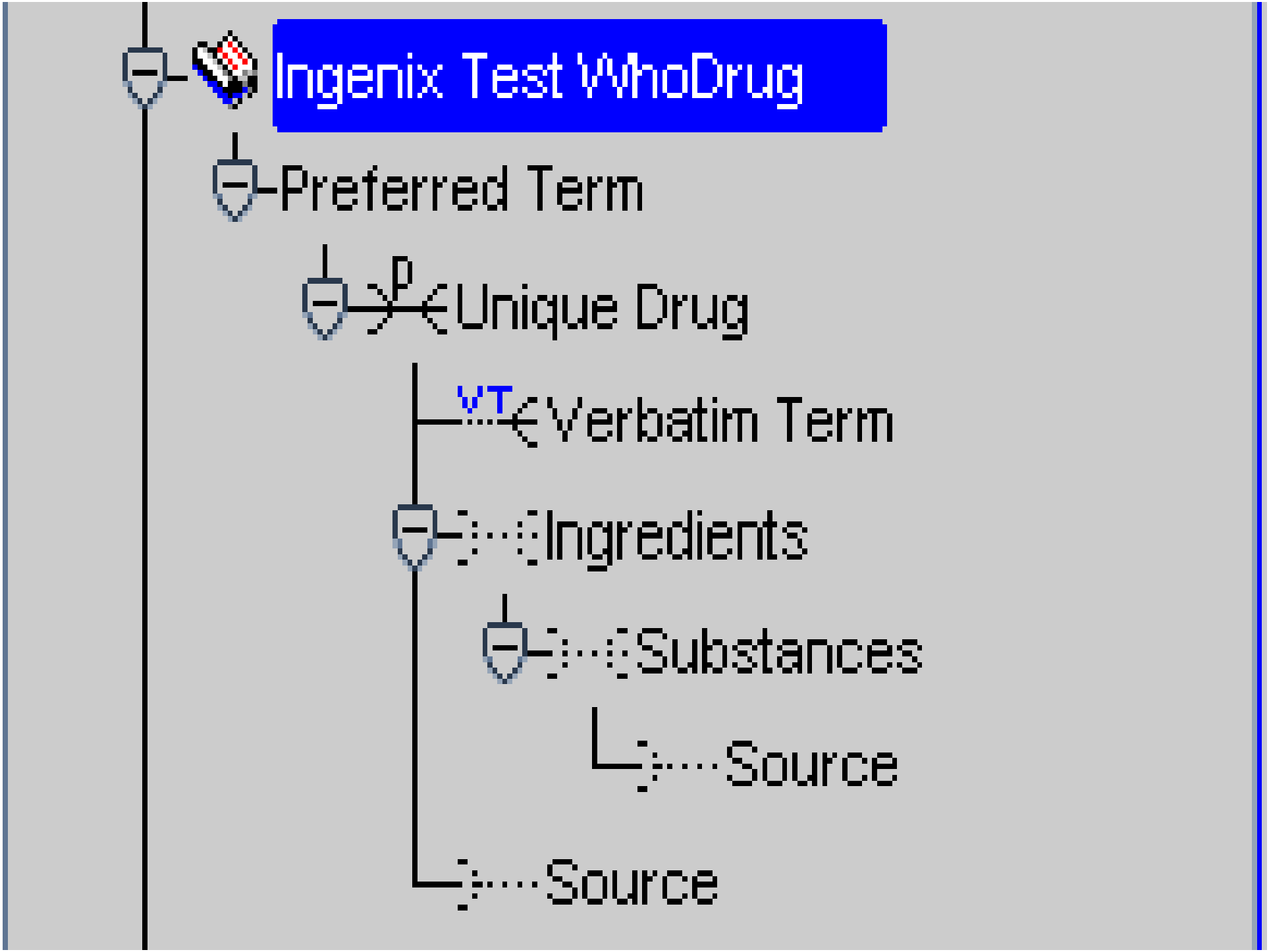
Splitting The Dictionary Into Two Parts

- WHO DRUG (Dictionary #1)
- WHO ATC (Dictionary #2)

Features Of Dictionary #1

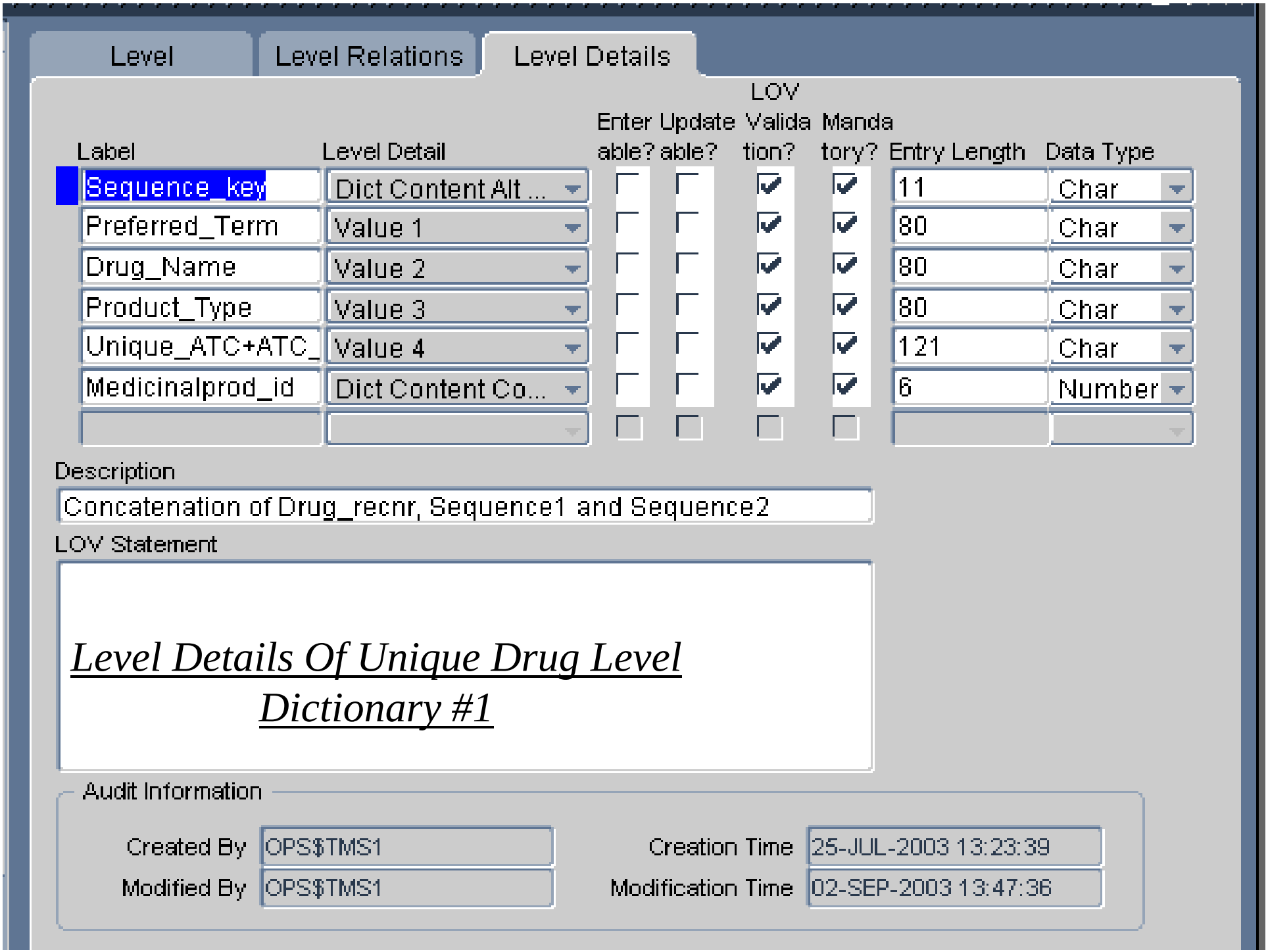
- Verbatim Drugs Found In Dictionary #1 With One ATC Choice Are Fully Coded By That Dictionary

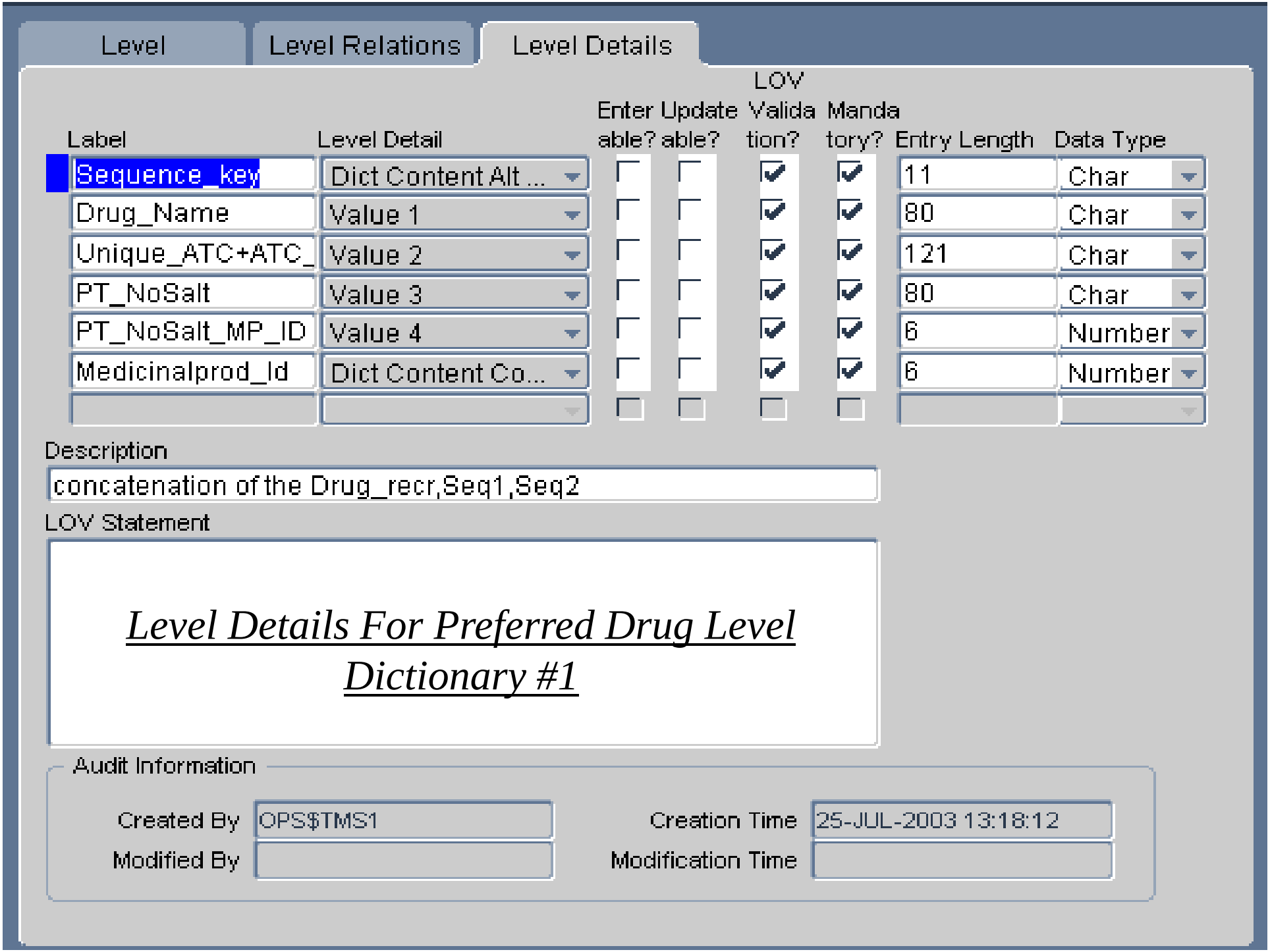
- Using Format C Of The WHO DD Associates Medicinal Products, Instead Of Only Preferred Names, Directly with ATC Codes, Allowing More Drugs To Have One Unique ATC Choice


Ingenix Test WhoDrug
Preferred Term
P
Unique Drug
VT
Verbatim Term
Ingredients
Substances
Source
Source

Contents Of Dictionary #1 (WHO Drug)

- ✓ Drug Name
- ✓ Preferred Name (Seq 1= 001)
- ✓ Unique Classification Term
- ✓ Drug Rec Num/Seq 1/ Seq 2
- ✓ Form
- ✓ Ingredients
- ✓ ATC Code||ATC Text, Where Only One Is Provided
- ✓ “Multiple” Where >1 Code Is Provided


Level
Level Relations
Level Details
Label
Level Detail
Enterable?
Updateable?
LOV Validation?
Mandatory?
Entry Length
Data Type
Sequence_key
Dict Content Alt ...
11
Char
Preferred_Term
Value 1
80
Char
Drug_Name
Value 2
80
Char
Product_Type
Value 3
80
Char
Unique_ATC+ATC_
Value 4
121
Char
Medicinalprod_id
Dict Content Co...
6
Number
Description
Concatenation of Drug_recnr, Sequence1 and Sequence2
LOV Statement
Level Details Of Unique Drug Level
Dictionary #1
Audit Information
Created By
OPS$TMS1
Creation Time
25-JUL-2003 13:23:39
Modified By
OPS$TMS1
Modification Time
02-SEP-2003 13:47:36

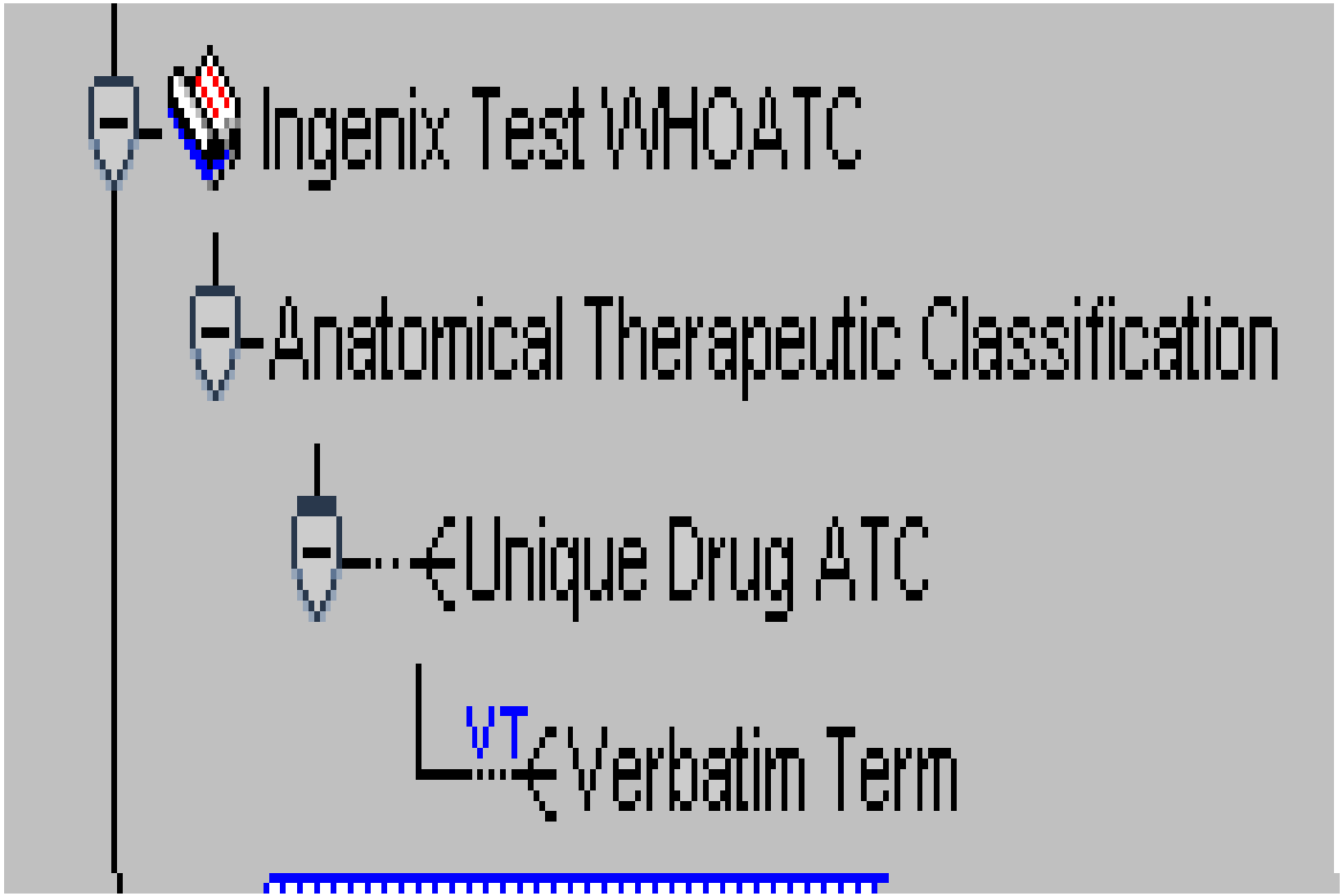

Level
Level Relations
Level Details
Label
Level Detail
Enterable?
Updateable?
LOV Validation?
Mandatory?
Entry Length
Data Type
Sequence_key
Dict Content Alt ...
11
Char
Drug_Name
Value 1
80
Char
Unique_ATC+ATC_
Value 2
121
Char
PT_NoSalt
Value 3
80
Char
PT_NoSalt_MP_ID
Value 4
6
Number
Medicinalprod_Id
Dict Content Co...
6
Number
Description
concatenation of the Drug_recr,Seq1,Seq2
LOV Statement
Level Details For Preferred Drug Level Dictionary #1
Audit Information
Created By
OPS$TMS1
Creation Time
25-JUL-2003 13:18:12
Modified By
Modification Time

Contents Of Dictionary #2 (WHO ATC)

- √ Preferred Name (Seq 1= 001)
- √ ATC Code
- √ ATC Text
- √ MP ID For Preferred Name
- √ ATC Level

Features Of Dictionary #2

- Verbatim Term = Derived Preferred Drug Name and the CRF Indication
- Fewer Terms Will Need To Be Classified Than If Drug Name and Indication Were Used As The New Verbatim
- Once A Verbatim Term (Derived Preferred Drug Name + CRF Indication) Is Classified, The Next Instance Of That Combination Will Auto Encode In Dictionary #2
- Previously, the user would need to reclassify this in HLC for each occurrence.


