

## Appendix A

### Patient Identification Data Integrity Glossary

Data Attribute	Requirement Level	Recommendation	HL7 Message	References/Comments
<b>Name</b>		<p>Separate data entry field for all components of the name</p> <p>Legal name as documented on the birth certificate, passport or equivalent documents from another nation</p>	<p>HL7 version 2.6 PID-5, length 48, Date Type: XPN (Extended person name)</p> <p>HL7 Format: Family Name^Given Name^Middle Initial or Name^Suffix^Prefix ^Degree^NameType Code^NameRepresentationCode</p> <p>Example: Doe^John^T^II^Mr ^^</p>	<p>NCVHS, “Core Health Data Elements”</p> <p>NCVHS: Name = Last name, first name, middle initial, suffix (e.g., Jr., III, etc.)</p> <p>HIMSS, <i>Patient Identity Integrity</i></p>
<b>First Name</b>	Primary	<p>Legal first name</p> <ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> <li>• Special characters: hyphen (-) and space character</li> </ul>		<p>CAQH, <i>Core 258: Eligibility and Benefits 270/271 Normalizing Patient Last Name Rule Version 2.1.0</i></p> <p>ASC X12 Basic Character Set</p>

<b>Middle Name</b>	Primary	<p>Full legal middle name</p> <ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> <li>• Special characters: hyphen (-) and space character</li> </ul>	<p>CAQH, <i>Core 258: Eligibility and Benefits 270/271 Normalizing Patient Last Name Rule Version 2.1.0</i></p> <p>ASC X12 Basic Character Set</p> <p>NCVHS, “Core Health Data Elements”</p>
<b>Last Name</b>	Primary	<p>Legal last name</p> <ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> <li>• Special characters: hyphen (-) and space character</li> </ul>	<p>CAQH, <i>Core 258: Eligibility and Benefits 270/271 Normalizing Patient Last Name Rule Version 2.1.0</i></p> <p>ASC X12 Basic Character Set</p>
<b>Prefix</b>	Secondary	<p>Separate data entry field, all uppercase letters; do not include as a portion of last name.</p> <ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> <li>• Special characters: hyphen (-) and space character</li> </ul> <p>Use lookup entries, no free text.</p>	<p>CAQH, <i>Core 258: Eligibility and Benefits 270/271 Normalizing Patient Last Name Rule Version 2.1.0</i></p> <p>ASC X12 Basic Character Set</p> <p>HIMSS, <i>Patient Identity Integrity</i></p>
<b>Suffix</b>	Primary	<p>Separate data entry field, all uppercase letters; do not include as a portion of last name.</p> <ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> <li>• Special characters: comma (,), hyphen (-), period (.), and space</li> </ul>	<p>CAQH, <i>Core 258: Eligibility and Benefits 270/271 Normalizing Patient Last Name Rule Version 2.1.0</i></p> <p>ASC X12 Basic Character Set</p> <p>HIMSS, <i>Patient Identity Integrity</i></p> <p>ONC, <i>Patient Identification and Matching Final Report</i></p>

		character Use lookup entries, no free text.		
<b>Date of Birth</b>	Primary	Capture month by selection, displaying the complete name of month as best practice. best practice.  Use lookup selection entries, no free text.	HL7, version 2.6 PID-7, Length 26, Data type: Time Stamp  YYYYMMDD (hhmmss)(	ONC, <i>Patient Identification and Matching Final Report</i>  NCVHS, Core Health Data Set, Uniform Hospital Discharge Data Set  NCVHS, Core Health Data Set, Uniform Ambulatory Care Data Set  HIMSS, <i>Patient Identity Integrity</i>
<b>Date and Time of Death</b>	Secondary	Capture month by selection, displaying the complete name of month as best practice.  Use lookup selection entries, no free text.	HL7, version 2.6 PID-29, Length 26, Data type: Time Stamp  UHDDS: YYYYMMDD	Department of Veterans Affairs, <i>Master Patient Index Patient Demographics (MPI/PD) User Manual</i>
<b>Birth Place</b>	Secondary	<b>City</b> <b>State</b> (2-letter authorized state abbreviation)  Or  <b>Country of birth</b>  Use lookup selection entries, no free text.	HL7, version 2.6 PID-23, Length 60, Data type: String  Maximum length of 250 characters	USPS, "Complete Address Definition"  HIMSS, <i>Patient Identity Integrity</i>  ONC, <i>Patient Identification and Matching Final Report</i>
<b>Multiple Birth</b>	Secondary	Y = Yes N = No U = Unknown	HL7, version 2.6 PID-24, Length 2, Data type: coded values	Identification of multiple-birth persons
<b>Birth Order</b>	Secondary	Digits from 0 to 9	HL7, version 2.6 PID-25, Length 2, Data type: Numeric	ASC X12 Basic Character Set  Allows identification of multiple birth persons
<b>Sex/Gender</b>	Primary	M = Male F = Female U = Unknown	HL7, version 2.6 PID-8, Length 1, Data type: coded	Uniform Hospital Discharge Data Set

