RESOURCE AND PATIENT MANAGEMENT SYSTEM

IHS RPMS Dictionaries (Patient)

(AUPN)

Developer's Guide

Version 99.1 Patch 29
January 2022

Office of Information Technology
Division of Information Technology

Table of Contents

Document Revision History

Version	Date	Author	Description
1.1	1/2022	Nicholas Daniel	Updated documentation for patch AUPN*99.1*29. Added the AUPN DISPLAY PPN system parameter description, values, and usage. Updated documentation for patch AUPN*99.1*29. Added the PAR Input Parameter description, values, and usage to the following APIs: • $$GET^AUPNSOGI: Retrieve Bundled Patient Demographic Data Relevant to SOGI • $$GETPREF^AUPNSOGI: Retrieve Preferred Name for a Patient Includes updates to the output and example tables, and adds the following Notes: "As of patch AUPN*99.1*29, this API can be called with the additional PAR parameter." "Access to this API requires use of the AUPN DISPLAY PPN parameter functionality, by setting the PAR parameter to 1. Infrastructure applications are exempt from this requirement." Updates the API Quick Reference Guide table with these changes. Tech Edit: • Reformatted document to follow current style guide and standards • Converted document to a cumulative update format and revised the following text: – Introduction – Application Programming Interfaces (APIs) • Added Entry Point tables to the following sections: – General Retrieval APIs – Retrieval and Checking APIs – Editing APIs
1.0	9/2020	Nicholas Daniel	Initial Release

Preface

The AUPN Package contains all dictionaries that comprise the 'clinical repository' or Patient Care Component (PCC). The dictionaries in this package are the primary files in which patient medical and registration data is housed. This package also contains various utilities and routines called from these dictionaries.

1.0　　Introduction

This document contains technical modifications to the IHS RPMS Dictionaries (Patient) (AUPN) package specific to patient SO/GI data, with a focus on material relevant to a RPMS developer implementing this data within their application. This includes modifications to the IHS Standard patient and medical dictionaries, parameters, and the AUPN* utility routines for retrieving patient data. The set of application programming interfaces (APIs) used to access and manipulate patient SO/GI data is covered in multiple sections, including detailed descriptions, input parameters, output, and usage examples. This document will be updated with the latest patch changes relevant to this set of data.

1.1　　Patch 29 Summary of Changes

1.1.1　　Routines

This patch modifies the following routines in the AUPN routine set:

- **AUPNSOGI:** Primary API support for Sexual Orientation/Gender Identity (SOGI) data entry and retrieval

    – Added PAR parameter to $$GET and $$GETPREF API calls

- **AUPNSOG1**: General retrieval API support for Sexual Orientation/Gender Identity (SOGI) data

    – Modified $$GET API call to enable AUPN DISPLAY PPN parameter functionality with the PAR parameter

- **AUPNSOG2**: Retrieval and checking API support for Sexual Orientation/Gender Identity (SOGI) data

    – Modified $$GETPREF API call to enable AUPN DISPLAY PPN parameter functionality with the PAR parameter

1.1.2　　Parameters

This patch adds the following XPAR parameter to the AUPN parameter set:

- **AUPN DISPLAY PPN:** Enable display of patient preferred name. This parameter determines if the patient preferred name (PPN) will display in supported applications. A 'Yes' value enables display of the PPN in supporting applications. The default 'No' value disables the display of the PPN.

1.2   Patch 28 Summary of Changes

1.2.1   Files / Data Dictionaries

This patch introduces modifications to the following files:

1.2.1.1   PATIENT FILE (#9000001)

Table 1-1: Patient file field details

Field #	Field Name	Subscript	Piece	Type
9001	PREFERRED NAME	D0,90	1	F
9002	PRONOUNS	D0,90	2	P9999999.105
9003	PRONOUNS OTHER	D0,90	3	F
9201	**LEGAL SEX (9000001.9201)**	**D0,92**		
.01	EFFECTIVE DATE	D0,92,D1,0	1	D
1	LEGAL SEX	D0,92,D1,0	2	S
2	SOURCE	D0,92,D1,0	3	P9000030
3	DATE ENTERED	D0,92,D1,0	4	D
9301	**SEXUAL ORIENTATION (9000001.9301)**	**D0,93**		
.01	DATE	D0,93,D1,0	1	D
2	OTHER	D0,93,D1,0	2	F
1	**SEXUAL ORIENTATION (9000001.93011)**	**D0,93,D1,1**		
.01	SEXUAL ORIENTATION	D0,93,D1,1,D2,0	1	P9999999.103
9401	**GENDER IDENTITY (9000001.9401)**	**D0,94**		
.01	DATE	D0,94,D1,0	1	D
2	OTHER	D0,94,D1,0	2	F

Field #	Field Name	Subscript	Piece	Type
1	**GENDER IDENTITY (9000001.94011)**	**D0,94,D1,1**		
.01	GENDER IDENTITY	D0,94,D1,1,D2,0	1	P9999999.104

1.2.1.2   ELIGIBILITY MODIFIERS FILE (#9000030)

Initially distributed in AUPN*99.1*8, this file serves as a repository for patient document types related to eligibility status, name changes, and other legal documents. In AUPN*99.1*15 this included advance directive documents. In AUPN*99.1*28 this included legal sex documents.

The file was distributed with an initial set of nationally approved entries, and modifications to these entries are not permitted. Local entries can be added and modified through the Patient Registration Table Maintenance menus.

Additional entries were distributed in AUPN*99.1*15 to support the Advance Directive file (#9000040) with the type of A.

The input transform was updated in AUPN*99.1*28 to allow the A (advance directive) type and the S (legal sex) type.

1.2.2   Cross-References

1.2.2.1   PATIENT FILE (#9000001)

Preferred Name (9001)

BPRF MUMPS

B index on the **VA Patient** file in the format:

^DPT("B",$E("LASTNAME,PREFERRED NAME",1,30),DA,9001)

D S9001^AUPNSOGX(DA)

D K9001^AUPNSOGX(DA,2)

APRF MUMPS

S ^AUPNPAT("APRF",DA,$E(X,1,30))=""

K ^AUPNPAT("APRF",DA,$E(X,1,30))

Pronouns (9002)

APRN REGULAR

S ^AUPNPAT("APRN",$E(X,1,30),DA)=""

K ^AUPNPAT("APRN",$E(X,1,30),DA)

Legal Sex Subfile (9000001.9201) Effective Date (.01)

B REGULAR

S ^AUPNPAT(DA(1),92,"B",$E(X,1,30),DA)=""

K ^AUPNPAT(DA(1),92,"B",$E(X,1,30),DA)

Legal Sex Subfile (9000001.9201) Date Entered (3)

AC REGULAR

S ^AUPNPAT(DA(1),92,"AC",$E(X,1,30),DA)=""

K ^AUPNPAT(DA(1),92,"AC",$E(X,1,30),DA)

Sexual Orientation Subfile (9000001.9301) Date (.01)

B REGULAR

S ^AUPNPAT(DA(1),93,"B",$E(X,1,30),DA)=""

K ^AUPNPAT(DA(1),93,"B",$E(X,1,30),DA)

ASO1 MUMPS WHOLE FILE (9000001)

The ASO index reflects the patient's current sexual orientation entries. The set logic ensures previous values are removed from the index when a new current record is created. The kill logic ensures that when the current record is deleted, the index is recreated using the new current record.

D 9301^AUPNSOGX(DA(1),DA,"S")

D 9301^AUPNSOGX(DA(1),DA,"K")

Sexual Orientation Subfile (9000001.93011) Sexual Orientation (.01)

B REGULAR

S ^AUPNPAT(DA(2),93,DA(1),1,"B",$E(X,1,30),DA)=""

K ^AUPNPAT(DA(2),93,DA(1),1,"B",$E(X,1,30),DA)

ASO2 MUMPS WHOLE FILE (9000001)

The ASO index reflects the patient's current sexual orientation entries. The set/kill logic only updates the index when the current record is edited.

^AUPNPAT("ASO",DA,DFN)

D 93011^AUPNSOGX(DA(2),DA(1),DA,"S")

D 93011^AUPNSOGX(DA(2),DA(1),DA,"K")

Gender Identity Subfile (9000001.9401) Date (.01)

B REGULAR

S ^AUPNPAT(DA(1),94,"B",$E(X,1,30),DA)=""

K ^AUPNPAT(DA(1),94,"B",$E(X,1,30),DA)

AGI1 MUMPS WHOLE FILE (9000001)

The AGI index reflects the patient's current gender identity entries. The set logic ensures previous values are removed from the index when a new current record is created. The kill logic ensures that when the current record is deleted, the index is recreated using the new current record.

D 9401^AUPNSOGX(DA(1),DA,"S")

D 9401^AUPNSOGX(DA(1),DA,"K")

Gender Identity Subfile (9000001.94011) Gender Identity (.01)

B REGULAR

S ^AUPNPAT(DA(2),94,DA(1),1,"B",$E(X,1,30),DA)=""

K ^AUPNPAT(DA(2),94,DA(1),1,"B",$E(X,1,30),DA)

AGI2 MUMPS WHOLE FILE (9000001)

The AGI index reflects the patient's current gender identity entries. The set/kill logic only updates the index when the current record is edited.

^AUPNPAT("AGI",DA,DFN)

D 94011^AUPNSOGX(DA(2),DA(1),DA,"S")

D 94011^AUPNSOGX(DA(2),DA(1),DA,"K")

1.2.3   File Content

1.2.3.1   ELIGIBILITY MODIFIERS FILE (#9000030):

Table 1-2: Modifier descriptions and types

#	Modifier Description	Type
24	STATE BIRTH CERTIFICATE	NLS
28	STATE MOTOR VEHICLE DRIVER'S LICENSE	NLS
30	COURT ORDER	LS
40	PHYSICIAN STATE SPECIFIC DECLARATION	S
41	STATE ID	LS

1.2.4   Routines

This patch adds the following routines to the AUPN routine set:

- **AUPNSOGI**: Primary API support for Sexual Orientation/Gender Identity (SOGI) data entry and retrieval

- **AUPNSOG1**: General retrieval API support for Sexual Orientation/Gender Identity (SOGI) data

- **AUPNSOG2**: Retrieval and checking API support for Sexual Orientation/Gender Identity (SOGI) data

- **AUPNSOG3**: Editing API support for Sexual Orientation/Gender Identity (SOGI) data

- **AUPNSOGX**: Preferred Name/Sexual Orientation/Gender Identity index set/kill logic

This patch modifies the following routines to the AUPN routine set:

- **AUPNLK**: Modified the display of patients during lookup to include the preferred name

- **AUPNLKUT**: Modified the display of patients during lookup to include the preferred name

- **AUPNLK2B**: Modified **Add a Patient** field label to Birth Sex

2.0   Application Programming Interfaces (APIs)

The following set of APIs have been added to the AUPN package to support the implementation of patient SOGI data.

Patch AUPN*99.1*28 distributed the initial set of APIs.

Patch AUPN*99.1*29 updated the $$GET and $$GETPREF APIs with an additional input parameter that enables display of the patient's preferred name with the AUPN DISPLAY PPN system parameter.

2.1   General Retrieval APIs

The general retrieval APIs serve as the main entry point for retrieving a patient's SOGI-related data. These APIs gather relevant SOGI data for a patient and provide output in standard formats to maintain a consistent presentation of this data. The standard formats require specific logic and processing that do not appear in the other retrieval APIs.

Table 2-1: General Retrieval API Entry Points

Category: General Retrieval APIs	
Entry Point	**Description**
$$GET^AUPNSOGI	Retrieve Bundled Patient Demographic Data Relevant to SOGI
$$GENDER^AUPNSOGI	Retrieve Formatted Gender for a Patient
$$PRONOUN^AUPNSOGI	Retrieve Formatted Pronouns for a Patient

2.1.1 $$GET: Retrieve Bundled Patient Demographic Data Relevant to SOGI

Type: Extrinsic Function

Format: **$$GET^AUPNSOGI(PAT,VAL,FMT,EDT,.ARY,PAR)**

> **Note:** As of patch AUPN*99.1*29, this API can be called with the additional PAR parameter.

This general retrieval API returns a list of patient demographic data, including SOGI data, in a 12-piece caret-delimited (^) string.

This includes the formatted name, formatted gender, date of birth, health record number, formatted pronouns, patient name, preferred name, patient sex, gender identity, legal sex, sexual orientation, and patient pronouns.

The extrinsic return value of this API is not affected by parameters, and data for these fields are returned in a static format intended for display. This includes a mix of internal, brief, code values and is detailed below.

> **Note:** As of patch AUPN*99.1*29, the PAR parameter can affect the extrinsic return value of this API.

An optional return array can be provided and configured to receive additional values for these fields. This local array must be passed by reference, and will always include the extrinsic return value of the API in ARY("C").

> **Note:** This array is cleaned out (KILLed) at the beginning of each call.

The following nodes in the return array are configured with the VAL parameter (which accepts multiple values):

For example, $$GET^AUPNSOGI(PAT,"EI",FMT,EDT,.ARY,PAR) populates ARY("E") and ARY("I") along with the default ARY("C").

External values are returned in ARY("E") with a format intended for detailed display. This node is set to a 12-piece caret-delimited (^) string in the same order as the extrinsic return value of the API. This includes a mix of external/expanded values and is detailed below.

Internal values are returned in ARY("I") with a format intended for complex display and processing. This node is set to a 12-piece semicolon-delimited (;) string in the same order as the extrinsic return value of the API. This includes a mix of internal/brief values and is detailed below.

> **Note:** Internal values of SOGI data are often caret (^) delimited and include the sub-file record IEN, warranting the semicolon (;) delimiter.

Gender and Pronouns data can be accompanied with an asterisk (*) indicator in certain cases. This indicator can be suppressed by using the FMT parameter, and only applies to the "E" and "I" nodes in the return array. The extrinsic return value and ARY("C") is not affected by this parameter.

The EDT parameter, if provided, is used to retrieve the patient's SOGI data for past dates.

The Preferred Name value can be suppressed based on the AUPN DISPLAY PPN system parameter with the PAR parameter. See GETPREF for details regarding the use of this parameter.

> **Note:** Access to this API requires use of the AUPN DISPLAY PPN parameter functionality, by setting the PAR parameter to 1. Infrastructure applications are exempt from this requirement.