Ingenix Test WHOATC
Anatomical Therapeutic Classification
Unique Drug ATC
VT
Verbatim Term

Level | Level Relations | Level Details

Label	Level Detail	Enterable?	Updateable?	LOV Validation?	Mandatory?	Entry Length	Data Type
Sequence_key	Dict Content Alt ...	☐	☐	☑	☑	11	Char
ATC_Text	Value 1	☐	☐	☑	☑	110	Char
Preferred_Term	Value 2	☐	☐	☑	☑	80	Char
ATC_Code	Value 3	☐	☐	☑	☑	10	Char
Unique_Drug_Defi	Value 4	☐	☐	☑	☑	300	Char
Medicinalprod_id+A	Dict Content Co...	☐	☐	☑	☑	17	Char
		☐	☐	☐	☐		

Description

Concatenated Drug_Recnr, Sequence1 and Sequence2

LOV Statement

Level Details For Unique Drug Dictionary #2

Audit Information

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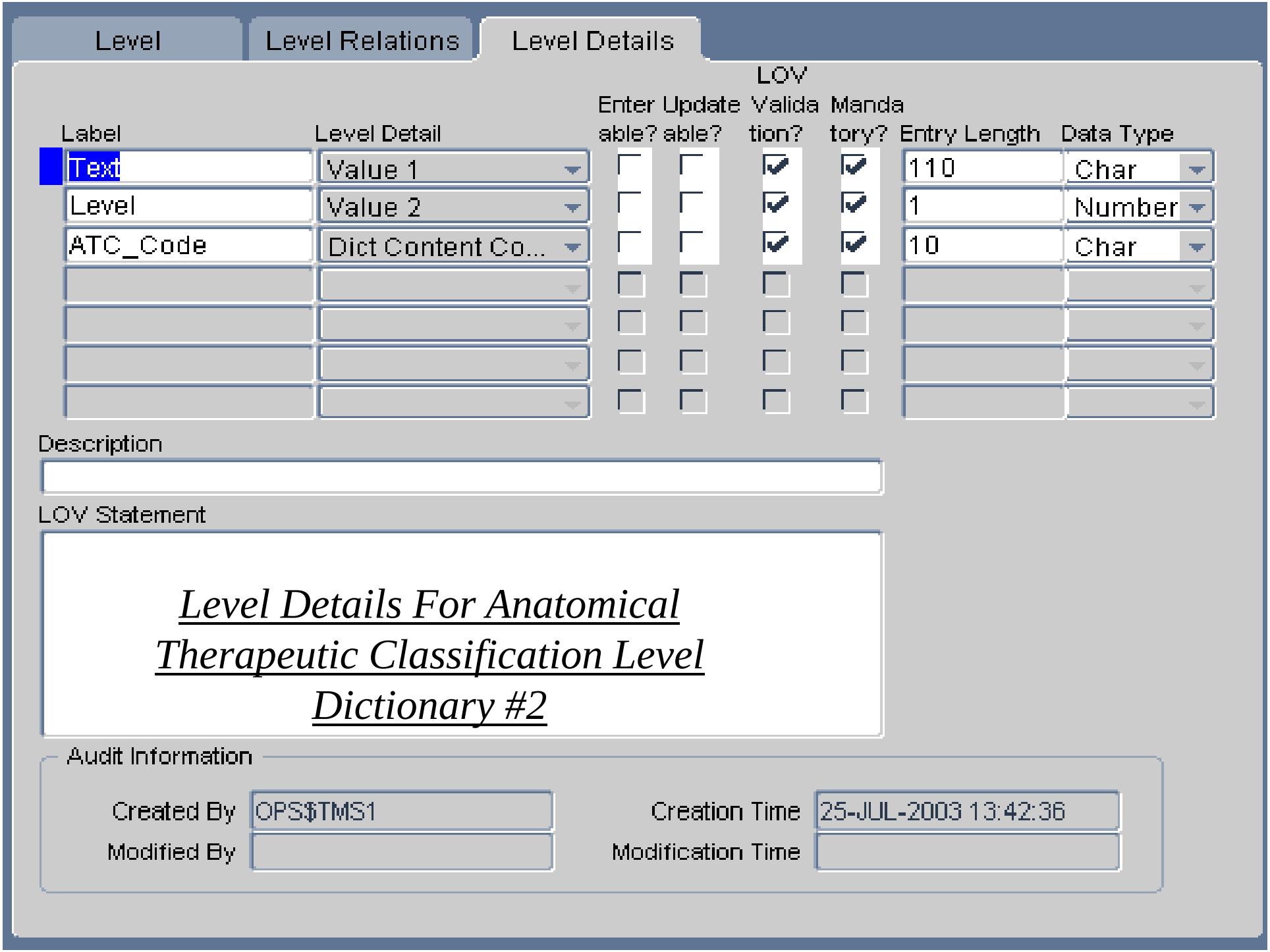
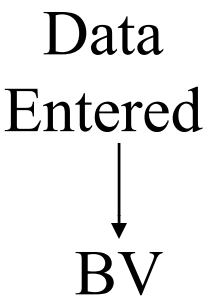
Modified By	OPS$TMS1	Modification Time	25-JUL-2003 13:45:37


Level
Level Relations
Level Details
Label
Level Detail
Enterable?
Updateable?
LOV Validation?
Mandatory?
Entry Length
Data Type
Text
Value 1
110
Char
Level
Value 2
1
Number
ATC_Code
Dict Content Co...
10
Char
Description
LOV Statement
Level Details For Anatomical Therapeutic Classification Level Dictionary #2
Audit Information
Created By
OPS$TMS1
Creation Time
25-JUL-2003 13:42:36
Modified By
Modification Time

