

Free!
Easy-access tool to test for
HL7 v2 conformance

- ✓ EHR vendor self-testing
- ✓ ONC HIT Certification Testing
- ✓ On-boarding

**Better data quality, faster interface development,
and reduced costs**

Issues and Need

- The Centers for Disease Control and Prevention (CDC) and the Public Health Information Network (PHIN) developed and prescribe use of the PHIN MESSAGING GUIDE FOR SYNDROMIC SURVEILLANCE, Release 2.0 for submission of syndromic data (published April 21, 2015)
- Implementers must apply the standard as specified for seamless data exchange

Description of NIST HL7 v2 Syndromic Surveillance Test Suite

- Testing confirms or refutes conformance to standard
- NIST test tool includes both context-free testing and context-based testing
- Context-free testing provides a simple method for testing message structure and vocabulary
- Context-based testing provides
 - Additional testing capabilities through the means of directed test cases and example messages
 - A powerful mechanism to help implementers understand the intent of the implementation guide via typical real world scenarios

NIST Syndromic Surveillance Test Suite
<https://hl7v2-ss-r2-testing.nist.gov>

For more details contact:
Robert Snelick
robert.snelick@nist.gov

Advantages

- Implementations that conform to the standard are more likely to interoperate seamlessly upon installation, saving both time and money

The NIST HL7 v2 testing tool is used by implementers for self-testing, for ONC EHR Certification, and by public health agencies in their on-boarding process with their providers

NIST Syndromic Surveillance Test Suite – HL7 v2 Message Testing

1 Select HL7 Context-free from the Menu Bar.

2 Select conformance Profile.

3 Load the message into the Message Content window.

4 Click the Validate button to initiate validation of the message.

5 View the validation results displayed in the **Message Validation Result** window.

6 Click on the **Report** button to obtain the **Message Validation Report**.

Profile Group: PH_SS-Ack profiles

- PH_SS-Ack profiles
 - ADT_A01
 - ACK_A01
 - ADT_A03
 - ACK_A03
 - ADT_A04
 - ACK_A04
 - ADT_A08
 - ACK_A08

Profile: ADT_A01

Validation Report

Message Content

```

1 MSH|^~\&|MountainviewGeneral^123123236^NPI||201508180100||ADT^A01^ADT_A01|NIST-S:
2 EVN|201508180100||MountainviewGeneral^123123236^NPI
3 PID|1|3333^^^MountainviewGeneral&123123236&NPI^MR||^A^A^A^A^A^A^U||M||2106-3^Whi-
4 PV1|1|I||U|||||||||3333-001^^^MountainviewGeneral&123123236&NPI^VN|||||||
5 PV2|125110^Atherosclerotic heart disease of native coronary artery with unstable :
6 OBX|1|HD|SS001^TREATING FACILITY IDENTIFIER^PHINQUESTION|MountainviewGeneral^12312:
7 OBX|2|CWE|56816-2^PATIENT LOCATION^LN||028-0^Medical cardiac critical care unit^HSI
8 OBX|3|NM|2161^Age at Time Patient Reported^LN||51|a^year^UCUM|||||F
9 OBX|4|NM|8302-2^Height^LN||72|[in_us]^inch^UCUM|||||F
10 OBX|5|NM|3141-9^Weight^LN||235|[lb_av]^pound^UCUM|||||F
11 OBX|6|CWE|72166-2^Tobacco Smoking Status^LN||428061000124105^Current Light tobacco :
12 DG1|1||I209^Angina pectoris, unspecified^I10C|||||w
13
    
```

Message Validation Result

3 Errors 7 Warnings 13 Alerts 1 Constraint Failure 2 Value Set

Path	Description	Line #
OBX[6]-5[1].3	NIST-SS-024 - IF OBX 3.1 (Observation Identifier) is valued with 72166-2 TOBACCO SMOKING STATUS (LOINC), then OBX-5 (Observation Value) SHALL be valued to a member of the set: PHYS_SmokingStatus_MU	11
OBX[3]-3[1].1	The value '2161' at location Component OBX-3.1 (Identifier) is not member of the value set [NIST]PHYS_ObservationIdentifier_SyndromicSurveillance&P HVS_Vital(SignResult_HITSP	8
OBX[6]-5[1].3	The value 'STC' at location Component OBX-5.3 (Name of Coding System) is not member of the value set HL70396	11