Table 2-2: Input Parameters of $$GET

Parameter	Description
PAT	IEN of patient's record in the Patient file (#9000001).
VAL	Optional parameter that creates additional nodes in the return array containing other types of return values. Does not affect the extrinsic return value of this API. Corresponds to a set of codes and more than one value can be used: E = 12 piece string delimited by a caret (^) returned in ARY("E") containing external values I = 12 piece string delimited by a semicolon (;) returned in ARY("I") containing internal values
FMT	Optional parameter that formats the values in the return array created by the VAL parameter. Does not affect the extrinsic return value of this API nor the ARY("C") node. Has no effect if VAL parameter is blank. Corresponds to a set of codes: P = The values in the return array ARY("E") and ARY("I") will not include the asterisk (*) indicator. This applies to piece 2 (Gender) and piece 5 (Pronouns) and is the same as calling those APIs with a "P" appended to the FMT parameter.
EDT	Effective date of the SOGI data to be requested. This date is not specifying the record to use, rather it retrieves the records that were effective on the date specified. Date must be provided in FileMan internal format. (Default) = Retrieve the most recent record Date = Retrieve the record effective as of the FileMan internal date specified

Parameter	Description
.ARY	The name of the local array to receive additionally requested output. Must be passed by reference when used. This array is cleaned out (KILLed) before the array nodes are set. ARY("C") is set to the extrinsic return value of the API, and contains code values. ARY("E") is defined when the VAL parameter contains "E" and contains external values. ARY("I") is defined when the VAL parameter contains "I" and contains internal values.
PAR	Enables AUPN DISPLAY PPN parameter functionality. If the AUPN DISPLAY PPN parameter is set to NO, the Preferred Name value is treated as blank. Has no effect if the AUPN DISPLAY PPN parameter is set to YES, or if the Preferred Name value is blank. Corresponds to a set of codes: 0 (default) = Disable AUPN DISPLAY PPN parameter functionality 1 = Enable AUPN DISPLAY PPN parameter functionality

Table 2-3: Returned values of $$GET

Return Status	Returned Value Description
Successful	Returns a 12 piece string delimited by a caret (^)
Unsuccessful	"" Empty string
Return array on success	ARY("C") is defined when ARY is specified ARY("E") is defined when ARY is specified and VAL contains "E" ARY("I") is defined when ARY is specified and VAL contains "I"

Table 2-4: Output and return array of $$GET—default

PIECE	Description	Returned Value Description
$$GET^AUPNSOGI=12 piece string delimited by "^" **ARY("C")=12 piece string delimited by "^"**		
1	Name	Patient Full Name with Preferred: LAST,FIRST MIDDLE SUFFIX - PREFERRED*
		Enables AUPN DISPLAY PPN parameter functionality if PAR=1
2	Gender	Gender Identity, sex-based Gender Identity matching: GENDER or GENDER*
3	Date of Birth	External format: MM/DD/YYYY
4	Health Record #	Internal format: ######

PIECE	Description	Returned Value Description
5	Pronouns	Patient Pronouns, if none Gender Pronouns, Brief Display format: PRONOUNS_brief or GENDER_PRONOUNS_brief*
6	Patient Name	Patient Full Name: LAST,FIRST MIDDLE SUFFIX
7	Preferred Name	Internal value: PREFERRED_NAME
		Enables AUPN DISPLAY PPN parameter functionality if PAR=1
8	Patient Sex	Internal format: M/F/U
9	Gender Identity	Code value, Print format: ENTRY_code,ENTRY_code
10	Legal Sex	Code value, Print format: LEGAL_SEX_int
11	Sexual Orientation	Code value, Print format: ENTRY_code,ENTRY_code
12	Patient Pronouns	Brief Display value: ENTRY_brief (3 pieces if OTHER)

Table 2-5: Return array of $$GET—external

PIECE	Description	Returned Value Description
ARY("E")=12 piece string delimited by "^"		
1	Name	Patient Full Name with Preferred: LAST,FIRST MIDDLE SUFFIX - PREFERRED*
		Enables AUPN DISPLAY PPN parameter functionality if PAR=1
2	Gender	Gender Identity, sex-based Gender Identity matching: GENDER or GENDER*
		No star indicator if FMT contains "P": GENDER
3	Date of Birth	External format: MM/DD/YYYY
4	Health Record No.	External format: ABR ######
5	Pronouns	Patient Pronouns, if none Gender Pronouns, Expanded Display format: PRONOUNS_expanded or GENDER_PRONOUNS_expanded*
		No star indicator if FMT contains "P": PRONOUNS_expanded or GENDER_PRONOUNS_expanded
6	Patient Name	Patient Full Name: LAST,FIRST MIDDLE SUFFIX
7		Internal value: PREFERRED_NAME

PIECE	Description	Returned Value Description
	Preferred Name	Enables AUPN DISPLAY PPN parameter functionality if PAR=1
8	Patient Sex	External format: MALE/FEMALE/UNKNOWN
9	Gender Identity	External value, Print format: ENTRY_ext,ENTRY_ext
10	Legal Sex	External value, Print format: LEGAL_SEX_ext,SOURCE_ext,DATE_ENTERED_ext
11	Sexual Orientation	External value, Print format: ENTRY_ext,ENTRY_ext
12	Patient Pronouns	Expanded Display value: ENTRY_expanded (5 pieces if OTHER)

Table 2-6: Return array of $$GET—internal

PIECE	Description	Returned Value Description
ARY("I")=12 piece string delimited by ";"		
1	Name	Patient Full Name with Preferred: LAST,FIRST MIDDLE SUFFIX - PREFERRED*
		Enables AUPN DISPLAY PPN parameter functionality if PAR=1
2	Gender	Gender Identity, sex-based Gender Identity matching: GENDER or GENDER*
		No star indicator if FMT contains "P": GENDER
3	Date of Birth	Internal format: FileMan Internal Date format
4	Health Record No.	Internal format: ######
5	Pronouns	Patient Pronouns, if none Gender Pronouns, Brief Display format: PRONOUNS_brief or GENDER_PRONOUNS_brief*
		No star indicator if FMT contains "P": PRONOUNS_brief or GENDER_PRONOUNS_brief
6	Patient Name	Patient Full Name: LAST,FIRST MIDDLE SUFFIX
7	Preferred Name	Internal value: PREFERRED_NAME
		Enables AUPN DISPLAY PPN parameter functionality if PAR=1
8	Patient Sex	Internal format: M/F/U
9	Gender Identity	Internal value: SUB_IEN^ENTRY_int^ENTRY_int^OTHER

PIECE	Description	Returned Value Description
10	Legal Sex	Internal value: SUB_IEN^LEGAL_SEX_int^SOURCE_int^DATE_ENTERED_int
11	Sexual Orientation	Internal value: SUB_IEN^ENTRY_int^ENTRY_int^OTHER
12	Patient Pronouns	Internal value: ENTRY_int^OTHER

Table 2-7: $$GET example—SOGI data not specified

VAL	ARY	Piece	Output
Patient Name: Smith,John Robert **Patient Sex: Male** **Date of Birth: 1/1/1980** **Health Record #: 900003** **Preferred Name: <blank>** **Pronouns: <blank>** **Legal Sex: <blank>** **Sexual Orientation: <blank>** **Gender Identity: <blank>**			
	ARY("C")		SMITH,JOHN ROBERT^M^1/1/1980^900003^HE,HIM,HIS*^SMITH,JOHN ROBERT^^M^^^^
		(Name) 1	SMITH,JOHN ROBERT
		(Gender) 2	M
		(Date of Birth) 3	1/1/1980
		(Health Record #) 4	900003
		(Pronouns) 5	HE,HIM,HIS*
		(Patient Name) 6	SMITH,JOHN ROBERT
		(Preferred Name) 7	
		(Patient Sex) 8	M
		(Gender Identity) 9	
		(Legal Sex) 10	
		(Sexual Orientation) 11	
		(Patient Pronouns) 12	
E	ARY("E")		SMITH,JOHN ROBERT^M^1/1/1980^DCL 900003^HE,HIM,HIS,HIS,HIMSELF*^SMITH,JOHN ROBERT^^MALE^^^^

VAL	ARY	Piece	Output
		(Name) 1	SMITH,JOHN ROBERT
		(Gender) 2	M
		(Date of Birth) 3	1/1/1980
		(Health Record #) 4	DCL 900003
		(Pronouns) 5	HE,HIM,HIS,HIS,HIMSELF*
			HE,HIM,HIS,HIS,HIMSELF (when FMT contains "P")
		(Patient Name) 6	SMITH,JOHN ROBERT
		(Preferred Name) 7	
		(Patient Sex) 8	MALE
		(Gender Identity) 9	
		(Legal Sex) 10	
		(Sexual Orientation) 11	
		(Patient Pronouns) 12	
I	ARY("I")		SMITH,JOHN ROBERT;M;2800101;900003;HE,HIM,HIS*;SMITH,JOHN ROBERT;;M;;;;
		(Name) 1	SMITH,JOHN ROBERT
		(Gender) 2	M
		(Date of Birth) 3	2800101
		(Health Record #) 4	900003
		(Pronouns) 5	HE,HIM,HIS*
			HE,HIM,HIS (when FMT contains "P")
		(Patient Name) 6	SMITH,JOHN ROBERT
		(Preferred Name) 7	
		(Patient Sex) 8	M
		(Gender Identity) 9	
		(Legal Sex) 10	
		(Sexual Orientation) 11	
		(Patient Pronouns) 12	

Table 2-8: $$GET example—SOGI data specified

VAL	ARY	Piece	Output
Patient Name: Smith,John Robert **Patient Sex: Male** **Date of Birth: 1/1/1980** **Health Record #: 900003** **Preferred Name: Jane** **Pronouns: Feminine (IEN=2)** **Legal Sex: Female, State ID (IEN=41), 3/3/2020** **Sexual Orientation: Lesbian / Gay / Homosexual (IEN=2)** **Gender Identity: Transgender Female (IEN=4)**			
	ARY("C")		SMITH,JOHN ROBERT - JANE*^F*^1/1/1980^900003^SHE,HER,HER^SMITH,JOHN ROBERT^JANE^M^MTF^F^LGH^SHE,HER,HER
			SMITH,JOHN ROBERT^F*^1/1/1980^900003^SHE,HER,HER^SMITH,JOHN ROBERT^ ^M^MTF^F^LGH^SHE,HER,HER (when PAR=1 and AUPN DISPLAY PPN disabled)
		(Name) 1	SMITH,JOHN ROBERT - JANE* (when PAR=1 and AUPN DISPLAY PPN enabled)
			SMITH,JOHN ROBERT (when PAR=1 and AUPN DISPLAY PPN disabled)
		(Gender) 2	F*
		(Date of Birth) 3	1/1/1980
		(Health Record #) 4	900003
		(Pronouns) 5	SHE,HER,HER
		(Patient Name) 6	SMITH,JOHN ROBERT
		(Preferred Name) 7	JANE (when PAR=1 and AUPN DISPLAY PPN enabled)
			"" (when PAR=1 and AUPN DISPLAY PPN disabled)
		(Patient Sex) 8	M
		(Gender Identity) 9	MTF
		(Legal Sex) 10	F
		(Sexual Orientation) 11	LGH
		(Patient Pronouns) 12	SHE,HER,HER

VAL	ARY	Piece	Output
E	ARY("E")		SMITH,JOHN ROBERT - JANE*^F*^1/1/1980^DCL 900003^SHE,HER,HER,HERS,HERSELF^SMITH,JOHN ROBERT^JANE^MALE^TRANSGENDER FEMALE^FEMALE,STATE ID,3/3/2020^LESBIAN / GAY / HOMOSEXUAL^SHE,HER,HER,HERS,HERSELF
			SMITH,JOHN ROBERT^F*^1/1/1980^DCL 900003^SHE,HER,HER,HERS,HERSELF^SMITH,JOHN ROBERT^ ^MALE^TRANSGENDER FEMALE^FEMALE,STATE ID,3/3/2020^LESBIAN / GAY / HOMOSEXUAL^SHE,HER,HER,HERS,HERSELF (when PAR=1 and AUPN DISPLAY PPN disabled)
	(Name) 1		SMITH,JOHN ROBERT - JANE* (when PAR=1 and AUPN DISPLAY PPN enabled)
			SMITH,JOHN ROBERT (when PAR=1 and AUPN DISPLAY PPN disabled)
	(Gender) 2		F*
			F (when FMT contains "P")
	(Date of Birth) 3		1/1/1980
	(Health Record #) 4		DCL 900003
	(Pronouns) 5		SHE,HER,HER,HERS,HERSELF
	(Patient Name) 6		SMITH,JOHN ROBERT
	(Preferred Name) 7		JANE (when PAR=1 and AUPN DISPLAY PPN enabled)
			"" (when PAR=1 and AUPN DISPLAY PPN disabled)
	(Patient Sex) 8		MALE
	(Gender Identity) 9		TRANSGENDER FEMALE
	(Legal Sex) 10		FEMALE,STATE ID,3/3/2020
	(Sexual Orientation) 11		LESBIAN / GAY / HOMOSEXUAL
	(Patient Pronouns) 12		SHE,HER,HER,HERS,HERSELF
I	ARY("I")		SMITH,JOHN ROBERT - JANE*;F*;2800101;900003;SHE,HER,HER;SMITH,JOHN ROBERT;JANE;M;3200303^4^;3200303^F^41^3200303;3200303^2^;2^
			SMITH,JOHN ROBERT;F*;2800101;900003;SHE,HER,HER;SMITH,JOHN ROBERT;;M;3200303^4^;3200303^F^41^3200303;3200303^2^;2^ (when PAR=1 and AUPN DISPLAY PPN disabled)

VAL	ARY	Piece	Output
	(Name) 1		SMITH,JOHN ROBERT - JANE* (when PAR=1 and AUPN DISPLAY PPN enabled)
			SMITH,JOHN ROBERT (when PAR=1 and AUPN DISPLAY PPN disabled)
	(Gender) 2		F*
			F (when FMT contains "P")
	(Date of Birth) 3		2800101
	(Health Record #) 4		900003
	(Pronouns) 5		SHE,HER,HER
	(Patient Name) 6		SMITH,JOHN ROBERT
	(Preferred Name) 7		JANE (when PAR=1 and AUPN DISPLAY PPN enabled)
			"" (when PAR=1 and AUPN DISPLAY PPN disabled)
	(Patient Sex) 8		M
	(Gender Identity) 9		3200303^4^
	(Legal Sex) 10		3200303^F^41^3200303
	(Sexual Orientation) 11		3200303^2^
	(Patient Pronouns) 12		2^

Table 2-9: $$GET example—SOGI data specified with Other

VAL	ARY	Piece	Output
Patient Name: Smith,John Robert **Patient Sex: Male** **Date of Birth: 1/1/1980** **Health Record #: 900003** **Preferred Name: Robert** **Pronouns: Other (IEN=10) (PEH,PEHM,PEHS,PEHS,PEHSELF)** **Legal Sex: Unknown/Other, State Motor Vehicle Driver's License (IEN=28), 3/3/2020** **Sexual Orientation: Something Else (IEN=4) (Two-Spirit)** **Gender Identity: Other (IEN=6) (Two-Spirit)**			
	ARY("C")		SMITH,JOHN ROBERT - ROBERT*^N*^1/1/1980^900003^PEH,PEHM,PEHS^SMITH,JOHN ROBERT^ROBERT^M^OTH^U^OTH^PEH,PEHM,PEHS
	(Name) 1		SMITH,JOHN ROBERT - ROBERT* (when PAR=1 and AUPN DISPLAY PPN enabled)