			<p>value</p> <p>Format: Identifier^Text^CodingSystem^AlternateIdentifier^AlternateText^NameOfAlternateCodingSystem</p> <p>Example: M^Male^0001</p>	<p>Uniform Ambulatory Care Data Set</p> <p>Stage 1 Meaningful Use demographics “gender”; Stage 2 Meaningful Use demographics “sex”</p>
<b>Race</b>	Primary	<ul style="list-style-type: none"> <li>• American Indian or Alaskan Native</li> <li>• Asian</li> <li>• Black or African American</li> <li>• Native Hawaiian or Other Pacific Islander</li> <li>• White</li> <li>• Declined</li> <li>• Unknown</li> </ul>	<p>HL7, version 2.6 PID-10, Length 1, Data type: coded element</p> <p>Format: Identifier^Text^CodingSystem^AlternateIdentifier^AlternateText^NameOfAlternateCodingSystem</p> <p>Example: 2131-1^Other Race^HL70005</p>	<p>NCVHS, Core Health Data Set, Uniform Hospital Discharge Data Set</p> <p>NCVHS, Core Health Data Set, Uniform Ambulatory Care Data Set</p> <p>OMB, “Revisions to the Standards for Classification of Federal Data on Race and Ethnicity”</p> <p>American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America) who maintains that tribal affiliation or community attachment</p> <p>Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent; examples include Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam</p> <p>Black or African American: A person having origins in any of</p>

				<p>the black racial groups of Africa</p> <p>Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands</p> <p>White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa</p>
<b>Ethnicity</b>	Primary	<p>H= Hispanic origin  N = Not of Hispanic origin  U = Unknown</p>	<p>HL7, version 2.6  PID- 22, Length 3,  Data type: coded element</p> <p>Format:  Identifier^Text^CodingSystem^AlternateIdentifier^AlternateText^NameOfAlternateCodingSystem</p> <p>Example:  U^Unknown^0189</p>	<p>Uniform Hospital Discharge Data Set</p> <p>OMB, “Revisions to the Standards for Classification of Federal Data on Race and Ethnicity”</p> <p>Hispanic or Latino: A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture origin, regardless of race</p>
<b>Marital Status</b>	Secondary	<p>A = Separated  D = Divorced  M = Married  S = Single  W = Widowed  D = Divorced  U = Unknown</p>	<p>HL7, version 2.6  PID-16, Length 1,  Data type: coded element</p> <p>Format:  Identifier^Text^CodingSystem^AlternateIdentifier^AlternateText^NameOfAlternateCodingSystem</p> <p>Example:  M^Married^0002</p>	<p>NCVHS, “Core Health Data Elements”</p> <p>NCVHS:  1. Married  A person currently married. Classify common law marriage as married. <ul style="list-style-type: none"> <li>• A) living together</li> <li>• B) not living together</li> </ul> 2. Never married  A person who has never been married or whose only marriages</p>

				<p>have been annulled.</p> <p>3. Widowed A person widowed and not remarried.</p> <p>4. Divorced A person divorced and not remarried.</p> <p>5. Separated A person legally separated.</p> <p>6. Unknown/not stated</p>
<b>Phone Numbers</b>		<ul style="list-style-type: none"> <li>• Digits from 0 to 9</li> <li>• Special characters: parentheses and space character</li> </ul>	<p>HL7, version 2.6 PID-13, Length 40, Data type: Extended telecom number</p> <p>Format: [(999)] 999-9999 [x99999] [c Any Text]^TelecomUse Code^TelecomEquipType(ID)^EmailAddress^CountryCode^Area/CityCode^PhoneNumber^Extension^AnyText</p> <p>Example: (214)111-1234^CP^^^214^1111234</p>	ASC X12 Basic Character Set
<b>Primary phone number</b>	Primary	<p>Category list for type of phone:</p> <ul style="list-style-type: none"> <li>• Nonmobile</li> <li>• Mobile</li> <li>• No phone</li> </ul>		ONC, <i>Patient Identification and Matching Final Report</i>
<b>Secondary phone number</b>	Secondary	<p>Category list for type of phone:</p> <ul style="list-style-type: none"> <li>• Nonmobile</li> <li>• Mobile</li> <li>• No phone</li> </ul>		ONC, <i>Patient Identification and Matching Final Report</i>
<b>Tertiary phone number</b>	Secondary	<p>Category list for type of phone:</p> <ul style="list-style-type: none"> <li>• Nonmobile</li> <li>• Mobile</li> <li>• No phone</li> </ul>		ONC, <i>Patient Identification and Matching Final Report</i>