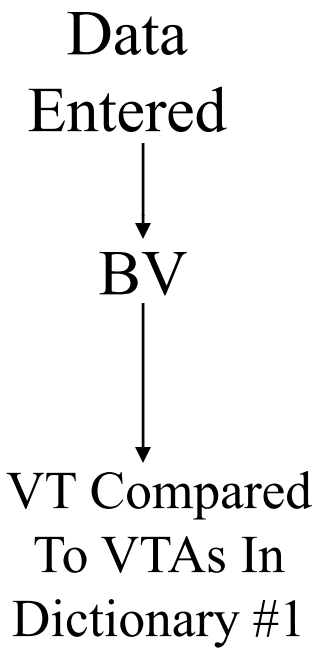
How It Works – Drug With 1 ATC

Data
Entered

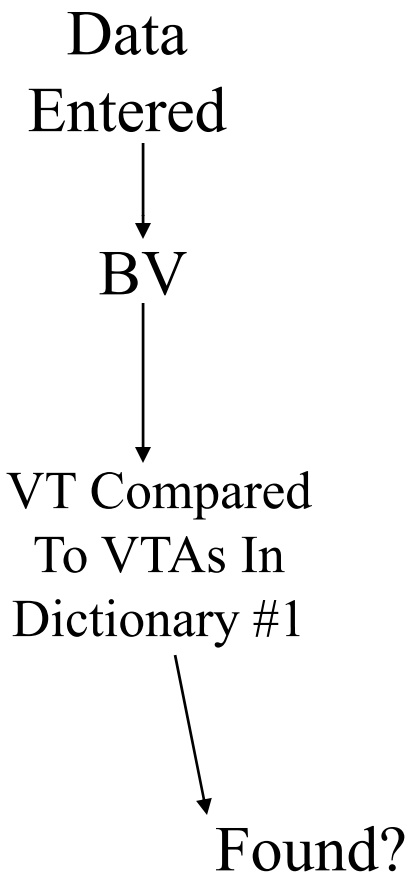
How It Works – Drug With 1 ATC



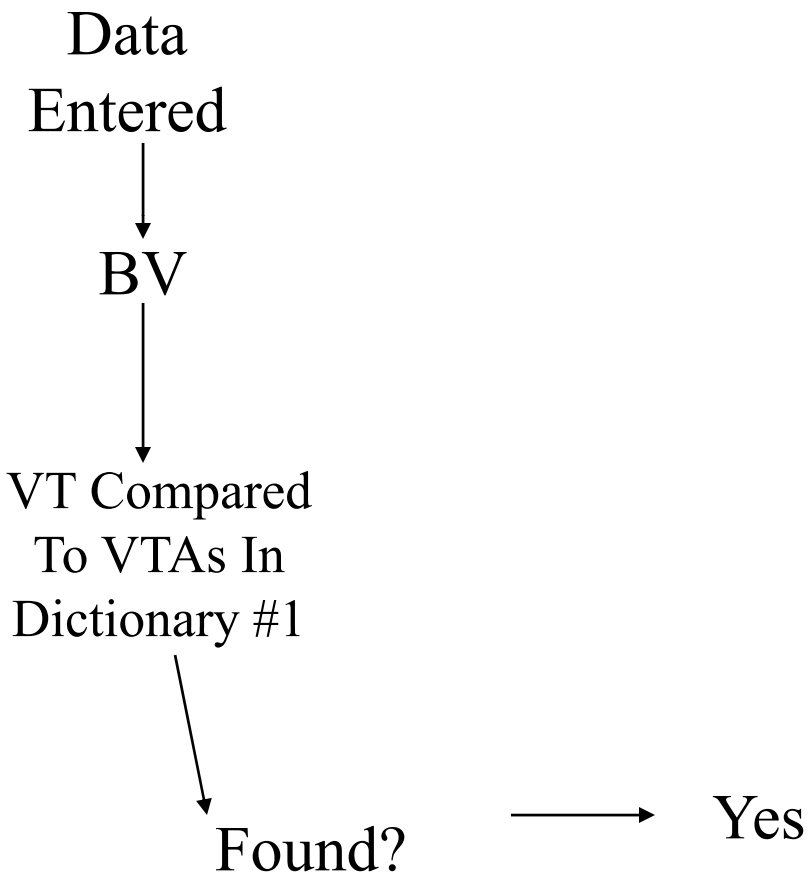
How It Works – Drug With 1 ATC



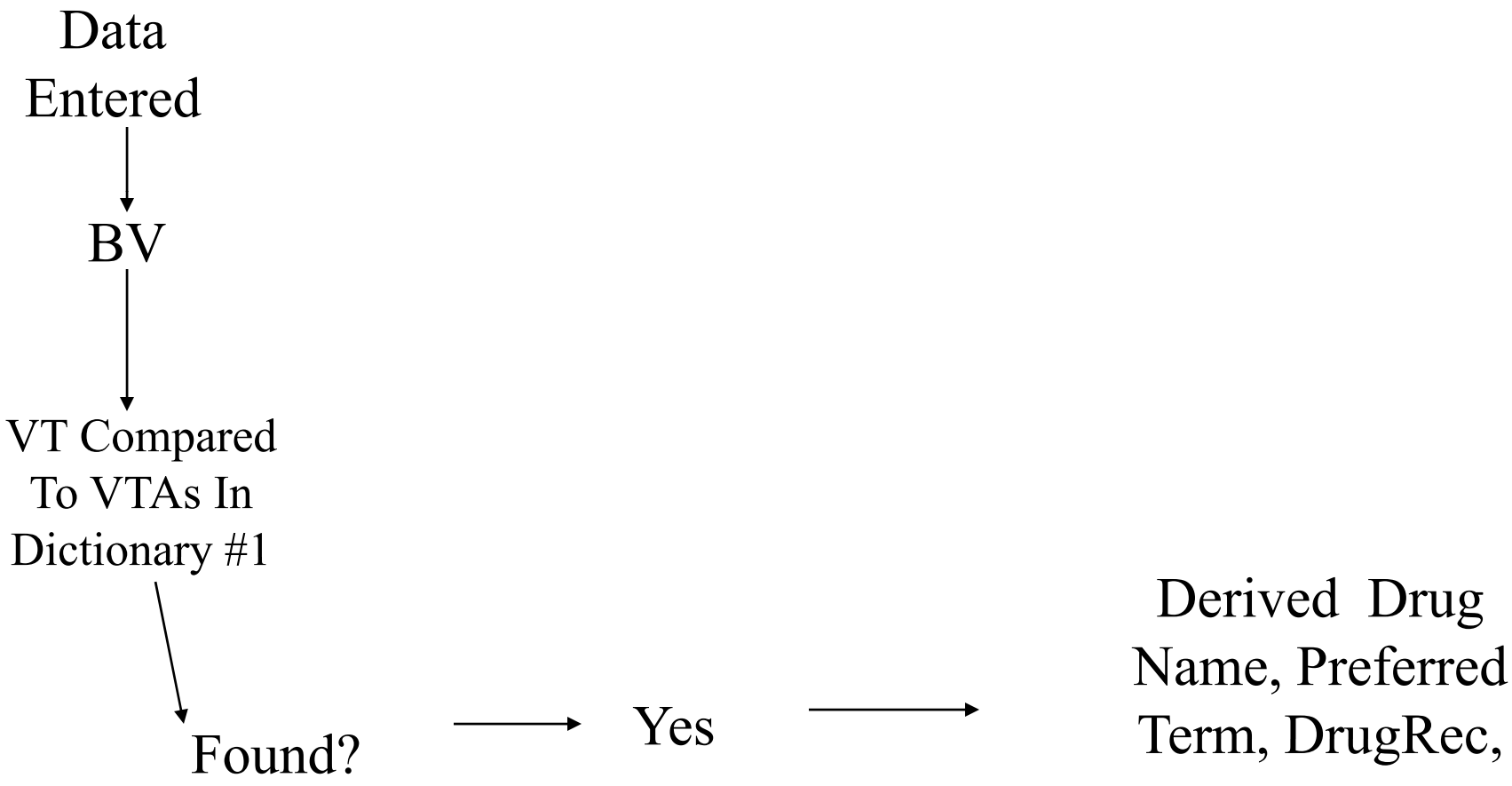
How It Works – Drug With 1 ATC



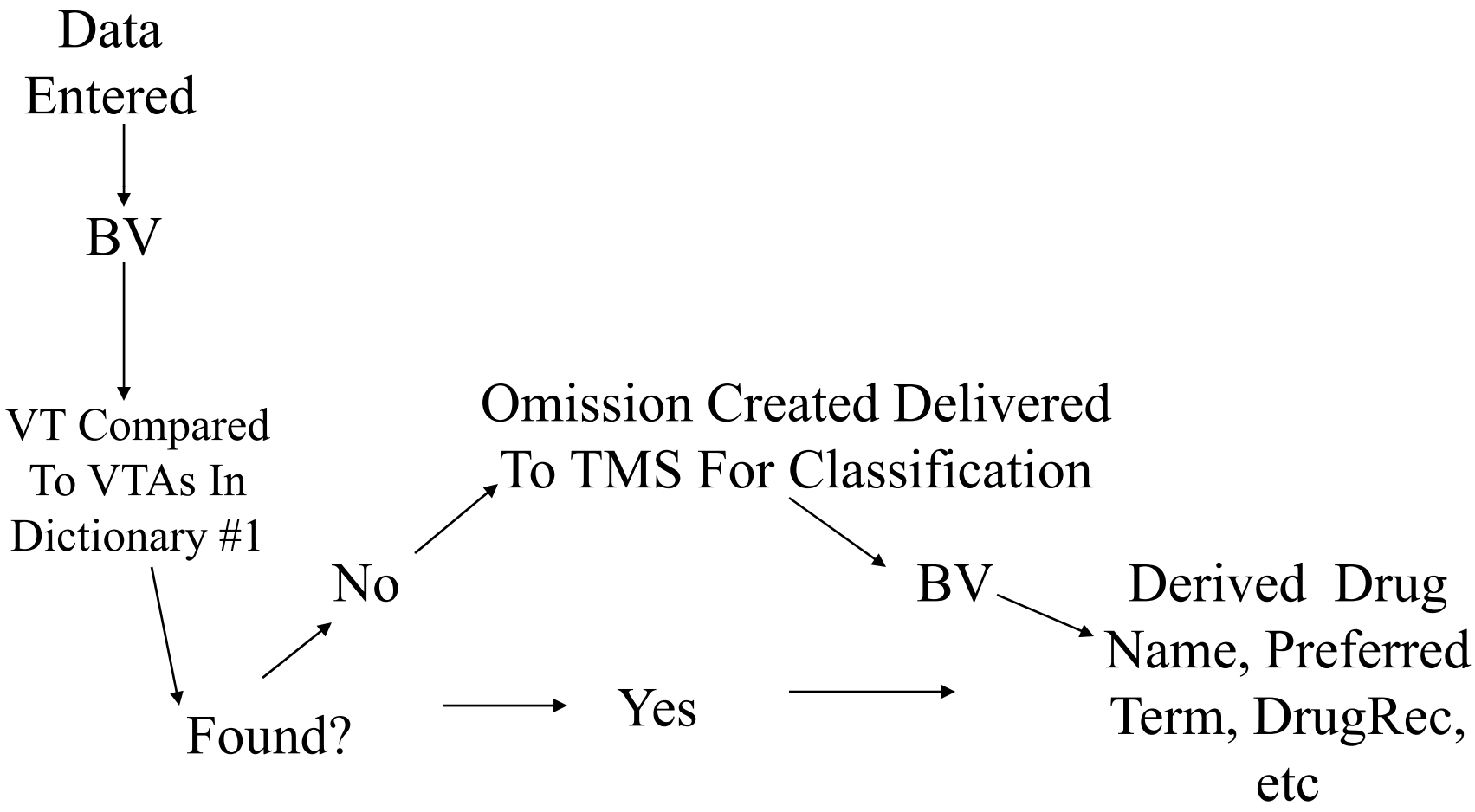
How It Works – Drug With 1 ATC



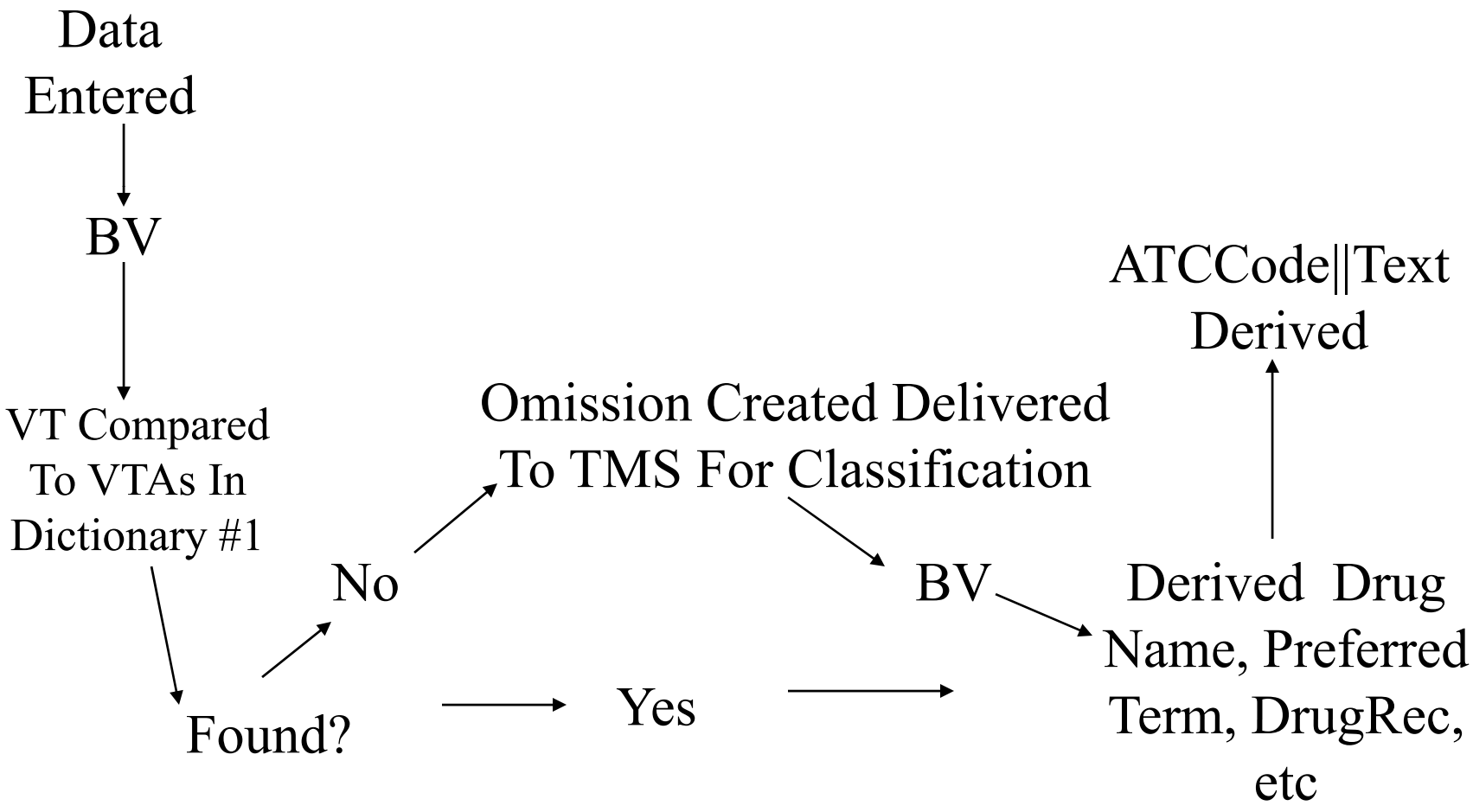
How It Works – Drug With 1 ATC



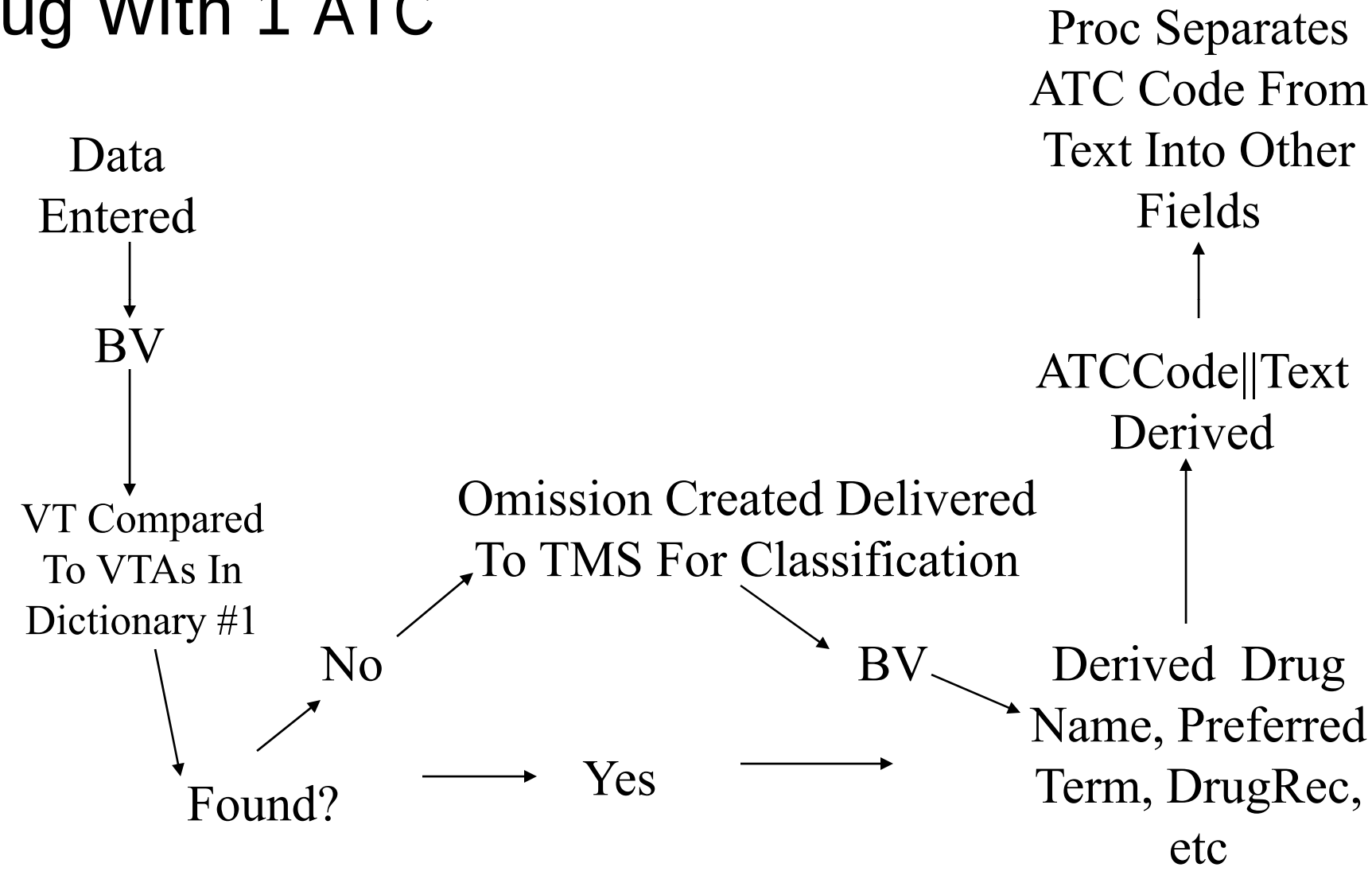
How It Works – Drug With 1 ATC



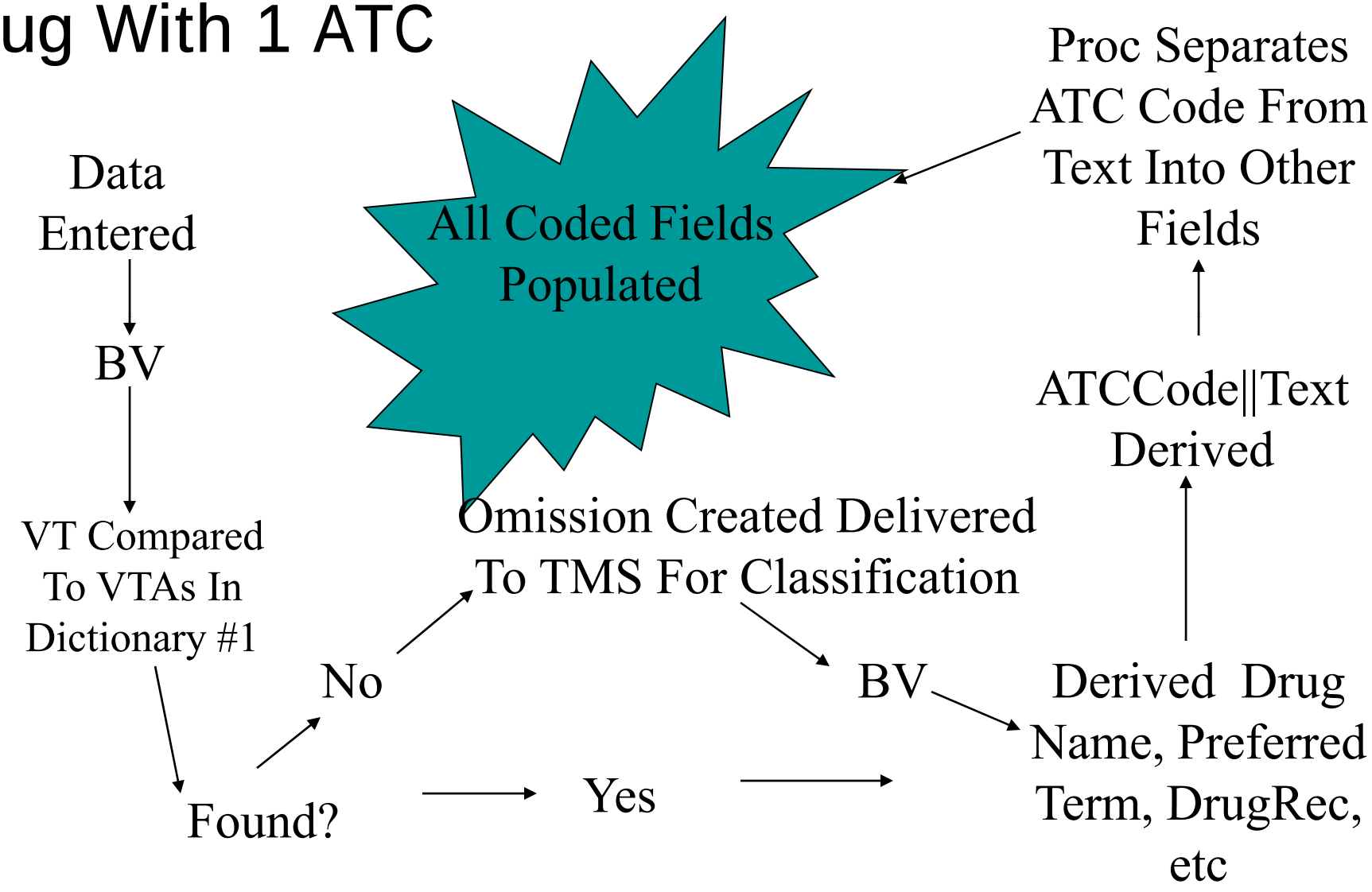
How It Works – Drug With 1 ATC



How It Works – Drug With 1 ATC



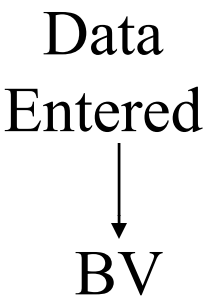
How It Works – Drug With 1 ATC



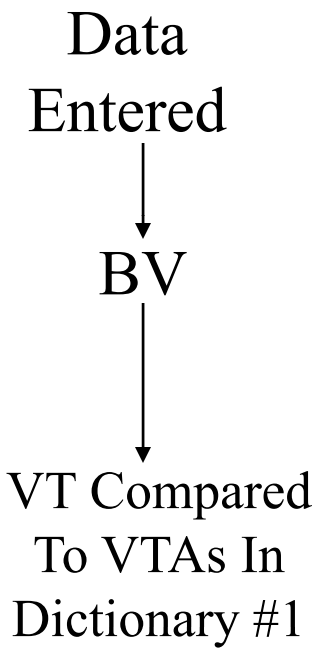
How It Works – Drug > 1 ATC

Data
Entered

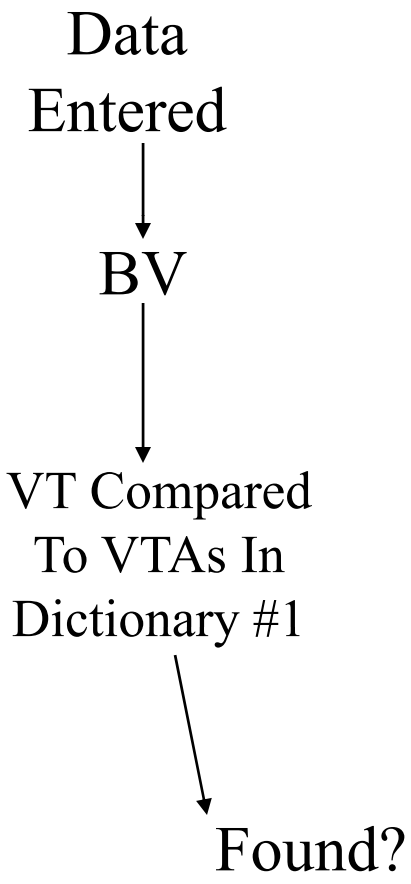
How It Works – Drug > 1 ATC