VAL	ARY	Piece	Output
			SMITH,JOHN ROBERT (when PAR=1 and AUPN DISPLAY PPN disabled)
		(Gender) 2	N*
		(Date of Birth) 3	1/1/1980
		(Health Record #) 4	900003
		(Pronouns) 5	PEH,PEHM,PEHS
		(Patient Name) 6	SMITH,JOHN ROBERT
		(Preferred Name) 7	ROBERT (when PAR=1 and AUPN DISPLAY PPN enabled)
			"" (when PAR=1 and AUPN DISPLAY PPN disabled)
		(Preferred Name) 7	ROBERT
		(Patient Sex) 8	M
		(Gender Identity) 9	OTH
		(Legal Sex) 10	U
		(Sexual Orientation) 11	OTH
		(Patient Pronouns) 12	PEH,PEHM,PEHS
E	ARY("E")		SMITH,JOHN ROBERT - ROBERT*^N*^1/1/1980^DCL 900003^PEH,PEHM,PEHS,PEHS,PEHSELF^SMITH,JOHN ROBERT^ROBERT^MALE^TWO-SPIRIT (OTH)^UNKNOWN/OTHER,STATE MOTOR VEHICLE DRIVER'S LICENSE,3/3/2020^TWO-SPIRIT (OTH)^PEH,PEHM,PEHS,PEHS,PEHSELF
		(Name) 1	SMITH,JOHN ROBERT - ROBERT* (when PAR=1 and AUPN DISPLAY PPN enabled)
			SMITH,JOHN ROBERT (when PAR=1 and AUPN DISPLAY PPN disabled)
		(Gender) 2	N*
			N (when FMT contains "P")
		(Date of Birth) 3	1/1/1980
		(Health Record #) 4	DCL 900003
		(Pronouns) 5	PEH,PEHM,PEHS,PEHS,PEHSELF
		(Patient Name) 6	SMITH,JOHN ROBERT

VAL	ARY	Piece	Output
	(Preferred Name) 7		ROBERT (when PAR=1 and AUPN DISPLAY PPN enabled)
			"" (when PAR=1 and AUPN DISPLAY PPN disabled)
	(Patient Sex) 8		MALE
	(Gender Identity) 9		TWO-SPIRIT (OTH)
	(Legal Sex) 10		UNKNOWN/OTHER,STATE MOTOR VEHICLE DRIVER'S LICENSE,3/3/2020
	(Sexual Orientation) 11		TWO-SPIRIT (OTH)
	(Patient Pronouns) 12		PEH,PEHM,PEHS,PEHS,PEHSELF
I	ARY("I")		SMITH,JOHN ROBERT - ROBERT*;N*;2800101;900003;PEH,PEHM,PEHS;SMITH,JOHN ROBERT;ROBERT;M;3200303^6^TWO-SPIRIT;3200303^U^28^3200303;3200303^4^TWO-SPIRIT;10^PEH,PEHM,PEHS,PEHS,PEHSELF
	(Name) 1		SMITH,JOHN ROBERT - ROBERT* (when PAR=1 and AUPN DISPLAY PPN enabled)
			SMITH,JOHN ROBERT (when PAR=1 and AUPN DISPLAY PPN disabled)
	(Gender) 2		N*
			N (when FMT contains "P")
	(Date of Birth) 3		2800101
	(Health Record #) 4		900003
	(Pronouns) 5		PEH,PEHM,PEHS
	(Patient Name) 6		SMITH,JOHN ROBERT
	(Preferred Name) 7		ROBERT (when PAR=1 and AUPN DISPLAY PPN enabled)
			"" (when PAR=1 and AUPN DISPLAY PPN disabled)
	(Patient Sex) 8		M
	(Gender Identity) 9		3200303^6^TWO-SPIRIT
	(Legal Sex) 10		3200303^U^28^3200303
	(Sexual Orientation) 11		3200303^4^TWO-SPIRIT
	(Patient Pronouns) 12		10^PEH,PEHM,PEHS,PEHS,PEHSELF

2.1.2 $$GENDER: Retrieve Formatted Gender for a Patient

Type: Extrinsic Function

Format: **$$GENDER^AUPNSOGI(PAT,VAL,FMT,EDT)**

This general retrieval API returns a single gender marker for a patient (M/F/U/N). This value can be limited to the patient sex only or include the patient's gender identity.

The internal value of the patient **Sex** field is returned in the following cases:

- Parameter VAL=0

- No patient Gender Identity data

- Gender Identity = Unknown or Declined to Answer

When the patient's gender identity is used in the calculation, the **Gender Marker** field of their gender identity is retrieved.

If a patient has multiple Gender Identity entries:

- Gender Marker fields match = Use that value

- Example: Male (M), Transgender Male (M) = Use 'M'

- Gender Marker fields do not match = Use 'N'

- Example: Male (M), Female (F) = Use 'N'

If the resulting gender marker does not match the internal value of the patient **Sex** field, the return value is marked with an asterisk (*) to indicate the discrepancy.

By default, the VAL parameter further restricts the matching to sex-based gender identities only.

- Example: Patient Sex (M), Gender Identity (Identifies as Male) = M

- Example: Patient Sex (M), Gender Identity (Transgender Male) = M*

- Example: Patient Sex (F), Gender Identity (Identifies as Female) = F

- Example: Patient Sex (F), Gender Identity (Transgender Female) = F*

The indicator can be suppressed independently by using the FMT parameter.

The EDT parameter, if provided, is used to retrieve the patient's gender identity for past dates.

Table 2-10: Input parameters of $$GENDER

Parameter	Description
PAT	IEN of patient's record in the Patient file (#9000001).
VAL	Desired return value. Corresponds to a set of codes: 0 = Patient Sex Only, no Gender Identity 1 (default) = Gender Identity, sex-based Gender Identity matching 2 = Gender Identity, all Gender Identity matching
FMT	Desired format of the returned value. Corresponds to a set of codes: 0 (default) = Asterisk (*) indicator is appended to the return value to indicate the Gender does not match the Patient Sex P = No asterisk (*) indicator is appended to the return value
EDT	Effective date of the **Gender Identity** sub-file (#9000001.9401) entry to be used. This date is not specifying the record to use, rather it retrieves the record that was effective on the date specified. Date must be provided in FileMan internal format. (Default) = Retrieve the most recent record Date = Retrieve the record effective as of the FileMan internal date specified

Table 2-11: Returned Values of $$GENDER

Return Status	Returned Value Description
Successful	Dependent upon VAL and FMT input parameter specification: PATIENT_SEX is the internal value of the Sex field (#.02) in the VA Patient file (#2). GENDER is the result of combining the Gender Marker field(s) (#3) from the Gender Identity file (#9999999.104) for each of the entries in the Gender Identity sub-file (#9000001.9401) using the logic described above.
Unsuccessful	"" Empty string

Table 2-12: Output of $$GENDER

VAL	FMT	Returned Value Description
Gender is sex-based and matches Patient Sex		
0	0	PATIENT_SEX
1	0	GENDER
2	0	GENDER

VAL	FMT	Returned Value Description
Gender is not sex-based and matches Patient Sex		
0	0	PATIENT_SEX
1	0	GENDER*
2	0	GENDER
Gender does not match Patient Sex		
0	0	PATIENT_SEX
1	0	GENDER*
2	0	GENDER*

Table 2-13: $$GENDER example—patient sex male

VAL	FMT	EDT	Output
Gender Identity: <blank>			
0	0		M
1	0		M
2	0		M
Gender Identity: Identifies as Male (M)			
0	0		M
1	0		M
2	0		M
Gender Identity: Identifies as Female (F)			
0	0		M
1	0		F*
1	P		F
2	0		F*
2	P		F
Gender Identity: Nonconforming Gender (N)			
0	0		M
1	0		N*
2	0		N*

VAL	FMT	EDT	Output
Gender Identity: Other (Two-Spirit) (N)			
1	0		N*
2	0		N*
Gender Identity: Unknown ()			
1	0		M
2	0		M
Gender Identity: Declined to Answer ()			
1	0		M
2	0		M
Gender Identity: Transgender Male (M)			
1	0		M*
2	0		M
Gender Identity: Identifies as Male (M), Transgender Male (M)			
1	0		M*
2	0		M

Table 2-14: $$GENDER example—patient sex female

VAL	FMT	EDT	Output
Gender Identity: <blank>			
0	0		F
1	0		F
2	0		F
Gender Identity: Identifies as Male (M)			
0	0		F
1	0		M*
1	P		M
2	0		M*
2	P		M
Gender Identity: Identifies as Female (F)			
0	0		F
1	0		F

VAL	FMT	EDT	Output
2	0		F
Gender Identity: Nonconforming Gender (N)			
0	0		F
1	0		N*
2	0		N*
Gender Identity: Other (Two-Spirit) (N)			
1	0		N*
2	0		N*
Gender Identity: Unknown ()			
1	0		F
2	0		F
Gender Identity: Declined to Answer ()			
1	0		F
2	0		F
Gender Identity: Transgender Female (F)			
1	0		F*
2	0		F
Gender Identity: Identifies as Female (F), Transgender Female (F)			
1	0		F*
2	0		F

Table 2-15: $$GENDER example—patient sex unknown

VAL	FMT	EDT	Output
Gender Identity: <blank>			
0	0		U
1	0		U
2	0		U
Gender Identity: Identifies as Male (M)			
0	0		U
1	0		M*
1	P		M

VAL	FMT	EDT	Output
2	0		M*
2	P		M
Gender Identity: Identifies as Female (F)			
0	0		U
1	0		F*
2	0		F*
Gender Identity: Nonconforming Gender (N)			
0	0		U
1	0		N*
2	0		N*
Gender Identity: Other (Two-Spirit) (N)			
1	0		N*
2	0		N*
Gender Identity: Unknown ()			
1	0		U
2	0		U
Gender Identity: Declined to Answer ()			
1	0		U
2	0		U

2.1.3 $$PRONOUN: Retrieve Formatted Pronouns for a Patient

Type: Extrinsic Function

Format: **$$PRONOUN^AUPNSOGI(PAT,VAL,FMT,EDT)**

This general retrieval API returns the pronouns specified by the patient in brief or expanded display format.

> **Note:** In all cases, when a patient has specified pronouns, those pronouns will be returned by this API.

If the patient has not specified pronouns, a suggested set of pronouns mapped to the patient gender can be returned. These entries are marked with an asterisk (*****) to indicate the return value is a suggestion in the absence of patient specified pronouns.

- Gender:M = Masculine Pronouns: He,Him,His,His,Himself

- Gender:F = Feminine Pronouns: She,Her,Her,Hers,Herself

- Gender:N/U = Neutral Pronouns: They,Them,Their,Theirs,Themselves

> **Note:** If the calling application does not wish to display the suggested pronouns, the VAL parameter should be set to 0.

The indicator can be suppressed independently by using the FMT parameter.

The EDT parameter if provided, is used to calculate the patient gender for past dates.

Table 2-16: Input parameters of $$PRONOUN

Parameter	Description
PAT	IEN of patient's record in the Patient file (#9000001).
VAL	Desired return value. Corresponds to a set of codes: 0 = Patient Pronouns Only 1 (default) = Patient Pronouns, if none specified Pronouns based on Gender
FMT	Desired format of the returned value. Corresponds to a set of codes: 0 (default) = **Brief Display** (#4) field of the **Pronouns** (#9999999.105) file is returned for pointed to entries, or 3 entries when **Pronouns Other** (#9003) exist. "*" indicator is appended to the return value to indicate the return value is a suggestion in the absence of patient specified Pronouns. 1 = **Expanded Display** (#5) field of the **Pronouns** (#9999999.105) file is returned for pointed to entries, or 5 entries when **Pronouns Other** (#9003) exist. An asterisk (*) indicator is appended to the return value to indicate the return value is a suggestion in the absence of patient specified Pronouns. 0P = **Brief Display** (#4) field of the **Pronouns** (#9999999.105) file is returned for pointed to entries, or 3 entries when **Pronouns Other** (#9003) exist. No "*" indicator is appended to the return value. 1P = **Expanded Display** (#5) field of the **Pronouns** (#9999999.105) file is returned for pointed to entries, or 5 entries when **Pronouns Other** (#9003) exist. No "*" indicator is appended to the return value.
EDT	Effective date of the **Gender Identity** sub-file (#9000001.9401) entry to be used. This date is not specifying the record to use, rather it retrieves the record that was effective on the date specified. Date must be provided in FileMan internal format. (Default) = Retrieve the most recent record Date = Retrieve the record effective as of the FileMan internal date specified

Table 2-17: Returned values of $$PRONOUN

Return Status	Returned Value Description
Successful	Dependent upon VAL and FMT input parameter specification: PRONOUNS is the pointed to record in the **Pronouns** file (#9999999.105) from the value of the **Pronouns** field (#9002) in the **Patient** file (#9000001). When pointed to entry in the **Pronouns** file (#9999999.105) is "OTHER", PRONOUNS is the comma-separated piece value from the **Pronouns Other** field (#9003) of the **Patient** file (#9000001). GENDER_PRONOUNS are the mapped set of entries resulting from the calculation of the Patient Gender in the absence of a value in the **Pronouns** field (#9002) in the **Patient** file (#9000001).
Unsuccessful	"" Empty string

Table 2-18: Output of $$PRONOUN

VAL	FMT	Returned Value Description
Patient Pronouns exist		
0	0	PRONOUNS (Pronouns Brief Display value)
0	1	PRONOUNS (Pronouns Expanded Display value)
1	0	PRONOUNS (Pronouns Brief Display value)
1	1	PRONOUNS (Pronouns Expanded Display value)
Patient Pronouns do not exist		
0	0	""
0	1	""
1	0	GENDER_PRONOUNS* (Pronouns Brief Display value)
1	1	GENDER_PRONOUNS* (Pronouns Expanded Display value)

Table 2-19: $$PRONOUN example—patient pronouns specified

VAL	FMT	EDT	Output
Patient Sex: Male **Gender Identity: <blank>** **Pronouns: Masculine**			
0	0		HE,HIM,HIS

