**VistA Immunization Enhancements Increment 3.0**

**VIMM Patch PX\*1.0\*215**

**Installation Guide**



**October 2016**

**Version 1.2**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Description | Author |
| 10/20/2016 | 1.2 | Revised version  Updated coversheet (month: from September to October), (version: from 1.1 to 1.2).  Updated footer from VIMM Patch PX\*1.1\*215 to VIMM Patch PX\*1.0\*215 and the month to October. | Seema Chaudhry |
| 09/2016 | 1.1 | Revised version | Berry Anderson (ManTech) |
| 05/2016 | 1.0 | Initial version | Berry Anderson (ManTech) |

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# Descriptionof Program

The Veterans Health Information Systems and Technology Architecture (VistA) Immunizations Enhancements (VIMM) 2.0 project modifies existing Immunization and Skin Test files and adds additional files to enable VA to quickly and reliably document and exchange standardized skin test and immunization information on beneficiaries across services and departments.

Additionally, modifications support VistA Evolution requirements.

This provides a Veteran patient-centric immunization record exchangeable with the external community. Clinicians will have access to a more complete medical history in the VistA electronic medical record resulting in improved health status as well as public health monitoring.

# Goal of VIMM 2.0

The Veterans Health Information Systems and Technology Architecture (VistA) Immunizations Enhancements (VIMM) 2.0 project, Increment 3, builds upon the file structures and standardized data introduced in Increments 1 and 2 by adding functional enhancements to the existing VistA Patient Care Encounter (PCE) package.

# New Features in Patch PX\*1.0\*215

This patch provides the following new features:

* + 1. Creates Remote Procedure Calls (RPCs) for use by the Enterprise Health Management Platform (eHMP) project, the Computerized Patient Record System (CPRS) software, Data Access Service (DAS), and others. These RPCs retrieve immunization information from the following files:

VACCINE INFORMATION STATEMENT (#920)

IMMUNIZATION INFO SOURCE (#920.1)

IMM ADMINISTRATION ROUTE (#920.2)

IMM ADMINISTRATION SITE (BODY) (#920.3)

IMM CONTRAINDICATION REASONS (#920.4)

IMM REFUSAL REASONS (#920.5)

V IMM CONTRA/REFUSAL EVENTS (#9000010.707)

IMM MANUFACTURER (#9999999.04)

IMMUNIZATION (#9999999.14)

IMMUNIZATION LOT (#9999999.41)

IMM DEFAULT RESPONSES (#920.05)

* + 1. Introduces functionality for capturing the reason(s) an immunization was not given by documenting immunization contraindications and/or refusal events. This functionality includes the following:

1. Creation of the V IMM CONTRA/REFUSAL EVENTS file (#9000010.707).
2. A WARNING UNTIL DATE may be stored for temporary contraindications/refusals. The contraindication/refusal is valid until this date.
3. When an immunization for a patient is associated with valid contraindications/refusals, (WARNING UNTIL DATE is not a past date), the software will display a warning and the user will be required to acknowledge the warning and enter a justification reason before continuing with administration.
   * 1. Inactivates the functionality of the PCE CODE MAPPING file (#811.1). The file will still exist, but the mappings in the file will no longer be used to determine which related entries in the V IMMUNIZATION (#9000010.11), V SKIN TEST (#9000010.12), and V CPT (#9000010.18) files need to automatically be recorded. From now on, the mappings in the CODING SYSTEM multiple of the IMMUNIZATION (#9999999.14) and SKIN TEST (#9999999.28) files will be used for this purpose. There are a few differences with this new approach:
4. The PCE CODE MAPPING file was managed locally, while the CODING SYSTEM multiple of the IMMUNIZATION and SKIN TEST files are standardized and managed nationally.
5. We will now support mappings to ICD-10 codes. If an immunization or skin test is mapped to an ICD-10 code, when that immunization or skin test is documented, we will automatically file the mapped ICD-10 code to the V POV file (#9000010.07).
6. We will stop the practice of automatically recording an immunization or skin test when a corresponding CPT code is filed. The mappings will only be used to automatically file the corresponding codes (CPT and ICD-10) when an immunization or skin test is documented. However, in the reverse scenario, when a CPT code is documented, we will not automatically record the corresponding immunization or skin test.
7. Codes will only automatically be filed when a VA-administered (non-historical) immunization or skin test is documented.
   * 1. Includes functionality to enable a documenting provider to view some immunization prompts with default values to accept and to edit the responses if need be. This functionality includes:
8. Creation of the IMM DEFAULT RESPONSES file (#920.05) to store facility specific default values by immunization type for ROUTE OF ADMINISTRATION, SITE OF ADMINISTRATION, DOSE, DOSE UNITS, and COMMENTS.
9. Creation of the Immunization Default Responses Enter/Edit menu option [PXV EDIT DEFAULT RESPONSES] to allow authorized users to enter or update information in the IMM DEFAULT RESPONSES file (#920.05).
   * 1. Updates the NDC CODE (VA) field (#.18) in the IMMUNIZATION LOT file (#9999999.41) so that access to information in the NDC/UPN file (#50.67) is controlled by application programmer interfaces (APIs).