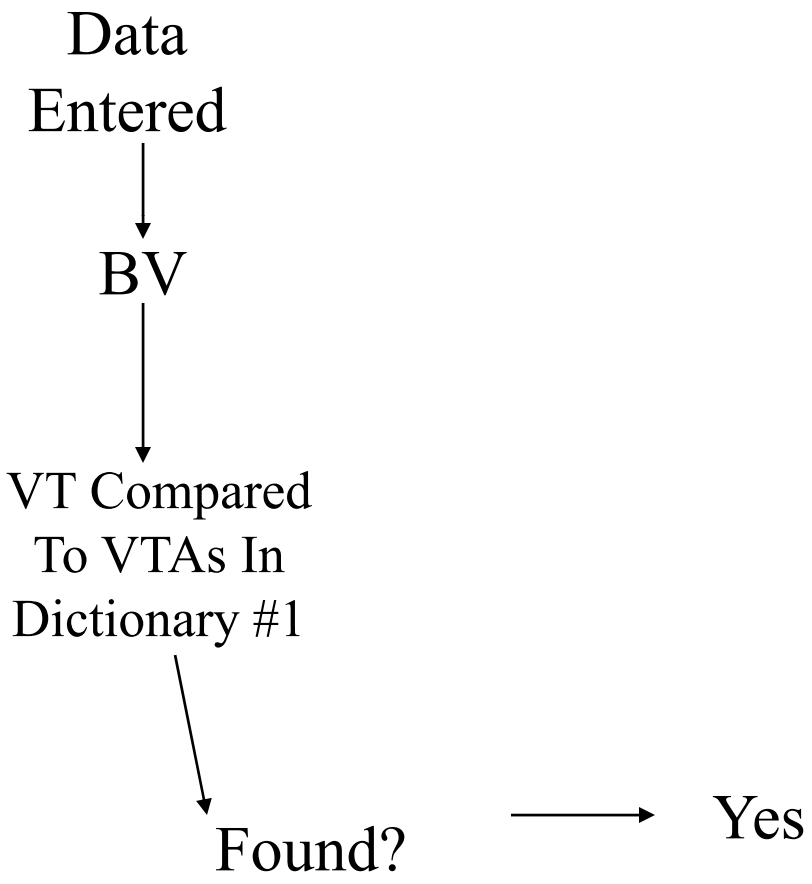
How It Works – Drug > 1 ATC



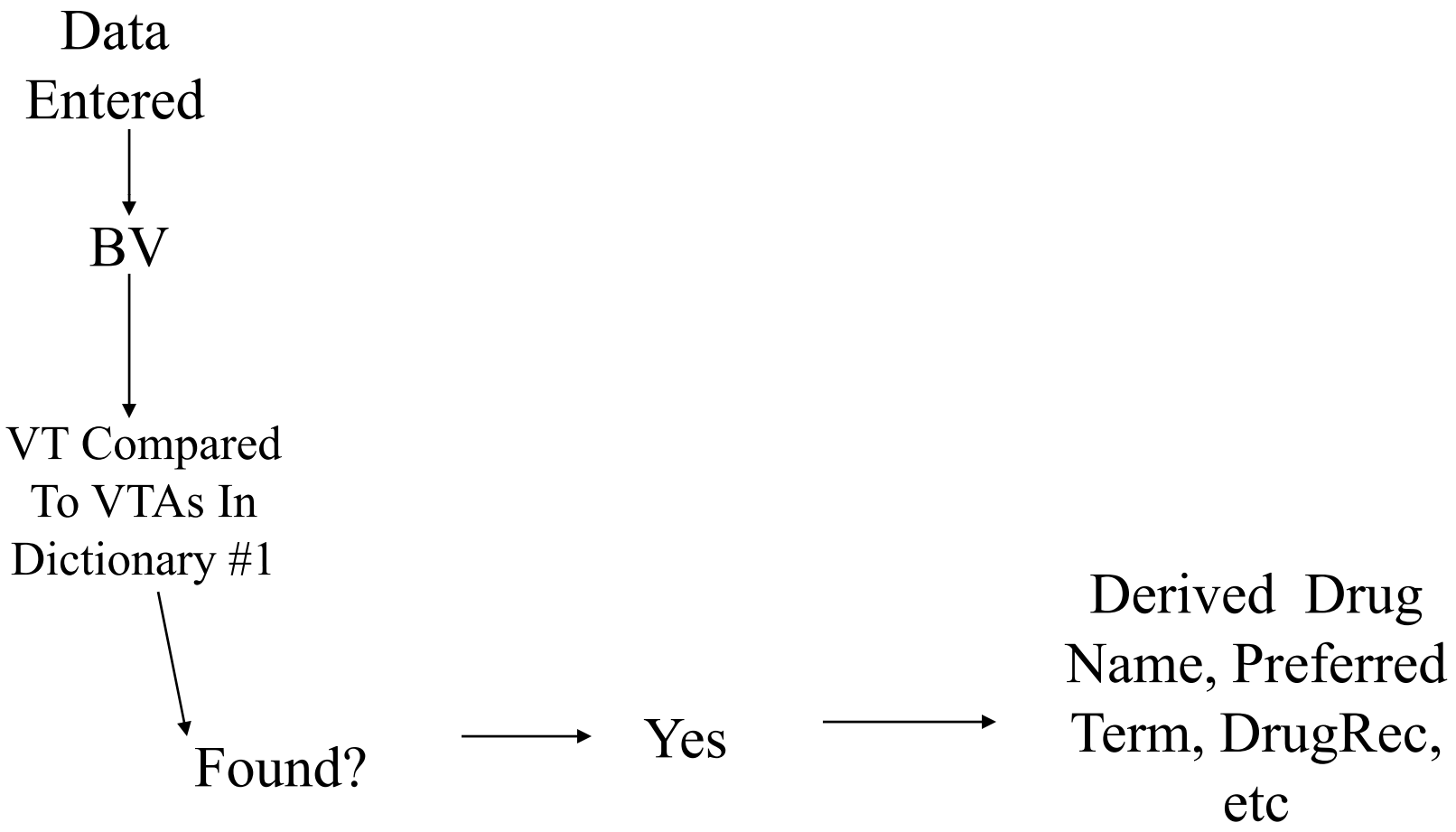
How It Works – Drug > 1 ATC



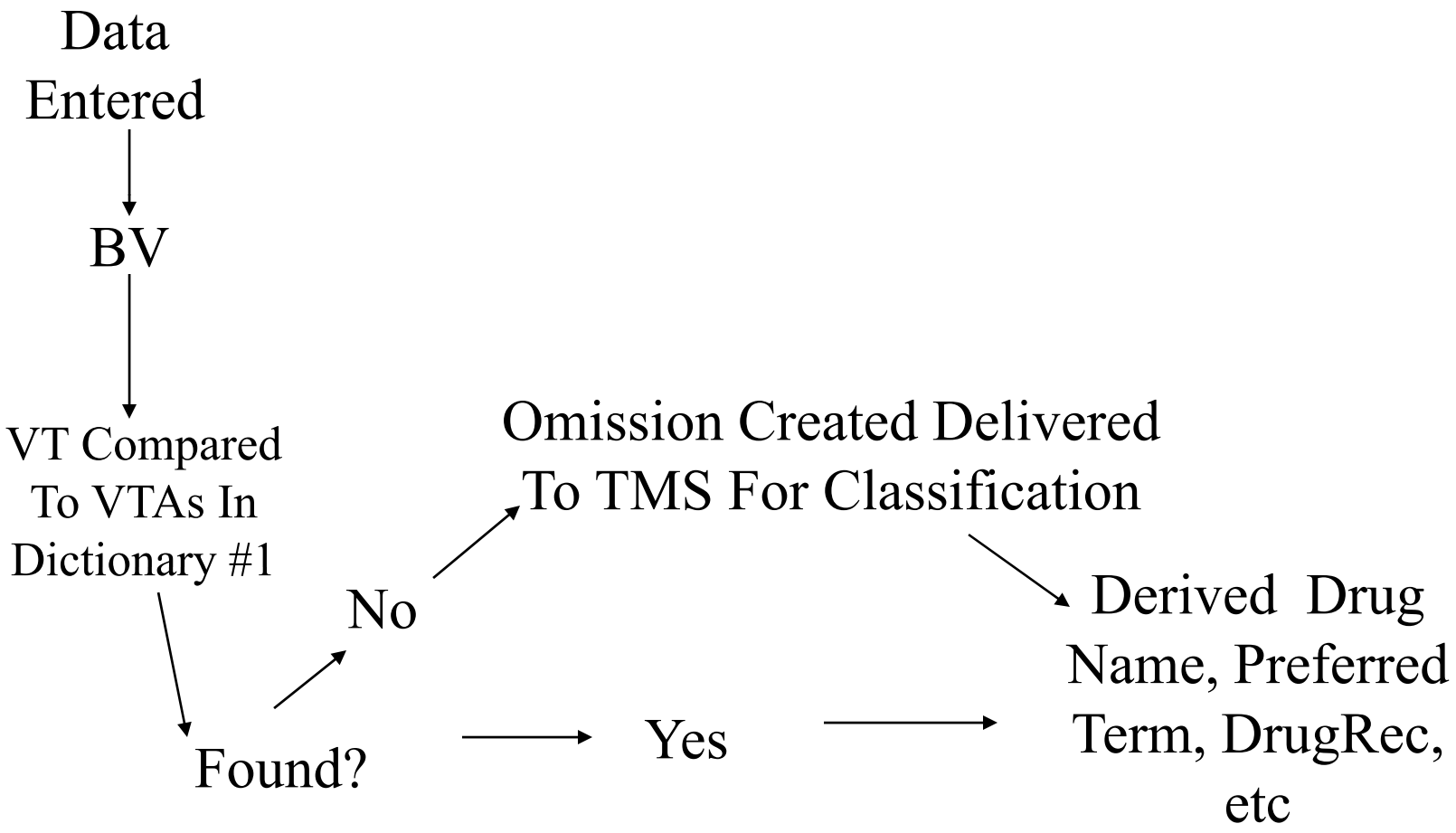
How It Works – Drug > 1 ATC



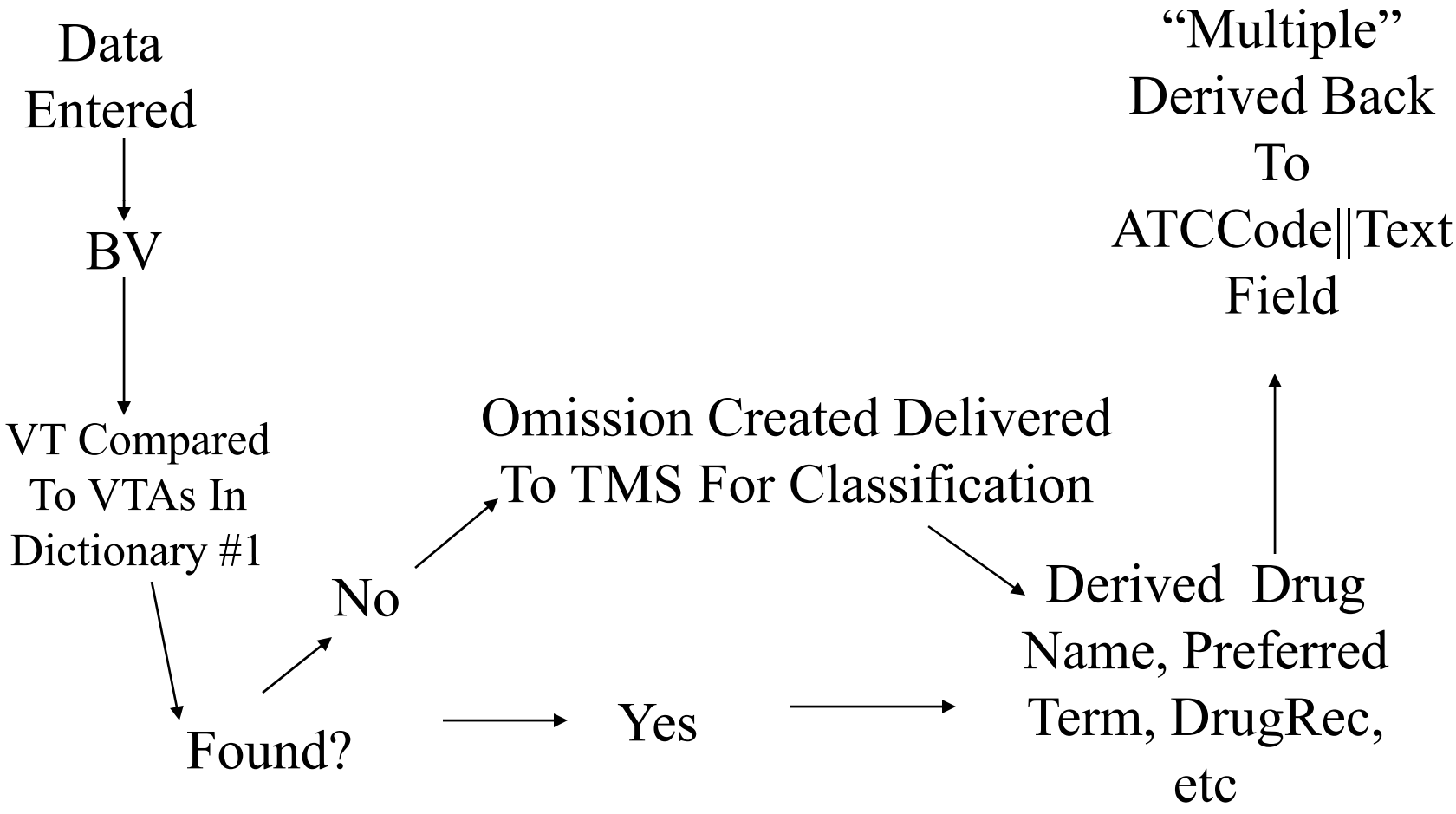
How It Works – Drug > 1 ATC



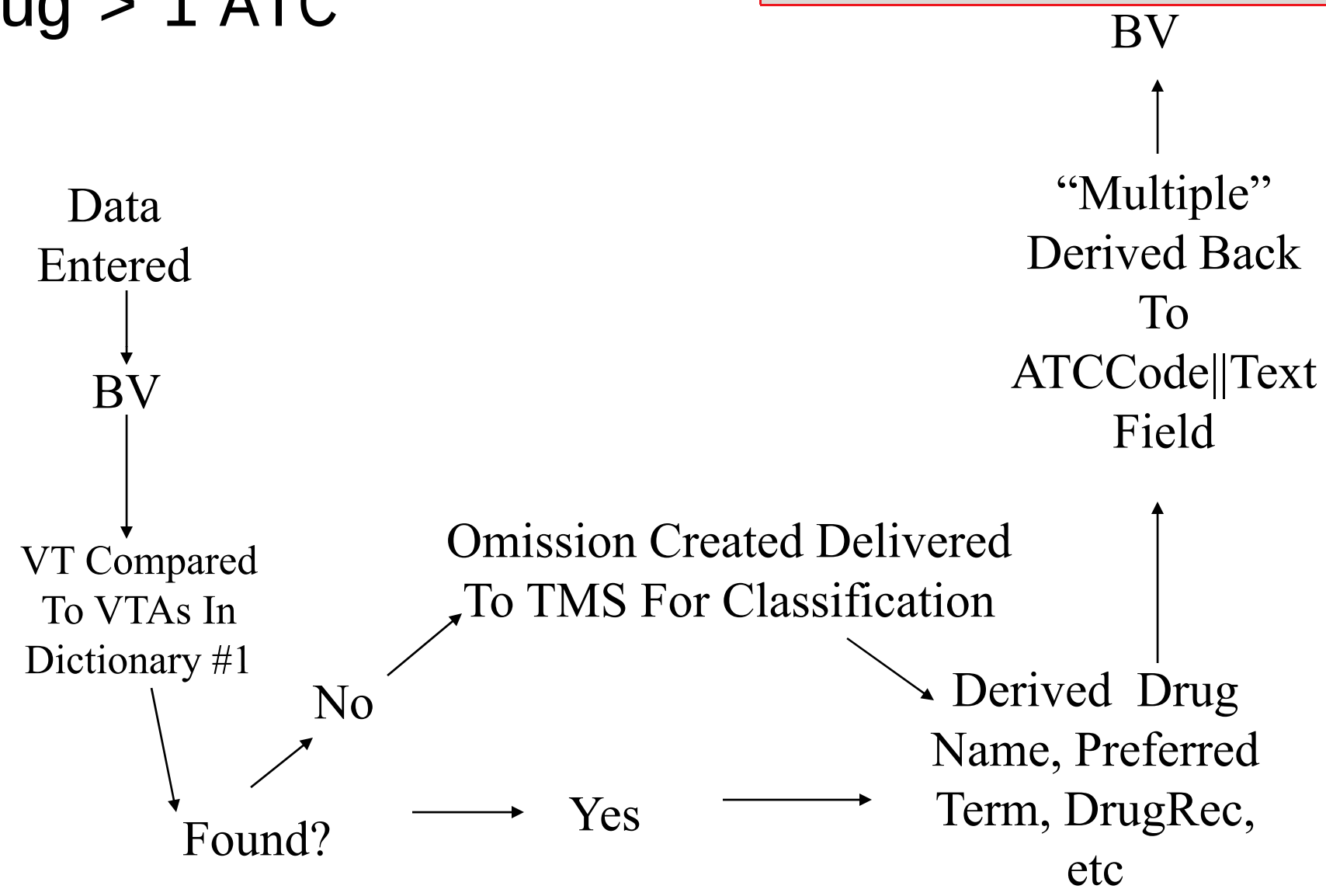
How It Works – Drug > 1 ATC



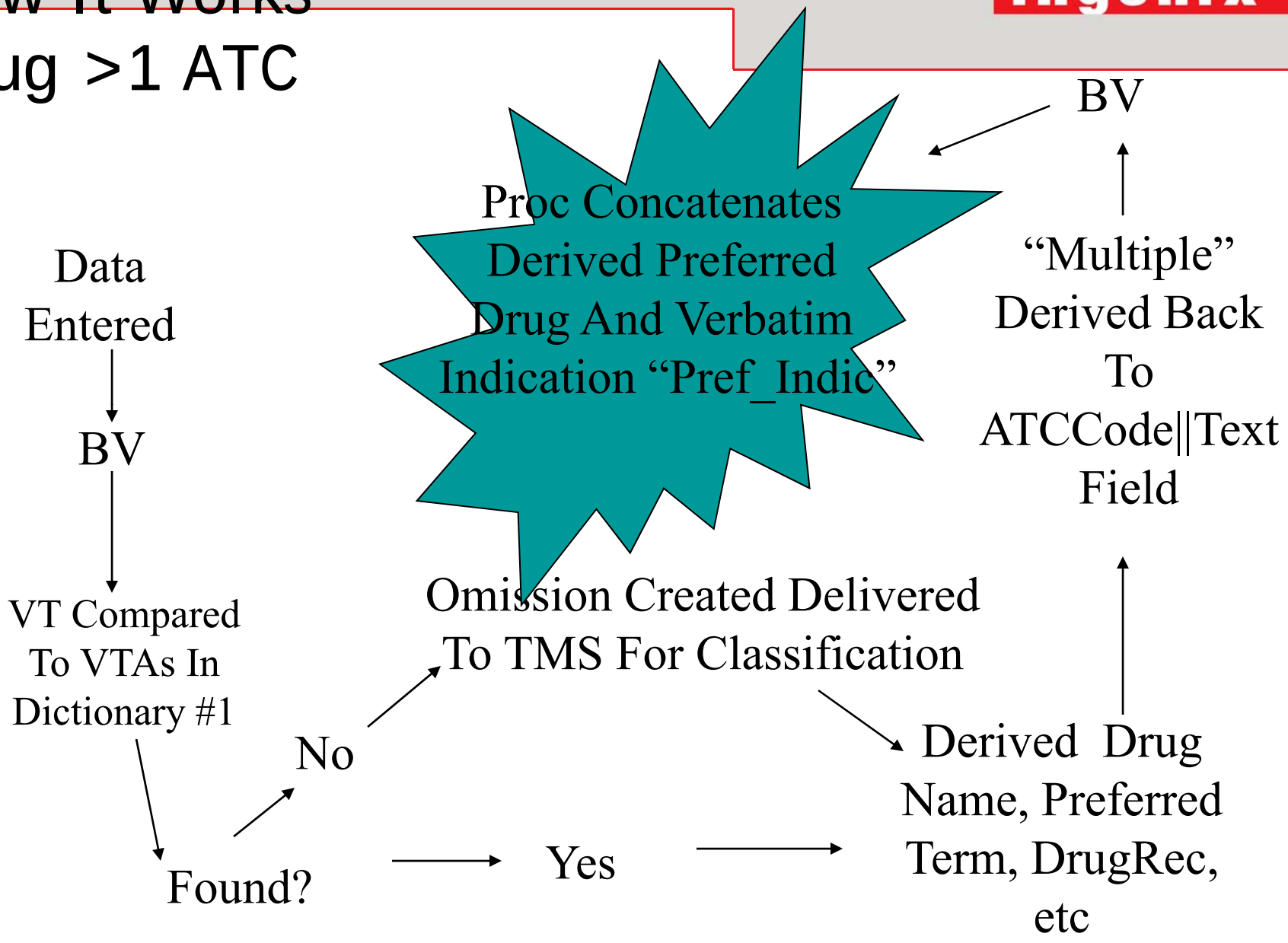
How It Works – Drug > 1 ATC



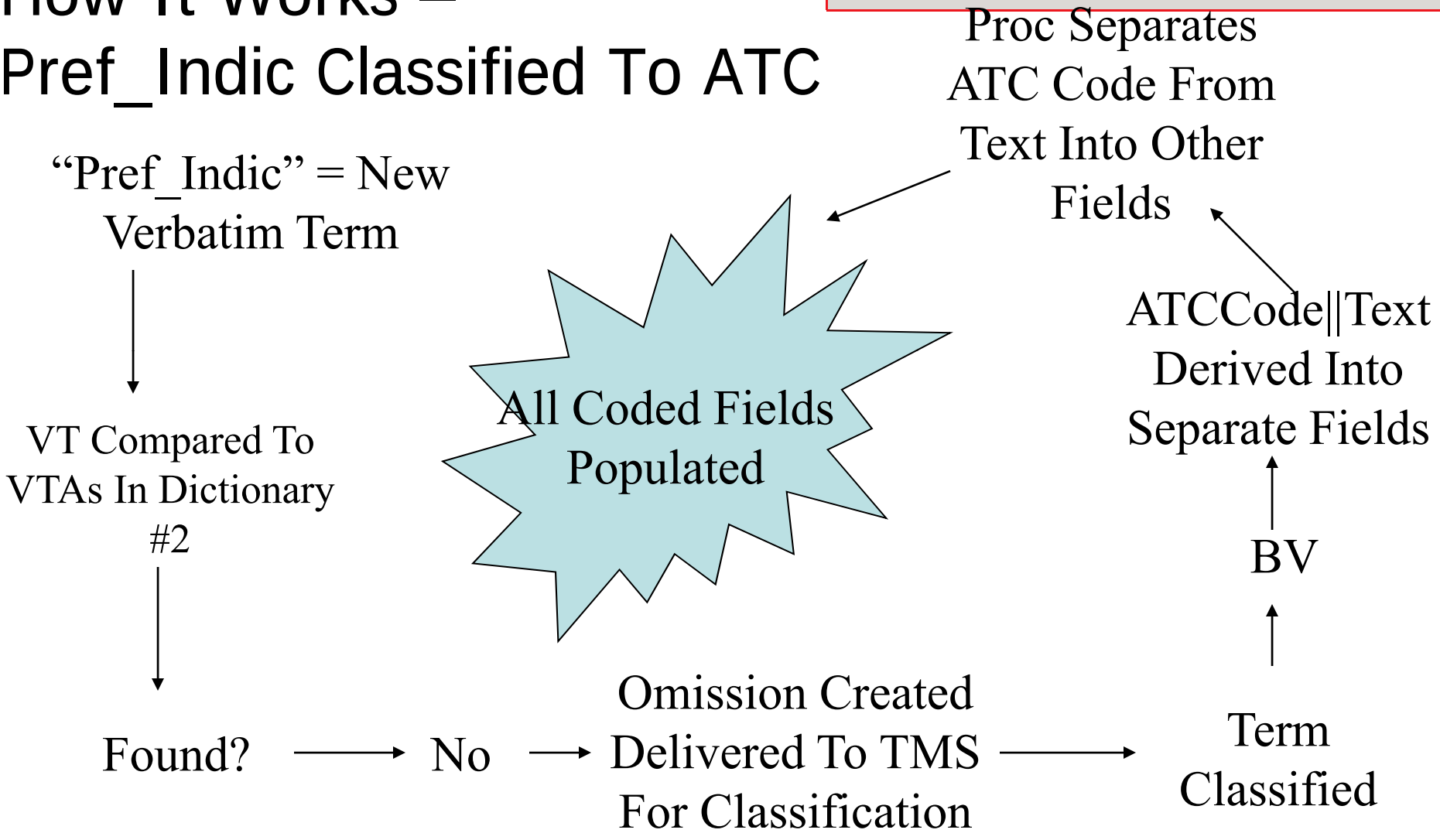
How It Works – Drug > 1 ATC



How It Works – Drug >1 ATC



How It Works – Pref_Indic Classified To ATC



How It Works – Pref_Indic Classified To ATC

"Pref_Indic" = New Verbatim Term

How It Works – Pref_Indic Classified To ATC

"Pref_Indic" = New Verbatim Term

VT Compared To VTAs In Dictionary #2

How It Works – Pref_Indic Classified To ATC

"Pref_Indic" = New Verbatim Term

VT Compared To VTAs In Dictionary #2

Found?