VAL	FMT	EDT	Output
0	0P		HE,HIM,HIS
0	1		HE,HIM,HIS,HIS,HIMSELF
0	1P		HE,HIM,HIS,HIS,HIMSELF
1	0		HE,HIM,HIS
1	0P		HE,HIM,HIS
1	1		HE,HIM,HIS,HIS,HIMSELF
1	1P		HE,HIM,HIS,HIS,HIMSELF
Patient Sex: Male **Gender Identity: <blank>** **Pronouns: Feminine**			
0			SHE,HER,HER
0	1		SHE,HER,HER,HERS,HERSELF
1			SHE,HER,HER
1	1		SHE,HER,HER,HERS,HERSELF
Patient Sex: Male **Gender Identity: <blank>** **Pronouns: Neutral**			
0			THEY,THEM,THEIR
0	1		THEY,THEM,THEIR,THEIRS,THEMSELVES
1			THEY,THEM,THEIR
1	1		THEY,THEM,THEIR,THEIRS,THEMSELVES
Patient Sex: Male **Gender Identity: <blank>** **Pronouns: Other (PEH,PEHM,PEHS,PEHS,PEHSELF)**			
0			PEH,PEHM,PEHS
0	1		PEH,PEHM,PEHS,PEHS,PEHSELF
1			PEH,PEHM,PEHS
1	1		PEH,PEHM,PEHS,PEHS,PEHSELF
Patient Sex: Male **Gender Identity: <blank>** **Pronouns: Unknown**			
0			DO NOT KNOW
0	1		DO NOT KNOW

VAL	FMT	EDT	Output
1			DO NOT KNOW
1	1		DO NOT KNOW
Patient Sex: Male **Gender Identity: <blank>** **Pronouns: Declined to Answer**			
0			DECLINED TO ANSWER
0	1		DECLINED TO ANSWER
1			DECLINED TO ANSWER
1	1		DECLINED TO ANSWER

Table 2-20: $$PRONOUN example—patient pronouns not specified

VAL	FMT	EDT	Output
Patient Sex: Male **Gender Identity: <blank>** **Pronouns: <blank>**			
0	0		""
0	0P		""
0	1		""
0	1P		""
1	0		HE,HIM,HIS*
1	0P		HE,HIM,HIS
1	1		HE,HIM,HIS,HIS,HIMSELF*
1	1P		HE,HIM,HIS,HIS,HIMSELF
Patient Sex: Male **Gender Identity: 10/01/2019, Identifies as Male** **Pronouns: <blank>**			
0	0		""
1	0		HE,HIM,HIS*
1	0P		HE,HIM,HIS
1	1		HE,HIM,HIS,HIS,HIMSELF*
1	1P		HE,HIM,HIS,HIS,HIMSELF
1	0	3191001	HE,HIM,HIS*

VAL	FMT	EDT	Output
1	0P	3191001	HE,HIM,HIS
1	1	3191001	HE,HIM,HIS,HIS,HIMSELF*
1	1P	3191001	HE,HIM,HIS,HIS,HIMSELF
Patient Sex: Male **Gender Identity: 10/01/2019, Identifies as Male** **Gender Identity: Identifies as Female** **Pronouns: \<blank\>**			
0	0		""
1	0		SHE,HER,HER*
1	0P		SHE,HER,HER
1	1		SHE,HER,HER,HERS,HERSELF*
1	1P		SHE,HER,HER,HERS,HERSELF
0	0	3191001	""
1	0	3191001	HE,HIM,HIS*
1	1	3191001	HE,HIM,HIS,HIS,HIMSELF*
Patient Sex: Male **Gender Identity: Nonconforming Gender** **Pronouns: \<blank\>**			
0	0		""
1	0		THEY,THEM,THEIR*
1	1		THEY,THEM,THEIR,THEIRS,THEMSELVES*
Patient Sex: Female **Gender Identity: \<blank\>** **Pronouns: \<blank\>**			
0	0		""
1	0		SHE,HER,HER*
1	1		SHE,HER,HER,HERS,HERSELF*
Patient Sex: Female **Gender Identity: Unknown** **Pronouns: \<blank\>**			
0	0		""
1	0		SHE,HER,HER*
1	1		SHE,HER,HER,HERS,HERSELF*

VAL	FMT	EDT	Output
Patient Sex: Unknown **Gender Identity: \<blank\>** **Pronouns: \<blank\>**			
0	0		""
1	0		THEY,THEM,THEIR*
1	1		THEY,THEM,THEIR,THEIRS,THEMSELVES*
Patient Sex: Unknown **Gender Identity: Declined to Answer** **Pronouns: \<blank\>**			
0	0		""
1	0		THEY,THEM,THEIR*
1	1		THEY,THEM,THEIR,THEIRS,THEMSELVES*

2.2   Retrieval and Checking APIs

The retrieval and checking APIs serve as a replacement to FileMan calls for retrieving a patient's SOGI data. Some of this data exists within a multiple, or a multiple within a multiple, resulting in complex FileMan calls. These APIs simplify that process, and allow transforms of the resulting data into different formats (such as internal/external/code). The historical retrieval APIs return all past SOGI data entered for a patient in a local array and accepts the same transform values. The checking APIs search for a specific SOGI entry in the patient's record, past or present.

Table 2-21: Retrieval and Checking API Entry Points

Category: Retrieval and Checking APIs	
Entry Point	**Description**
$$GETPREF^AUPNSOGI	Retrieve Preferred Name for a Patient
$$GETPRN^AUPNSOGI	Retrieve Pronouns for a Patient
$$GETLSEX^AUPNSOGI	Retrieve Legal Sex for a Patient
$$GETSO^AUPNSOGI	Retrieve Sexual Orientation for a Patient
$$GETGI^AUPNSOGI	Retrieve Gender Identity for a Patient
$$HISTLSEX^AUPNSOGI	Retrieve Legal Sex History for a Patient
$$HISTSO^AUPNSOGI	Retrieve Sexual Orientation History for a Patient
$$HISTGI^AUPNSOGI	Retrieve Gender Identity History for a Patient
$$CHKPRN^AUPNSOGI	Check if a Specific Pronouns Exists for a Patient

Category: Retrieval and Checking APIs	
$$CHKSO^AUPNSOGI	Check if a Specific Sexual Orientation Exists for a Patient
$$CHKGI^AUPNSOGI	Check if a Specific Gender Identity Exists for a Patient

2.2.1 $$GETPREF: Retrieve Preferred Name for a Patient

Type: Extrinsic Function

Format: **$$GETPREF^AUPNSOGI(PAT,VAL,PAR)**

> **Note:** As of patch AUPN*99.1*29, this API can be called with the additional PAR parameter.

This retrieval API returns the value of the patient's preferred name.

The API can additionally include the patient's name in the following formats:

- PATIENT_NAME - PREFERRED*

- PREFERRED^FAMILY^GIVEN^MIDDLE^SUFFIX

> **Note:** When the patient's name is requested, it is returned regardless of whether the preferred name has been specified.

The Preferred Name value can be suppressed based on the AUPN DISPLAY PPN system parameter with the PAR parameter.

When PAR=1, the value is suppressed if AUPN DISPLAY PPN is disabled (NO), and not suppressed if AUPN DISPLAY PPN is enabled (YES).

> **Note:** Access to this API requires use of the AUPN DISPLAY PPN parameter functionality, by setting the PAR parameter to 1. Infrastructure applications are exempt from this requirement.

Table 2-22: Input parameters of $$GETPREF

Parameter	Description
PAT	IEN of patient's record in the Patient file (#9000001).

Parameter	Description
VAL	Desired return value. Corresponds to a set of codes: I (default) = Internal value(s), **Preferred Name** field (#9001) in the **Patient** file (#9000001) E = External value(s), **Name** field (#.01) in the **VA Patient** file (#2). If Preferred Name exists, appends a dash " – " and **Preferred Name** field (#9001) in the **Patient** file (#9000001) C = Component value(s), **Preferred Name** field (#9001) in the **Patient** file (#9000001), followed by the name components from the **Name** field (#.01) in the **VA Patient** file (#2), separated by the caret (**^**) delimiter. The component format will strip trailing delimiters if components such as suffix/middle are blank.
PAR	Enables AUPN DISPLAY PPN parameter functionality. If the AUPN DISPLAY PPN parameter is set to NO, the Preferred Name value is treated as blank. Has no effect if the AUPN DISPLAY PPN parameter is set to YES, or if the Preferred Name value is blank. Corresponds to a set of codes: 0 (default) = Disable AUPN DISPLAY PPN parameter functionality 1 = Enable AUPN DISPLAY PPN parameter functionality

Table 2-23: Returned values of $$GETPREF

Return Status	Returned Value Description
Successful	Dependent upon VAL and PAR input parameter specification: PREFERRED_NAME is the value of the **Preferred Name** field (#9001) in the **Patient** file (#9000001). This value can be suppressed with the PAR parameter and AUPN DISPLAY PPN system parameter. PATIENT_NAME is the value of the **Name** field (#.01) in the **VA Patient** file (#2). FAMILY is the family name component from the value of the **Name** field (#.01) in the **VA Patient** file (#2). GIVEN is the given name component from the value of the **Name** field (#.01) in the **VA Patient** file (#2). MIDDLE is the middle name component from the value of the **Name** field (#.01) in the **VA Patient** file (#2). SUFFIX is the suffix component from the value of the **Name** field (#.01) in the **VA Patient** file (#2).
Unsuccessful	"" Empty string

Table 2-24: Output of $$GETPREF

VAL	PAR	Returned Value Description AUPN DISPLAY PPN: Enabled	Returned Value Description AUPN DISPLAY PPN: Disabled
No Preferred Name			
I	0	""	\<Same\>
E	0	PATIENT_NAME	\<Same\>
C	0	^FAMILY^GIVEN^MIDDLE^SUFFIX	\<Same\>
I	1	""	\<Same\>
E	1	PATIENT_NAME	\<Same\>
C	1	^FAMILY^GIVEN^MIDDLE^SUFFIX	\<Same\>
Preferred Name Exists			
I	0	PREFERRED_NAME	\<Same\>
E	0	PATIENT_NAME – PREFERRED_NAME*	\<Same\>
C	0	PREFERRED_NAME^FAMILY^ GIVEN^MIDDLE^SUFFIX	\<Same\>
I	1	PREFERRED_NAME	""
E	1	PATIENT_NAME – PREFERRED_NAME*	PATIENT_NAME
C	1	PREFERRED_NAME^FAMILY^ GIVEN^MIDDLE^SUFFIX	^FAMILY^GIVEN^MIDDLE^SUFFIX

Table 2-25: $$GETPREF example—preferred name not specified

VAL	PAR	Output AUPN DISPLAY PPN: Enabled	Output AUPN DISPLAY PPN: Disabled
Patient Name: SMITH,JOHN ROBERT **Preferred Name: \<blank\>**			
I	0	""	\<Same\>
E	0	SMITH,JOHN ROBERT	\<Same\>
C	0	^SMITH^JOHN^ROBERT	\<Same\>
I	1	""	\<Same\>
E	1	SMITH,JOHN ROBERT	\<Same\>
C	1	^SMITH^JOHN^ROBERT	\<Same\>

VAL	PAR	Output AUPN DISPLAY PPN: Enabled	Output AUPN DISPLAY PPN: Disabled
Patient Name: SMITH,JOHN ROBERT SR Preferred Name: <blank>			
I	1	""	<Same>
E	1	SMITH,JOHN ROBERT SR	<Same>
C	1	^SMITH^JOHN^ROBERT^SR	<Same>

Table 2-26: $$GETPREF example—preferred name specified

VAL	PAR	Output AUPN DISPLAY PPN: Enabled	Output AUPN DISPLAY PPN: Disabled
Patient Name: SMITH,JOHN ROBERT Preferred Name: JOE			
I	0	JOE	<Same>
E	0	SMITH,JOHN ROBERT – JOE*	<Same>
C	0	JOE^SMITH^JOHN^ROBERT	<Same>
I	1	JOE	""
E	1	SMITH,JOHN ROBERT – JOE*	SMITH,JOHN ROBERT
C	1	JOE^SMITH^JOHN^ROBERT	^SMITH^JOHN^ROBERT
Patient Name: SMITH,JOHN ROBERT Preferred Name: JOHN			
I	1	JOHN	""
E	1	SMITH,JOHN ROBERT – JOHN*	SMITH,JOHN ROBERT
C	1	JOHN^SMITH^JOHN^ROBERT	^SMITH^JOHN^ROBERT
Patient Name: SMITH,JOHN ROBERT Preferred Name: ROBERT			
I	1	ROBERT	""
E	1	SMITH,JOHN ROBERT – ROBERT*	SMITH,JOHN ROBERT
C	1	ROBERT^SMITH^JOHN^ROBERT	^SMITH^JOHN^ROBERT
Patient Name: SMITH,JOHN ROBERT SR Preferred Name: JOE			
I	1	JOE	""
E	1	SMITH,JOHN ROBERT SR – JOE*	SMITH,JOHN ROBERT SR
C	1	JOE^SMITH^JOHN^ROBERT^SR	^SMITH^JOHN^ROBERT^SR

2.2.2 $$GETPRN: Retrieve Pronouns for a Patient

Type: Extrinsic Function

Format: **$$GETPRN^AUPNSOGI(PAT,VAL)**

This retrieval API returns the value of the patient's pronouns.

If no pronouns have been specified, the empty string "" is returned.

The type of value returned for the pronouns is configured with the VAL parameter.

If the patient has specified other pronouns, that value is returned for display values of the VAL parameter, or appear alongside the internal value separated by the caret (^).

Table 2-27: Input parameters of $$GETPRN

Parameter	Description
PAT	IEN of patient's record in the Patient file (#9000001).
VAL	Type of value in the **Pronouns** file (#9999999.105) to be returned from the value of the **Pronouns** field (#9002) or **Pronouns Other** field (#9003) in the **Patient** file (#9000001). Corresponds to a set of codes:
	B (default) = Brief Display value (3 pieces if OTHER) – **Brief Display** field (#4) from the **Pronouns** file (#9999999.105)
	D = Expanded Display value (5 pieces if OTHER) – **Expanded Display** field (#5) from the **Pronouns** file (#9999999.105)
	E = External value of the **Pronouns** field (#9002) – **Pronouns** field (#.01) from the **Pronouns** file (#9999999.105)
	I = Internal value of the **Pronouns** field (#9002) and **Other** field (#9003) – IEN from the **Pronouns** file (#9999999.105)
	C = Code value of the **Pronouns** field (#9002) – Code field (#1) from the **Pronouns** file (#9999999.105)

Table 2-28: Returned values of $$GETPRN

Return Status	Returned Value Description
Successful	Dependent upon VAL and FMT input parameter specification:
	ENTRY is the pointed to record in the **Pronouns** file (#9999999.105) from the value of the **Pronouns** field (#9002) in the **Patient** file (#9000001).
	OTHER is the value from the **Pronouns Other** field (#9003) of the **Patient** file (#9000001), and is returned in its entirety when VAL=I.
	When pointed to entry in the Pronouns file (#9999999.105) is "OTHER", ENTRY is the value from the **Pronouns Other** field (#9003) of the **Patient** file (#9000001). Three comma-separated pieces of the value are returned for the brief format, and five comma-separated pieces are returned for the expanded format.

