

Test Procedure for §170.302 (e) (1) Vital Signs

Certification Criteria

§170.302 (e)(1) Vital signs. Enable a user to electronically record, modify, and retrieve a patient's vital signs including, at a minimum, the height, weight, blood pressure, temperature, and pulse.

Informative Test Description

This test evaluates the capability for a Complete EHR or combination of EHR Modules to enable a user to electronically record, modify, and retrieve a patient's vital signs including the height, weight, blood pressure, temperature, and pulse. This test procedure is organized into three sections:

Record - evaluates the capability to enter vital signs data into the EHR system

- The Tester enters the NIST-supplied height, weight, blood pressure, temperature and pulse data

Modify – evaluates the capability to edit vital signs data which have been previously entered into the EHR

- The Tester displays the height, weight, blood pressure, temperature and pulse data entered during the Record Patient Vital Signs test
- The Tester edits the previously entered vital signs data using NIST-supplied height, weight, blood pressure, temperature and pulse data

Retrieve – evaluates the capability to display and view the vital signs data which have been previously entered into the EHR

- The Tester displays the height, weight, blood pressure, temperature and pulse data entered during the test
- The Tester validates that the displayed vital signs data are accurate and complete

Referenced Standards

None

Test Procedure for §170.302 (e) (1) Vital Signs

Normative Test Procedure

Derived Test Requirement:

DTR170.302.e.1 – 1: Electronically Record Patient Vital Signs

Required Vendor Information

VE170.302.e.1 – 1.01: Vendor shall identify a patient with an existing record in the EHR to be used for this test

VE170.302.e.1 – 1.02: Vendor shall identify the EHR function(s) that are available to: 1) select the patient, 2) enter the patient's height, weight, blood pressure, temperature and pulse, 3) modify (correct) these vital signs data, and 4) retrieve these vital signs data

Required Test Procedure:

TE170.302.e.1 – 1.01: Tester shall select vital signs test data from NIST-supplied test data sets

TE170.302.e.1 – 1.02: Using the EHR function(s) identified by the Vendor, the Tester shall select the patient's existing record and enter vital signs from the test data sets for the patient's height, the patient's weight, the patient's blood pressure, the patient's temperature, the patient's pulse

TE170.302.e.1 – 1.02: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the vital signs test data have been entered correctly and without omission

Inspection Test Guide

IN170.302.e.1 – 1.01: Tester shall verify that the required units of measure appropriate for each vital sign are displayed or can be selected at the time each vital sign is entered

IN170.302.e.1 – 1.02: Tester shall verify that the vital signs test data are entered correctly and without omission

IN170.302.e.1 – 1.03: Tester shall verify that the vital signs test data are stored in the patient's record, including the patient's height, the patient's weight, the patient's blood pressure, the patient's temperature, the patient's pulse

Test Procedure for §170.302 (e) (1) Vital Signs

DTR170.302.e.1 – 2: Electronically Modify Patient Vital Signs

Required Vendor Information

No additional information required

Required Test Procedure:

TE170.302.e.1 – 2.01: Tester shall select vital signs test data from NIST-supplied test data sets

TE170.302.e.1 – 2.02: Using the EHR function(s) identified by the Vendor, the Tester shall select the patient's existing record, shall display each of the vital signs entered during the Record Patient Vital Signs test, and shall edit (correct) each of these previously entered vital signs, including the patient's height, the patient's weight, the patient's blood pressure, the patient's temperature, the patient's pulse

TE170.302.e.1 – 2.03: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the patient vital signs data entered in the Modify Patient Vital Signs test have been entered correctly and without omission

Inspection Test Guide:

IN170.302.e.1 – 2.01: Tester shall verify that the required units of measure appropriate for each vital sign are displayed or can be selected at the time each vital sign is edited

IN170.302.e.1 – 2.02: Tester shall verify that the vital signs test data entered during the Record Patient Vital Signs test can be accessed and edited

IN170.302.e.1 – 2.03: Tester shall verify that the modified vital signs data are stored in the patient's record, including the patient's height, the patient's weight, the patient's blood pressure, the patient's temperature, the patient's pulse

Test Procedure for §170.302 (e) (1) Vital Signs

DTR170.302.e.1 – 3: Electronically Retrieve Patient Vital Signs

Required Vendor Information

No additional information required

Required Test Procedure:

TE170.302.e.1 – 3.01: Using the EHR function(s) identified by the Vendor, the Tester shall select the patient's existing record and shall display and view the data the Tester entered during the Record Patient Vital Signs and Modify Patient Vital Signs tests for the patient's height, the patient's weight, the patient's blood pressure, the patient's temperature, the patient's pulse

TE170.302.e.1 – 3.02: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the vital signs test data display correctly and without omission

Inspection Test Guide

IN170.302.e.1 – 3.01: Tester shall verify that the required units of measure for each vital sign are displayed at the time each vital sign is viewed

IN170.302.e.1 – 3.02: Tester shall verify that the vital signs data entered during the Record Patient Vital Signs test and edited during the Modify Patient Vital Signs test display correctly and without omission, including the patient's height, the patient's weight, the patient's blood pressure, the patient's temperature, the patient's pulse

Test Procedure for §170.302 (e) (1) Vital signs

Example Test Data

Vital Signs Test Data Set 1

Height: 5 ft 6 in OR 1.67 meters

Weight: 135 lbs OR 61.2 KG

Blood pressure: 120/80 mmHg

Temperature: 98.6 Fahrenheit OR 37.0 Centigrade

Pulse: 80 bpm

Height: 5 ft 3 in OR 1.60 meters

Weight: 130 lbs OR 59 Kg

Blood pressure: 130/80 mmHg

Temperature: 99.0 Fahrenheit OR 37.2 Centigrade

Pulse: 86 bpm

Vital Signs Test Data Set 2

Height: 6 ft 1 in OR 1.85 meters

Weight: 200 lbs OR 90.7 Kg

Blood pressure: 110/70

Temperature: 97.8 Fahrenheit OR 36.6 Centigrade

Pulse: 70

Height: 6 ft 2 in OR 1.88 meters

Weight: 210 lbs OR 95.3 Kg

Blood pressure: 116/80

Temperature: 97.4 Fahrenheit OR 36.3 Centigrade

Pulse: 66

Conformance Test Tools

None