How It Works – Pref_Indic Classified To ATC

"Pref_Indic" = New Verbatim Term

VT Compared To VTAs In Dictionary #2

Found? ⟶ No

How It Works – Pref_Indic Classified To ATC

"Pref_Indic" = New Verbatim Term

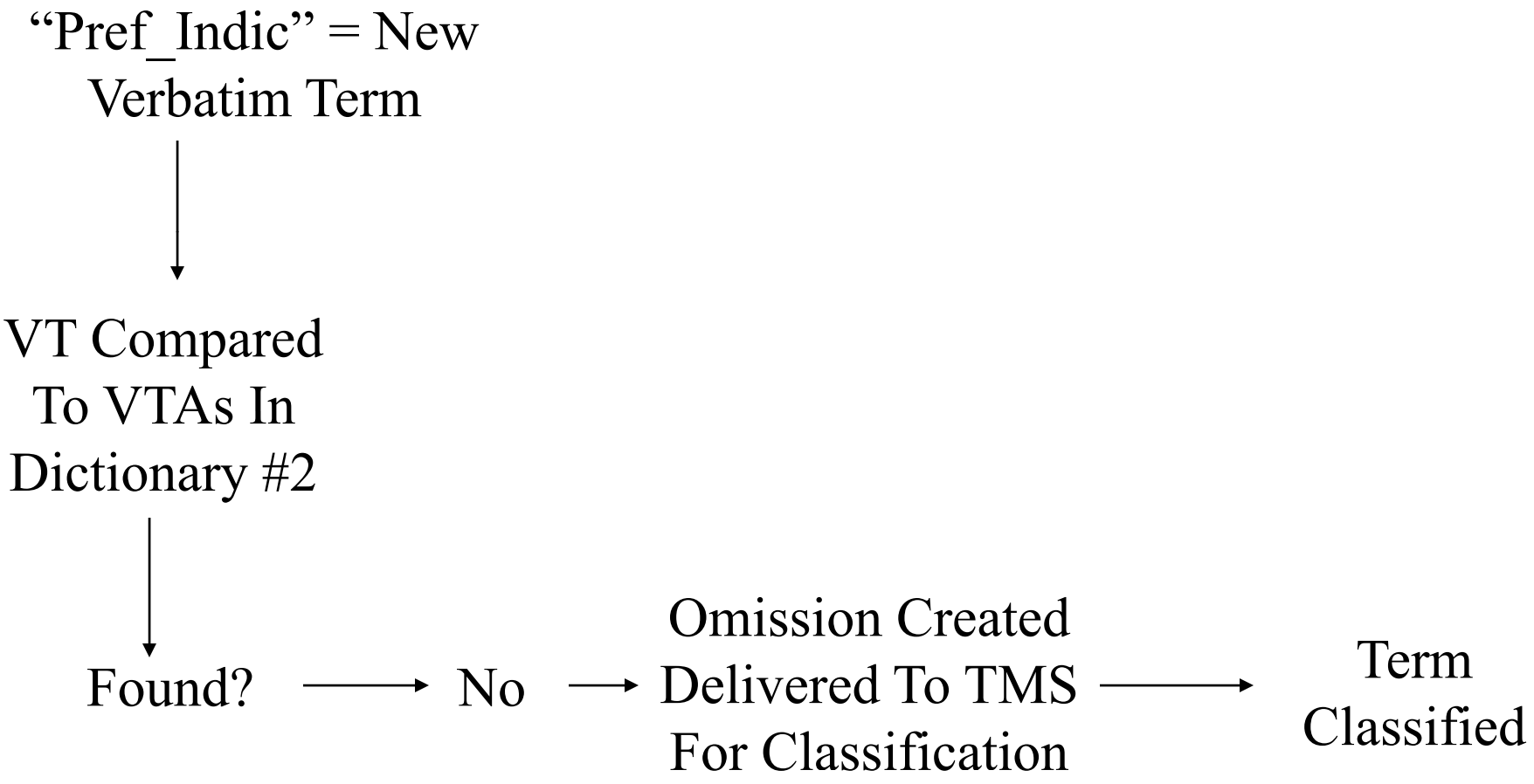
↓

VT Compared To VTAs In Dictionary #2

↓

Found? → No → Omission Created Delivered To TMS For Classification

How It Works – Pref_Indic Classified To ATC



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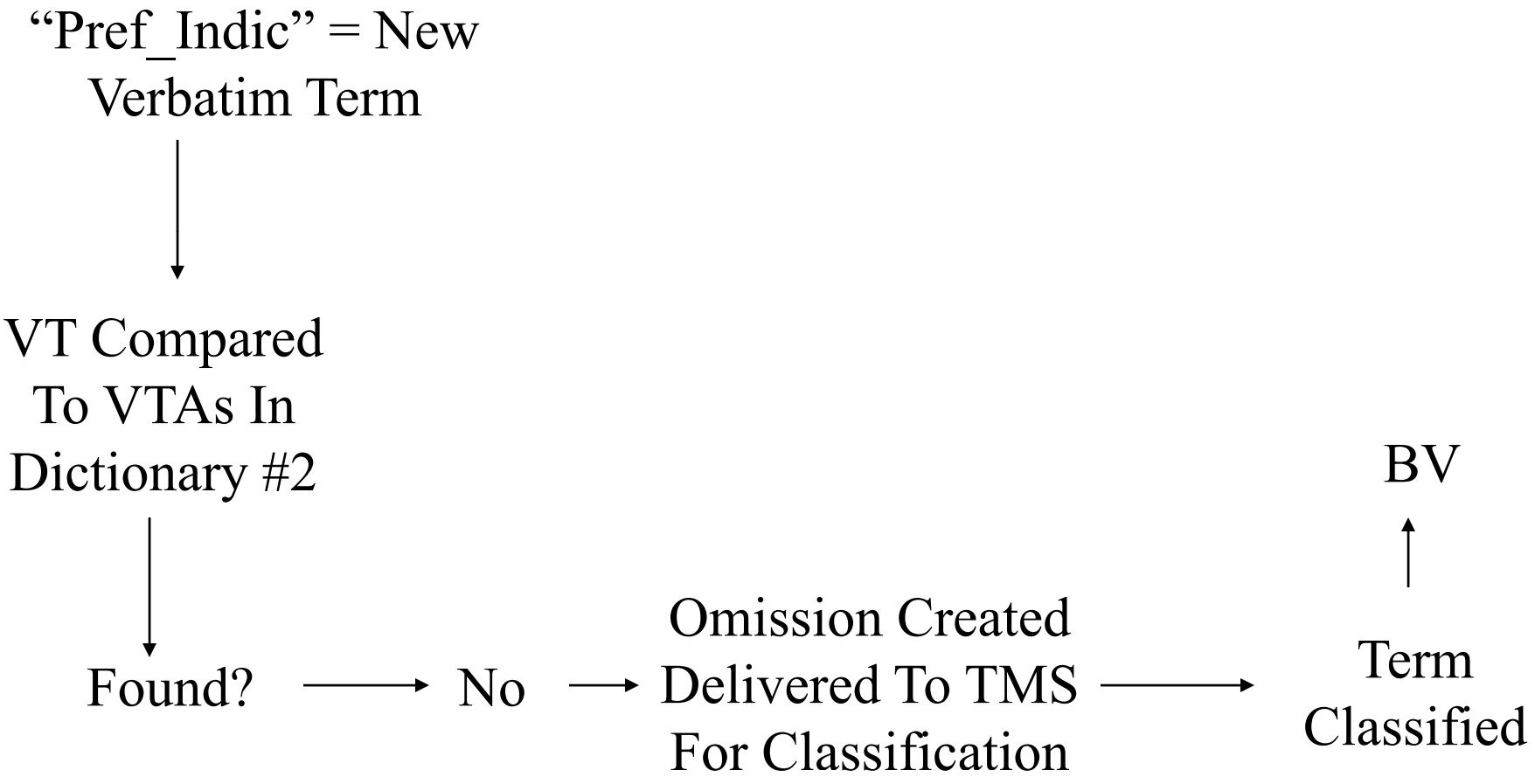
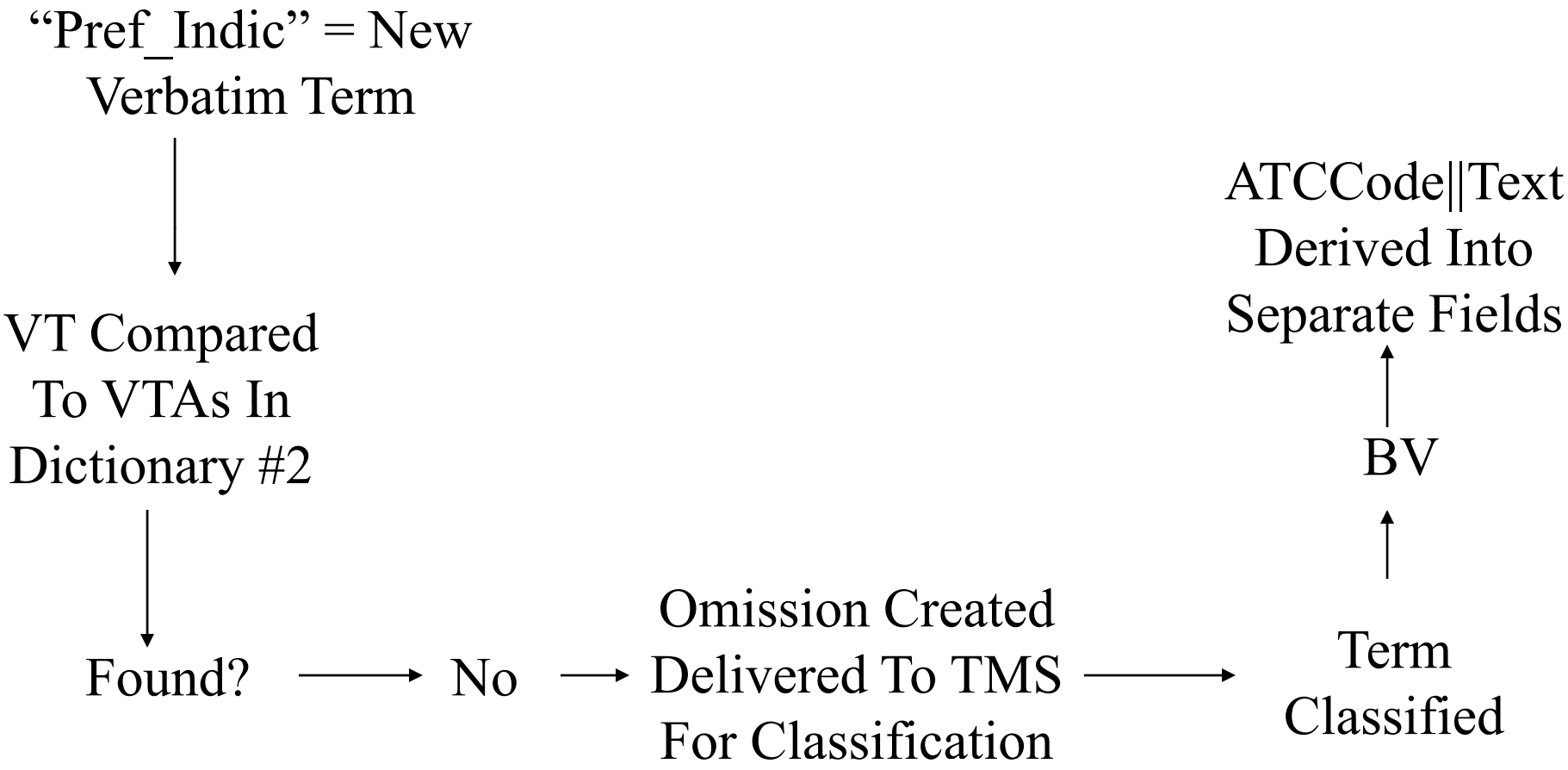
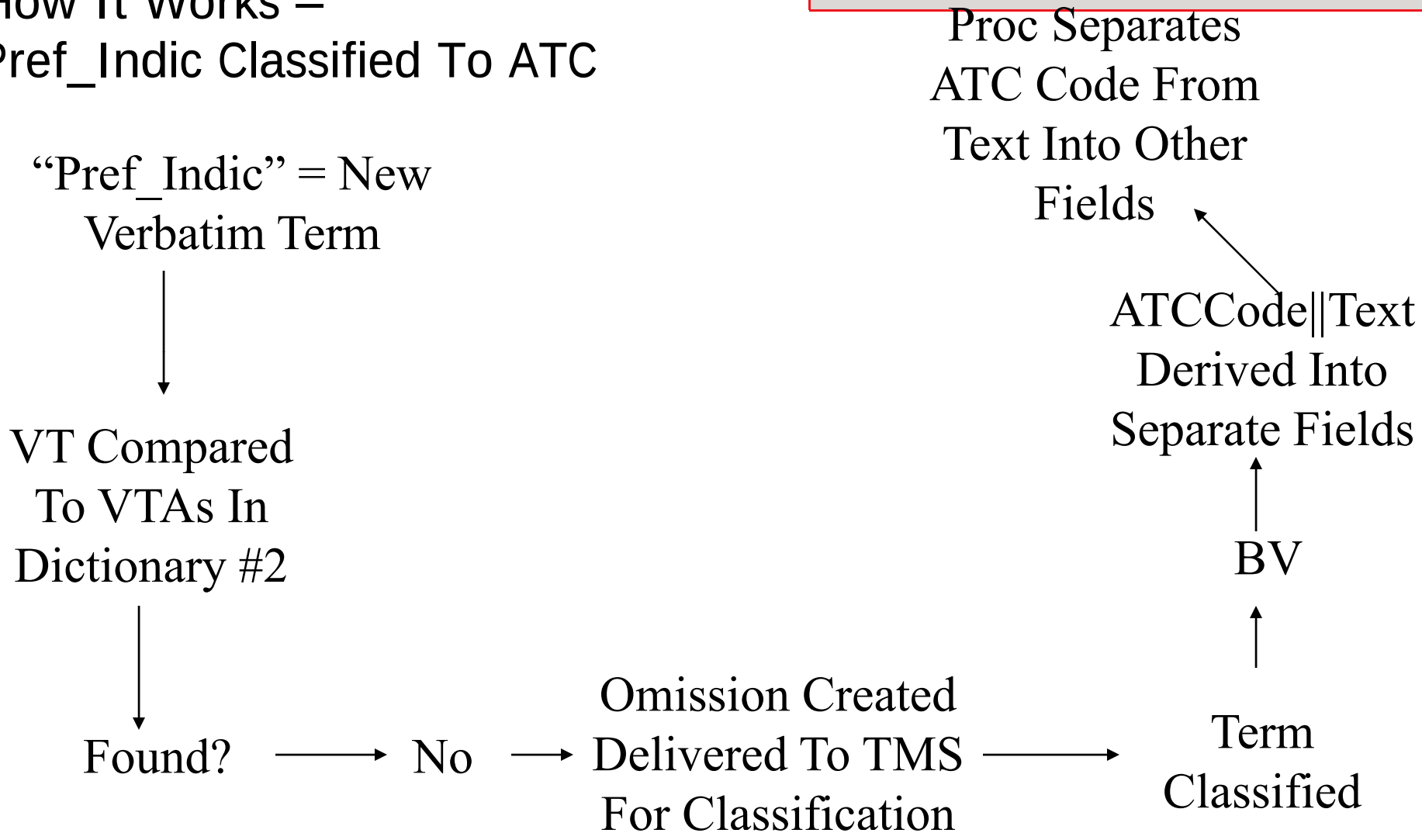


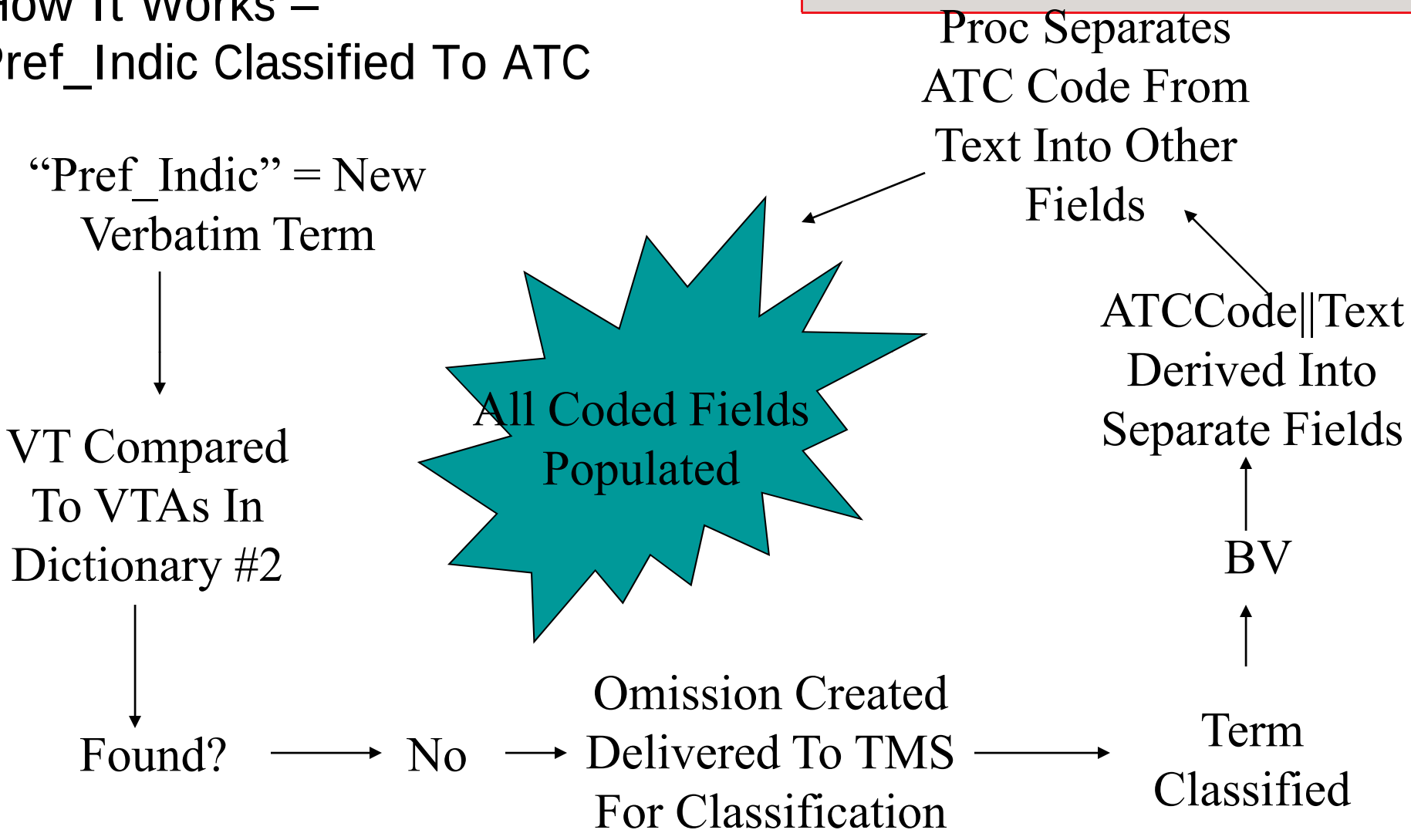
How It Works – Pref_Indic Classified To ATC