Return Status	Returned Value Description
Unsuccessful	"" Empty string

Table 2-29: Output of $$GETPRN

VAL	Returned Value Description
B	ENTRY (Pronouns Brief Display value)
D	ENTRY (Pronouns Expanded Display value)
E	ENTRY (Pronouns External Format)
I	ENTRY^OTHER (FileMan Internal Format)
C	ENTRY (Pronouns Code value)

Table 2-30: $$GETPRN example—patient pronouns not specified

VAL	Output
Pronouns: <blank>	
B	""
D	""
E	""
I	""
C	""

Table 2-31: $$GETPRN example—patient pronouns specified

VAL	Output
Pronouns: Masculine (IEN=1)	
B	HE,HIM,HIS
D	HE,HIM,HIS,HIS,HIMSELF
E	MASCULINE
I	1^
C	M
Pronouns: Other (IEN=10) (PEH,PEHM,PEHS,PEHS,PEHSELF)	
B	PEH,PEHM,PEHS
D	PEH,PEHM,PEHS,PEHS,PEHSELF

VAL	Output
E	OTHER
I	10^PEH,PEHM,PEHS,PEHS,PEHSELF
C	OTH
Pronouns: Unknown (IEN=11)	
B	UNK
D	UNK
E	DO NOT KNOW
I	11^
C	UNK
Pronouns: Declined to Answer (IEN=12)	
B	ASKU
D	ASKU
E	DECLINED TO ANSWER
I	12^
C	ASKU

2.2.3 $$GETLSEX: Retrieve Legal Sex for a Patient

Type: Extrinsic Function

Format: **$$GETLSEX^AUPNSOGI(PAT,VAL,FMT,EDT)**

This retrieval API returns values from the patient's legal sex.

If no legal sex has been specified, the empty string "" is returned.

The internal record (IEN) of the entry is returned with the values from the **Legal Sex**, **Source**, and **Date Entered** fields separated by the caret (**^**) delimiter. The **Source** and **Date Entered** fields can be suppressed with the VAL parameter.

The type of values returned for these fields is configured with the VAL parameter.

The FMT parameter can exclude the internal record (IEN) from the return value and use the comma (**,**) delimiter to separate values.

The EDT parameter, if provided, is used to retrieve the patient's legal sex for past dates.

Table 2-32: Input Parameters of $$GETLSEX

Parameter	Description
PAT	IEN of patient's record in the Patient file (#9000001).
VAL	Type of values in the **Legal Sex** field (#1), **Source** field (#2), and **Date Entered** field (#3) in the **Legal Sex** sub-file (#9000001.9201) to be returned. Corresponds to a set of codes: E (default) = External value of entries, External code value of the **Legal Sex** field (#1), External value of the **Source** field (#2), External value of the **Date Entered** field (#3) - **Modifiers Description** field (#.01) from the **Eligibility Modifiers** file (#9000030). I = Internal value of entries, Internal code value of the **Legal Sex** field (#1), Internal value of the **Source** field (#2) , Internal value of the **Date Entered** field (#3) - IEN from the **Eligibility Modifiers** file (#9000030). C = Code value of entries, Internal code value of the **Legal Sex** field (#1).
FMT	Desired format of the returned value. Corresponds to a set of codes: 0 (default) = IEN of the **Legal Sex** sub-file (#9000001.9201) entry, followed by the **Legal Sex** field (#1), **Source** field (#2), and **Date Entered** field (#3) from the **Legal Sex** sub-file (#9000001.9201), separated by the caret (**^**) delimiter. P = Values of the **Legal Sex** field (#1), **Source** field (#2), and **Date Entered** field (#3) from the **Legal Sex** sub-file (#9000001.9201), separated by the comma (,) delimiter.
EDT	Effective date of the **Legal Sex** sub-file (#9000001.9201) entry to be used. This date is not specifying the record to use, rather it retrieves the record that was effective on the date specified. Date must be provided in FileMan internal format. (Default) = Retrieve the most recent record Date = Retrieve the record effective as of the FileMan internal date specified

Table 2-33: Returned values of $$GETLSEX

Return Status	Returned Value Description
Successful	Dependent upon VAL and FMT input parameter specification: SUB_IEN is the record found in the **Legal Sex** sub-file (#9000001.9201) of the **Patient** file (#9000001). This value is returned when FMT=0. LEGAL_SEX is the value of the **Legal Sex** field (#1) in the **Legal Sex** sub-file (#9000001.9201) of the **Patient** file (#9000001). This value changes with the VAL parameter. SOURCE is the pointed to record in the **Eligibility Modifiers** file (#9000030) from the value of the **Source** field (#2) in the **Legal Sex** sub-file (#9000001.9201) of the **Patient** file (#9000001). This value changes with the VAL parameter, and is excluded when VAL=C. DATE_ENTERED is the value of the **Date Entered** field (#3) in the **Legal Sex** sub-file (#9000001.9201) of the **Patient** file (#9000001). This value changes with the VAL parameter, and is excluded when VAL=C.
Unsuccessful	"" Empty string

Table 2-34: Output of $$GETLSEX

VAL	FMT	Returned Value Description
E	0	SUB_IEN^LEGAL_SEX^SOURCE^DATE_ENTERED (FileMan external format)
E	P	LEGAL_SEX,SOURCE,DATE_ENTERED (FileMan external format)
I	0	SUB_IEN^LEGAL_SEX^SOURCE^DATE_ENTERED (FileMan internal format)
I	P	LEGAL_SEX,SOURCE,DATE_ENTERED (FileMan internal format)
C	0	SUB_IEN^LEGAL_SEX (FileMan internal format)
C	P	LEGAL_SEX (FileMan internal format)

Table 2-35: $$GETLSEX example—legal sex not specified

VAL	FMT	EDT	Output
Legal Sex Date: <blank> **Legal Sex: <blank>** Legal Sex Source: <blank>			
I			""
I	P		""
E			""
E	P		""

VAL	FMT	EDT	Output
C			""
C	P		""

Table 2-36: $$GETLSEX example—legal sex specified

VAL	FMT	EDT	Output
Legal Sex Date: 03/03/2020 **Legal Sex: Unknown/Other** **Legal Sex Source: State ID (IEN=41)** **Legal Sex Date Entered: 03/03/2020**			
I			3200303^U^41^3200303
I	P		U,41,3200303
E			3200303^UNKNOWN/OTHER^STATE ID^3/3/2020
E	P		UNKNOWN/OTHER,STATE ID,3/3/2020
C			3200303^U
C	P		U
Legal Sex Date: 10/01/2019 **Legal Sex: Male** Legal Sex Source: State Motor Vehicle Driver's License (IEN=28) Legal Sex Date Entered: 10/1/2019			
I		3191001	3191001^M^28^3191001
I	P	3191001	M,28,3191001
E		3191001	3191001^MALE^STATE MOTOR VEHICLE DRIVER'S LICENSE^10/1/2019
E	P	3191001	MALE,STATE MOTOR VEHICLE DRIVER'S LICENSE,10/1/2019
C		3191001	3191001^M
C	P	3191001	M

2.2.4 $$GETSO: Retrieve Sexual Orientation for a Patient

Type: Extrinsic Function

Format: **$$GETSO^AUPNSOGI(PAT,VAL,FMT,EDT)**

This retrieval API returns values from the patient's sexual orientation.

If no sexual orientation has been specified, the empty string "" is returned.

The internal record (IEN) of the entry is returned with the values from the **Sexual Orientation** multiple and **Other Sexual Orientation** field, separated by the caret (^) delimiter.

The type of values returned for these fields is configured with the VAL parameter.

If the patient has specified Other Sexual Orientation, that value is returned when external values are requested in the format: OTHER_SEXUAL_ORIENTATION (OTH). Additionally, the Other Sexual Orientation will be appended to the return value when internal values are requested, separated by the caret (^) delimiter.

The FMT parameter can exclude the internal record (IEN) from the return value and use the comma (**,**) delimiter to separate values.

The EDT parameter, if provided, is used to retrieve the patient's sexual orientation for past dates.

Table 2-37: Input parameters of $$GETSO

Parameter	Description
PAT	IEN of patient's record in the Patient file (#9000001).
VAL	Type of value in the **Sexual Orientation** file (#9999999.103) to be returned for each entry in the **Sexual Orientation** multiple (#9000001.93011). Corresponds to a set of codes:
	E (default) = External value of entries, **Sexual Orientation** field (#.01) from the Sexual **Orientation** file (#9999999.103)
	Other Sexual Orientation entry is replaced with value from **Other** field (#2) of the **Sexual Orientation** sub-file (#9000001.9301) followed by the string "(OTH)"
	I = Internal value of entries, IEN from the **Sexual Orientation** file (#9999999.103)
	Followed by value from Other field (#2) of the **Sexual Orientation** sub-file (#9000001.9301)
	C = Code value of entries, **Code** field (#1) from the **Sexual Orientation** file (#9999999.103)
	S = SNOMED code value of entries, SNOMED Code field (#2) from the Sexual Orientation file (#9999999.103)
FMT	Desired format of the returned value. Corresponds to a set of codes:
	0 (default) = IEN of the **Sexual Orientation** sub-file (#9000001.9301) entry, followed by entries from the **Sexual Orientation** multiple (#9000001.93011), separated by the caret (**^**) delimiter
	P = Entries from the **Sexual Orientation** multiple (#9000001.93011), separated by the comma (,) delimiter

Parameter	Description
EDT	Effective date of the **Sexual Orientation** sub-file (#9000001.9301) entry to be used. This date is not specifying the record to use; rather it retrieves the record that was effective on the date specified. Date must be provided in FileMan internal format.
	(Default) = Retrieve the most recent record
	Date = Retrieve the record effective as of the FileMan internal date specified

Table 2-38: Returned values of $$GETSO

Return Status	Returned Value Description
Successful	Dependent upon VAL and FMT input parameter specification:
	SUB_IEN is the record found in the **Sexual Orientation** sub-file (#9000001.9301) of the **Patient** file (#9000001). This value is returned when FMT=0.
	ENTRY is the pointed to record in the **Sexual Orientation** file (#9999999.103). This value changes with the VAL parameter.
	OTHER is the value of the **Other** field (#2) in the **Sexual Orientation** sub-file (#9000001.9301) of the **Patient** file (#9000001). This value is formatted differently depending on the VAL parameter.
Unsuccessful	"" Empty string

Table 2-39: Output of $$GETSO

VAL	FMT	Returned Value Description
E	0	SUB_IEN^ENTRY^ENTRY (FileMan external format)
E	P	ENTRY,ENTRY (FileMan external format)
I	0	SUB_IEN^ENTRY^ENTRY^OTHER (FileMan internal format)
I	P	ENTRY,ENTRY,OTHER (FileMan internal format)
C	0	SUB_IEN^ENTRY^ENTRY (Sexual Orientation Code value)
C	P	ENTRY,ENTRY (Sexual Orientation Code value)
S	0	SUB_IEN^ENTRY^ENTRY (Sexual Orientation SNOMED value)
S	P	ENTRY,ENTRY (Sexual Orientation SNOMED value)

Table 2-40: $$GETSO example—sexual orientation not specified

VAL	FMT	EDT	Output
Sexual Orientation Date: \<blank\> **Sexual Orientation: \<blank\>** **Sexual Orientation Other: \<blank\>**			
E			""
E	P		""
I			""
I	P		""
C			""
C	P		""
S			""
S	P		""
Sexual Orientation Date: 03/03/2020 **Sexual Orientation: \<blank\>** **Sexual Orientation Other: \<blank\>**			
E			3200303
E	P		""
I			3200303^
I	P		""
C			3200303
C	P		""
S			3200303
S	P		""

Table 2-41: $$GETSO example—sexual orientation specified

VAL	FMT	EDT	Output
Sexual Orientation Date: 03/03/2020 **Sexual Orientation: Bisexual (IEN=3)** **Sexual Orientation Other: \<blank\>**			
E			3200303^BISEXUAL
E	P		BISEXUAL
I			3200303^3^

VAL	FMT	EDT	Output
I	P		3,
C			3200303^BI
C	P		BI
S			3200303^42035005
S	P		42035005
Sexual Orientation Date: 10/01/2019 **Sexual Orientation: Straight / Heterosexual (IEN=1)** **Sexual Orientation Other: \<blank\>**			
E		3191001	3191001^STRAIGHT / HETEROSEXUAL
E	P	3191001	STRAIGHT / HETEROSEXUAL
I		3191001	3191001^1^
I	P	3191001	1,
C		3191001	3191001^HET
C	P	3191001	HET
S		3191001	3191001^20430005
S	P	3191001	20430005
Sexual Orientation Date: 03/03/2020 **Sexual Orientation: Bisexual (IEN=3), Other (IEN=4)** **Sexual Orientation Other: Two-Spirit**			
E			3200303^BISEXUAL^TWO-SPIRIT (OTH)
E	P		BISEXUAL,TWO-SPIRIT (OTH)
I			3200303^3^4^TWO-SPIRIT
I	P		3,4,TWO-SPIRIT
C			3200303^BI^OTH
C	P		BI,OTH
S			3200303^42035005^OTH
S	P		42035005,OTH
Sexual Orientation Date: 03/03/2020 **Sexual Orientation: Unknown (IEN=5)** **Sexual Orientation Other: \<blank\>**			
E			3200303^DO NOT KNOW
E	P		DO NOT KNOW

VAL	FMT	EDT	Output
I			3200303^5^
I	P		5,
C			3200303^UNK
C	P		UNK
S			3200303^UNK
S	P		UNK
Sexual Orientation Date: 03/03/2020 **Sexual Orientation: Declined to Answer (IEN=6)** **Sexual Orientation Other: <blank>**			
E			3200303^DECLINED TO ANSWER
E	P		DECLINED TO ANSWER
I			3200303^6^
I	P		6,
C			3200303^ASKU
C	P		ASKU
S			3200303^ASKU
S	P		ASKU

2.2.5 $$GETGI: Retrieve Gender Identity for a Patient

Type: Extrinsic Function

Format: **$$GETGI^AUPNSOGI(PAT,VAL,FMT,EDT)**

This retrieval API returns values from the patient's gender identity.

If no gender identity has been specified, the empty string "" is returned.

The internal record (IEN) of the entry is returned with the values from the **Gender Identity** multiple and **Other Gender Identity** field, separated by the caret (^) delimiter.

The type of values returned for these fields is configured with the VAL parameter.

If the patient has specified Other Gender Identity, that value is returned when external values are requested in the format: OTHER_GENDER_IDENTITY (OTH). Additionally, the Other Gender Identity will be appended to the return value when internal values are requested, separated by the caret (^) delimiter.

The FMT parameter can exclude the internal record (IEN) from the return value and use the comma (**,**) delimiter to separate values.

The EDT parameter, if provided, is used to retrieve the patient's gender identity for past dates.