**APIs Associated:**

**API New/Modified/Deleted**

DATA2PCE^PXAPI (ICR #1889) Modified

GETENC^PXAPI (ICR #1894) Modified

ENCEVENT^PXKENC (ICR #1894) Modified

VICR^PXPXRM (ICR #4250) New

VICR^PXPXRMI1 (ICR #4519) New

DQSAVE^PXRPC (ICR #6386) New

IMMSTAT^PXAPIIM (ICR #6387) New

**Files & Fields Associated:**

**File Name (Number)**

**Field Name (Number) New/Modified/Deleted**

IMM DEFAULT RESPON (#920.05)

FACILITY (#.01) New

IMMUNIZATION (multiple field #1, sub-file #920.051) New

IMMUNIZATION (#.01) of the IMMUNIZATION

sub-file (#920.051) New

ROUTE OF ADMINISTRATION (#1302) of the

IMMUNIZATION sub-file (#920.051) New

SITE OF ADMINISTRATION (#1303) of the

IMMUNIZATION sub-file (#920.051) New

DOSE (#1312) of the IMMUNIZATION

sub-file (#920.051) New

DOSE UNITS (#1313) of the IMMUNIZATION

sub-file (#920.051) New

COMMENTS (#81101) of the IMMUNIZATION

sub-file (#920.051) New

IMM CONTRAINDICATION REASONS (#920.4)

CONCEPT CODING SYSTEM (#.05) Modified

IMM ROUTES TO SITES (#920.6)

ROUTE (#.01) New

SITES (multiple field #1, sub-file #920.61) New

SITES (#.01) of the SITES sub-file (#920.61) New

V IMMUNIZATION (#9000010.11)

WARNING ACKNOWLEDGED (#1220) New

WARNING OVERRIDE REASON (#1601) New

V SKIN TEST (#9000010.12)

CODING SYSTEM (multiple field #3, sub-file

#9000010.123) Deleted

CODING SYSTEM (#.01) of the CODING SYSTEM

sub-file (#9000010.123) Deleted

CODE (multiple field #.02, sub-file #9000010.1231

of the CODING SYSTEM sub-file (#9000010.123) Deleted

CODE (#.01) of the CODE sub-file (#9000010.1231) Deleted

V IMM CONTRA/REFUSAL EVENTS (#9000010.707)

CONTRAINDICATION/REFUSAL (#.01) New

PATIENT NAME (#.02) New

VISIT (#.03) New

IMMUNIZATION (#.04) New

WARN UNTIL DATE (#.05) New

DATE/TIME RECORDED (#.06) New

EVENT DATE AND TIME (#1201) New

ENCOUNTER PROVIDER (#1204) New

EDITED FLAG (#80101) New

AUDIT TRAIL (#80102) New

COMMENTS (#81101) New

VERIFIED (#81201) New

PACKAGE (#81202) New

DATA SOURCE (#81203) New

IMMUNIZATION LOT (#9999999.41)

NDC CODE (VA) (#.18) Modified

PCE CODE MAPPING (#811.1) Modified

**Options Associated:**

**Option Name Type New/Modified/Deleted**

PXV EDIT DEFAULT RESPONSES Run Routine New

PX PCE CODE MAPPING LIST Print Modified

**Protocols Associated:**

**Protocol Name New/Modified/Deleted**

PXCE ADD/EDIT MENU Modified

PXCE ICR ADD New

**RPCs Associated:**

**RPC New/Modified/Deleted**

PX SAVE DATA Modified

PXVIMM ADMIN CODES New

PXVIMM ADMIN ROUTE New

PXVIMM ADMIN SITE New

PXVIMM ICR LIST New

PXVIMM IMM DETAILED New

PXVIMM IMM FORMAT New

PXVIMM IMM LOT New

PXVIMM IMM MAN New

PXVIMM IMM SHORT LIST New

PXVIMM IMMDATA New

PXVIMM INFO SOURCE New

PXVIMM VICR EVENTS New

PXVIMM VIS New

**Patient Safety Issues (PSIs):**

PSPO #2995

PSPO #3069

**Defect Tracking System Ticket(s) & Overview:**

1. INC000001294271

R4956462FY15

R6300645FY16

**Related Patient Safety Issues:**

PSPO #2995

PSPO #3069

**Problem:**

PCE CODE MAPPING issues are causing duplicate or incorrect entries to be documented to the V IMMUNIZATION file.

