



Test Report document for Patient Vital Signs, Body Mass Index and Growth Chart

Tested By	VicarePlus Team, www.vicareplus.com
Test Spread	31/08/2010
Total number of testcases	28
Number of testcases passed	28
Number of testcases failed	0

FINAL RULE:

Final Rule Text: §170.302(f) (1) Vital signs: Enable a user to electronically record, modify, and retrieve a patient's vital signs including, at a minimum, height, weight, and blood pressure.

NIST SUPPLIED TEST DATA

TD170.302.f.1 – 1: Data set 1 :Height: 5 ft 6 in OR 66 in OR 1.67 meters OR 167 centimeters Weight: 135 lbs OR 61.2 kg OR 6120 gm Blood pressure: 120/80 **Vital Signs Test Data - Set 2** Height: 6 ft 1 in OR 73 in OR 1.85 meters OR 185 centimeters Weight: 200 lbs OR 90.7 kg OR 9070 gm Blood pressure: 110/70 **TD170.302.f.1 – 2: Modify Patient Vital Signs Revised Data set 1** : Height: 5 ft 3 in OR 63 in OR 1.60 meters OR 160 centimeters Weight: 130 lbs OR 59 kg OR 5900 gm Blood pressure: 130/80 **Revised Data set 2** : Height: 6 ft 2 in OR 74 in OR 1.88 meters OR 188 cms Weight: 210 lbs OR 95.3 kg OR 9530 gm Blood pressure: 116/80

Test Case ID	Test Cases	Output	Status
Derived test Requirements: DTR170.302.e.1 – 1: Electronically Record Patient Vital Signs			
VS_01	Select a patient and create an encounter for him. Now click Patient/Client->Vital Forms->Vitals	The EHR function for entering the vital signs data is identified	PASS
VS_02	The Test Data Set 1 from TD170.302.f.1 – 1 is selected and entered in the vitals form.	The details are entered correctly and without omission.	PASS
VS_03	The Test Data Set 2 from TD170.302.f.1 – 1 is selected and entered in the vitals form.	The data is entered correctly and without omission	PASS
VS_03	Check whether the data is entered in their appropriate units, i.e. the weight is entered in kg or lbs and height in centimeter or inches and the blood pressure is entered for mm/hg unit	There is appropriate units for all the vital sign data displayed in the form.	PASS
VS_04	After entering details click Save Form.	The data is saved and is associated with the patients encounter	PASS
DTR170.302.f.1 – 2: Electronically Modify Patient Vital Signs			
VS_05	Click Patient/Client->Visits->Visit History, select any encounter that has vital signs data associated with it.	The vital signs data recorded during that encounter are listed.	PASS
VS_06	Click the edit button of the vital data set 1 entered from TD170.302.f.1 – 1.	The vital form page is displayed with function to edit already entered details	PASS
VS_07	Change the data set 1 from TD170.302.f.1 – 1 to data set 1 of TD170.302.f.1 – 2	The details are modified correctly without any omission	PASS
VS_08	After modifying the data, click Save Form	The details are saved.	PASS
VS_09	Repeat steps VS_06 for data set 2 from TD170.302.f.1 – 1, and modify the data to data set 2 of TD170.302.f.1 – 2 and save it.	The details are modified correctly without any omission	PASS
VS_10	Check whether all the vital details have appropriate measure units associated with it.	The weight is measured in lbs and kg, height in inches and cms, and blood pressure with mm/hg	PASS
VS_11	After doing all the changes, click the patient demographics page and select the vitals	The vital details are displayed with modified changes	PASS
DTR170.302.f.1 – 3: Electronically Retrieve Patient Vital Signs			
VS_12	Click Patient/Client->Summary	The patient demographics is listed with options for viewing vital signs details	PASS
VS_13	Click the trend button or 'Click here to view and graph all vitals' in the vitals section of the demographic page	All the vital sign details associated with that patient are listed with time and date	PASS
VS_14	Go to encounter page and edit any one of the existing vital signs data. Now check the vital detail in the demographics page	The changes are reflected and is displayed	PASS
VS_14	Check whether all the vital details are displayed with their appropriate measure units	The weight is displayed in lbs and kg, height in inches and cms, and blood pressure with mm/hg	PASS

FINAL RULE:

Test Objective: To test the final rule §170.302(f)(2) is achieved. Final Rule: Calculate body mass index. Automatically calculate and display body mass index (BMI) based on a patient's height and weight.