Table 2-42: Input parameters of $$GETGI

Parameter	Description
PAT	IEN of patient's record in the Patient file (#9000001).
VAL	Type of value in the **Gender Identity** file (#9999999.104) to be returned for each entry in the **Gender Identity** multiple (#9000001.94011). Corresponds to a set of codes:
	E (default) = External value of entries, **Gender Identity** field (#.01) from the **Gender Identity** file (#9999999.104)
	Other Gender Identity entry is replaced with value from **Other** field (#2) of the **Gender Identity** sub-file (#9000001.9401) followed by the string "(OTH)"
	I = Internal value of entries, IEN from the **Gender Identity** file (#9999999.104)
	Followed by value from Other field (#2) of the **Gender Identity** sub-file (#9000001.9401)
	C = Code value of entries, Code field (#1) from the **Gender Identity** file (#9999999.104)
	S = SNOMED code value of entries, SNOMED Code field (#2) from the Gender Identity file (#9999999.104)
	M = Gender marker value of entries, **Gender Marker** field (#3) from the **Gender Identity** file (#9999999.104)
FMT	Desired format of the returned value. Corresponds to a set of codes:
	0 (default) = IEN of the **Gender Identity** sub-file (#9000001.9401) entry, followed by entries from the **Gender Identity** multiple (#9000001.94011), separated by the "^" delimiter
	P = Entries from the **Gender Identity** multiple (#9000001.94011), separated by the "," delimiter
EDT	Effective date of the **Gender Identity** sub-file (#9000001.9401) entry to be used. This date is not specifying the record to use; rather it retrieves the record that was effective on the date specified. Date must be provided in FileMan internal format.
	(Default) = Retrieve the most recent record
	Date = Retrieve the record effective as of the FileMan internal date specified

Table 2-43: Returned values of $$GETGI

Return Status	Returned Value Description
Successful	Dependent upon VAL and FMT input parameter specification:
	SUB_IEN is the record found in the **Gender Identity** sub-file (#9000001.9401) of the **Patient** file (#9000001). This value is returned when FMT=0.
	ENTRY is the pointed to record in the **Gender Identity** file (#9999999.104). This value changes with the VAL parameter.
	OTHER is the value of the **Other** field (#2) in the **Gender Identity** sub-file (#9000001.9401) of the **Patient** file (#9000001). This value is formatted differently depending on the VAL parameter.
Unsuccessful	"" Empty string

Table 2-44: Output of $$GETGI

VAL	FMT	Returned Value Description
E	0	SUB_IEN^ENTRY^ENTRY (FileMan external format)
E	P	ENTRY,ENTRY (FileMan external format)
I	0	SUB_IEN^ENTRY^ENTRY^OTHER (FileMan internal format)
I	P	ENTRY,ENTRY,OTHER (FileMan internal format)
C	0	SUB_IEN^ENTRY^ENTRY (Gender Identity Code value)
C	P	ENTRY,ENTRY (Gender Identity Code value)
S	0	SUB_IEN^ENTRY^ENTRY (Gender Identity SNOMED value)
S	P	ENTRY,ENTRY (Gender Identity SNOMED value)
M	0	SUB_IEN^ENTRY^ENTRY (Gender Identity Gender Marker value)
M	P	ENTRY,ENTRY (Gender Identity Gender Marker value)

Table 2-45: $$GETGI example—gender identity not specified

VAL	FMT	EDT	Output
Gender Identity Date: \<blank\> **Gender Identity: \<blank\>** **Gender Identity Other: \<blank\>**			
E			""
E	P		""
I			""

VAL	FMT	EDT	Output
I	P		""
C			""
C	P		""
S			""
S	P		""
M			""
M	P		""
Gender Identity Date: 03/03/2020 **Gender Identity: \<blank\>** **Gender Identity Other: \<blank\>**			
E			3200303
E	P		""
I			3200303^
I	P		""
C			3200303
C	P		""
S			3200303
S	P		""
M			3200303
M	P		""

Table 2-46: $$GETGI example—gender identity specified

VAL	FMT	EDT	Output
Gender Identity Date: 03/03/2020 **Gender Identity: Transgender Male (IEN=3)** **Gender Identity Other: \<blank\>**			
E			3200303^TRANSGENDER MALE
E	P		TRANSGENDER MALE
I			3200303^3^
I	P		3,
C			3200303^FTM

VAL	FMT	EDT	Output
C	P		FTM
S			3200303^407377005
S	P		407377005
M			3200303^M
M	P		M
Gender Identity Date: 10/01/2019 **Gender Identity: Identifies as Male (IEN=1)** **Gender Identity Other: <blank>**			
E		3191001	3191001^IDENTIFIES AS MALE
E	P	3191001	IDENTIFIES AS MALE
I		3191001	3191001^1^
I	P	3191001	1,
C		3191001	3191001^M
C	P	3191001	M
S		3191001	3191001^446151000124109
S	P	3191001	446151000124109
M		3191001	3191001^M
M	P	3191001	M
Gender Identity Date: 03/03/2020 **Gender Identity: Nonconforming Gender (IEN=5), Other (IEN=6)** **Gender Identity Other: Two-Spirit**			
E			3200303^NONCONFORMING GENDER^TWO-SPIRIT (OTH)
E	P		NONCONFORMING GENDER,TWO-SPIRIT (OTH)
I			3200303^5^6^TWO-SPIRIT
I	P		5,6,TWO-SPIRIT
C			3200303^NCG^OTH
C	P		NCG,OTH
S			3200303^446131000124102^OTH
S	P		446131000124102,OTH
M			3200303^N^N
M	P		N,N

VAL	FMT	EDT	Output
Gender Identity Date: 03/03/2020 **Gender Identity: Unknown (IEN=8)** **Gender Identity Other: \<blank\>**			
E			3200303^DO NOT KNOW
E	P		DO NOT KNOW
I			3200303^8^
I	P		8,
C			3200303^UNK
C	P		UNK
S			3200303^UNK
S	P		UNK
M			3200303^
M	P		""
Gender Identity Date: 03/03/2020 **Gender Identity: Declined to Answer (IEN=7)** **Gender Identity Other: \<blank\>**			
E			3200303^DECLINED TO ANSWER
E	P		DECLINED TO ANSWER
I			3200303^7^
I	P		7,
C			3200303^ASKU
C	P		ASKU
S			3200303^ASKU
S	P		ASKU
M			3200303^
M	P		""

2.2.6 $$HISTLSEX: Retrieve Legal Sex History for a Patient

Type: Extrinsic Function

Format: **$$HISTLSEX^AUPNSOGI(PAT,VAL,FMT,.ARY)**

This retrieval API returns the historical Legal Sex records for a patient in a local array passed by reference.

> **Note:** This array is cleaned out (KILLed) before records are loaded.

If an array is not provided, this extrinsic function will provide the number of Legal Sex records, the date of the most recent effective Legal Sex record (FileMan internal date), and the date of the earliest effective Legal Sex record (FileMan internal date) separated by the caret (^) delimiter.

Each node in the array corresponds to a Legal Sex record using the internal record IEN:

- ARY(RECORD_IEN)

The value of each node in the array is formatted according to the VAL and FMT parameters using the $$GETLSEX^AUPNSOGI API:

- ARY(RECORD_IEN)=$$GETLSEX(PAT,VAL,FMT,RECORD_IEN)

Table 2-47: Input parameters of $$HISTLSEX

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	The value of each record in the local array is the result of a $$GETLSEX^AUPNSOGI call.
	This parameter is a pass-through to the VAL parameter of that call, which determines the type of values to be returned.
	Corresponds to a set of codes (see VAL parameter specifications of $$GETLSEX^AUPNSOGI):
FMT	The value of each record in the local array is the result of a $$GETLSEX^AUPNSOGI call.
	This parameter is a pass-through to the FMT parameter of that call, which determines the format of the values to be returned.
	Corresponds to a set of codes (see FMT parameter specifications of $$GETLSEX^AUPNSOGI):
.ARY	The name of the local array to receive the historical records. Must be passed by reference. This array is cleaned out (KILLed) before the records are loaded.

Table 2-48: Returned Values of $$HISTLSEX

Return Status	Returned Value Description
Successful	# of records^Most recent effective record date^Earliest effective record date (FileMan internal date format)
Unsuccessful	0

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Return Status	Returned Value Description
Return array on success	ARY=# of records^Most recent effective record date^Earliest effective record date
	ARY(RECORD_IEN)=Return value from $$GETLSEX^AUPNSOGI(PAT,VAL,FMT,RECORD_IEN) (Dependent upon VAL and FMT parameters)

Table 2-49: $$HISTLSEX example

VAL	FMT	ARY	Output
			Legal Sex: 10/01/2019, Male, State Birth Certificate (IEN=24), 10/01/2019 **Legal Sex: 11/01/2019, Female, State Motor Vehicle Driver's License (IEN=28), 11/01/2019** **Legal Sex: 12/01/2019, Unknown/Other, State ID (IEN=41), 12/01/2019** **Legal Sex: Unknown/Other, Physician State Specific Declaration (IEN=40), 03/03/2020**
I			4^3200303^3191001
		ARY(3191001)	3191001^M^24^3191001
		ARY(3191101)	3191101^F^28^3191101
		ARY(3191201)	3191201^U^41^3191201
		ARY(3200303)	3200303^U^40^3200303
I	P		4^3200303^3191001
		ARY(3191001)	M,24,3191001
		ARY(3191101)	F,28,3191101
		ARY(3191201)	U,41,3191201
		ARY(3200303)	U,40,3200303
E			4^3200303^3191001
		ARY(3191001)	3191001^MALE^STATE BIRTH CERTIFICATE^10/1/2019
		ARY(3191101)	3191101^FEMALE^STATE MOTOR VEHICLE DRIVER'S LICENSE^11/1/2019
		ARY(3191201)	3191201^UNKNOWN/OTHER^STATE ID^12/1/2019
		ARY(3200303)	3200303^UNKNOWN/OTHER^PHYSICIAN STATE SPECIFIC DECLARATION^3/3/2020
E	P		4^3200303^3191001
		ARY(3191001)	MALE,STATE BIRTH CERTIFICATE,10/1/2019

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VAL	FMT	ARY	Output
		ARY(3191101)	FEMALE,STATE MOTOR VEHICLE DRIVER'S LICENSE,11/1/2019
		ARY(3191201)	UNKNOWN/OTHER,STATE ID,12/1/2019
		ARY(3200303)	UNKNOWN/OTHER,PHYSICIAN STATE SPECIFIC DECLARATION,3/3/2020
C			4^3200303^3191001
		ARY(3191001)	3191001^M
		ARY(3191101)	3191101^F
		ARY(3191201)	3191201^U
		ARY(3200303)	3200303^U
C	P		4^3200303^3191001
		ARY(3191001)	M
		ARY(3191101)	F
		ARY(3191201)	U
		ARY(3200303)	U

2.2.7 $$HISTSO: Retrieve Sexual Orientation History for a Patient

Type: Extrinsic Function

Format: **$$HISTSO^AUPNSOGI(PAT,VAL,FMT,.ARY)**

This retrieval API returns the historical Sexual Orientation records for a patient in a local array passed by reference.

> **Note:** This array is cleaned out (KILLed) before records are loaded.

If an array is not provided, this extrinsic function will provide the number of Sexual Orientation records, the date of the most recent Sexual Orientation record (FileMan internal date), and the date of the earliest Sexual Orientation record (FileMan internal date) separated by the caret (^) delimiter.

Each node in the array corresponds to a Sexual Orientation record using the internal record IEN:

- ARY(RECORD_IEN)

The value of each node in the array is formatted according to the VAL and FMT parameters using the $$GETSO^AUPNSOGI API:

- ARY(RECORD_IEN)=$$GETSO(PAT,VAL,FMT,RECORD_IEN)

Table 2-50: Input parameters of $$HISTSO

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	The value of each record in the local array is the result of a $$GETSO^AUPNSOGI call. This parameter is a pass-through to the VAL parameter of that call, which determines the type of values to be returned. Corresponds to a set of codes (see VAL parameter specifications of $$GETSO^AUPNSOGI):
FMT	The value of each record in the local array is the result of a $$GETSO^AUPNSOGI call. This parameter is a pass-through to the FMT parameter of that call, which determines the format of the values to be returned. Corresponds to a set of codes (see FMT parameter specifications of $$GETSO^AUPNSOGI):
.ARY	The name of the local array to receive the historical records. Must be passed by reference. This array is cleaned out (KILLed) before the records are loaded.

Table 2-51: Returned Values of $$HISTSO

Return Status	Returned Value Description
Successful	# of records^Most recent record date^Earliest record date (FileMan internal date format)
Unsuccessful	0
Return array on success	ARY=# of records^Most recent record date^Earliest record date ARY(RECORD_IEN)=Return value from $$GETSO^AUPNSOGI(PAT,VAL,FMT,RECORD_IEN) (Dependent upon VAL and FMT parameters)

Table 2-52: $$HISTSO example

VAL	FMT	ARY	Output
Sexual Orientation: 10/01/2019, Straight / Heterosexual (IEN=1) **Sexual Orientation: 11/01/2019, Bisexual (IEN=3)** **Sexual Orientation: 12/01/2019, Bisexual (IEN=3), Other (IEN=4) (Two-Spirit)** **Sexual Orientation: Declined to Answer (IEN=6)**			
I			4^3200303^3191001

VAL	FMT	ARY	Output
		ARY(3191001)	3191001^1^
		ARY(3191101)	3191101^3^
		ARY(3191201)	3191201^3^4^TWO-SPIRIT
		ARY(3200303)	3200303^6^
I	P		4^3200303^3191001
		ARY(3191001)	1,
		ARY(3191101)	3,
		ARY(3191201)	3,4,TWO-SPIRIT
ARY(3200303)			6,
E			4^3200303^3191001
		ARY(3191001)	3191001^STRAIGHT / HETEROSEXUAL
		ARY(3191101)	3191101^BISEXUAL
		ARY(3191201)	3191201^BISEXUAL^TWO-SPIRIT (OTH)
		ARY(3200303)	3200303^DECLINED TO ANSWER
E	P		4^3200303^3191001
		ARY(3191001)	STRAIGHT / HETEROSEXUAL
		ARY(3191101)	BISEXUAL
		ARY(3191201)	BISEXUAL,TWO-SPIRIT (OTH)
		ARY(3200303)	DECLINED TO ANSWER
C			4^3200303^3191001
		ARY(3191001)	3191001^HET
		ARY(3191101)	3191101^BI
		ARY(3191201)	3191201^BI^OTH
		ARY(3200303)	3200303^ASKU
C	P		4^3200303^3191001
		ARY(3191001)	HET
		ARY(3191101)	BI
		ARY(3191201)	BI,OTH
		ARY(3200303)	ASKU

VAL	FMT	ARY	Output
S			4^3200303^3191001
		ARY(3191001)	3191001^20430005
		ARY(3191101)	3191101^42035005
		ARY(3191201)	3191201^42035005^OTH
		ARY(3200303)	3200303^ASKU
S	P		4^3200303^3191001
		ARY(3191001)	20430005
		ARY(3191101)	42035005
		ARY(3191201)	42035005,OTH
		ARY(3200303)	ASKU

2.2.8 $$HISTGI: Retrieve Gender Identity History for a Patient

Type: Extrinsic Function

Format: **$$HISTGI^AUPNSOGI(PAT,VAL,FMT,.ARY)**

This retrieval API returns the historical Gender Identity records for a patient in a local array passed by reference.