**Resolution:**

The PCE CODE MAPPING file will be deprecated. Instead, we will use the CODING SYSTEM multiple of the IMMUNIZATION and SKIN TEST files.

# Test Sites

* Cleveland, OH
* St. Louis, MO
* San Antonio, TX

# Documentation Retrieval Instructions (VIMM Patch PX\*1.0\*215)

The software documentation is being released as a host file and/or documentation describing the new functionality introduced by this patch is available.

The preferred method is to retrieve files from download.vista.med.va.gov. This transmits the files from the first available server. Sites may also elect to retrieve files directly from a specific server.

Sites may retrieve the software and/or documentation directly using Secure File Transfer Protocol (SFTP) from the ANONYMOUS.SOFTWARE directory at the following OI Field Offices:

Albany: fo-albany.med.va.gov

Hines: fo-hines.med.va.gov

Salt Lake City: fo-slc.med.va.gov

Documentation can also be found on the VA Software Documentation Library at: http://www4.va.gov/vdl/

|  |  |  |
| --- | --- | --- |
| Title | File Name | FTP Mode |
| Patient Care Encounter (PCE) V. 1.0 User Manual | PX\_1\_UM\_R0816.PDF | (binary) |
| Patient Care Encounter (PCE) V.1.0 Technical Manual | PX\_1\_TM\_R0816.PDF | (binary) |
| Clinical Reminders (PXRM) Index Technical Manual | PXRM\_INDEX\_TM.PDF | (binary) |

# Patch Installation (VIMM Patch PX\*1.0\*215)

**Associated patches:**

Patch PX\*1.0\*186 must be installed BEFORE PX\*1.0\*215

Patch PX\*1.0\*195 must be installed BEFORE PX\*1.0\*215

Patch PX\*1.0\*210 must be installed BEFORE PX\*1.0\*215

Patch PSN\*4.0\*448 must be installed BEFORE PX\*1.0\*215

## Pre/Post Installation Overview

The post-installation process will generate a report from the PCE CODE MAPPING file (#811.1) for review. The report will contain all active mappings where either a) an inactive immunization was mapped to a CPT code; or b) a CPT code was mapped to an immunization or skin test. The report will be emailed to the user who installed the patch and to the mail group specified in the REMINDER MANAGEMENT MAILGROUP field (#3) of the CLINICAL REMINDER PARAMETERS file (#800). The report will also be sent to the VHA National Center for Health Promotion and Disease Prevention (NCP) for review. If it is determined that patient charts may have been affected with erroneous data prior to the inactivating of the PCE CODE MAPPING file with this patch, the site will be contacted and instructed to submit a help desk ticket for resolution.

## 6.2 Pre-Installation Instructions

Patch PSN\*4.0\*448 must be installed before installing patch PX\*1.0\*215.

## 6.3 Post-Installation Instructions

N/A

## 6.4 Rollback Instructions

In the event a rollback is needed, the site should log a CA SDM (Service Desk Manager) ticket. The site must work closely with the development team to back out the patch, as it requires restoring data dictionaries (DDs).

Refer to the VIMM 2.0 Increment 3 Recovery Procedures document for more information.

Located at this link: [VIMM\_2\_0\_Increment\_3\_Recovery\_Procedures.docx](http://vaww.oed.portal.va.gov/pm/iehr/vista_evolution/immunization/Shared%20Documents/VIMM%202.0/Training%20Materials%20VIMM%202/Back%20Out%20Procedure/Archive/VIMM_2_0_Increment_3_Recovery_Procedures%20PASSED.docx)

Rollback procedures for PSN\*4.0\*448 are included in the document mentioned above.

# Installation Instructions for Dependent/Associated Patch

WARNING: Associated patch must be installed in the proper order

The following patches must be installed in this order

1. Patch PSN\*4.0\*448 Additional NDC/UPN APIS
2. Patch PX\*1.0\*215 VIMM 2.0 patch

The following installation instructions for the dependent patch has been included in the following section.