NIST SUPPLIED TEST DATA

TD170.302.f.2 – 1: Calculate and Display Body Mass Index (BMI) Data set 1: Height: 5 ft 6 in OR 1.67 meters OR 167 centimeters Weight: 135 lbs OR 61.2 kg OR 61,200 gm Calculated BMI: 21.8 2) Height: 5 ft 3 in OR 1.60 meters OR 160 centimeters Weight: 130 lbs OR 59 kg OR 59,000 gm Calculated BMI: 23 3) Height: 6 ft 2 in OR 1.88 meters OR 188 centimeters Weight: 210 lbs OR 95.3 kg OR 95,300 gm Calculated BMI: 27

Test Case ID	Test Cases	Output	Status
BMI_01	Select Patient/Client->Vital Forms->Vitals and enter the height and weight from the data set provided in TD170.302.f.2 – 1.	The values are entered correctly and without omission	PASS
BMI_02	Check whether there are appropriate measure units for height and weight, at the time of entry or during the time of	There is feature for entering data in their appropriate measure	PASS
BMI_03	After entering height and weight, try to enter the blood pressure data	As soon as the height and weight are entered, the BMI is displayed in the BMI input field	PASS
BM_04	Using the formula, weights in kilograms/(heights in meter ²), manually calculate BMI and check whether the BMI is correctly calculated in her	The BMI is accurately calculated	PASS
BM_05	Click Save Form	The vital signs data are saved and are displayed along with encounter details. The BMI and the BMI Status are also displayed.	PASS

FINAL RULE:

Test Objective: To test the final rule §170.302(f)(3) is achieved. Final Rule: Plot and display growth charts. Plot and electronically display, upon request, growth charts for patients 2-20 years old.

NIST SUPPLIED TEST DATA

TD170.302.f.3 – 1: Plot and Display Data on a Growth Chart Test Data for male patient 1) Age: 3 years old, Height: 2 ft 10 in OR 0.86 meters OR 86 cm, Weight: 30 lbs OR 14 kg OR 14,000 gm 2) Age: 10 years old, Height: 4 ft 3 in OR 1.29 meters OR 129 cm, Weight: 70.4 lbs OR 32 kg OR 32,000 gm Test Data for Female Patient : 1) Age: 4 years old Height: 3 ft 1 in OR .93 meters OR 93 cm Weight: 35.2 lbs OR 16 kg OR 16,000 gm 2) Age: 9 years old Height: 4 ft 8 in OR 1.42 meters OR 142 cm Weight: 75 lbs OR 34 kg OR 34,000 gm

Pre Requisites: Six Patient records (3 male and 3 female) are selected with ages conformed to the data set provided in TD170.302.f.3 – 1

Test Case ID	Test Cases	Output	Status
GC_01	Select one male and female patient out of the six and enter the test data provided in TD170.302.f.3 – 1	The data is entered correctly without omission and is stored in the respective patient record	PASS
GC_02	Check whether there are appropriate measures for height and weight.	There are appropriate measure units for height and weight	PASS
GC_03	Check whether the gender and age is associated with the patient data	The patients gender and age is displayed in the patients' demographics page	PASS
GC_04	After saving the vital signs, go to Patients demographics and click trend button in vitals section	The vital signs data are displayed with option to view the growth chart in pdf and html format, if their age is from 2-20	PASS
GC_05	Click the Growth-Chart(PDF) or Growth-Chart(HTML) button	The growth chart is displayed in pdf or html file.	PASS
GC_06	Check whether the growth chart is plotted for height vs age for male patients	The chart is plotted for height against age and there is a point indicated where the age and height meet	PASS
GC_07	Check whether the growth chart is plotted for weight vs age for male patients	The chart is plotted for weight against age and there is a point indicated where the age and weight meet	PASS
GC_08	Check whether the growth chart is plotted for height vs age for female patients	The chart is plotted for height against age and there is a point indicated where the age and height meet	PASS
GC_09	Check whether the growth chart is plotted for weight vs age for female patients	The chart is plotted for weight against age and there is a point indicated where the age and weight meet	PASS