> **Note:** This array is cleaned out (KILLed) before records are loaded.

If an array is not provided, this extrinsic function will provide the number of Gender Identity records, the date of the most recent Gender Identity record (FileMan internal date), and the date of the earliest Gender Identity record (FileMan internal date) separated by the caret (^) delimiter.

Each node in the array corresponds to a Gender Identity record using the internal record IEN:

• ARY(RECORD_IEN)

The value of each node in the array is formatted according to the VAL and FMT parameters using the $$GETGI^AUPNSOGI API:

• ARY(RECORD_IEN)=$$GETGI(PAT,VAL,FMT,RECORD_IEN)

Table 2-53: Input parameters of $$HISTGI

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	The value of each record in the local array is the result of a $$GETGI^AUPNSOGI call. This parameter is a pass-through to the VAL parameter of that call, which determines the type of values to be returned. Corresponds to a set of codes (see VAL parameter specifications of $$GETGI^AUPNSOGI):
FMT	The value of each record in the local array is the result of a $$GETGI^AUPNSOGI call. This parameter is a pass-through to the FMT parameter of that call, which determines the format of the values to be returned. Corresponds to a set of codes (see FMT parameter specifications of $$GETGI^AUPNSOGI):
.ARY	The name of the local array to receive the historical records. Must be passed by reference. This array is cleaned out (KILLed) before the records are loaded.

Table 2-54: Returned values of $$HISTGI

Return Status	Returned Value Description
Successful	# of records^Most recent record date^Earliest record date (FileMan internal date format)
Unsuccessful	0
Return array on success	ARY=# of records^Most recent record date^Earliest record date ARY(RECORD_IEN)=Return value from $$GETGI^AUPNSOGI(PAT,VAL,FMT,RECORD_IEN) (Dependent upon VAL and FMT parameters)

Table 2-55: $$HISTGI example

VAL	FMT	ARY	Output
Gender Identity: 10/01/2019, Identifies as Male (IEN=1) **Gender Identity: 11/01/2019, Identifies as Female (IEN=2), Transgender Female (IEN=4)** **Gender Identity: 12/01/2019, Nonconforming Gender (IEN=5), Other (IEN=6) (Two-Spirit)** **Gender Identity: Declined to Answer (IEN=7)**			
I			4^3200303^3191001
		ARY(3191001)	3191001^1^

VAL	FMT	ARY	Output
		ARY(3191101)	3191101^2^4^
		ARY(3191201)	3191201^5^6^TWO-SPIRIT
		ARY(3200303)	3200303^7^
I	P		4^3200303^3191001
		ARY(3191001)	1,
		ARY(3191101)	2,4,
		ARY(3191201)	5,6,TWO-SPIRIT
		ARY(3200303)	7,
E			4^3200303^3191001
		ARY(3191001)	3191001^IDENTIFIES AS MALE
		ARY(3191101)	3191101^IDENTIFIES AS FEMALE^TRANSGENDER FEMALE
		ARY(3191201)	3191201^NONCONFORMING GENDER^TWO-SPIRIT (OTH)
		ARY(3200303)	3200303^DECLINED TO ANSWER
E	P		4^3200303^3191001
		ARY(3191001)	IDENTIFIES AS MALE
		ARY(3191101)	IDENTIFIES AS FEMALE,TRANSGENDER FEMALE
		ARY(3191201)	NONCONFORMING GENDER,TWO-SPIRIT (OTH)
		ARY(3200303)	DECLINED TO ANSWER
C			4^3200303^3191001
		ARY(3191001)	3191001^M
		ARY(3191101)	3191101^F^MTF
		ARY(3191201)	3191201^NCG^OTH
		ARY(3200303)	3200303^ASKU
C	P		4^3200303^3191001
		ARY(3191001)	M
		ARY(3191101)	F,MTF
		ARY(3191201)	NCG,OTH
		ARY(3200303)	ASKU

VAL	FMT	ARY	Output
S			4^3200303^3191001
		ARY(3191001)	3191001^446151000124109
		ARY(3191101)	3191101^446141000124107^407376001
		ARY(3191201)	3191201^446131000124102^OTH
		ARY(3200303)	3200303^ASKU
S	P		4^3200303^3191001
		ARY(3191001)	446151000124109
		ARY(3191101)	446141000124107,407376001
		ARY(3191201)	446131000124102,OTH
		ARY(3200303)	ASKU
M			4^3200303^3191001
		ARY(3191001)	3191001^M
		ARY(3191101)	3191101^F^F
		ARY(3191201)	3191201^N^N
		ARY(3200303)	3200303^
M	P		4^3200303^3191001
		ARY(3191001)	M
		ARY(3191101)	F,F
		ARY(3191201)	N,N
		ARY(3200303)	

2.2.9 $$CHKPRN: Check if a Specific Pronouns Exists for a Patient

Type: Extrinsic Function

Format: **$$CHKPRN^AUPNSOGI(PAT,VAL)**

This retrieval API checks if a patient has a specific Pronouns entry.

A return value of 1 means the patient has the specified entry.

A return value of 0 means the patient does not, or the patient has not specified their pronouns.

The value to check for must be an internal, external, or code value of an existing Pronouns entry.

Table 2-56: Input parameters of $$CHKPRN

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	Value from the **Pronouns** file (#9999999.105) to check for in the **Pronouns** field (#9002) of the **Patient** file (#9000001). Value can be in internal format (IEN), external format (#.01 field), or code format (#1) from the **Pronouns** file (#9999999.105).

Table 2-57: Returned values of $$CHKPRN

Return Status	Returned Value Description
Successful	1 (Patient has the specified PRONOUNS)
Unsuccessful	0

Table 2-58: $$CHKPRN example

VAL	Output
Pronouns: <blank>	
1	0
2	0
10	0
MASCULINE	0
FEMININE	0
OTHER	0
M	0
F	0
OTH	0
Pronouns: Masculine (IEN=1)	
1	1
2	0
10	0
MASCULINE	1

VAL	Output
FEMININE	0
OTHER	0
M	1
F	0
OTH	0
Pronouns: Other (IEN=10) (PEH,PEHM,PEHS,PEHS,PEHSELF)	
1	0
2	0
10	1
MASCULINE	0
FEMININE	0
OTHER	1
M	0
F	0
OTH	1

2.2.10 $$CHKSO: Check if a Specific Sexual Orientation Exists for a Patient

Type: Extrinsic Function

Format: **$$CHKSO^AUPNSOGI(PAT,VAL,EDT)**

This retrieval API checks if a patient has a specific Sexual Orientation entry.

A return value of 1 means the patient has the specified entry.

A return value of 0 means the patient does not, or the patient has not specified their sexual orientation.

The value to check for must be an internal, external, or code value of an existing Sexual Orientation entry.

The EDT parameter, if provided, is used to check the patient's sexual orientation for past dates.

Table 2-59: Input parameters of $$CHKSO

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	Value from the **Sexual Orientation** file (#9999999.103) to check for in the **Sexual Orientation** multiple (#9000001.93011) of the **Sexual Orientation** sub-file (#9000001.9301) of the **Patient** file (#9000001). Value can be in internal format (IEN), external format (#.01 field), or code format (#1) from the **Sexual Orientation** file (#9999999.103).
EDT	Effective date of the **Sexual Orientation** sub-file (#9000001.9301) entry to be used. This date is not specifying the record to use; rather it retrieves the record that was effective on the date specified. Date must be provided in FileMan internal format. (Default) = Retrieve the most recent record Date = Retrieve the record effective as of the FileMan internal date specified

Table 2-60: Returned values of $$CHKSO

Return Status	Returned Value Description
Successful	1 (Patient has the specified Sexual Orientation)
Unsuccessful	0

Table 2-61: $$CHKSO example

VAL	EDT	Output
Sexual Orientation: <blank>		
1		0
3		0
4		0
STRAIGHT / HETEROSEXUAL		0
BISEXUAL		0
SOMETHING ELSE		0
HET		0
BI		0
OTH		0

VAL	EDT	Output
Sexual Orientation: 10/01/2019, Straight / Heterosexual (IEN=1) **Sexual Orientation: Bisexual (IEN=3)**		
1		0
3		1
4		0
STRAIGHT / HETEROSEXUAL		0
BISEXUAL		1
SOMETHING ELSE		0
HET		0
BI		1
OTH		0
1	3191001	1
3	3191001	0
4	3191001	0
STRAIGHT / HETEROSEXUAL	3191001	1
BISEXUAL	3191001	0
SOMETHING ELSE	3191001	0
HET	3191001	1
BI	3191001	0
OTH	3191001	0
Sexual Orientation: Bisexual (IEN=3), Other (IEN=4) (Two-Spirit)		
1		0
3		1
4		1
STRAIGHT / HETEROSEXUAL		0
BISEXUAL		1
SOMETHING ELSE		1
HET		0
BI		1
OTH		1

2.2.11 $$CHKGI: Check if a Specific Gender Identity Exists for a Patient

Type: Extrinsic Function

Format: **$$CHKGI^AUPNSOGI(PAT,VAL,EDT)**

This retrieval API checks if a patient has a specific Gender Identity entry.

A return value of 1 means the patient has the specified entry.

A return value of 0 means the patient does not, or the patient has not specified their Gender Identity.

The value to check for must be an internal, external, or code value of an existing Gender Identity entry.

The EDT parameter, if provided, is used to check the patient's gender identity for past dates.

Table 2-62: Input parameters of $$CHKGI

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	Value from the **Gender Identity** file (#9999999.104) to check for in the **Gender Identity** multiple (#9000001.94011) of the **Gender Identity** sub-file (#9000001.9401) of the **Patient** file (#9000001). Value can be in internal format (IEN), external format (#.01 field), or code format (#1) from the **Gender Identity** (#9999999.104).
EDT	Effective date of the **Gender Identity** sub-file (#9000001.9401) entry to be used. This date is not specifying the record to use; rather it retrieves the record that was effective on the date specified. Date must be provided in FileMan internal format. (Default) = Retrieve the most recent record Date = Retrieve the record effective as of the FileMan internal date specified

Table 2-63: Returned values of $$CHKGI

Return Status	Returned Value Description
Successful	1 (Patient has the specified Gender Identity)
Unsuccessful	0

Table 2-64: $$CHKGI examples

VAL	EDT	Output
Gender Identity: <blank>		
1		0
4		0
6		0
IDENTIFIES AS MALE		0
TRANSGENDER FEMALE		0
OTHER		0
M		0
MTF		0
OTH		0
Gender Identity: 10/01/2019, Identifies as Male (IEN=1) **Gender Identity: Transgender Female (IEN=4)**		
1		0
4		1
6		0
IDENTIFIES AS MALE		0
TRANSGENDER FEMALE		1
OTHER		0
M		0
MTF		1
OTH		0
1	3191001	1
4	3191001	0
6	3191001	0
IDENTIFIES AS MALE	3191001	1
TRANSGENDER FEMALE	3191001	0
OTHER	3191001	0
M	3191001	1
MTF	3191001	0

VAL	EDT	Output
OTH	3191001	0
Gender Identity: Transgender Female (IEN=4), Other (IEN=6) (Two-Spirit)		
1		0
4		1
6		1
IDENTIFIES AS MALE		0
TRANSGENDER FEMALE		1
OTHER		1
M		0
MTF		1
OTH		1

2.3   Editing APIs

The editing APIs serve as a replacement to FileMan calls for setting a patient's SOGI data. Some of this data exists within a multiple, or a multiple within a multiple, resulting in complex FileMan calls. These APIs simplify that process; however, the calling application is responsible for ensuring valid data. Minimal error checking is performed, such as specifying a value for the **Other** field when the Other entry is not set. Application-specific requirements, such as not allowing Declined or Unknown responses to be paired with other entries, is not checked nor rejected by these APIs.

Table 2-65: Editing API Entry Points

Category: Editing APIs	
Entry Point	**Description**
$$SETPREF^AUPNSOGI	Set Preferred Name for a Patient
$$SETPRN^AUPNSOGI	Set Pronouns for a Patient
$$SETLSEX^AUPNSOGI	Set Legal Sex for a Patient
$$SETSO^AUPNSOGI	Set Sexual Orientation for a Patient
$$SETGI^AUPNSOGI	Set Gender Identity for a Patient

2.3.1 $$SETPREF: Set Preferred Name for a Patient

Type: Extrinsic Function

Format: **$$SETPREF^AUPNSOGI(PAT,VAL)**

Set the **Preferred Name** field (#9001) for a patient.

If the VAL parameter is blank or contains the at symbol (@), this will delete the value stored in the **Preferred Name** field.

The return value will be '0^ERROR MESSAGE' for errors, '@' for deletions, or the result of $$GETPREF^AUPNSOGI(PAT).

Table 2-66: Input parameters of $$SETPREF

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	Free text value to be stored in the **Preferred Name** field (#9001) of the **Patient** file (#9000001).

Table 2-67: Returned values of $$SETPREF

Return Status	Returned Value Description
Successful	PREFERRED_NAME (FileMan internal format)
	@ (for deletions)
Unsuccessful	0^ERROR MESSAGE

Table 2-68: $$SETPREF example—setting

VAL	Output
JOE	JOE
JOHN	JOHN
ROBERT	ROBERT

Table 2-69: $$SETPREF example—deleting

VAL	Output
""	@
@	@

2.3.2 $$SETPRN: Set Pronouns for a Patient

Type: Extrinsic Function

Format: **$$SETPRN^AUPNSOGI(PAT,VAL,OTH)**

Set the **Pronouns** field (#9002) and the **Pronouns Other** field (#9003) for a patient.

If the VAL parameter is blank or contains an at symbol (@), this will delete the value stored in the **Pronouns** field.

If the VAL parameter does not match the **OTHER** Pronouns entry, the value stored in the **Pronouns Other** field will automatically be deleted.

The return value will be '0^ERROR MESSAGE for errors, '@' for deletions, or the result of $$GETPRN^AUPNSOGI(PAT,"I").

Table 2-70: Input parameters of $$SETPRN

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	Internal, External, or Code value of the **Pronouns** file (#9999999.105) entry to be stored in the **Pronouns** field (#9002) of the **Patient** file (#9000001).
OTH	Free text value to be stored in the **Pronouns Other** field (#9003) of the **Patient** file (#9000001).