## Installation Instructions for Patch PSN\*4.0\*448

**Associated patch:**

PSN\*4.0\*296 must be installed BEFORE PSN\*4.0\*448

**Description of Patch PSN\*4.0\*448**

This patch adds three components to the routine PSNAPIS, supported by Integration Control Registration (ICR) #2531, to provide additional access to the NDC/UPN file (#50.67).

* 1. INTRAN - This entry point provides input transform lookup functionality for fields that store NDC codes.
  2. DRGCLS - This entry point returns class and parent class for a National Drug Code (NDC).
  3. QLIST - This entry point provides executable help ("?" or "??") for fields that store NDC codes.

**APIs Associated:**

**API New/Modified/Deleted**

INTRAN^PSNAPIS New

DRGCLS^PSNAPIS New

QLIST^PSNAPIS New

**Additional Information:**

**Test Sites:**

* Cleveland, OH
* Heartland-East HCS
* San Antonio, TX

**Software and Documentation Retrieval Instructions** **for Patch PSN\*4.0\*448:**

The software documentation is being released as a host file and/or documentation describing the new functionality introduced by this patch is available.

The preferred method is to retrieve files from download.vista.med.va.gov. This transmits the files from the first available server. Sites may also elect to retrieve files directly from a specific server.

Sites may retrieve the software and/or documentation directly using Secure File Transfer Protocol (SFTP) from the ANONYMOUS.SOFTWARE directory at the following OI Field Offices:

Albany: fo-albany.med.va.gov

Hines: fo-hines.med.va.gov

Salt Lake City: fo-slc.med.va.gov

Documentation can also be found on the VA Software Documentation Library at: http://www4.va.gov/vdl/.

|  |  |  |
| --- | --- | --- |
| Title | File Name | FTP Mode |
| Pharmacy Re-Engineering (PRE) API Manual | PHAR\_1\_API\_R0316.PDF | (binary) |

**INSTALLATION INSTRUCTIONS for Patch PSN\*4.0\*448**

1. Choose the PackMan message containing this patch.
2. Choose the INSTALL/CHECK MESSAGE PackMan option.
3. From the Kernel Installation and Distribution System Menu, select the Installation Menu. From this menu, you may elect to use the following options. When prompted for the INSTALL NAME, enter the patch # (PSN\*4.0\*448):
4. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup any other changes such as DDs or templates.
5. Compare Transport Global to Current System - This option will allow you to view all changes that will be made when this patch is installed. It compares all components of this patch (routines, DDs, templates, etc.).
6. Verify Checksums in Transport Global - This option will allow you to ensure the integrity of the routines that are in the transport global.
7. From the Installation Menu, select the Install Package(s) option and choose the patch to install. Enter PSN\*4.0\*448.
8. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//'

Answer NO.

1. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//'

Answer NO.

**Routine Information:**

The second line of each of these routines now looks like:

;;4.0;NATIONAL DRUG FILE; \*\*[Patch List]\*\*; 30 Oct 98;Build 2

The checksums below are new checksums, and can be checked with CHECK1^XTSUMBLD.

Routine Name: PSNAPIS

Before: B50538431 After: B59524567 \*\*2,3,47,70,169,108,262,296,448\*\*

# Installation Instructions for PX\*1.0\*215

WARNING: Associated patch must be installed in the proper order

The following patches must be installed in this order:

1. Patch PSN\*4.0\*448 Additional NDC/UPN APIS
2. Patch PX\*1.0\*215 VIMM 2.0 patch

This patch should be installed during a period of minimal system activity, preferably with users off the system. Installation time is expected to be approximately 10 minutes.

# Step-by-Step Instructions for PX\*1.0\*215

This patch should be installed during a period of minimal system activity, preferably with users off the system. Installation time is expected to be approximately 10 minutes.

1. Choose the PackMan message containing this patch.
2. Choose the INSTALL/CHECK MESSAGE PackMan option.
3. From the Kernel Installation and Distribution System Menu, select the Installation Menu. From this menu, you may elect to use the following options. When prompted for the INSTALL NAME enter the patch # (PX\*1.0\*215):
   1. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup any other changes such as DDs or templates.
   2. Compare Transport Global to Current System - This option will allow you to view all changes that will be made when this patch is installed. It compares all components of this patch (routines, DDs, templates, etc.).
   3. Verify Checksums in Transport Global - This option will allow you to ensure the integrity of the routines that are in the transport global.
   4. Print Transport Global - This option will allow you to view the components of the KIDS build.
4. From the Installation Menu, select the Install Package(s) option and choose the patch to install. Enter PX\*1.0\*215.
5. When prompted 'Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES//'

Answer YES.

1. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//'

Answer NO.

1. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//

Answer NO.

# Post-Installation Instructions / Routine Information for PX\*1.0\*215

## Post-Installation Instructions

N/A

## Routine Information

The second line of each of these routines now looks like:

;;1.0;PCE PATIENT CARE ENCOUNTER ;\*\*[Patch List]\*\*;Aug 12, 1996;Build 10

The checksums below are new checksums, and can be checked with CHECK1^XTSUMBLD.

Routine Name: PXAI

Before: B40979532 After: B42819168 \*\*15,74,69,102,111,112,130,164,168,215\*\*

Routine Name: PXAIICR

Before: n/a After: B5253575 \*\*215\*\*

Routine Name: PXAIICRV

Before: n/a After: B12775865 \*\*215\*\*

Routine Name: PXAIIMM

Before: B14255138 After: B16045767 \*\*45,124,209,210,215\*\*

Routine Name: PXAPIIM

Before: B2741056 After: B80558091 \*\*210,215\*\*

Routine Name: PXCEAE

Before: B32867509 After: B33109650 \*\*37,67,99,147,156,172,195,215\*\*

Routine Name: PXCEAE1

Before: B29168014 After: B29262597 \*\*22,73,199,201,210,215\*\*

Routine Name: PXCEICR

Before: n/a After: B18593217 \*\*215\*\*

Routine Name: PXCEVFI1

Before: B23924796 After: B33198888 \*\*23,73,112,136,143,124,184,185,210,215\*\*

Routine Name: PXCEVFI2

Before: B34344095 After: B37818294 \*\*22,73,95,96,124,158,184,215\*\*

Routine Name: PXCEVFIL

Before: B43615497 After: B44185519 \*\*9,30,22,73,88,89,104,147,124,169,210,215\*\*

Routine Name: PXCEVIMM

Before: B83423957 After: B86101677 \*\*27,124,199,201,210,215\*\*

Routine Name: PXKENC

Before: B29230371 After: B29334197 \*\*15,22,73,108,143,183,210,215\*\*

Routine Name: PXKFCPT1

Before: B23838795 After: B24656697 \*\*11,73,124,194,209,215\*\*

Routine Name: PXKFICR

Before: n/a After: B1725753 \*\*215\*\*

Routine Name: PXKFIMM

Before: B4427968 After: B5142444 \*\*22,124,201,209,210,215\*\*

Routine Name: PXKFPOV1

Before: n/a After: B9458058 \*\*215\*\*

Routine Name: PXKMAIN

Before: B55417967 After: B55424847 \*\*22,59,73,88,69,117,130,124,174,164,210,215\*\*

Routine Name: PXKMAIN2

Before: B10938982 After: B25829818 \*\*69,186,215\*\*

Routine Name: PXPXRM

Before: B88904295 After: B125590932 \*\*119,199,210,215\*\*

Routine Name: PXPXRMI1

Before: B55159505 After: B104225670 \*\*119,194,210,215\*\*

Routine Name: PXRPC

Before: B109684381 After: B156917264 \*\*200,209,210,215\*\*

Routine Name: PXVNDC

Before: n/a After: B1736379 \*\*215\*\*

Routine Name: PXVP215

Before: n/a After: B34039279 \*\*215\*\*

Routine Name: PXVRESP

Before: n/a After: B3810590 \*\*215\*\*

Routine Name: PXVRPC1

Before: n/a After: B70359613 \*\*215\*\*

Routine Name: PXVRPC2

Before: n/a After: B29476719 \*\*215\*\*

Routine Name: PXVRPC3

Before: n/a After: B28618741 \*\*215\*\*

Routine Name: PXVRPC4

Before: n/a After: B131321819 \*\*215\*\*

Routine Name: PXVRPC5

Before: n/a After: B35105697 \*\*215\*\*

Routine Name: PXVRPC6

Before: n/a After: B16158307 \*\*215\*\*

Routine Name: PXVUTIL

Before: B10006565 After: B13284181 \*\*201,210,215\*\*

Routine Name: PXVZRT

Before: B71159926 After: B82546869 \*\*206,215\*\*

Routine list of preceding patches: 168, 186, 195, 206, 210