How It Works – Pref_Indic Classified To ATC



How It Works – Pref_Indic Classified To ATC



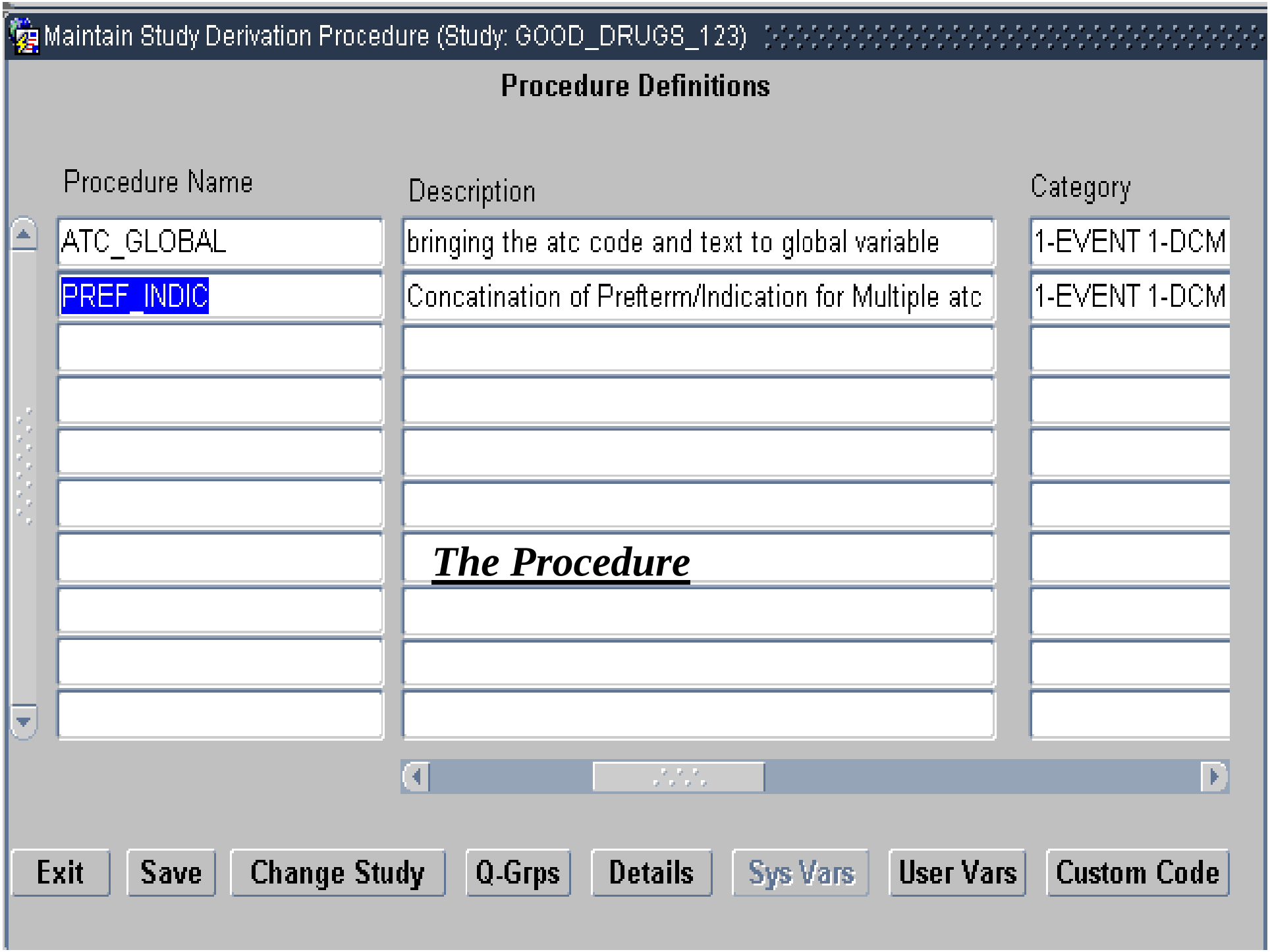
Study Set-Up

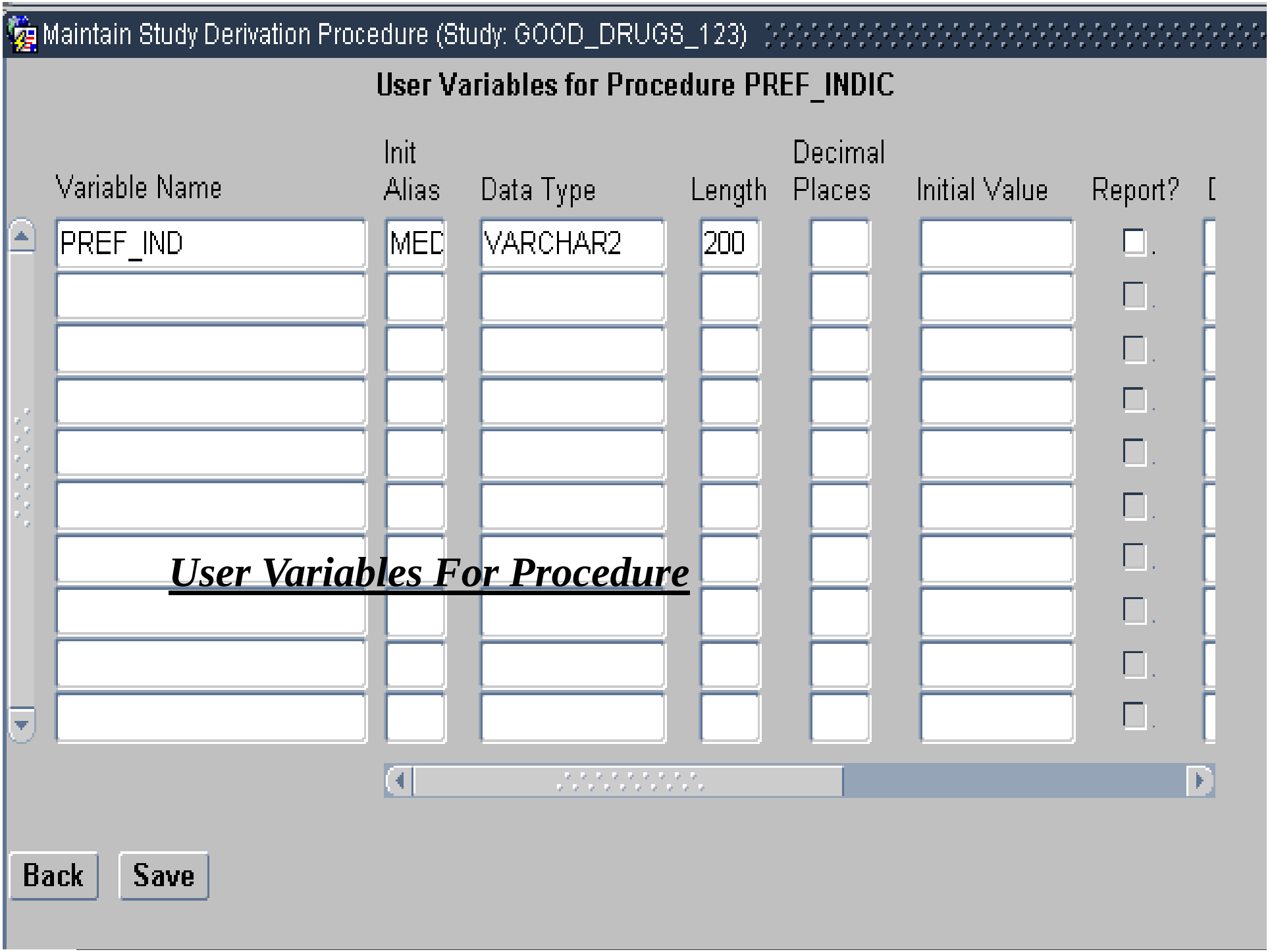
- Both Dictionaries In Same Domain
- Glib Has Questions For All Derivable Data Points From Each Dictionary

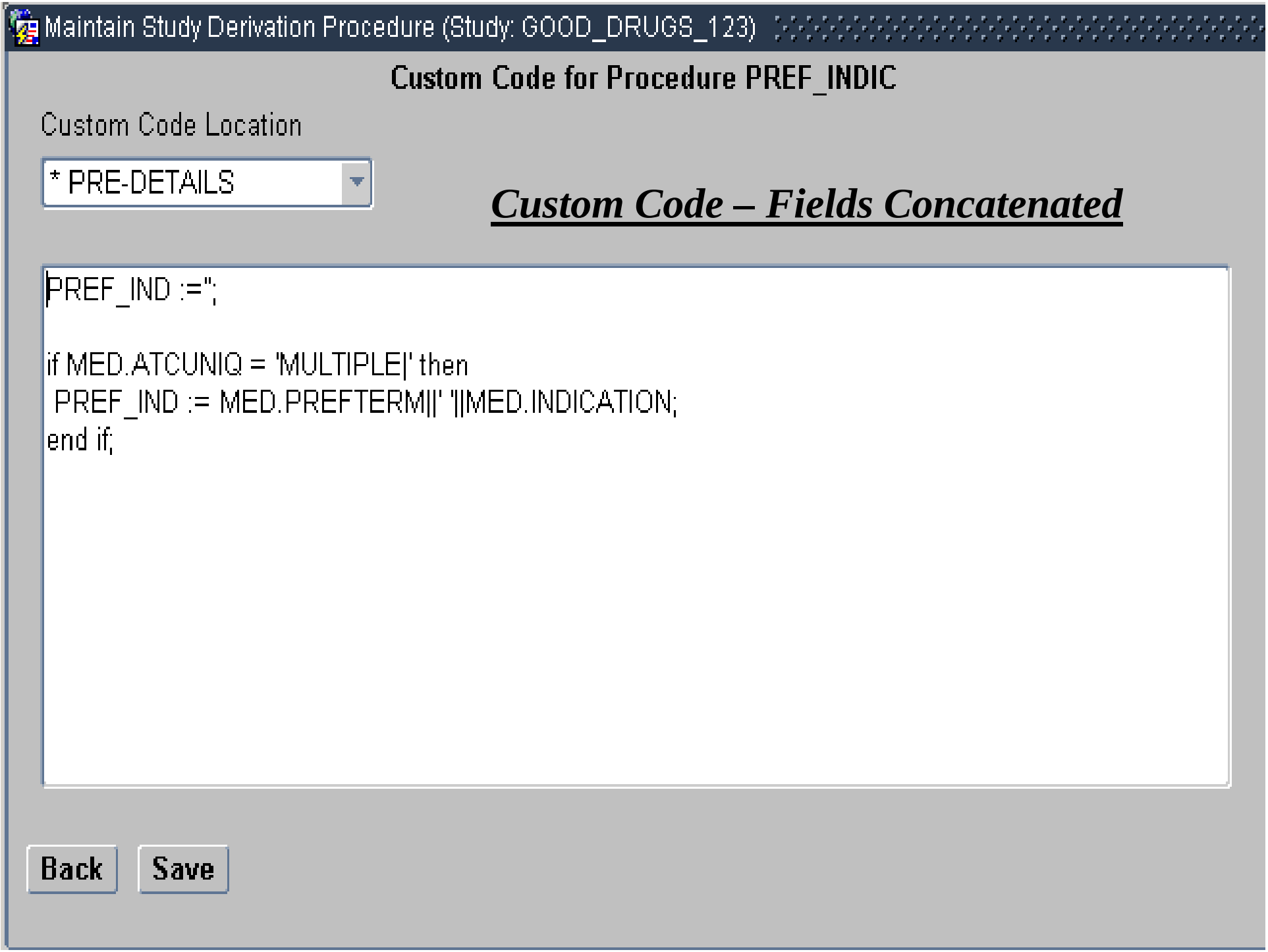
Study Set Up

- A Procedure Concatenates The Derived Preferred Drug Name And Indication If The ATC Code="Multiple" In The WHO Drug

- A Procedure Derives ATC Code and Text To A Separate Field For Each


Maintain Study Derivation Procedure (Study: GOOD_DRUGS_123)
Procedure Definitions
Procedure Name
Description
Category
ATC_GLOBAL
bringing the atc code and text to global variable
1-EVENT 1-DCM
PREF_INDIC
Concatination of Prefterm/Indication for Multiple atc
1-EVENT 1-DCM
The Procedure
Exit
Save
Change Study
Q-Grps
Details
Sys Vars
User Vars
Custom Code


Maintain Study Derivation Procedure (Study: GOOD_DRUGS_123)
User Variables for Procedure PREF_INDIC
Variable Name
Init Alias
Data Type
Length
Decimal Places
Initial Value
Report?
PREF_IND
MED
VARCHAR2
200
User Variables For Procedure
Back
Save


Maintain Study Derivation Procedure (Study: GOOD_DRUGS_123)
Custom Code for Procedure PREF_INDIC
Custom Code Location
* PRE-DETAILS
Custom Code – Fields Concatenated
PREF_IND :='';
if MED.ATCUNIQ = 'MULTIPLE|' then
PREF_IND := MED.PREFTERM||' '||MED.INDICATION;
end if;
Back
Save

Maintain Study Derivation Procedure (Study: GOOD_DRUGS_123)

Custom Code for Procedure PREF_INDIC

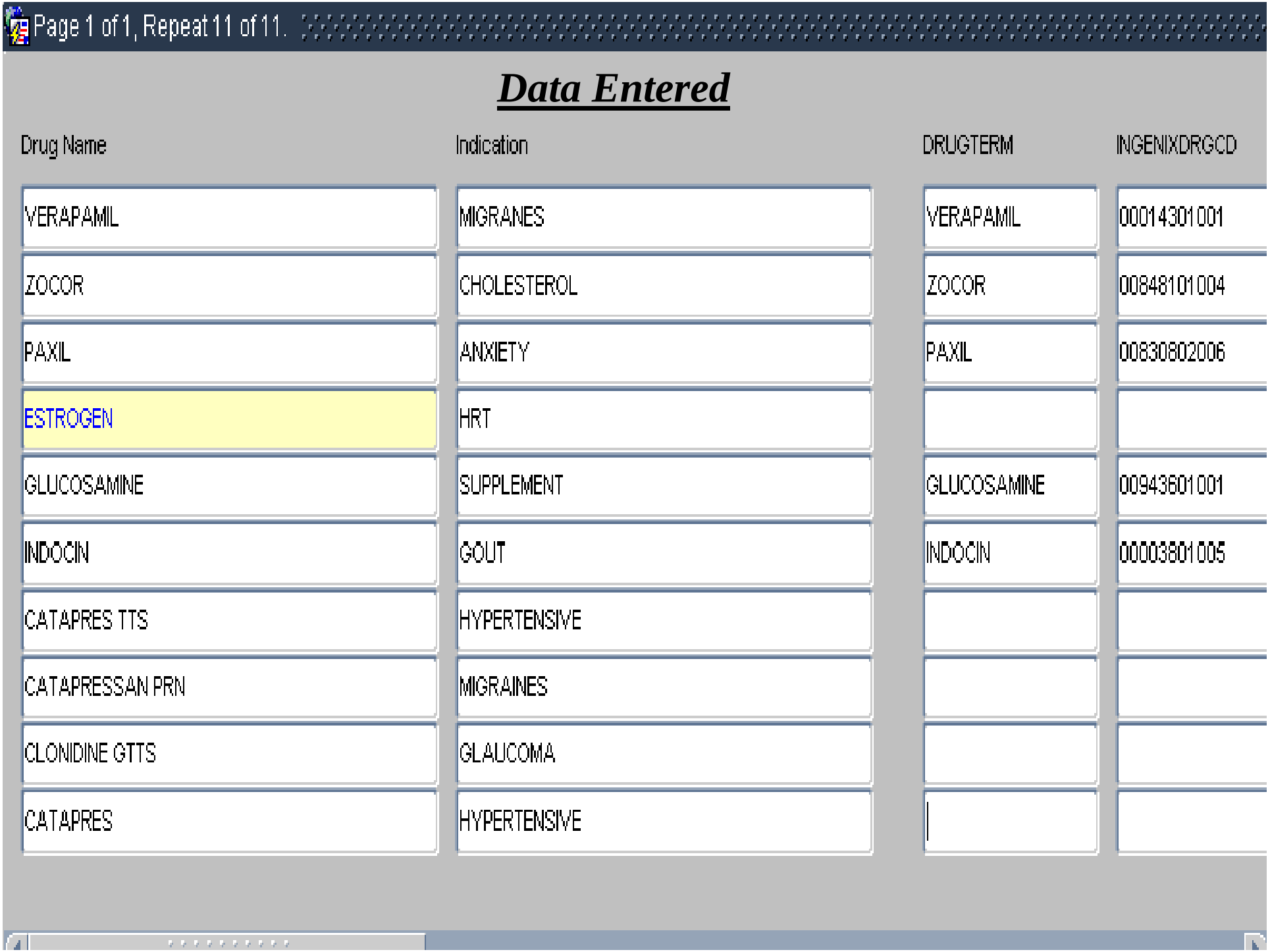
Custom Code Location

* POST-DETAILS

Custom Code – Flag Reset To Create Omission

```
IF    (resp_tab(1).old_derived_value <> resp_tab(1).new_derived_value
       or (resp_tab(1).old_derived_value is null and resp_tab(1).new_derived_value is not null)
       or (resp_tab(1).old_derived_value is not null and resp_tab(1).new_derived_value is null)
      )
THEN
       update PATIENT_DM_TRACKING PDT
              set PDT.LOCAL_DATA_MODIFIED_FLAG = 'Y'
              where PDT.PATIENT_POSITION_ID =
              RXCPDSTD.PATIENTS_REC.PATIENT_POSITION_ID;
END IF;
```

Back Save

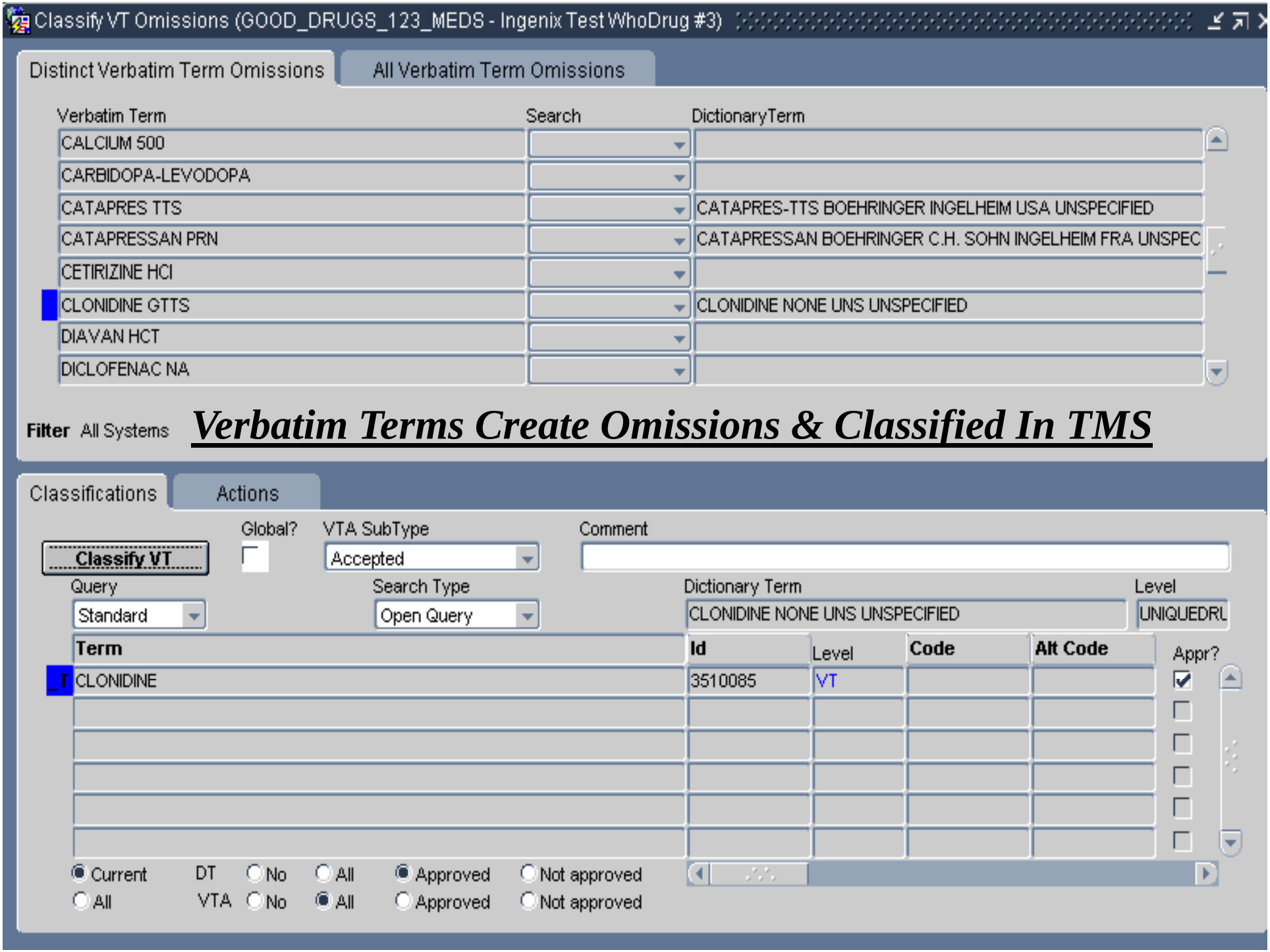

Page 1 of 1, Repeat 11 of 11.
Data Entered
Drug Name
Indication
DRUGTERM
INGENIXDRGCD
VERAPAMIL
MIGRANES
VERAPAMIL
00014301001
ZOCOR
CHOLESTEROL
ZOCOR
00848101004
PAXIL
ANXIETY
PAXIL
00830802006
ESTROGEN
HRT
GLUCOSAMINE
SUPPLEMENT
GLUCOSAMINE
00943601001
INDOCIN
GOUT
INDOCIN
00003801005
CATAPRES TTS
HYPERTENSIVE
CATAPRESSAN PRN
MIGRAINES
CLONIDINE GTTS
GLAUCOMA
CATAPRES
HYPERTENSIVE

Catapres Auto Encodes

Drug Name	Indication	DRUGTERM	INGENIXDRGCD
VERAPAMIL	MIGRANES	VERAPAMIL	00014301001
ZOCOR	CHOLESTEROL	ZOCOR	00848101004
PAXIL	ANXIETY	PAXIL	00830802006
ESTROGEN	HRT		
GLUCOSAMINE	SUPPLEMENT	GLUCOSAMINE	00943601001
INDOCIN	GOUT	INDOCIN	00003801005
CATAPRES TTS	HYPERTENSIVE		
CATAPRESSAN PRN	MIGRAINES		
CLONIDINE GTTS	GLAUCOMA		
CATAPRES	HYPERTENSIVE	CATAPRES	00171101004

The Rest Of The Fields Valued From Dictionary #1

DRUGTERM	INGENIXDRGCD	MP_ID	NO_SALT	PREFTERM	atx txt dict 2
VERAPAMIL	00014301001	3557	VERAPAMIL	VERAPAMIL	C08DA|PHEN
ZOCOR	00848101004	54039	SIMVASTATIN	SIMVASTATIN	C10AA|HMG
PAXIL	00830802006	38405	PAROXETINE	PAROXETINE HYDRO(	N06AB|SELE
GLUCOSAMINE	00943601001	40716	GLUCOSAMINE	GLUCOSAMINE	M01AX|OTH
INDOCIN	00003801005	1685	INDOMETACIN	INDOMETACIN	MULTIPLE|
CATAPRES	00171101004	17968	CLONIDINE	CLONIDINE	MULTIPLE|


Classify VT Omissions (GOOD_DRUGS_123_MEDS - Ingenix Test WhoDrug #3)
Distinct Verbatim Term Omissions
All Verbatim Term Omissions
Verbatim Term
Search
DictionaryTerm
CALCIUM 500
CARBIDOPA-LEVODOPA
CATAPRES TTS
CATAPRES-TTS BOEHRINGER INGELHEIM USA UNSPECIFIED
CATAPRESSAN PRN
CATAPRESSAN BOEHRINGER C.H. SOHN INGELHEIM FRA UNSPEC
CETIRIZINE HCl
CLONIDINE GTTS
CLONIDINE NONE UNS UNSPECIFIED
DIAVAN HCT
DICLOFENAC NA
Filter All Systems
Verbatim Terms Create Omissions & Classified In TMS
Classifications
Actions
Classify VT
Global?
VTA SubType
Accepted
Comment
Query
Standard
Search Type
Open Query
Dictionary Term
CLONIDINE NONE UNS UNSPECIFIED
Level
UNIQUEDRL
Term
Id
Level
Code
Alt Code
Appr?
_T
CLONIDINE
3510085
VT
Current
All
DT
VTA
No
All
Approved
Not approved

1 of 1, Repeat 11 of 11.