Table 2-71: Returned values of $$SETPRN

Return Status	Returned Value Description
Successful	PRONOUNS^PRONOUNS_OTHER (FileMan internal format)
	@ (for deletions)
Unsuccessful	0^ERROR MESSAGE

Table 2-72: $$SETPRN example—setting internal/external/code

VAL	OTHER	Output
1		1^
4		4^
NEUTRAL		3^
SPIVAK		6^

VAL	OTHER	Output
F		2^
UNK		11^

Table 2-73: $$SETPRN example—setting Other

VAL	OTHER	Output
10	PEH,PEHM,PEHS,PEHS,PEHSELF	10^PEH,PEHM,PEHS,PEHS,PEHSELF
OTH	PEH,PEHM,PEHS,PEHS,PEHSELF	10^PEH,PEHM,PEHS,PEHS,PEHSELF
Other Pronouns are ignored if the Pronouns entry is not Other		
1	PEH,PEHM,PEHS,PEHS,PEHSELF	1^

Table 2-74: $$SETPRN example—deleting

VAL	OTHER	Output
""		@
@		@

2.3.3 $$SETLSEX: Set Legal Sex for a Patient

Type: Extrinsic Function

Format: **$$SETLSEX^AUPNSOGI(PAT,VAL,SRC,EDT,DEDT)**

Set the **Effective Date** (#.01), **Legal Sex** (#1), **Source** (#2), and **Date Entered** (#3) fields of **Legal Sex** sub-file (#9000001.9201) for a patient.

If the VAL parameter is '@', this will delete the entry stored on the EDT parameter date in the **Legal Sex** sub-file.

The return value will be '0^ERROR MESSAGE' for errors, '@^IEN' for deletions, or the result of $$GETLSEX^AUPNSOGI(PAT,"I").

Table 2-75: Input parameters of $$SETLSEX

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	Internal code from the **Legal Sex** field (#1) set of codes to be stored in the **Legal Sex** field (#1) in the **Legal Sex** sub-file (#9000001.9201) of the **Patient** file (#9000001).

Parameter	Description
SRC	IEN of the **Eligibility Modifiers** file (#9000030) entry to be stored in the **Source** field (#2) in the **Legal Sex** sub-file (#9000001.9201) of the **Patient** file (#9000001).
EDT	Effective date of this **LEGAL SEX** entry to be stored in the **Effective Date** field (#.01) in the **Legal Sex** sub-file (#9000001.9201) of the **Patient** file (#9000001). Date must be provided in FileMan internal format. (Default) = TODAY Date = Stores the entry on the FileMan internal date specified
DEDT	Entered date of this **LEGAL SEX** entry to be stored in the **Date Entered** field (#3) in the **Legal Sex** sub-file (#9000001.9201) of the **Patient** file (#9000001). Date must be provided in FileMan internal format. (Default) = TODAY Date = Stores the entry on the FileMan internal date specified

Table 2-76: Returned values of $$SETLSEX

Return Status	Returned Value Description
Successful	IEN^LEGAL_SEX^SOURCE^DATE_ENTERED (FileMan internal format)
	@^IEN (for deletions, IEN is the record in the Legal Sex sub-file #9000001.9201 that was deleted)
Unsuccessful	0^ERROR MESSAGE

Table 2-77: $$SETLSEX example—setting

VAL	SRC	EDT	DEDT	Output
M	1008	3191001	3191001	3191001^M^1008^3191001
F	1009	3191201	3200101	3191201^F^1009^3200101
U	1010			3200303^U^1010^3200303
""	""			0^The new record '+1,25,' lacks some required identifiers.

Table 2-78: $$SETLSEX example—deleting

VAL	SRC	EDT	Output
@			@^3200303
@		3191001	@^3191001
@			0^Entry 3200303 not found to delete.

2.3.4 $$SETSO: Set Sexual Orientation for a Patient

Type: Extrinsic Function

Format: **$$SETSO^AUPNSOGI(PAT,VAL,OTH,EDT)**

Set the **Date** (#.01), **Sexual Orientation** (#1), and **Other** (#2) fields of **Sexual Orientation** sub-file (#9000001.9301) for a patient.

If the VAL parameter is '@', this will delete the entry stored on the EDT parameter date in the **Sexual Orientation** sub-file.

If the VAL parameter does not include the 'OTHER' Sexual Orientation entry, the value stored in the **Other** field will automatically be deleted.

Return value will be '0^ERROR MESSAGE' for errors, '@^IEN' for deletions, or the result of $$GETSO^AUPNSOGI(PAT,"I").

Table 2-79: Input parameters of $$SETSO

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	Internal, External, or Code values of the **Sexual Orientation** file (#9999999.103) entries, separated by the "^" delimiter, to be stored in the **Sexual Orientation** field (#.01) of the **Sexual Orientation** multiple (#9000001.93011) of the **Sexual Orientation** sub-file (#9000001.9301) of the **Patient** file (#9000001). @ value to delete an entry in the **Sexual Orientation** sub-file (#9000001.9301) of the **Patient** file (#9000001).
OTH	Free text value to be stored in the **Other** field (#2) in the **Sexual Orientation** sub-file (#9000001.9301) of the **Patient** file (#9000001).
EDT	Effective date of this Sexual Orientation entry to be stored in the **DATE** field (#.01) in the **Sexual Orientation** sub-file (#9000001.9301) of the **Patient** file (#9000001). Date must be provided in FileMan internal format. (Default) = TODAY Date = Stores the entry on the FileMan internal date specified

Table 2-80: Returned values of $$SETSO

Return Status	Returned Value Description
Successful	IEN^ENTRY^ENTRY^OTHER (FileMan internal format)
	@^IEN (for deletions, IEN is the record in the Sexual Orientation sub-file #9000001.9301 that was deleted)
Unsuccessful	0^ERROR MESSAGE

Table 2-81: $$SETSO example—setting internal/external/code/other

VAL	OTHER	EDT	Output
1		3191001	3191001^1^
2^3			3200303^2^3^
BISEXUAL			3200303^3^
SOMETHING ELSE^HET	TWO-SPIRIT		3200303^1^4^TWO-SPIRIT
ASKU			3200303^6^
OTH^LGH	TWO-SPIRIT		3200303^2^4^TWO-SPIRIT
""	""		3200303^

Table 2-82: $$SETSO example—deleting

VAL	OTHER	EDT	Output
@			@^3200303
@		3191001	@^3191001
@			0^Entry 3200303 not found to delete.

2.3.5 $$SETGI: Set Gender Identity for a Patient

Type: Extrinsic Function

Format: **$$SETGI^AUPNSOGI(PAT,VAL,OTH,EDT)**

Set the **Date** (#.01), **Gender Identity** (#1), and **Other** (#2) fields of **Gender Identity** sub-file (#9000001.9401) for a patient.

If the VAL parameter is '@', this will delete the entry stored on the EDT parameter date in the **Gender Identity** sub-file.

If the VAL parameter doesn't include the 'OTHER' Gender Identity entry, the value stored in the **Other** field will automatically be deleted.

The return value will be '0^ERROR MESSAGE' for errors, '@^IEN' for deletions, or the result of $$GETGI^AUPNSOGI(PAT,"I").

Table 2-83: Input parameters of $$SETGI

Parameter	Description
PAT	IEN of patient's record in the **Patient** file (#9000001).
VAL	Internal, External, or Code values of the **Gender Identity** file (#9999999.104) entries, separated by the caret (^) delimiter, to be stored in the Gender Identity field (#.01) of the **Gender Identity** multiple (#9000001.94011) of the **Gender Identity** sub-file (#9000001.9401) of the **Patient** file (#9000001). @ value to delete an entry in the **Gender Identity** sub-file (#9000001.9401) of the **Patient** file (#9000001).
OTH	Free text value to be stored in the **Other** field (#2) in the **Gender Identity** sub-file (#9000001.9401) of the **Patient** file (#9000001).
EDT	Effective date of this **Gender Identity** entry to be stored in the **DATE** field (#.01) in the **Gender Identity** sub-file (#9000001.9401) of the **Patient** file (#9000001). Date must be provided in FileMan internal format. (Default) = TODAY Date = Stores the entry on the FileMan internal date specified

Table 2-84: Returned values of $$SETGI

Return Status	Returned Value Description
Successful	IEN^ENTRY^ENTRY^OTHER (FileMan internal format)
	@^IEN (for deletions, IEN is the record in the **Gender Identity** sub-file #9000001.9401 that was deleted)
Unsuccessful	0^ERROR MESSAGE

Table 2-85: $$SETGI example—setting internal/external/code/other

VAL	OTHER	EDT	Output
1		3191001	3191001^1^
2^3			3200303^2^3^
TRANSGENDER MALE			3200303^3^
OTHER^F	TWO-SPIRIT		3200303^2^6^TWO-SPIRIT
ASKU			3200303^7^
OTH^NCG	TWO-SPIRIT		3200303^5^6^TWO-SPIRIT
""	""		3200303^

Table 2-86: $$SETGI example—deleting

VAL	OTHER	EDT	Output
@			@^3200303
@		3191001	@^3191001
@			0^Entry 3200303 not found to delete.

Appendix A: API Quick Reference Guide

Table A-1: API quick reference

Parameter	Value	Description
$$GET^AUPNSOGI(PAT,VAL,FMT,EDT,.ARY,PAR)		
VAL	E	12 piece string delimited by "^" returned in ARY("E") containing external values
	I	12 piece string delimited by ";" returned in ARY("I") containing internal values
FMT	P	No "*" indicator is appended to the return array values for Gender or Pronouns
PAR	**0**	Disable AUPN DISPLAY PPN parameter functionality, allowed for infrastructure applications
	1	Enable AUPN DISPLAY PPN parameter functionality, required for non-infrastructure applications
$$GENDER^AUPNSOGI(PAT,VAL,FMT,EDT)		
VAL	0	Patient Sex Only, no Gender Identity
	1	Gender Identity, sex-based Gender Identity matching
	2	Gender Identity, all Gender Identity matching
FMT	**0**	"*" indicator is appended to the return value to indicate the Gender does not match the Patient Sex
	P	No "*" indicator is appended to the return value
$$PRONOUN^AUPNSOGI(PAT,VAL,FMT,EDT)		
VAL	0	Patient Pronouns Only
	1	Patient Pronouns, if none specified Pronouns based on Gender
FMT	**0**	Brief Display (3 pieces if OTHER), "*" indicator
	1	Expanded Display (5 pieces if OTHER), "*" indicator
	0P	Brief Display (3 pieces if OTHER), no "*" indicator
	1P	Expanded Display (5 pieces if OTHER), no "*" indicator
$$GETPREF^AUPNSOGI(PAT,VAL,PAR)		
VAL	**I**	Internal value(s)
	E	External value(s)
	C	Component value(s)
PAR	**0**	Disable AUPN DISPLAY PPN parameter functionality, allowed for infrastructure applications

Parameter	Value	Description
	1	Enable AUPN DISPLAY PPN parameter functionality, required for non-infrastructure applications
$$GETPRN^AUPNSOGI(PAT,VAL)		
VAL	**B**	Brief Display (3 pieces if OTHER)
	D	Expanded Display value (5 pieces if OTHER)
	E	External value
	I	Internal value
	C	Code value
$$GETLSEX^AUPNSOGI(PAT,VAL,FMT,EDT)		
VAL	**E**	External value
	I	Internal value
	C	Code value
FMT	**0**	Record IEN followed by values, separated by the "^" delimiter
	P	Values, separated by the "," delimiter
$$GETSO^AUPNSOGI(PAT,VAL,FMT,EDT)		
VAL	**E**	External value, Other Sexual Orientation entry is replaced with value from Other field (#2) followed by the string "(OTH)"
	I	Internal value, followed by value from Other field (#2)
	C	Code value
	S	SNOMED code value
FMT	**0**	Record IEN followed by values, separated by the "^" delimiter
	P	Values, separated by the "," delimiter
$$GETGI^AUPNSOGI(PAT,VAL,FMT,EDT)		
VAL	**E**	External value, Other Gender Identity entry is replaced with value from Other field (#2) followed by the string "(OTH)"
	I	Internal value, followed by value from Other field (#2)
	C	Code value
	S	SNOMED code value
	M	Gender marker value
FMT	**0**	Record IEN followed by values, separated by the "^" delimiter
	P	Values, separated by the "," delimiter

Parameter	Value	Description
$$HISTLSEX^AUPNSOGI(PAT,VAL,FMT,.ARY)		
VAL	**E**	Array nodes populated with External values
	I	Array nodes populated with Internal values
	C	Array nodes populated with Code values
FMT	**0**	Array nodes formatted with Record IEN followed by values, separated by the "^" delimiter
	P	Array nodes formatted with Values, separated by the "," delimiter
$$HISTSO^AUPNSOGI(PAT,VAL,FMT,.ARY)		
VAL	**E**	Array nodes populated with External values, Other Sexual Orientation entry is replaced with value from Other field (#2) followed by the string "(OTH)"
	I	Array nodes populated with Internal values, followed by value from Other field (#2)
	C	Array nodes populated with Code values
	S	Array nodes populated with SNOMED code values
FMT	**0**	Array nodes formatted with Record IEN followed by values, separated by the "^" delimiter
	P	Array nodes formatted with Values, separated by the "," delimiter
$$HISTGI^AUPNSOGI(PAT,VAL,FMT,.ARY)		
VAL	**E**	Array nodes populated with External values, Other Gender Identity entry is replaced with value from Other field (#2) followed by the string "(OTH)"
	I	Array nodes populated with Internal values, followed by value from Other field (#2)
	C	Array nodes populated with Code values
	S	Array nodes populated with SNOMED code values
	M	Array nodes populated with Gender marker values
FMT	**0**	Array nodes formatted with Record IEN followed by values, separated by the "^" delimiter
	P	Array nodes formatted with Values, separated by the "," delimiter

Glossary

API

Application Programming Interface; a set of software tools designed to support interaction with the host application/environment, which are externally published and presented for use by other software applications.

ARY

Array: Used as a parameter name typically passed by reference to specify a local array to hold additional return values by an API.

EDT

Effective Date: Used as a parameter name to specify past record retrievals returned by an API.

FMT

Format: Used as a parameter name that determines the format of the values returned by an API.

IEN

Internal Entry Number; corresponds to the record number which uniquely identifies an entry in a FileMan database.

OTH

Other: Used as a parameter name representing a value to be stored in a free-text Other field for Sexual Orientation, Gender Identity, and Pronouns.

PAT

Patient: Used as a parameter name representing the IEN of the patient's record in the Patient file (#9000001).

SOGI

Used as an umbrella term covering multiple concepts related to this implementation. This includes but is not limited to: Sexual Orientation, Gender Identity, Patient Sex, Legal Sex, Preferred Name, and Pronouns.

SRC

Source: Used as a parameter name representing the IEN of the Eligibility Modifiers file associated with a Legal Sex record.

VAL

Value: Used as a parameter name that determines the type of value to be returned by an API.

Acronym List

Acronym	Meaning
API	Application Programming Interfaces
EDT	Effective Date
GI	Gender Identity
IEN	Internal Entry Number
IHS	Indian Health Service
LSEX	Legal Sex
PCC	Patient Care Component
PPN/PREF	Patient Preferred Name
PRN	Pronouns
RPMS	Resource and Patient Management System
SO	Sexual Orientation

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

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