<b>Historical phone numbers</b>	Secondary	<p>May enter up to five numbers</p> <ul style="list-style-type: none"> <li>• Digits from 0 to 9</li> </ul> <p>Special characters: parentheses and space character</p>	<p>HL7, version 2.6 PID-13, Length 40, Data type: Extended telecom number</p> <p>Format: [(999)] 999-9999 [x99999] [c Any Text]^TelecomUse Code^TelecomEquipType(ID)^EmailAddress^CountryCode^Area/CityCode^PhoneNumber^Extension^AnyText</p> <p>Example: (214)111-1234^CP^^^214^111234</p>	<p>ONC, <i>Patient Identification and Matching Final Report</i></p>
<b>All Previous Last Names</b>	Primary	<p>Separate data entry field that allows multiple entries up to five.</p> <p>Ability to enter “No previous last names”</p> <ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> <li>• Special characters: hyphen (-) and space character</li> </ul>	<p>HL7, version 2.6 PID Sequence 9, Length 48, Data type: XPN</p>	<p>CAQH, <i>Core 258: Eligibility and Benefits 270/271 Normalizing Patient Last Name Rule Version 2.1.0</i></p> <p>ONC, <i>Patient Identification and Matching Final Report</i></p>
<b>All Previous First Names</b>	Primary	<p>Separate data entry field that allows multiple entries up to five.</p> <p>Ability to enter “No previous first names”</p>	<p>HL7, version 2.6 PID-9, Length 48, Data type: XPN</p> <p>Format: Family Name^Given Name^Middle Initial or Name^Suffix^Prefix^Degree^NameType Code^NameRepresentationCode</p>	<p>ONC, <i>Patient Identification and Matching Final Report</i></p>

			Example: Doe^Johnny^T^II^ Mr^^	
<b>All Previous Nicknames</b>	Secondary	Separate data entry field that allows multiple entries up to five.  Ability to enter “No previous first names”	HL7, version 2.6 PID-9, Length 48, Data type: XPN  Format: Family Name^Given Name^Middle Initial or Name^Suffix^Prefix ^Degree^NameType Code^NameRepresentationCode  Example: Doe^Johnny^T^II^ Mr^^	ONC, <i>Patient Identification and Matching Final Report</i>
<b>Mother’s Maiden Name</b>	Primary	Legal name <ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> <li>• Special characters: hyphen (-) and space character</li> </ul>	HL7, version 2.6 PID-6 Sequence 19, Length 16, Data type: String	ONC, <i>Patient Identification and Matching Final Report</i>  Family name under which the mother was born.
<b>Social Security Number</b>	Secondary	<ul style="list-style-type: none"> <li>• Digits from 0 to 9</li> </ul>	HL7, version 2.6 PID-6, Length 48, Data type: String  Format: Maximum string of 16 characters	ASC X12 Basic Character Set  ONC, <i>Patient Identification and Matching Final Report</i>  Tricare Provider Handbook: requirement to determine if patient is eligible for benefits.  Pseudo–Social Security numbers may be utilized at times when Social Security number is unknown or is not yet available.
<b>Driver’s License Number</b>	Secondary	<ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> </ul>	HL7, version 2.6 PID-20, Length 25, Data type: Driver’s License Number	ASC X12 Basic Character Set  ONC, <i>Patient Identification and Matching Final Report</i>