After BV, Variables Derived From TMS

DRUGTERM	INGENIXDRGCD	MP_ID	NO_SALT	PREFTERM	atx txt dict 2
VERAPAMIL	00014301001	3557	VERAPAMIL	VERAPAMIL	C08DA|PHENYLALKY
ZOCOR	00848101004	54039	SIMVASTATIN	SIMVASTATIN	C10AA|HMG COA RED
PAXIL	00830802006	38405	PAROXETINE	PAROXETINE HYDRO(	N06AB|SELECTIVE SE
GLUCOSAMINE	00943601001	40716	GLUCOSAMINE	GLUCOSAMINE	M01AX|OTHER ANTIIN
INDOCIN	00003801005	1685	INDOMETACIN	INDOMETACIN	MULTIPLE|
CATAPRES-TTS	00171101010	17974	CLONIDINE	CLONIDINE	MULTIPLE|
CATAPRESSAN	00171101006	17970	CLONIDINE	CLONIDINE	MULTIPLE|
CLONIDINE	00171101001	17965	CLONIDINE	CLONIDINE	MULTIPLE|
CATAPRES	00171101004	17968	CLONIDINE	CLONIDINE	MULTIPLE|

BV Run To Create New VT – Pref_Indica

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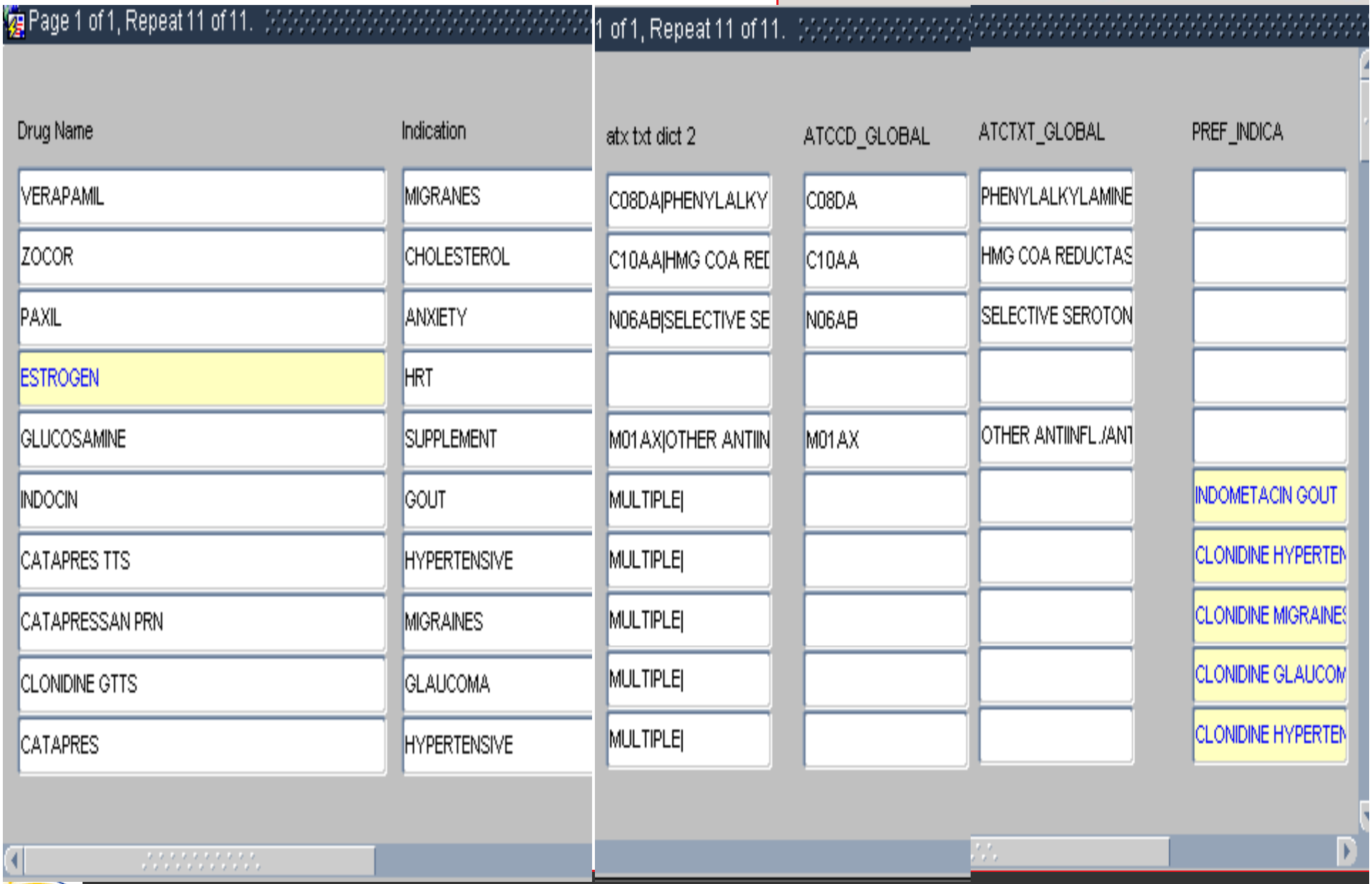
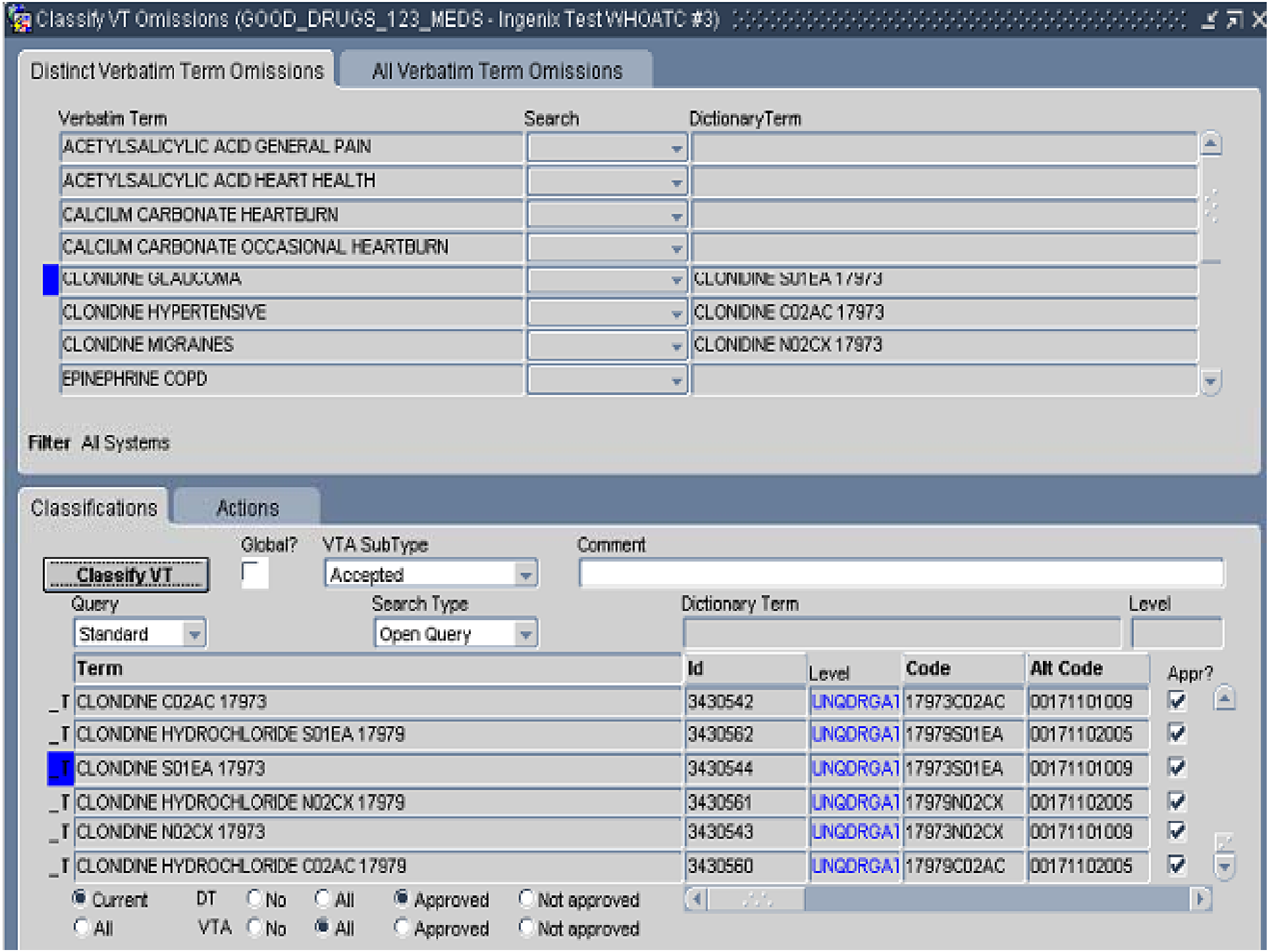
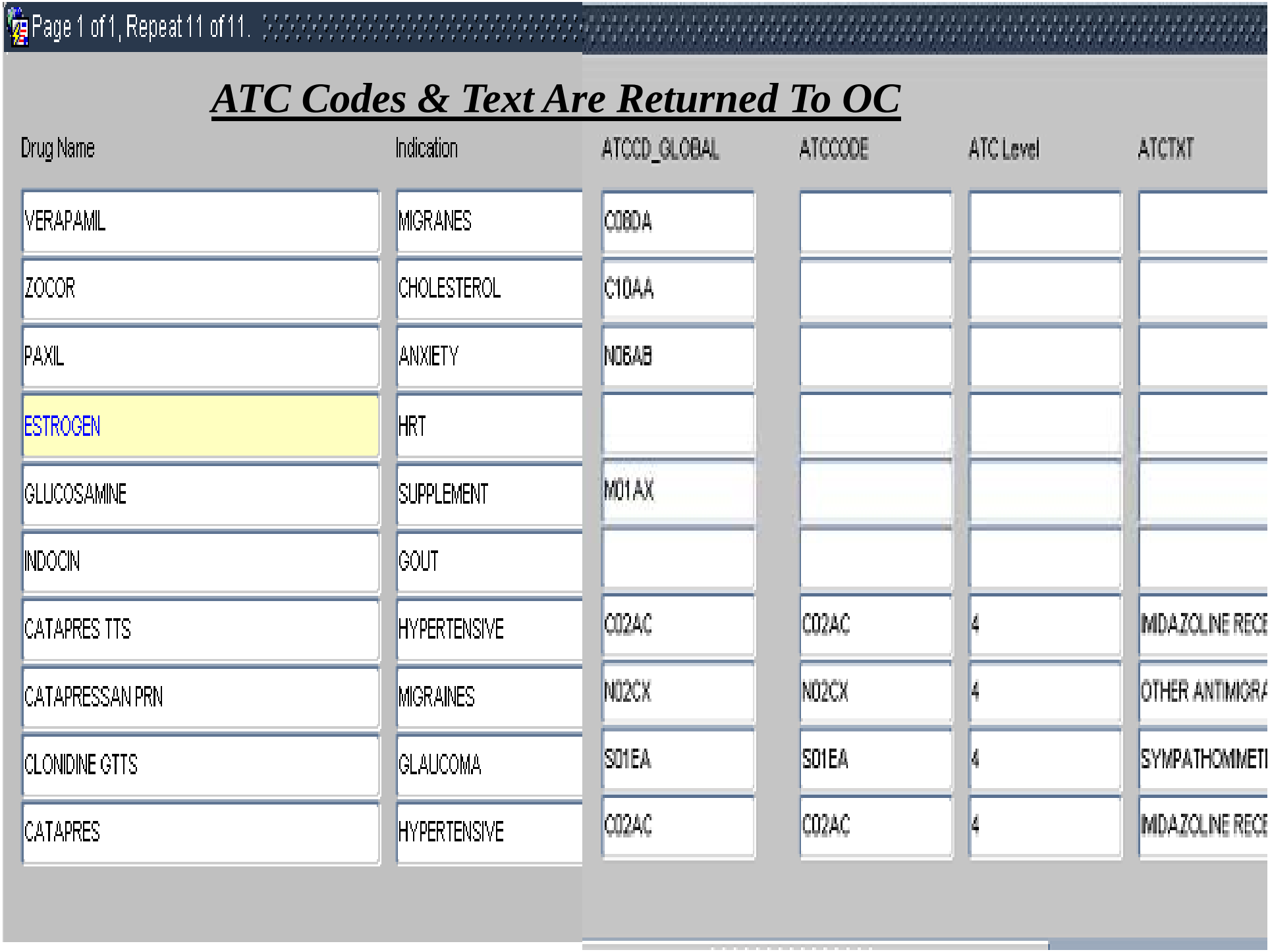


Drug Name	Indication	atx txt dict 2	ATCCD_GLOBAL	ATCTXT_GLOBAL	PREF_INDICA
VERAPAMIL	MIGRANES	C08DA|PHENYLALKY	C08DA	PHENYLALKYLAMINE	
ZOCOR	CHOLESTEROL	C10AA|HMG COA RED	C10AA	HMG COA REDUCTAS	
PAXIL	ANXIETY	N06AB|SELECTIVE SE	N06AB	SELECTIVE SEROTON	
ESTROGEN	HRT				
GLUCOSAMINE	SUPPLEMENT	M01AX|OTHER ANTIIN	M01AX	OTHER ANTIINFL./ANT	
INDOCIN	GOUT	MULTIPLE|			INDOMETACIN GOUT
CATAPRES TTS	HYPERTENSIVE	MULTIPLE|			CLONIDINE HYPERTEN
CATAPRESSAN PRN	MIGRAINES	MULTIPLE|			CLONIDINE MIGRAINES
CLONIDINE GTTS	GLAUCOMA	MULTIPLE|			CLONIDINE GLAUCOM
CATAPRES	HYPERTENSIVE	MULTIPLE|			CLONIDINE HYPERTEN


Classify VT Omissions (GOOD_DRUGS_123_MEDS - Ingenix Test WHOATC #3)
Distinct Verbatim Term Omissions
All Verbatim Term Omissions
Verbatim Term
Search
DictionaryTerm
ACETYLSALICYLIC ACID GENERAL PAIN
ACETYLSALICYLIC ACID HEART HEALTH
CALCIUM CARBONATE HEARTBURN
CALCIUM CARBONATE OCCASIONAL HEARTBURN
CLONIDINE GLAUCOMA
CLONIDINE HYPERTENSIVE
CLONIDINE C02AC 17973
CLONIDINE MIGRAINES
CLONIDINE N02CX 17973
EPINEPHRINE COPD
Filter All Systems
Classifications
Actions
Classify VT
Global?
VTA SubType
Accepted
Comment
Query
Standard
Search Type
Open Query
Dictionary Term
Level
Term
Id
Level
Code
Alt Code
Appr?
_T CLONIDINE C02AC 17973
3430542
UNGDRGA1
17973C02AC
00171101009
_T CLONIDINE HYDROCHLORIDE S01EA 17979
3430562
UNGDRGA1
17979S01EA
00171102005
_T CLONIDINE S01EA 17973
3430544
UNGDRGA1
17973S01EA
00171101009
_T CLONIDINE HYDROCHLORIDE N02CX 17979
3430561
UNGDRGA1
17979N02CX
00171102005
_T CLONIDINE N02CX 17973
3430543
UNGDRGA1
17973N02CX
00171101009
_T CLONIDINE HYDROCHLORIDE C02AC 17979
3430560
UNGDRGA1
17979C02AC
00171102005
Current
DT
No
All
Approved
Not approved
All
VTA
No
All
Approved
Not approved

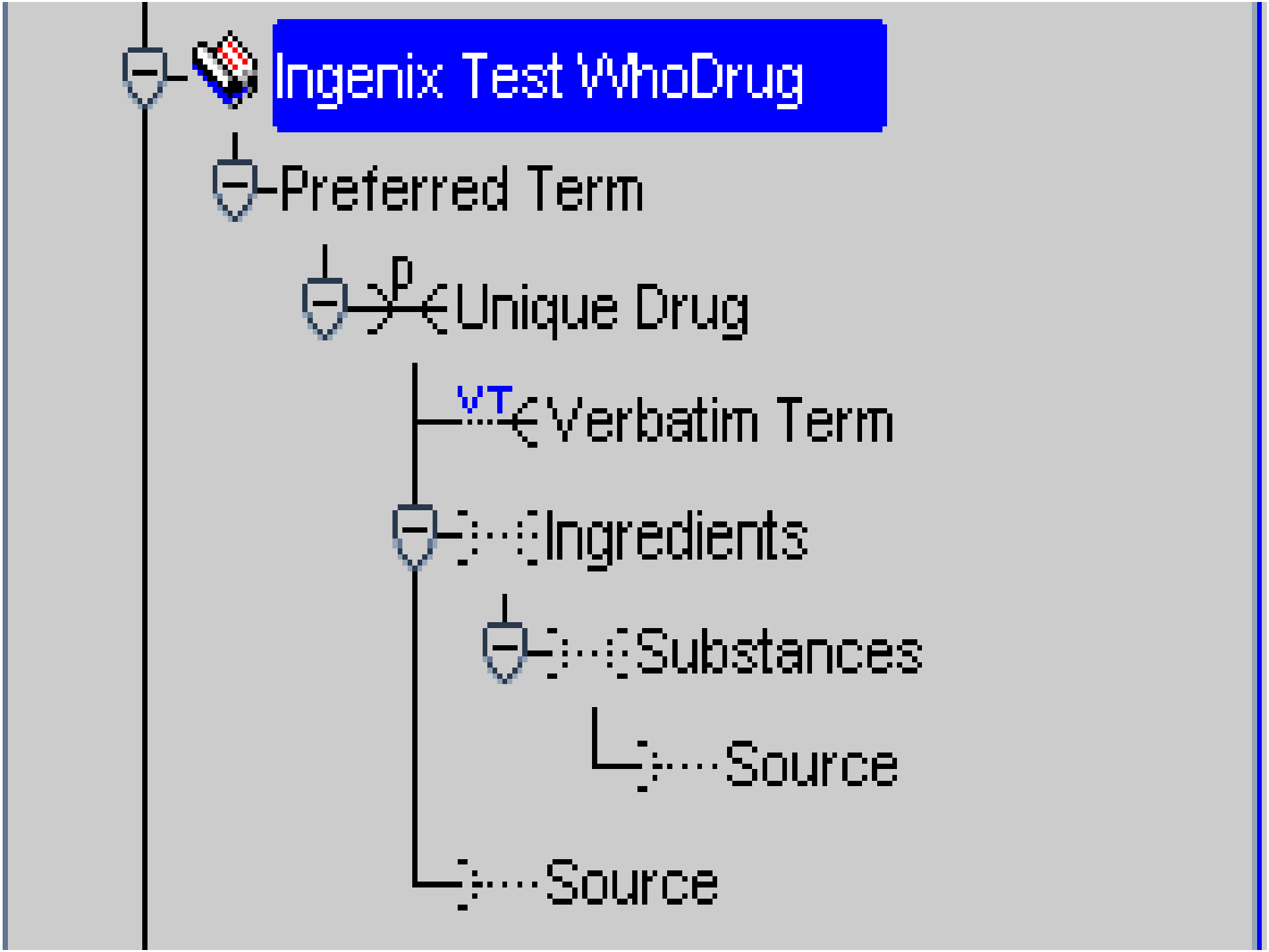

Page 1 of 1, Repeat 11 of 11.
ATC Codes & Text Are Returned To OC
Drug Name
Indication
ATCCD_GLOBAL
ATCCODE
ATC Level
ATCTXT
VERAPAMIL
MIGRAINES
C08DA
ZOCOR
CHOLESTEROL
C10AA
PAXIL
ANXIETY
N06AB
ESTROGEN
HRT
GLUCOSAMINE
SUPPLEMENT
M01AX
INDOCIN
GOUT
CATAPRES TTS
HYPERTENSIVE
C02AC
C02AC
4
IMIDAZOLINE RECE
CATAPRESSAN PRN
MIGRAINES
N02CX
N02CX
4
OTHER ANTIMIGRA
CLONIDINE GTTS
GLAUCOMA
S01EA
S01EA
4
SYMPATHOMIMETI
CATAPRES
HYPERTENSIVE
C02AC
C02AC
4
IMIDAZOLINE RECE