			Format: DriversLicenseNumber^IssuingStateProvinceOrCountry^ExpirationDate Example: 12345678^TX^20160101	
<b>Passport Number</b>	Secondary	<ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> </ul>		ASC X12 Basic Character Set  <i>ONC, Patient Identification and Matching Final Report</i>
<b>Current Address</b>		<ul style="list-style-type: none"> <li>• Uppercase letters from A to Z</li> <li>• Digits from 0 to 9</li> </ul> <p>Separate data entry fields:</p> <p><b>City</b>  <b>State</b> (2-letter authorized abbreviation)  <b>Zip code</b> (5-digit or Zip+4)</p> <p>Approved abbreviations:          BLVD = Boulevard          CTR = Center          CIR = Circle          CT = Court          DR = Drive          LN = Lane          PL = Place          RD = Road          SQ = Square          ST = Street          TER = Terrace          TRL = Trail          APT = Apartment          FL = Floor          RM = Room          STE = Suite</p>	HL7, version 2.6 PID Sequence 11, Length 106, Data type: Extended Address	ASC X12 Basic Character Set  NCVHS, “Core Health Data Elements”  USPS, “Complete Address Definition”  USPS, “Abbreviations & Standards”  <i>ONC, Patient Identification and Matching Final Report</i>  Library of Congress, ISO 3166-1 alpha-2 for country abbreviations is a Meaningful Use requirement. Examples: Brazil – BR, New Zealand – NZ, and Switzerland – CH.
<b>Current Street Address</b>	Primary	<b>Street number and name of street =</b> Street number and		NCVHS, “Core Health Data Elements”

		name (including predirectional, suffix, and postdirectional as shown in USPS ZIP+4 Product for the delivery address or rural route and box number (RR 5 BOX 10), highway contract route and box number (HC 4 BOX 45), or post office box number (PO BOX 458), as shown in USPS ZIP+4 Product for the delivery address). (“PO Box” is used incorrectly if preceding a private box number, e.g., a college mailroom.)		USPS, “Complete Address Definition”  USPS, “Abbreviations & Standards”  <i>ONC, Patient Identification and Matching Final Report</i>
<b>Current</b>	Primary	<b>Secondary address</b> = Secondary address unit designator and number (such as an apartment or suite number, e.g., APT 202, STE 100).		NCVHS, “Core Health Data Elements”  USPS, “Complete Address Definition”  USPS, “Abbreviations & Standards”  <i>ONC, Patient Identification and Matching Final Report</i>
<b>Current City</b>	Primary	Use of lookup selection entries, no free text.		<i>HIMSS, Patient Identity Integrity</i>  NCVHS, “Core Health Data Elements”  USPS, “Complete Address Definition”  USPS, “Abbreviations & Standards”  <i>ONC, Patient Identification and Matching Final Report</i>

<b>Current State</b>	Primary	Use of lookup selection entries, no free text.		<p>HIMSS, <i>Patient Identity Integrity</i></p> <p>NCVHS, “Core Health Data Elements”</p> <p>USPS, “Complete Address Definition”</p> <p>USPS, “Abbreviations &amp; Standards”</p> <p>ONC, <i>Patient Identification and Matching Final Report</i></p>
<b>Current Country</b>	Primary	Use of lookup selection entries, no free text.	<p>HL7, version 2.6 PID Sequence 12, Length 4, Data type: Coded value for user defined table</p>	<p>ISO 3166-1 alpha-2 codes</p> <p>HIMSS, <i>Patient Identity Integrity</i></p> <p>NCVHS, “Core Health Data Elements”</p> <p>USPS, “Complete Address Definition”</p> <p>USPS, “Abbreviations &amp; Standards”</p> <p>ONC, <i>Patient Identification and Matching Final Report</i></p>
<b>Historical Addresses</b>	Secondary	<p><b>Street number and name of street</b> = Street number and name (including predirectional, suffix, and postdirectional as shown in USPS ZIP+4 Product for the delivery address or rural route and box number (RR 5 BOX 10), highway contract route and box number (HC 4 BOX 45), or post office box number (PO BOX</p>		<p>ONC, <i>Patient Identification and Matching Final Report</i></p>

		458), as shown in USPS ZIP+4 Product for the delivery address). (“PO Box” is used incorrectly if preceding a private box number, e.g., a college mailroom.)		
<b>E-mail Address</b>	Secondary	<ul style="list-style-type: none"> <li>• Primary</li> <li>• Secondary</li> <li>• Tertiary</li> </ul>		ONC, <i>Patient Identification and Matching Final Report</i>
<b>Biometrics</b>	Secondary	<ul style="list-style-type: none"> <li>• Eye color</li> <li>• Handprint</li> <li>• Fingerprint</li> <li>• Cornea scan</li> <li>• Footprint</li> </ul>		ONC, <i>Patient Identification and Matching Final Report</i>  Data gathered from driver’s license and passport—government-issued documents.  This area is growing and changing as technology evolves.

*Sources:*

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