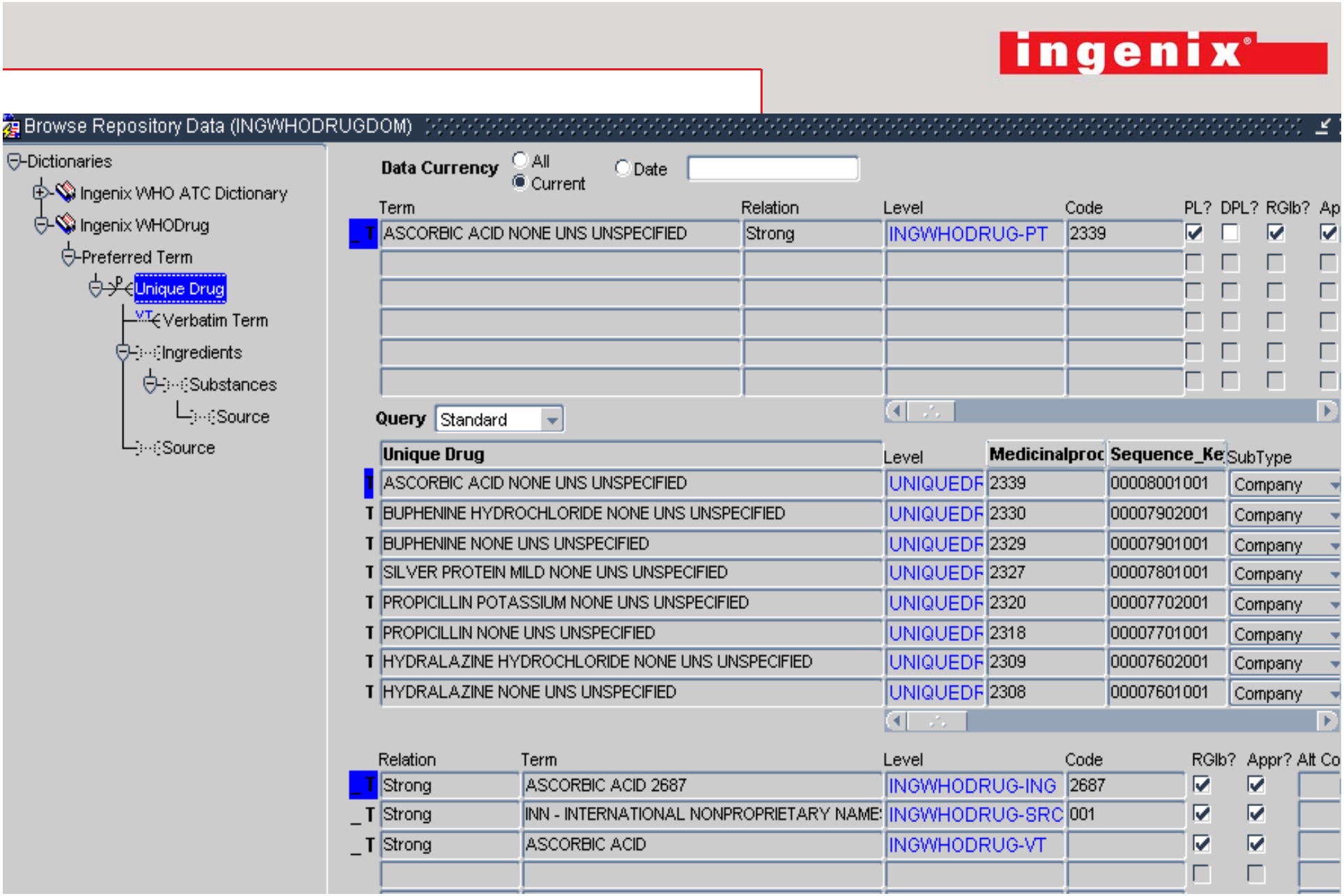
Loading of Dictionary #1 (WHO Drug)

- The classification level of Unique Drug consists of a term with the logical expansion of the Medicinal Product ID from the MP table of the Type C (Vigibase) WHODrug Format
- A set of Global VTAs are loaded where the Drug Name from the MP table happens to be associated with only one Drug Name, Drug Record Number and Sequence 1
- A Primary Link is required only because there are few cases where the same occurrence of a Preferred Term exists with more than one Medicinal Product ID. It is not significant from a coding perspective.

```
SQL> desc whodrug_mp
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------

 MEDICINALPROD_ID                          NOT NULL NUMBER(6)
 DRUG_RECNR                                NOT NULL VARCHAR2(6)
 SEQUENCE1                                 NOT NULL VARCHAR2(2)
 SEQUENCE2                                 NOT NULL VARCHAR2(3)
 GENERIC                                            VARCHAR2(1)
 DRUG_NAME                                 NOT NULL VARCHAR2(80)
 NAME_SPECIFIER                                     VARCHAR2(30)
 COUNTRY                                            VARCHAR2(3)
 MANUFACTURER                                       VARCHAR2(6)
 MA_HOLDER                                          VARCHAR2(6)
 SOURCE_CODE                                        VARCHAR2(3)
 SOURCE_COUNTRY                                     VARCHAR2(3)
 SOURCE_YEAR                                        VARCHAR2(3)
 PRODUCT_TYPE                                       VARCHAR2(3)
 PRODUCT_GROUP                                      NUMBER(6)
 DATE_ENTERED                                       DATE
 DATE_CHANGED                                       DATE
```


Ingenix Test WhoDrug
Preferred Term
P
Unique Drug
VT
Verbatim Term
Ingredients
Substances
Source
Source


ingenix
Browse Repository Data (INGWHODRUGDOM)
Dictionaries
Ingenix WHO ATC Dictionary
Ingenix WHODrug
Preferred Term
Unique Drug
Verbatim Term
Ingredients
Substances
Source
Source
Data Currency
All
Current
Date
Term
Relation
Level
Code
PL?
DPL?
RGlb?
Ap
T ASCORBIC ACID NONE UNS UNSPECIFIED
Strong
INGWHODRUG-PT
2339
Query
Standard
Unique Drug
Level
Medicinalproc
Sequence_Ke
SubType
T ASCORBIC ACID NONE UNS UNSPECIFIED
UNIQUEDF
2339
00008001001
Company
T BUPHENINE HYDROCHLORIDE NONE UNS UNSPECIFIED
UNIQUEDF
2330
00007902001
Company
T BUPHENINE NONE UNS UNSPECIFIED
UNIQUEDF
2329
00007901001
Company
T SILVER PROTEIN MILD NONE UNS UNSPECIFIED
UNIQUEDF
2327
00007801001
Company
T PROPICILLIN POTASSIUM NONE UNS UNSPECIFIED
UNIQUEDF
2320
00007702001
Company
T PROPICILLIN NONE UNS UNSPECIFIED
UNIQUEDF
2318
00007701001
Company
T HYDRALAZINE HYDROCHLORIDE NONE UNS UNSPECIFIED
UNIQUEDF
2309
00007602001
Company
T HYDRALAZINE NONE UNS UNSPECIFIED
UNIQUEDF
2308
00007601001
Company
Relation
Term
Level
Code
RGlb?
Appr?
Alt Co
T Strong
ASCORBIC ACID 2687
INGWHODRUG-ING
2687
T Strong
INN - INTERNATIONAL NONPROPRIETARY NAME
INGWHODRUG-SRC
001
T Strong
ASCORBIC ACID
INGWHODRUG-VT

Loading of Dictionary #2 (WHO ATC)

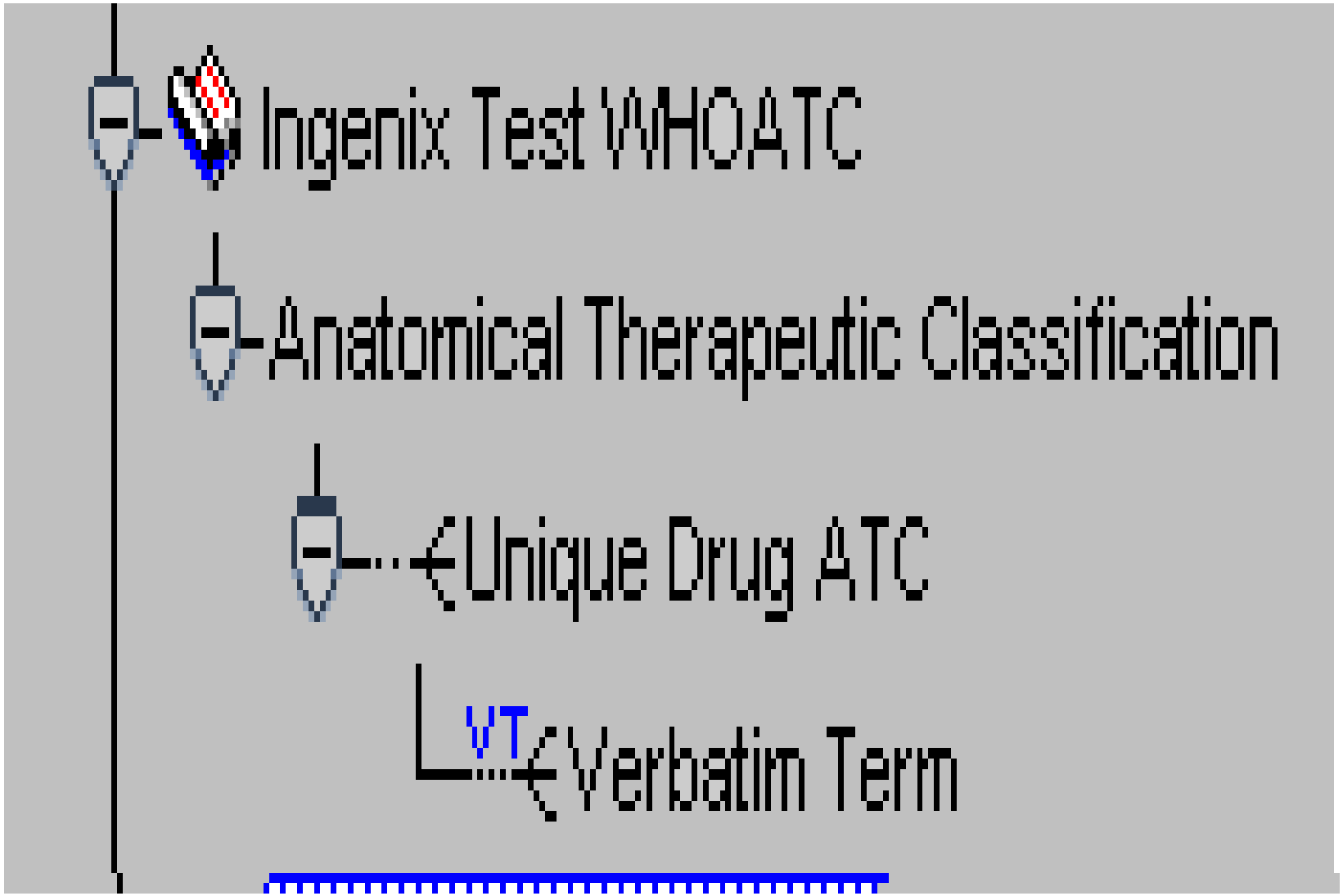
- The classification level of Drug Names with each possible ATC Code and the Medicinal Product ID
- The level detail contains the ATC Text, ATC Code, Preferred Name, and the logical expansion of the Medicinal Product ID separately
- The mandatory-ness to the ATC level can not be enforced since there are some ATCs which are not associated to any Drug Names

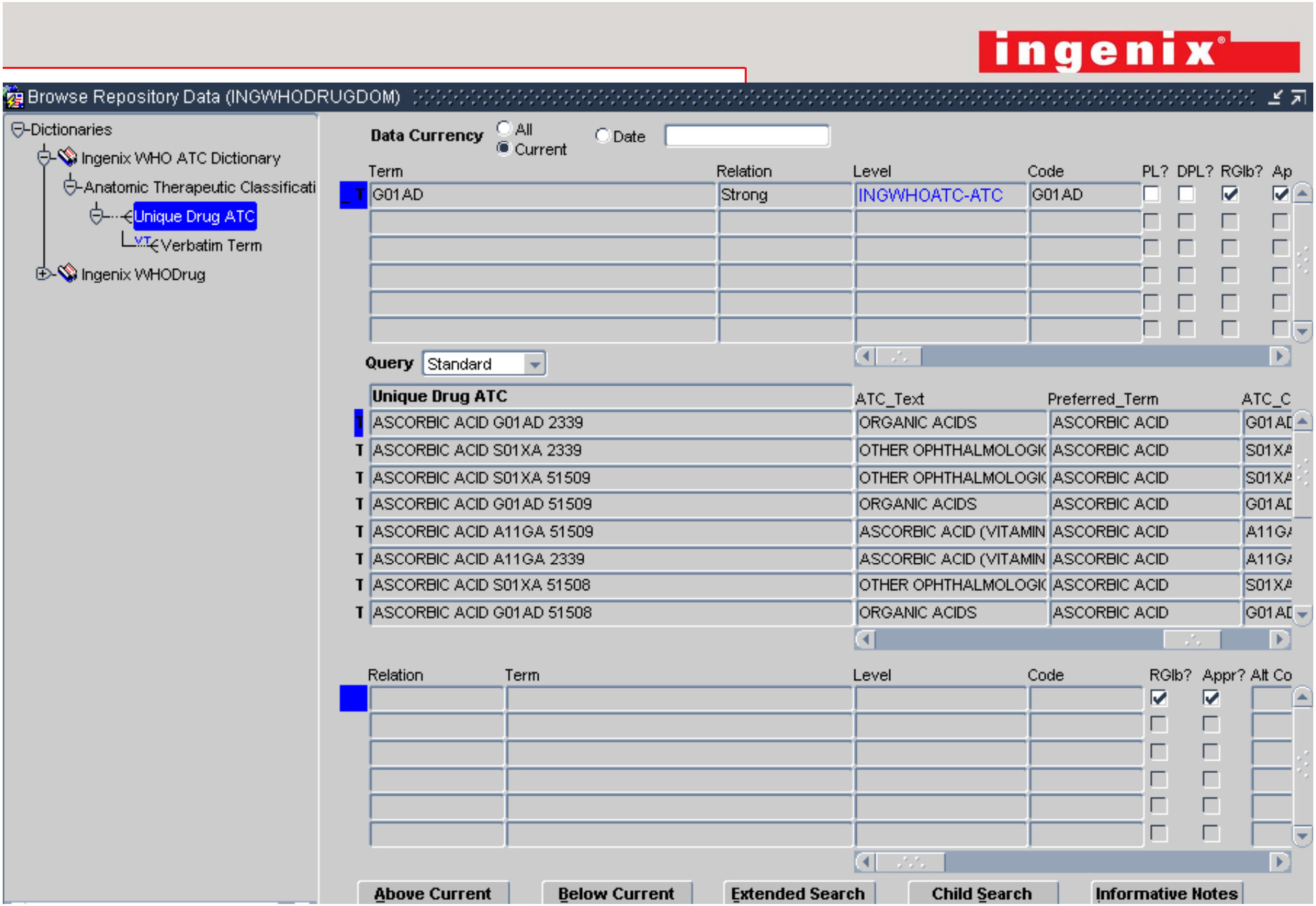
```
SQL> desc WHODRUG_THG
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------

 THERAPGROUP_ID                            NOT NULL NUMBER(6)
 ATC_CODE                                  NOT NULL VARCHAR2(10)
 CREATE_DATE                                        VARCHAR2(8)
 OFFICIAL_ATC_CODE                                  VARCHAR2(1)
 MEDICINALPROD_ID                                   NUMBER(6)

SQL> desc WHODRUG_ATC
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------

 ATC_CODE                                  NOT NULL VARCHAR2(10)
 ATC_LEVEL                                 NOT NULL NUMBER(1)
 TEXT                                      NOT NULL VARCHAR2(110)
```


Ingenix Test WHOATC
Anatomical Therapeutic Classification
Unique Drug ATC
VT
Verbatim Term


ingenix
Browse Repository Data (INGWHODRUGDOM)
Dictionaries
Ingenix WHO ATC Dictionary
Anatomic Therapeutic Classificati
Unique Drug ATC
Verbatim Term
Ingenix WHODrug
Data Currency
All
Current
Date
Term
Relation
Level
Code
PL?
DPL?
RGlb?
Ap
G01AD
Strong
INGWHOATC-ATC
G01AD
Query
Standard
Unique Drug ATC
ATC_Text
Preferred_Term
ATC_C
ASCORBIC ACID G01AD 2339
ORGANIC ACIDS
ASCORBIC ACID
G01AD
ASCORBIC ACID S01XA 2339
OTHER OPHTHALMOLOGI
ASCORBIC ACID
S01XA
ASCORBIC ACID S01XA 51509
OTHER OPHTHALMOLOGI
ASCORBIC ACID
S01XA
ASCORBIC ACID G01AD 51509
ORGANIC ACIDS
ASCORBIC ACID
G01AD
ASCORBIC ACID A11GA 51509
ASCORBIC ACID (VITAMIN
ASCORBIC ACID
A11GA
ASCORBIC ACID A11GA 2339
ASCORBIC ACID (VITAMIN
ASCORBIC ACID
A11GA
ASCORBIC ACID S01XA 51508
OTHER OPHTHALMOLOGI
ASCORBIC ACID
S01XA
ASCORBIC ACID G01AD 51508
ORGANIC ACIDS
ASCORBIC ACID
G01AD
Relation
Term
Level
Code
RGlb?
Appr?
Alt Co
Above Current
Below Current
Extended Search
Child Search
Informative Notes

Conclusion

- This is one possible way to derive ATC codes from WHODrug, while in TMS, based on the indicated use
- Defining requirements for derived data from WHODrug should be the business driver for the implementation in TMS. A combination of multiple dictionary structure and derivation procedures achieved the requirements in this case.

Additional Questions?

- Electronic copies will be posted on the OCUG Intranets Site and www.ingenix.com and www.clinicalserver.com
- Additional copies will be available at Ingenix Booth #10 in the Exhibit Hall, along with
  - Demo of RDC
  - Laptop Modem cables
- Additional copies will be available at DBMS Consulting's Booth #3 in the Exhibit Hall, along with
  - OPA 4.5 Architecture Posters
  - Flashlight giveaways